

An Archaeological Excavation at The former Fruitmarket Site, Bedford Row, Nottingham



Ditch features under excavation at the Fruitmarket site, looking east to Victoria Leisure Centre from the western extent of the site

Produced for Blueprint

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Summary

- In November and December 2018, Trent & Peak Archaeology was commissioned by Blueprint to undertake an archaeological excavation at the Fruitmarket site, Nottingham (1-27 Bedford Row and 57-117 Brook Street, Fig. 1). Sneinton's former Fruitmarket Site is situated on high land, north of the now culverted Beck watercourse, some 300m beyond the eastern extent of the Anglo-Saxon borough. Immediately to the east of the site in Victoria Park, finds of Viking swords made in 1851 probably indicate the existence of at least two Viking burials, of a suggested 10th century date (Lang & Ager 1989, 103).
- Machine stripping and hand-cleaning of the excavation areas identified two northwest to south east aligned parallel ditches. These ditches lay 16 to 16.5m apart from one another and flanked the upper terrace of the Beck watercourse.
- The southern ditch was a simple feature, with a single naturally silted fill, but the northern ditch comprised three phases (Phase 1-3) of ditch digging, suggesting sustained use and a degree of intensity of land-use. On the basis of associated artefacts and radiocarbon dating evidence, it is suggested that the initial Phase 1 ditches were constructed sometime in the 10th Century AD, although given the paucity and somewhat contradictory nature of the available dating evidence, a date anytime between the 6th and 12th centuries is possible. Following this, the ditch was most likely re-cut in the late 10th to early 11th century. Common finds of hammerscale (of potentially Anglo-Saxon date) in both the northern and southern ditches suggest that they may be roughly contemporary, and that specialised production was occurring in the vicinity.
- The exact purpose of the ditches, which functioned as some sort of boundary, is uncertain but the discovery is certainly significant. The wider context of the findings are considered, with the Scandinavian (Viking) influence on Nottingham and political transformations that occurred during the Tenth century seen as the key themes for the interpretation and narration of this enigmatic site.

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Thanks are also extend to Dr. Chris Loveluck and Dr. Chris King of the University of Nottingham, and Matt Nicholas, Science Advisor for Historic England in the East Midlands, who all visited the site and added to the interpretation.

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1 Introduction

- 1.1 In November and December 2018, Trent & Peak Archaeology were commissioned by Blueprint to undertake an archaeological excavation at the Fruitmarket site, Nottingham (1-27 Bedford Row and 57-117 Brook Street, Fig. 1). Sneinton's former Fruitmarket Site is situated on high land, north of the now culverted Beck watercourse, some 300m beyond the eastern extent of the Anglo-Saxon borough. Immediately to the east of the site in Victoria Park, finds of Viking swords made in 1851, probably indicate the existence of at least two Viking burials, of a suggested 10th century date (Lang & Ager 1989, 103). The site for archaeological mitigation comprised a c.1000m² (c.0.1ha) block of land within the northeastern portion of the total 0.6ha site.
- 1.2 The archaeological excavation was required as a condition of planning permission (17/00751/POUT) for the development of up to 43 houses, apartments and duplexes with associated courtyards. The planning condition stated that:
- 'No development involving the breaking of ground shall take place, unless a programme of archaeological investigation and works for those parts of the site which are proposed to be excavated below existing ground, has first been submitted to and approved in writing by the Local Planning Authority'.
- 1.3 This report has been compiled in order to discharge the part of the condition relating to those areas where archaeological excavation was required. Areas for excavation had been decided upon and refined by the Nottingham City Council City Archaeologist following the submission of an Archaeological Desk- Based Assessment (Poole 2017) and a trial trench evaluation undertaken at the pre-planning stage in support of planning application 17/00751/POUT by Blueprint (Roushannafas 2017).

2 Site Background

2.1 Topography and Geology

- 2.1.1 The site is located at the northeastern edge of Nottingham city centre, within the Sneinton area (SK 57933 40099, Fig. 1). It is bordered by Bath Street to the north-east, Brook Street to the south-west, the Victoria Leisure Centre and Brook Street to the east, and Park View Court, New College Nottingham and residential buildings to the west (Figure 2).
- 2.1.2 The development site is situated on the slopes of a hill that rises up from a slight valley with the culverted stream/brook known as The Beck running approximately 30m south of the site parallel to Brook Street. The site lies at a level between 34m and 30m AOD, sloping from the north-west down to the south-east. The underlying geology of the site is Nottingham Castle Sandstone (<http://mapapps.bgs.ac.uk/geologyofbritain/home.html>). The soil profile consists of free draining, slightly acid sandy soils (<http://www.landis.org.uk/soilscapes/>).
- 2.1.3 Ground investigations were undertaken by Geotechnical and Environmental Associates (GEA) within the development site. These investigations found that in the northern part of the site, there was a variable thickness of made ground (between 0.22m to in excess of 3.13m, in areas formerly occupied by pools), generally comprising brown sandy gravel with occasional cobbles of brick and concrete. Underlying this was Nottingham Castle Sandstone, comprising very dense, yellowish brown medium and coarse sand up to a maximum depth of 2.13m, where intact sandstone was inferred.

- 2.1.4 In the southern part of the site (previously occupied by housing, see 2.2.14 below), there was a variable thickness of made ground of between 0.4m and 2.8m, with the greatest depth at the southwestern corner. It generally consisted of brown, sandy gravel with cobbles of brick and concrete. Underlying this was sand deriving from the underlying Nottingham Castle Sandstone, with intact sandstone being inferred at a maximum depth of 3.8m. There was no consistency in thickness of made ground across areas of the site, although there seemed to be a tendency for it to be thickest in places formerly occupied by housing. No caves within the sandstone were identified during the work.

2.2 Archaeological and Historical Background

- 2.2.1 The following draws on the summarised historical and archaeological data in Poole (2017) and is organised by period. Where appropriate a Historic Environment Record (HER) reference is given.

Prehistoric to Roman

- 2.2.2 There are no heritage assets belonging to either the Prehistoric or Roman periods detailed in the Nottingham City HER within a 250m radius of the site.

Early Medieval (AD 410-1066)

- 2.2.3 The development site lies outside the early medieval *burh* of Nottingham, which was based on higher ground at least 40m to the southwest.
- 2.2.4 A probable Viking Age burial site was uncovered in the vicinity of Bath Street during the development of a pleasure ground in 1851 'in a field adjoining the new baths and wash houses, outside the town' (Anon 1851). Human remains were found in association with a sword pommel of 9th-11th century type (Wilson 1976: 15), a near-complete sword of c. 900-950, with traces of inscription on the blade (Lang & Ager 1989, 103) and a spearhead of 9th century style. The presence of weapons in burials of this period, in an area known to have been a part of the 9th-10th century Danish occupation or *Danelaw*, was taken to indicate Viking character. However, given the circumstances of discovery it is difficult to determine whether the finds do indeed represent formal graves.

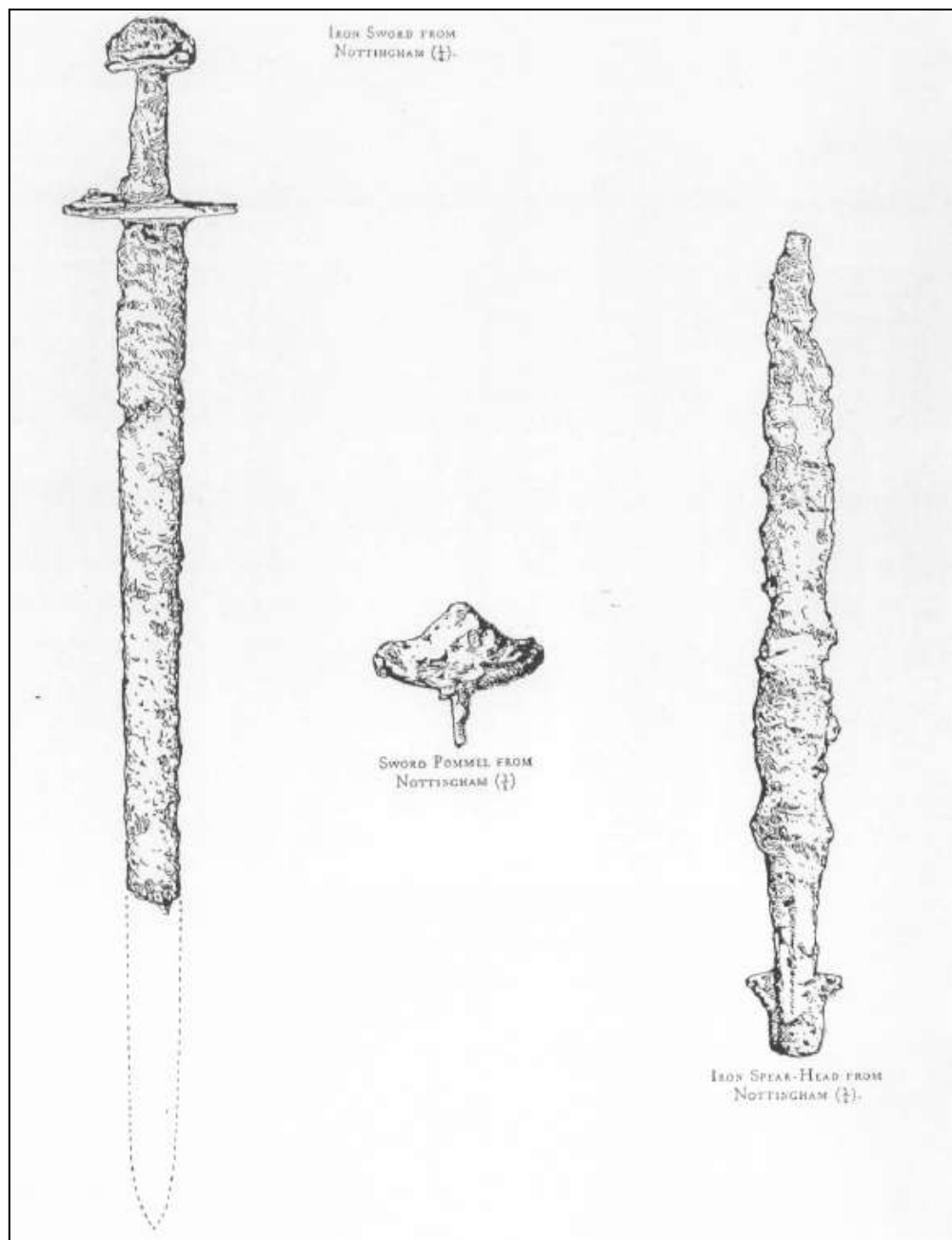


Plate 1: Weapons from Viking Age Burials found in what is now Victoria Park (Victoria County History 1906, facing 202), not to scale

- 2.2.5 The precise location of the graves and possible extent of any cemetery remains uncertain, but Kinsley (1995) has suggested that the 'pleasure ground' being referred to is the Cricket Ground (now Victoria Park) which used to adjoin the Victoria Leisure Centre, which can be seen on Salmon's map of 1861. Lomax has suggested that the location of the discovery is believed to be the site of a lodge (now demolished) during the construction of buildings associated with Victoria Leisure centre (Lomax 2013,49). It was suggested in the Desk-Based Assessment (Poole 2017) that if the remains did represent a burial site, further burials could possibly extend into the northern end of the Fruitmarket site.

- 2.2.6 Other non-designated assets of this period include a Saxon or Saxo-Norman oven/kiln found during excavations at the former Boots Garage site (HER ref: MNU707). At the same site, a probable 9th century wattle and daub structure and a 10th or 11th century timber structure (with 12th and 13th century timber buildings) were revealed on the frontage of Woolpack Lane (HER ref: MNU705).

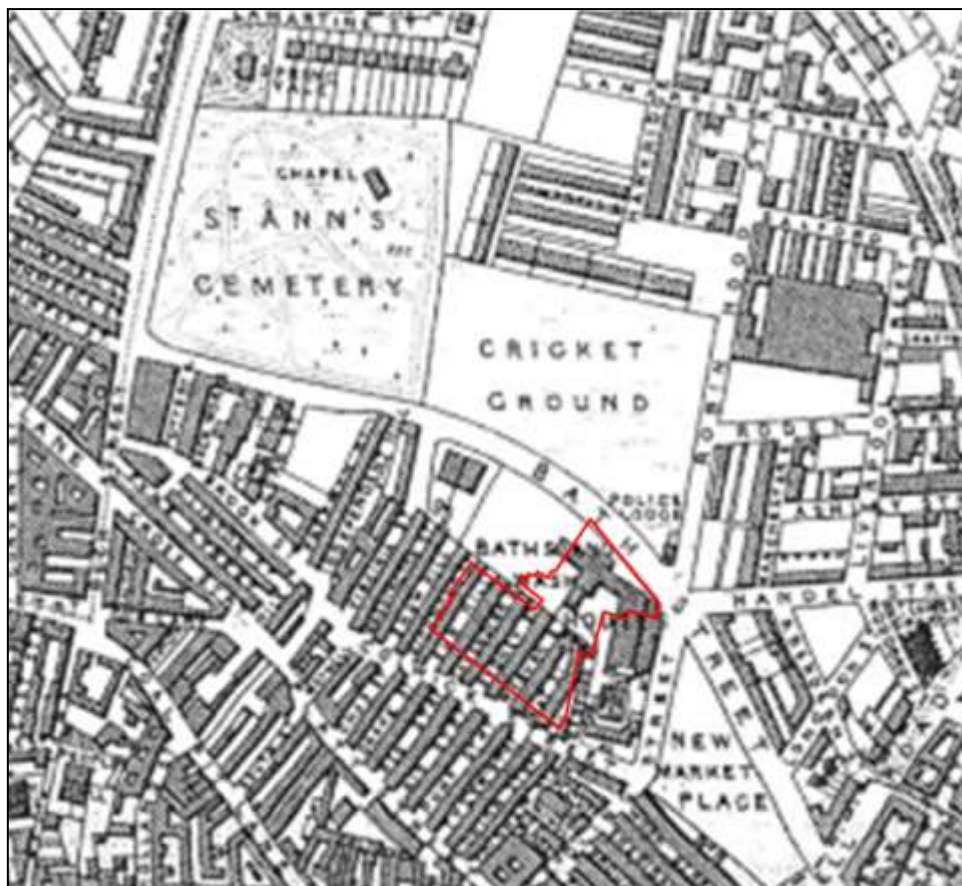


Plate 2: Jackson's (1861) Map. Site location is approximately situated within the red-bordered shape, showing the Cricket Ground and Baths'. Not to scale.

Medieval

- 2.2.7 The development site is located at least 40m northeast of the medieval town and defences, which were located on higher ground. Sneinton is referred to in the Domesday Book of AD 1086, at which point it was land owned by the King.
- 2.2.8 The Beck, a stream which flowed to the east of the medieval town (MNU576), lies approximately 30m to the south-west of the Fruitmarket site and may have formed a natural defence for the post-Conquest borough. Medieval green-glazed pottery was retrieved from above the stream bed, in an area that is believed to have been part of a garden for the medieval St John's Hospital. A further 60m or more (the full extent of the site is unclear) to the south-west of the Beck is the possible burial ground at Cranbrook Street (MNU770). This seems to have been in use at least during the 15th century and possibly into the 17th century, and appears to be located just outside the town defences.
- 2.2.9 The site is likely to have been predominantly used for arable farming within this period, although the possibility for extra-mural industrial activity was raised within the Desk-Based assessment.

Post-Medieval (AD 1485-1750)

- 2.2.10 During this period the Fruitmarket site would have remained outside of the town as shown by Badder and Peat's map of 1774. For much of the period the area would have remained as open fields, although part of the development site had been enclosed by 1744. Industry in the form of pottery, glass and brick production was taking place in the surrounding area. Kiln furniture from a large pit dating to around 1740 was recovered close by on the other side of Brook Street (Poole 2017, 47).

Modern (AD 1750 to present)

- 2.2.11 With the 19th and 20th century expansion of the town, the Fruitmarket site became occupied by structures associated with the bath houses and wash houses to the north and terraced housing to the south.
- 2.2.12 The bath houses were opened in 1851 under an 'Act to Encourage the Establishment of Public Baths and Wash-Houses' and were the first public baths and wash houses to be built in Nottingham. Their construction was designed to have a positive social contribution in alleviating conditions in the slums, where little or no yard space was available for the purposes of washing. The original baths were demolished in 1894 when they were declared dilapidated and unsanitary and the new Victoria Baths were built in 1896, with wash houses added in 1926 (<http://www.savevictoriabaths.org.uk/history/>).
- 2.2.13 Prior to the construction of the bath houses the northern half of the development site still consisted of fields, with a field boundary running north to south across the development site visible on Sanderson's 1836 map (Poole 2017, Fig. 15).
- 2.2.14 The terraced housing to the south of the site was established in the early 19th century, appearing in part in Wild and Smith's 'A New Plan of the Town of Nottingham (1820) map and more extensively in Stavely and Wood's 1831 Map of Nottingham (Poole 2017, Figs 13 & 14). The houses were organised along multiple north-east to south-west aligned streets, and do not appear to have had front or back yards. Although still present on the 1920 County Series map, the streets and terraces had been demolished by the time of the 1938 County Series map (Poole 2017, Fig. 22). New terraced housing had been built in the area by the time of the 1955 Ordnance Survey 1:2500 map.
- 2.2.15 The development site is currently brownfield land and has been cleared of buildings.

Archaeological Work undertaken as part of the present development

- 2.2.16 Archaeological evaluation undertaken on the site in November 2017 (Roushannafas 2017) revealed disturbance, in the form of truncation from 19th and 20th century development (including the swimming baths and basements/cellaring) across large areas of the site.
- 2.2.17 Although large parts of the site had been truncated by the cellars of the now demolished Nineteenth century housing and the original Victoria baths, two parallel NW to SE aligned field boundary ditches were identified. These ditches flanked the upper terrace of the Beck. A carbonised grain from one of the ditches gave a radiocarbon date of 770 +/- 30 cal AD (Roushannafas 2018). This date falls within the Middle Anglo-Saxon period, roughly 100 yrs before the Viking occupation of Nottingham, generating questions about the true extent of settlement and land use at this time. On a cautionary note, the grain which provided the date for the ditch may have been wind-blown from elsewhere, so the lower ditch fills might be quite a bit earlier (e.g. Prehistoric/Roman) but probably not hugely later than the 8th/9th century. As a result of this significant find further archaeological excavation was proposed on the site, and it was hoped that this might resolve any uncertainties of interpretation.

3 Planning Context

3.1.1 The decision notice for the application stated the following, as a condition of planning permission:

No development involving the breaking of ground shall take place, unless a programme of archaeological investigation and works for those parts of the site which are proposed to be excavated below existing ground, has first been submitted to and approved in writing by the Local Planning Authority. The programme of archaeological investigation and works shall include:

- a) arrangements for the excavation of areas where archaeological features are known (from the results of earlier evaluation) to survive, and the implementation of a watching brief during the course of the development;
- b) arrangements for the recording of any finds made during the investigation and for the preparation of a final report;
- c) arrangements for the deposition of the records of finds, and any significant finds, capable of removal from the site, in a registered museum; and
- d) arrangements for the publication of a summary of the final report in an appropriate journal.

The archaeological investigation and works approved under this condition shall be carried out in accordance with the approved programme.

Reason: to ensure that any archaeological remains of significance are safeguarded in accordance with Policy 11 of the Aligned Core Strategy and Policies BE15, BE16 and BE17 of the Nottingham Local Plan.

3.1.2 Nottingham City Council is committed to ensuring that heritage assets including known and potential archaeological remains are fully considered as part of the planning process and that important archaeological remains are preserved in situ. The Nottingham City Local Plan states:

'Archaeological remains contain irreplaceable information about our past and the potential for an increase in future knowledge. The overriding objective is therefore to preserve "in-situ" all sites of known or suspected archaeological importance.'

3.1.3 The Local Plan further states:

'BE16: Planning permission will be granted for development in the archaeological constraints areas shown on the Proposals Map, or other sites of known or suspected archaeological significance, provided that information derived from an archaeological 'desk-based' assessment, and/or field evaluation, carried out as part of the application, shows that:

- a) no archaeological resources are likely to be affected by the development; or
- b) where archaeological resources are likely to be affected, the remains are preserved 'in situ'; or
- c) where remains are able to be removed, they can be fully investigated, recorded and secured, as part of the development.'

- 3.1.4 The archaeological mitigation works will allow remains to be preserved by record. Any remains of high significance should be preserved in situ in accordance with policy BE16.

National Planning Policy Framework (NPPF)

- 3.1.5 Developments of this nature, and their impact upon the historic environment, are addressed by the revised 2018 National Planning Policy Framework (NPPF) published by the Ministry of Housing, Communities and Local Government (MHCLG), and the NPPF Planning Practice Guide Conserving and Enhancing the Historic Environment (DCLG 2014). This now supersedes the 2012 National Planning Policy Framework (NPPF).

- 3.1.6 Section 16 of NPPF, paragraph 187 states:

Local planning authorities should maintain or have access to a historic environment record. This should contain up-to-date evidence about the historic environment in their area and be used to:

- a) assess the significance of heritage assets and the contribution they make to their environment; and
- b) predict the likelihood that currently unidentified heritage assets, particularly sites of historic and archaeological interest, will be discovered in the future.

- 3.1.7 In addition, paragraph 189, states that:

In determining applications, local planning authorities should require an applicant to describe the significance of any heritage assets affected, including any contribution made by their setting. The level of detail should be proportionate to the assets' importance and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum the relevant historic environment record should have been consulted and the heritage assets assessed using appropriate expertise where necessary. Where a site on which development is proposed includes, or has the potential to include, heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate desk-based assessment and, where necessary, a field evaluation.

Nottingham City Local Plan

- 3.1.8 Nottingham City Council has policies regarding the historic environment incorporated within its Local Plan. These place emphasis on preservation of important archaeological remains in situ. Policy BE16 states that where remains are able to be removed, they must be fully investigated, recorded and secured as part of the development. Other relevant policies include BE15 and BE17, and Policy 11 of the Aligned Core Strategy.
- 3.1.9 This approved WSI and excavation methodology (section 5) was produced in accordance with the guidelines laid out in the Management of Research Projects in the Historic Environment: The MoRPHE Project Managers Guide (Historic England 2015a) and the relevant ClfA Standard and Guidance (ClfA 2014a) and Code of Conduct (ClfA 2014b).

4 Research Aims and Objectives

- 4.1.1 The programme of archaeological mitigation proposed in the approved WSI had the potential to may reveal evidence that would allow research priorities highlighted by the regional research framework to be addressed. The relevant research framework is the East Midlands Historic Environment Research Framework (EMHERF), which hosts an Interactive Digital Resource version of Knight, D., Vyner, B. and Allen, C.’s (2012) East Midlands Heritage and Updated Research Agenda and Strategy for the Historic Environment of the East Midlands (see <http://archaeologydataservice.ac.uk/researchframeworks/eastmidlands/wiki/>)
- 4.1.2 Any evidence uncovered by the investigations was to be considered with the guidance provided by the framework in mind. If the evidence uncovered significantly contributes to a research question raised by the framework, it will be stated in discussion and conclusion of this final report (see Section 9). Search insight will be then fed to EMHERF website via the interactive commenting facility, this will allow for the research framework to develop over time and remain relevant.
- 4.1.3 The following research questions were of particular significance to this project:

Early Medieval (c.410-1066)
<i>6.5 Inland Towns, 'central places' and burhs</i>
4. How did Nottingham develop during the Anglo-Saxon and Viking periods?
High Medieval (1066-1485)
<i>7.1 Urbanism</i>
1. How did the major towns and smaller market towns of the region develop after the Norman Conquest, both within the urban core and in suburban and extra-mural areas?
3. How may we enhance our understanding of the chronology, functions and morphology of caves, and in particular the outstanding subterranean resource of medieval Nottingham?
Post-Medieval (1485-1750)
<i>8.1 Urbanism: morphology, functions and buildings</i>
4. What can studies of environmental data, artefacts and structural remains tell us about variations in diet, living conditions and status?

4.2 Site Specific Research Questions

4.2.1 In addition to the regional research agenda, the site had the potential to answer specific research questions:

- What was the nature of land-use in the early medieval period in those areas unaffected by later truncation? And;
- Is it possible to assess the potential for excavated features to contain important artefact/ecofact assemblages which could aid the understanding of settlement development and morphology throughout the Early- Medieval or earlier periods?

4.3 General Objectives and Fieldwork Methodology

4.3.1 The general objectives of the fieldwork can be stated as:

- To identify the presence of any archaeological remains to be affected by any intrusive aspects of the development.
- To attempt to answer the Site Specific Research Questions as stated in section 4.1

4.3.2 Where practical (within the constraints of the archaeological mitigation and development), this was to include an assessment of the overall extent, date and state of preservation of archaeological remains.

4.3.3 Any features of geoarchaeological significance were also to be recorded and where there was the potential for palaeoenvironmental data, an appropriate level of sampling undertaken.

5 Methodology

5.1.1 The fieldwork commenced with the machine-stripping of the entirety of the site demarcated for Strip, Plan and Sample excavation (See Fig 1 and 2). As noted above, the site for archaeological mitigation comprised a c.1000m² (c.0.1ha) block of land within the northeastern portion of the total 0.6ha site.

5.1.2 All work was undertaken by suitably qualified and experienced archaeologists selected from TPA's supervisory staff in accordance with accepted archaeological practice and the Standard & Guidance produced by the Chartered Institute for Archaeologists (CIfA 2014). The fieldwork aimed to establish the presence or absence of any archaeological deposits and their significance, value and extent as set out by Historic England in the Management of Research Projects in the Historic Environment: The MoRPHE Project Managers Guide (Lee 2015)

5.2 General Methodology

5.2.1 All machining was carried out with a toothless ditching bucket under archaeological supervision with stripping and spoil removal arranged so as to avoid any tracking across the stripped surface. The machine used was a back-acting tracked 360° excavator fitted with a 1.8 m wide toothless ditching bucket under constant archaeological supervision. Excavations were halted at the first archaeological horizon, the depth of the undisturbed natural substrate or when the limit of safe working depth was reached. Topsoil and subsoil were stacked separately at a safe distance from the trench.

5.2.2 The investigation area and any archaeological features was located with reference to the Ordnance Survey National Grid by GPS, Leica CS15/GS15 RTK Differential GNSS, prior to further investigation. The location of any artefacts recovered in the topsoil/subsoil was recorded three-dimensionally by context.

5.3 Cleaning/Hand Excavation

5.3.1 All fieldwork was carried out in accordance with the Code of Conduct of The Chartered Institute for Archaeologists (2014).

5.3.2 Archaeological features were hand-cleaned and planned and then sample excavated sufficient to determine their plan and form, and to recover any datable artefacts.

5.3.3 Feature fills were removed by contextual change (the smallest usefully definable unit of stratification) and/or in spits no greater than 100mm. Substantial features were hand excavated to a maximum depth of 1m, or a perceived safe depth if the sides were unstable.

5.3.4 All finds of Medieval date or earlier, were recorded three dimensionally. Finds of Post-medieval date or later were recorded by context/spit. Spoil was searched for artefacts using a metal detector as appropriate.

5.3.5 Any items falling within the Treasure Act 1996 definition of Treasure were to be dealt with in accordance with the provisions of that Act and the discovery reported to the coroner and to the Nottinghamshire Finds Liaison Officer.

5.3.6 No human remains were identified.

5.3.7 The features and deposits revealed following the removal of non-archaeological overburden

were subject to the following sampling levels specified in the approved WSI (Owen 2018):

- A minimum of 50% of the fills of the general features were excavated unless this is not possible due to Health and Safety reasons. In some instances, 100% may be required if the nature of the feature/fill warrants complete excavation.
- In the case of substantial linear features such as ditches, a minimum of 10% of the fills of these features must be excavated. Slots through these features should be no less than 1m in length, and excavated across the width of the feature to reveal a full profile.

5.4 Methodology of Recording and Sampling

- 5.4.1 All features and deposits of archaeological significance were recorded three dimensionally using a GPS, Leica CS15/GS15 RTK Differential GNSS.
- 5.4.2 In addition to the survey, plans of all contexts including features were drawn on drafting film in pencil at a scale of 1:20/1:50, and show at least: context numbers, all colour and textural changes, principal slopes represented as hachures, levels expressed as O.D. values, or levelled to permanent features if a benchmark was absent, and including sufficient details to locate the subject in relation to OS 1:2500 mapping.
- 5.4.3 Sections showed the same information, with levelling information given in the form of a datum line with O.D./arbitrary value. The locations of all sections were shown on a corresponding plan.
- 5.4.4 Digital images of each context were taken together with general views illustrating the principal features of the excavations. These were supplemented by Black and White images of key features and deposits. A full photographic record will be compiled.
- 5.4.5 Written records were maintained as laid down in the TPA recording manual.
- 5.4.6 Where brick or stone built structural remains were encountered during the archaeological investigation, they were recorded using the methodology stated above. In addition to this, the record included details of brick dimensions and type (handmade/machine-made, plain/frogged etc.), mortar (colour, composition, hardness etc.) and the extent of the surviving structure (number of courses, thickness in skins).
- 5.4.7 Architectural fragments displaying tooled faces / edges / decoration appearing to date prior to the modern period (c.1750 as defined by the regional research agenda) including roofing slates were to be securely marked/ labelled as finds and retained for assessment and further recording, archive or disposal on the basis of structured assessment by the worked stone specialist.
- 5.4.9 Sampling Methodology: The sampling of features followed procedures set out within the English Heritage (now Historic England) guidelines in Environmental Archaeology (Campbell, Moffett & Straker 2011), under the supervision of TPA Environmental Manager Kristina Krawiec. Appropriate sampling of deposits of palaeoenvironmental potential and residues and debris from industrial processes was conducted in accordance with Table 1 (see below), with appropriate amendments following subsequent specialist advice.
- 5.4.10 Environmental samples of 40 litres in volume were taken of contexts with known archaeological character (e.g. ditch fills, hearth materials, pit fills, etc.) with preference for well-preserved or regionally significant deposits. Dating evidence was extracted from the sample in the field where possible for expedient absolute dating, or in the laboratory if

necessary. If no absolute dating evidence was present, samples were to be processed, and dating considered in the light of the results of the sampling/dating of surrounding contexts.

- 6.4.12 Sample points were suitably dispersed to determine any variation in functional use of remains that may be identified.
- 6.4.13 Those deposits exhibiting industrial or domestic functions/activity (including charred plant content) were sampled appropriately as a priority (following Historic England guidelines 2015c & 2015d). If appropriate a suitable specialist was consulted on the sampling strategy (in this case Matt Nichols, the Regional Science Advisor for Historic England in the East Midlands).
- 6.4.14 No supplementing of the environmental sampling with analysis of organic/watelogged remains was possible.
- 6.4.15 Advice on the appropriateness of the proposed strategies was sought from specialist staff and, the Historic England Science Advisor. An environmental specialist visited the site to advise on sampling strategies. Sampling methods followed guidelines produced by Historic England. A register of samples was kept. Specialists were consulted but ultimately no non-standard sampling was required.
- 6.4.16 No features of geoarchaeological interest were identified and no further specialist sampling, including geoarchaeological sampling (sediment analysis or micromorphology), on site phosphate analysis, archaeomagnetic dating, OSL dating, analysis of slags (or other materials related to industrial or high temperature processes), sediments or other materials, TL dating or ceramic thin section/residue analysis was undertaken, at the request of the Science Advisor and approval of the City Archaeologist.

6 Results

Early Medieval Features

- 6.1.1 Machine stripping and hand-cleaning of the excavation areas confirmed that the sole archaeological features of any great antiquity were the two northwest to south east aligned parallel ditches, originally identified in the evaluation, and of suggested early medieval date (Roushannafas 2018). As previously noted these ditches lay 16 to 16.5m apart from one another and flanked the upper terrace of the Beck watercourse.
- 6.1.2 In almost all places the ditches were observed to cut directly into the natural substrate, (0008), an orange/yellow fine sand with occasional patches of gravel. The ditches were apparently heavily truncated and must have originally been cut through a contemporary topsoil/subsoil, now lost. This hypothesis is confirmed by observations at the eastern extent of the northern ditch sequence where the natural sand was observed to overlay a small area of preserved relic sub-soil, a grey-brown silty sand (also numbered (0008). This demineralised deposit was undated, but it was truncated by the northern ditches, placing it early in the relative stratigraphic sequence.
- 6.1.3 In a number of places the ditches were truncated by later features, mainly related to the late Nineteenth to early Twentieth century use of the site for housing (the later features are summarised in 5.2 below, and noted in the following text where they directly truncated the ditches).

The Northern Ditch Sequence

- 6.1.4 As Figure 2 and 4 illustrate, the northern ditch sequence, situated towards the northern boundary of the excavation area, was observed over a combined length of c.36 m. No termini were apparent, and it must be assumed that the ditch continued beyond both its eastern and western observed limits (although this was only confirmed at the western extent of the site). The ditch sequence was truncated by later features in a number of places, for example, to the west later housing and the installation of a modern carriageway had severely truncated the feature. At the eastern extent of the site, the ditch had been fully truncated away by a late Nineteenth to early Twentieth century building (either relating to housing or the original Victoria Baths). Other areas of significant truncation included a large square pit [0072] and smaller rectangular pits ([0030], [0058], [0065] (undated but assumed modern) in the central part of the excavated features, a gas main ([109]) which ran along the southern side of the feature and a drain, [0074], towards the north of the ditch features.
- 6.1.5 Nevertheless, despite later truncation, the northern ditch sequence was the better preserved of the two ditches. Detailed excavation revealed three phases of ditch use, the original cut and two-re-cuts (hereafter Phases 1-3 ditches). The alignment of the ditches in the eastern half of the excavation area was such that no direct stratigraphic relationship could be observed between the Phase 1 and 2 ditches, but in the western half of the excavation area the stratigraphic sequence was clearer (see Figure 7). At the western extent of the excavation area the Phase 2 and 3 ditches were fully truncated away and only the original Phase 1 ditch was preserved (see Figure 6).

Phase 1 Ditch

- 6.1.6 The earliest ditch cut (0054, 0050, 0041,0035, 0081, 0103, 0065, 0028, 0025, 0017) was observed extending over the entire 36m length of the northern ditch group, with the much denuded western extension surviving truncation associated with the installation of a modern carriageway (see Figure 3). Ten 1m long slots were excavated along the length

of the ditch which, allowing for roughly 18m of modern truncated length, provided a 75% excavated sample of the available fill.

- 6.1.7 The excavated ditch varied in observed width from a maximum of 1.4m ([0050], Figure 10) to only 0.30m ([0025], Figure 6) at the truncated western end (although a small, rather better preserved section, 1.68m wide, was observed at the western extent of the excavation area ([0017], Figure 3/6). Similarly, the observed depth of the ditch varied from 0.72m ([0103] to 0.32m ([0028] where truncated) in the west. The observed depths and widths are not a true reflection of the original profile of the feature due to later truncation by, amongst other features, the Phase 2 and 3 ditch cuts. Where the full profile (apart from the top) of the ditch was observed, it was seen to have a steeply sloping profile (with the southern side less stepped and certainly steeper) and a narrow flattish base.
- 6.1.8 With the exception of the heavily truncated westernmost slot ([0013], Figure 6), all of the excavated sections of the ditch contained two distinct fills, a naturally silted primary fill (0066, 0069, 0068, 0080, 0102, 0064, 0027, 0024, 0018) apparently tipping in to the ditch from the north, and a naturally silted secondary fill (0053, 0049, 0040, 0034, 0079, 0101, 0063, 0026 and 0023). The primary fill, a firm greyish yellow sand with very infrequent natural gravel inclusions, varied in depth from c. 0.16m ([0024]) to 0.2m (0102)). The primary fill had apparently accumulated rapidly after the initial excavation of the Phase 1 ditch. The secondary fill, yellow-orange silty sandy containing occasional rounded pebbles, varied in depth from 0.22m ([0026]) to 0.66m ([0026]) and, although also rapidly accumulated, contained more silt and stones suggesting a more prolonged infilling derived from contemporary subsoils/topsoils.
- 6.1.9 *Artefacts:* Material culture retrieved from the primary fill of the Phase 1 ditch comprised animal bone from (0027), slags and hammerscale of a potential Anglo-Saxon date from (0064), hammerscale, minute fragments of pottery of a 10th to 13th century date from (0102) and a miniature Anglo-Saxon glass bead also from (0102). Hammerscale was also recovered from fill (0066). The sole find from the secondary fill was a fragment of animal bone from fill (0023).
- 6.1.10 *Radiocarbon Dating:* A small quantity of charred remains was recovered from the Phase 1 ditch fills, indicative of crops derived from small scale domestic accidents that occurred during the day-to-day cleaning of cereals or during food preparation, virtually no weeds were present. These remains were not enough to provide any interpretative insight, but they did allow for the Phase 1 ditch to be the subject of radiocarbon dating. Two dates were obtained from charred grain from the Phase 1 ditch primary fills; 887 to 995 cal AD (SUERC-86211) from (0102) and 1024-1155 cal AD (SUERC- 86211) (0066).
- 6.1.11 The most likely date for the Phase 1 ditch primary fill is considered to be 887 to 995 cal AD (SUERC-86211), but given the small size of the grain and extensive bioturbation (see Plates) this could be intrusive. The later date of 1024-1155 cal AD (SUERC- 86211) perhaps reflects intrusive material brought down from above by the abundant bioturbation, as further evidenced by other intrusive material (clinker/coal from samples, glass and modern pottery) present in later fills in this part of the site (see below).

Phase 2 Ditch

- 6.1.12 When the Phase 1 ditch went out of use it was re-cut on a near identical alignment by a second, Phase 2, ditch cut (0056, 0046, 0044, 0037, 0076, 0098, 0060). This ditch was observed extending over the eastern c.20m length of the northern ditch group, with the ditch fully truncated at the western extent (see Figure 4). Seven 1m long slots were excavated along the length of the ditch which, allowing for roughly 5m of modern truncated length provided a 45% excavated sample of the available fill.

- 6.1.13 The excavated ditch varied in observed width from a minimum of 0.99m ([0044], to 1.43m ([0060]) (Figure 7), which (allowing for truncation) was the true width of the ditch. The observed depth of the ditch varied from 0.42m ([0046] to 0.10m ([0060) where truncated in the west. Where the full profile of the ditch was observed, it was seen to have a morphologically distinctive profile, with moderately sloping sides and a u-shaped base.
- 6.1.14 The Phase 2 ditch contained a single naturally accumulated fill (0055, 0045, 0043, 0036, 0075, 0097, 0059). The fill was a mid brown silty sandy and contained a moderate amount (15%) of small rounded pebbles with no obvious tip lines, suggesting infilling derived from contemporary subsoils/topsoils.
- 6.1.15 Material culture retrieved from the fill of the Phase 2 ditch was restricted to animal bone, slags and hammerscale of a potential Anglo-Saxon data from (0043) and intrusive finds of minute fragments of modern glass and 19th-20th century ceramics from fills (0045) and (0043). These later finds were perhaps introduced by the construction of a later cellar, and subsequent bioturbation, at the eastern extent of the excavation area and may also account for the comparatively late radiocarbon date produced by Phase 1 fill, (0066), in this part of the site.
- 6.1.16 *Radiocarbon Dating:* A small quantity of charred remains was recovered from the Phase 2 ditch fills, but not enough to provide any interpretative insight. However, the recovered grains did allow for the Phase 2 ditch fills to be subjected to radiocarbon dating. A single date was obtained from ditch fills (0045), providing a date of 907-1119 cal AD (SUERC-86210). This date overlaps with the assumed date of the Phase 1 ditch, suggesting that the two events likely occurred in a relatively short space of time.

Phase 3 Ditch

- 6.1.17 When the Phase 2 ditch went out of use it was re-cut on a near identical alignment, slightly to the south, by a third, Phase 3, ditch cut (0052, 0048, 0039, 0042, 0078, 0100, 0058). This ditch was observed extending over the eastern c.20m length of the northern ditch group, with the ditch fully truncated at the western extent (see Figure 4). Seven 1m long slots were excavated along the length of the ditch which, allowing for roughly 5m of modern truncated length provided a 45% excavated sample of the available fill.
- 6.1.18 The excavated ditch varied in observed width from a minimum of 1.42m ([0058], to 2.26m [0039] (Figure 7-12), which, allowing for truncation, was the true width of the ditch. The observed depth of the ditch varied from 0.45m ([0052] to 0.10m ([0062) where truncated in the west. Where the full profile of the ditch was observed, it was seen to have a moderate to shallowly sloping edges and a u-shaped base.
- 6.1.19 The Phase 3 ditch contained a single naturally accumulated fill (0051, 0047, 0043, 0033, 0077, 0099, 0057). The fill was a dark brown silty sandy and contained a moderate amount of small rounded pebbles with no obvious tip lines, suggesting infilling derived from a number of erosion episodes from contemporary subsoils/topsoils.
- 6.1.20 No material culture was retrieved from the fill of the Phase 3 ditch, however a charred grain was recovered from fill (403) (equivalent to (0043) during the evaluation which allowed for the ditch fills to be subjected to radiocarbon dating. An early date of 665 to 770AD (SUERC- 78136) from the Phase 3 ditch may well reflect a grain that has been reworked from features or deposits no longer preserved at the site such as the potentially early undated sub-soil, (0008), although this is not certain.

The Southern Ditch

- 6.1.21 As Figure 2 and 5 illustrate, the southern ditch sequence lay close to the southern boundary of the site on lower lying land towards the Beck. The southern ditch was

apparently heavily truncated, however, this may actually be partly due to greater depths of accumulated contemporary subsoil (colluviums) and topsoil in this low-lying area, meaning that the cut never penetrated the natural substrate to such a great extent. This notion is further supported by the fact that parts of the base of both the northern and southern ditches lay at similar height of c.32.5m AOD.

- 6.1.22 The southern ditch was observed over a length of c.13 m. It is assumed that the ditch continued beyond both its eastern and western observed limits, as the extremities of the excavated feature had been truncated away by late Nineteenth to early Twentieth century buildings (either related to housing or the original Victoria Baths). The ditch was further truncated by later features in a number of places, including a north to south aligned drain ([0095]) and a section of brick paving [0096]. This later feature had evidently disturbed a significant portion of the ditch and may be the source of some artefacts interpreted as intrusive from this area, including a sherd of 18th to 19th century pottery and glass from fill (0086) and a sherd of 15th to 16th century midland purple pottery and modern glass from fill (0088).
- 6.1.23 Along the length of the southern ditch cut (0082, 0084, 0861,0088, 0090, 0092) seven 1m long slots were excavated which, allowing for roughly 2m of modern truncated length, provided a 70% excavated sample of the available fill. The excavated ditch varied in observed width from a maximum of 0.87m ([0093], Figure 12) to only 0.25m ([0089], Figure 12). The observed depth of the ditch varied from 0.33m ([0083] to 0.23m ([0028) and it had moderately to steeply sloping sides and a u-shaped to flattish base.
- 6.1.24 The southern ditch contained a single naturally accumulated fill (0051, 0047, 0043, 0033, 0077, 0099, 0057). The fill was a dark brownish yellow sand and contained very rare small rounded pebbles and gravel. This primary fill had apparently accumulated rapidly after the initial excavation of the ditch
- 6.1.25 Material culture retrieved from the fill of the southern ditch, apart from intrusive finds, comprised animal bone from fills (0086), (0088) and (0092), and hammerscale of a potential Anglo-Saxon date from (0088) and (0092). No charred remains suitable for radiocarbon dating was recovered from the southern ditch fills.

7 The Finds

7.1.1 This section presents reports on the small quantity of material recovered from the Fruitmarket excavation. The finds, tabulated below, included:

Material	Description	Quantity	Weight	Date
Glass	Small bead	1	<1g	Early to possibly mid Anglo-Saxon
Glass	Tiny fragments	12	<1g	Possible modern
Pottery - medieval	Body fragments		<1g	10 th – 13 th century
Pottery – post-medieval	Small fragments	6	<1g	15 th – 20 th century
CBM	Small fragments	>10	7g	Possible modern

7.2 Miniature Glass Bead

By Ian Riddler and Nicola Trzaska-Nartowski

7.2.1 A complete glass bead is globular in form and light blue to green in colour. It has a diameter of 2.3mm and is 1.4mm in length, allowing it to be described as a small bead of medium proportions, the diameter being less than 5mm and the ratio of length over diameter providing a figure of 0.6 (Hirst 2000, 126; Brugmann 2004, fig 9). Elsewhere, beads with diameters of 2-3mm have been described as miniature or very small, but the term small has been used here (Mephram 2014, 337). Its colour coincides with the description of 'greyish-blue' used for some early Anglo-Saxon beads (Brugmann 2004, 24). The most striking aspect of the bead, however, is its small size and beads like this are usually only recovered from sieving programmes. The majority of them have come from settlement contexts, although small globular beads were defined as a specific type for the Mucking cemeteries (Hirst 2000, fig 1.M1; Hirst and Clark 2009, 509).

7.2.2 Small glass beads occur in late Roman contexts, as in the Lankhills cemetery, for example, mainly as annular beads in a deep translucent blue colour (Cool 2011, 292). Brugmann noted the presence of miniature dark beads within two early Anglo-Saxon graves at Mill Hill in Kent and linked them to the Continental sequences of Siegmund and Siegmann (Brugmann 2004, 30 and 74). At Liebenau miniature dark beads were accompanied by a slightly later sequence of yellow to gold miniature beads (Siegmann 2003, 282-3 and taf G). The Rhineland sequence of Siegmund included miniature dark translucent beads in his Bead Combination Groups C and D, but they were not closely dated (Siegmund 1998, 57; Müssemeier et al 2003, 37). Within England they are a feature of the 5th century and the early part of the 6th century. They formed the most common type within the graves at Spong Hill and were found also in cremations at Saxondale (Hills and Lucy 2013, 51; Mephram 2014). Thus, there is a background of the use of small or miniature beads in the late Roman period and they can be seen also in the first part of the early Anglo-Saxon period, the earliest examples consisting of small translucent dark blue annular beads. Miniature beads of a different colour and form are a later phenomenon, however.

- 7.2.3 Light greenish-blue or 'greyish-blue' opaque beads of globular form are not common in contexts of late Roman date (Cool 2011, 292-3). In contrast, at Mucking as many as 33% of the monochrome glass beads from the early Anglo-Saxon cemeteries were defined as small, and they include beads of blue/green colour, some of which were less than 5mm in diameter; and they are globular in form (Hirst and Clark 2009, 509 and 782). Most of these beads came from a single grave placed in phase 1a_{iii}, of the mid-5th- to early 6th century (ibid, 165-6). However, the presence in the grave of monochrome globular beads in opaque yellow, alongside gold-in-glass beads and double-segmented beads imitating the gold-in-glass form, as well as a sub-melon bead, suggests that it is a little later in date and belongs to c 510-530/540. In general, monochrome wound globular beads in opaque colours are not found before the 6th century in early Anglo-Saxon cemeteries and it is likely that the miniature beads follow the trends established by larger beads of the same form. By comparison with the Mucking beads it seems most likely that this small globular bead in a light blue to green colour could well belong to the period c 510 – 560/570. However, there is also the slight possibility that it is later in date.
- 7.2.4 For early Anglo-Saxon beads the general tendency over time is for an overall increase in their size and, after the middle of the 6th century, a diminution in the number of beads recovered from each grave (Brugmann 2011, 68-9). Monochrome globular beads occur throughout most of the 6th century but are rare in graves of 7th-century date; and they are replaced from c 650 onwards by spiral-wound beads of short cylindrical form. No small beads are recorded from late cemeteries and they may have gone out of use by the later 6th century.
- 7.2.5 Beads were not deposited within graves during the Middle Saxon period and all of our evidence comes from settlements. There are comparatively few glass beads from this period, but small beads are not entirely absent although, as noted above, their recovery is heavily reliant on sieving programmes. Evison has suggested that necklaces of glass beads were out of fashion in the 8th and 9th centuries, and this change can conceivably be traced back to the second half of the 7th century (Evison 2014, 223). However, it is worth noting that ten small annular beads in monochrome green, blue and red were recovered from excavations at Six Dials in Hamwic, and these provide the possibility that the manufacture and use of small glass beads continued into the Middle Saxon period, or was perhaps revived at that time (Hunter and Heyworth 1998, 26, 128 and fig 18). Excavations in Middle Saxon London have produced at least one small bead, a fragmentary cylinder bead in a translucent blue colour. More significant, perhaps, is the discovery there of a number of monochrome globular beads in an opaque turquoise colour. These look very much like larger examples of this small globular bead, of the same form but a little darker in colour (Stiff 2012, 258-9 and fig 153). Thus, whilst there are comparatively few small beads from the Middle Saxon period, the resemblance of form and colour between this bead and larger examples from Lundenwic provides the possibility that it could belong to this period.



1cm

Plate 3: Miniature glass bead

7.3 Pottery, Glass, Ceramic Building Material

By Alison Wilson

Pottery

- 7.3.1 Context [0046] (0045) contained four very tiny, abraded fragments of 19th-20th century white bodied earthenware pottery, weighing collectively less than 1g. Likewise, context [0087] (0086) contained just a single tiny fragment of black glaze, probably from an 18th-19th century coarse earthenware vessel.
- 7.3.2 Context [0089] (0088) contained a small body fragment of pottery weighing 1g. This was hard fired with iron rich inclusions and large irregular fragments of quartz and is likely to be an early form of Midland Purple pottery, dating to the 15th – 16th century.
- 7.3.3 Context (0102) contained abraded, very small fragments of pottery weighing less than 1g in total. The pottery had an oxidized outer surface and reduced core and had abundant small white angular inclusions of possibly limestone or shell. Due to the fragmentary and generally poor condition of the pot an accurate date is not possible, however, it is likely that it belongs somewhere in the 10th – 13th century.



Plate 4: Microscopic image of a small fragment of pot from context (0102) showing white angular inclusions

8.4 Glass

- 7.4.1 Tiny fragments of glass were recovered from the environmental residues of contexts [0044] (0043), [0046] (0045), [0087] (0086) and [0089] (0088). These collectively weighed less than 1g and are too tiny for any kind of identification.

8.5 Ceramic Building Material

- 7.5.1 Small fragments of ceramic building material were recovered from the environmental residues of contexts [0025] (0023), [0035] (0067), [0044] (0043), [0046] (0045), [0065] (0064), [0087] (0086), [0089] (0088) and [0093] (0092). These collectively weigh 7g and are too small for any kind of identification or interpretation.

8.6 Discussion

- 7.6.1 The finds assemblage from the excavation is very small and in a poorly preserved fragmentary condition, which makes any form of interpretation difficult. The small number

of finds would suggest that the finds in general are residual. Discard is recommended for all post-medieval pottery, glass and ceramic building material. The miniature bead and fragments of 10th – 13th century pot should be retained as part of the site archive.

7.7 Animal Bone

By Kristopher Poole

- 7.7.1 A small collection of poorly hand-collected bone was retrieved from 19th-20th century features (see Table 1). All were large-sized mammals, namely cattle and horse, although the lack of smaller species may in part be due to issues of preservation. In addition to the hand collected bone, a number of small, unidentifiable bone fragments were retrieved from environmental samples (Table 2). The small size of the assemblage and poor preservation mean that it is not informative about on-site activity. It is recommended that all of this bone be discarded.

Table 1: Number of Identified Specimens (NISP) retrieved by hand collection

Species	Context		TOTAL
	45	55	
Cattle	3	1	4
Horse	1		1
Large mammal	10		10
TOTAL	14	1	15

Table 2: Number of Identified Specimens (NISP) retrieved from environmental samples

Context	Species		TOTAL
	Small mammal	Unidentifiable	
23		4	4
27		3	3
43	1	42	43
45		17	17
64		2	2
66		1	1
67		3	3
86		7	7
88		5	5
92		9	9
102		2	2
TOTAL	1	95	96

7.8 The Metalworking Debris

By Gerry McDonnell

Introduction

7.8.1 This assessment report describes the material classified as slag recovered from excavations at the Fruit Market, Nottingham. The samples are described and discussed; recommendations for further work are considered. The assessment report follows the guidelines issued by English Heritage (Dungworth 2015, 13-14).

Slag Classification

7.8.2 The samples were visually examined and the classification is based solely on morphology. The debris associated with metalworking, or submitted in the understanding that they are associated with metalworking, can be divided into two broad groups; residues diagnostic of a particular metallurgical process or non-diagnostic residues that may have derived from any pyrotechnological process (McDonnell 2001). The magnetic fraction separated from the residue from the sieving programme normally comprised hammerscale, (unidentifiable) slag fragment, fragments of vitrified clay hearth or furnace lining, fragments of fired clay, pieces of corroded iron and natural stone fragments.

7.8.3 There are two forms of hammerscale flake and spheroidal generated during the smithing process. Flake hammerscale are blisters of oxidised scale formed on the surface of a piece of iron when it is heated in oxidising conditions. Spheroidal hammerscale are droplets of liquid slag expelled during fire welding which freeze as spheroidal droplets as they cool in flight in the air. The presence of hammerscale is therefore a strong indicator that smithing (primary or secondary) was carried out on the site.

7.8.4 The samples were weighed, examined for the presence of the residues listed above, the quantity of hammerscale was crudely assessed.

Results

7.8.5 The results of each sample are listed in Table 3 and a condensed list is provided in Table 4. Small amounts of flake and spheroidal hammerscale were present in 10 contexts, and a small amount of unidentifiable slag, probably smithing was present in two contexts (Context 0043, the primary fill of Ditch 0044 (0.1grams); Context 0067, the primary fill of Ditch 0035, six fragments weighing 2.7grams).

Discussion

7.8.6 The presence of both flake and spheroidal hammerscale indicates that the full range of smithing techniques, e.g. forging, fire welding etc, was being undertaken in the vicinity. This suggests the fabrication of steel-edged tools. It was noticeable that some samples contained very small sized scale, e.g. the spheroidal scale being c. 1mm in diameter. Table 3 lists the six contexts with small scale, and it could be argued that these ditches were open at the same time to entrap the hammerscale. The small size of the scale would suggest the smithing of smaller edged tools, e.g. knives etc. The other contexts contained either larger hammerscale (e.g. Context 0102) or mixed sizes.

7.8.7 The Anglo-Saxon bead was recovered from Context 0067 (the primary fill of Ditch 0035), one of the contexts containing the fine hammerscale. Iron smithing is the most important craft and there is extensive evidence for sophisticated smithing in Saxon settlements, farmsteads, villages and towns/wics for example at Hamwic, Southampton

and Canterbury. The sophistication of Saxon smithing is well understood (e.g. Blakelock and McDonnell 2007).

Conclusions and Recommendations

7,8,8 Although the quantity of hammerscale is small, it indicates that skilled smithing was being conducted in the vicinity of the ditches. It provides evidence that some of the ditches were possibly contemporary and the Saxon bead suggest an Anglo-Saxon date. No further work is required on the assemblage.

Table 3 Catalogue of the magnetic samples (weight in grams).

Context	Sieve Number	HS?	Flake?	Spheroidal?	slag	metal	stone	% HS	Comment	Sample Weight
0023	01	y	y	y	y		y	40	small	1.2
0027	13	y	y	y	y		y	80	sphed v small, 1mm?	0.9
0043	10	y	y	y	y			80	v fine,	1.3
0043	10	n				y			pin shaft	0.1
0043	10	n			y				2 frags slag	0.1
0045	09	y	y	y	y		y	70	most sphed v small, some larger >2mm	1.4
0045	09	n				y			small nail shaft?	0.7
0064	15	y	y	y	y			80	mixed sizes	0.4
0066	11	y	y	y	y			30		0.4
0067	12	y	y	y	y			80	v fine,	0.1
0067	12	n			y				6 slag frags	2.7
0088	07	n			y					0.1
0088	07	y	y	y	y		y	80	sphed v small, 1mm?	1.1
0092	06	y	y	y	y		y	80	mixed sizes	1.5
0102	14	y	y	y	y		y	70	1 large flake, 8mm across	0.4

Context	Sieve Number	HS?	Flake?	Spheroidal?	slag	metal	stone	% HS	Comment	Sample Weight
0023	01	y	y	y	y		y	40	small	1.2
0027	13	y	y	y	y		y	80	sphed v small, 1mm?	0.9
0043	10	y	y	y	y	y		80	v fine, pin shaft, 2 frags of slag	1.3
0045	09	y	y	y	y	y	y	70	most sphed v small, some larger >2mm, nail shaft	1.4
0064	15	y	y	y	y			80	mixed sizes	0.4
0066	11	y	y	y	y			30		0.4
0067	12	y	y	y	y			80	v fine, plus 6 slag frags	0.1
0088	07	y	y	y	y		y	80	sphed v small, 1mm? Plus, slag frag	1.1
0092	06	y	y	y	y		y	80	mixed sizes	1.5
0102	14	y	y	y	y		y	70	1 large flake, 8mm across	0.4

Table 4 Reduced Context List (weight in grams).

Context	% HS	Sample Weight	fine
0023	40	1.2	y
0027	80	0.9	y
0043	80	1.3	y
0045	70	1.4	y
0067	80	0.1	y
0088	80	1.1	y
0064	80	0.4	
0066	30	0.4	
0092	80	1.5	
0102	70	0.4	

Table 5 The samples sorted by the size of the hammerscale and context number.

8 Environmental Archaeology and Radiocarbon Dating

8.1 The Environmental Samples

By Mariangela Vitolo

Introduction

8.1.1 Eleven bulk soil samples were submitted for post-excavation assessment. Three radiocarbon dates were obtained: context [66] was dated to 1024-1155 cal AD (SUERC-86210, 95.4% probability), fill [45] was dated to 907-1119 cal AD (SUERC-86212, 95.4% probability), whilst [102] was dated to 887-995 cal AD (SUERC-86211, 95.4% probability).

8.1.2 The following report assesses the significance and potential of the plant macrofossils and wood charcoal to inform on the arable economy, fuel use and selection and the local vegetation environment.

Methodology

8.1.3 Bulk samples were processed in their entirety by flotation using a 500µm mesh for the heavy residue and a 250µm mesh for the retention of the flot before being air dried. The flots were scanned under a stereozoom microscope at 7-45x magnifications and their contents recorded (Table 6). Provisional identification of the charred remains were made with reference to atlases and identification material (Cappers et al, 2006; Jacomet, 2006). Nomenclature used follows Stace (1997) for wild plants and Zohary and Hopf (1994) for crops.

Results

8.1.4 Samples produced flots of a generally small size, with an uncharred material content ranging from 10% to 70% of the entire flot matrix. This uncharred material consisted of rootlets and twigs and is indicative of a degree of disturbance across the site. Charred plant macrofossils were sparse, including caryopses of wheat (*Triticum* sp.), barley (*Hordeum vulgare*) and rye (*Secale cereale*). Occasional caryopses of oat (*Avena* sp.) were also recovered, although the absence of floret bases hindered their identification to a wild or cultivated species. Rarely occurring caryopses of brome (*Bromus* sp.) were the only definite remain of wild plants. No chaff was recovered, possibly due to the fact that all represented cereals are free-threshing.

8.1.5 Charcoal occurred in a fragmented state and no identification work was carried out. A large amount of industrial waste, such as coal and clinker, was identified in the majority of the flots.

Significance

- 8.1.6 Due to the paucity of plant remains and the fragmentary state of the charcoal, the samples from Nottingham Fruit Market have no significance.

Potential

- 8.1.7 Bulk soil sampling at Nottingham Fruit Market has retrieved a small quantity of charred remains of crops. These represent a background signature and are likely to derive from small scale domestic accidents that occurred during the day-to-day cleaning of the cereals or during food preparation. As such, they hold low potential for further work. Remains of crop weeds were almost absent, apart from a small number of cereal-sized grasses, indicating that the charred cereals likely derived from a late stage of crop processing. This material cannot inform us on diet and agrarian economy at the site.

Further Work

- 8.1.8 No further work is recommended on the plant macrofossils arising from these samples.

Table 7 Flot quantification (* = 1-10, ** = 11-50, *** = 51-250, **** = >250) and preservation (+ = poor, ++ = moderate, +++ = good)

Sample Number	Context	Parent	Weight (g)	Flot volume (ml)	Volume Scanned	Uncharred (%)	Sediment (%)	Charcoal 2-4mm	Charcoal <2mm	Crop Seeds Charred	Identifications	Preservation	Weed Seeds Charred	Identifications	Preservation	Industrial Debris Hammerscale
1	23	25	1,5	15	15	10	60		***	*	Hordeum vulgare, hulled (1)	++				*
4	45	46	2,5	20	20	50	10	**	****							***
6	92	93	1,2	20	20	30	30		**							***
7	88	89	2	20	20	60	10		***	*	Triticum/Hordeum sp. (4)	+				***
8	86	87	5,5	100	100	70	10		**	*	cf Hordeum vulgare (1)	+				**
10	43	44	2	25	25	70	20		**							***
11	66	54	3,2	20	20	70	20		**	*	Triticum/Secale sp. (1), cf Hordeum vulgare (1)	+				**

Sample Number	Context	Parent	Weight (g)	Flot volume (ml)	Volume Scanned	Uncharred (%)	Sediment (%)	Charcoal 2-4mm	Charcoal <2mm	Crop Seeds Charred	Identifications	Preservation	Weed Seeds Charred	Identifications	Preservation	Industrial Debris Hammerscale
12	67	35	8,5	100	100	70	20		**	*	Hordeum vulgare, hulled (1), Avena sp. 1), cf Hordeum vulgare (1)	+				**
13	27	28	1,2	15	15	40	20		***	*	Hordeum vulgare (5), Triticum/Hordeum sp. (4) Triticum sp. (1)	+	*	Bromus sp. (1), Avena sp. (2)	++	**
14	102	103	1,6	20	20	60	20		**				*	Bromus sp. (1) , Avena sp. (1)	++	*
15	64	65	0,9	10	10	30	10		**	*	Secale cereale (1), cf Triticum sp. (1), cf Hordeum vulgare (1).	+++				**

8.2 Radiocarbon Dates

By Kristina Krawiec and SUERC

8.2.1 A total of three samples were submitted for age determination which comprised charred grain recovered from the bulk environmental samples (Table 6). In addition, a single age determination was recovered from the evaluation (SUERC- 78136). The samples were submitted to SUERC laboratories, Glasgow.

8.2.2 The samples were selected from primary fills of the main ditch recorded on site from areas that were least affected by modern disturbance and rooting. The returned age determinations demonstrate that despite the relatively simple stratigraphic relationships on the site there are perhaps more complex depositional processes at work. The most reasonable date for the earliest Phase 1 ditch is considered to be 887 to 995 cal AD (SUERC-86211), with a later recut occurring by 907-1119 cal AD (SUERC-86210). These dates overlap suggest that the two events likely occurred in a relatively short space of time. However, the grain that returned the earlier date of 665 to 770AD (SUERC- 78136) from the Phase 3 ditch, although considered likely to be reworked from features or deposits no longer preserved at the site, may suggest an earlier date. In contrast, the grain that returned the later date from the earlier ditch 1024-1155 cal AD (SUERC- 86211), although considered likely to be intrusive, as evidenced by other intrusive material in this part of the site (see section 7, may suggest a later date).

Lab Code	Sample information	Material dates	D ¹³ C (%)	Radiocarbon age (BP)	Calibrated Date (95.4%)	Ditch Phase
SUERC-86210	TPA_110 <11> (0066) [0054]	<i>Triticum/Secale</i> sp 1 grain <i>Hordeum vulgare</i> 1 grain	-22.5	952+/-28	1024 to 1155 cal AD	Phase 1
SUERC-86211	TPA_111 <14> (0102) [0103]	<i>Bromus</i> sp 1 grain <i>Avena</i> 1 grain	-22.6	1101+/-26	887 to 995 cal AD	Phase 1
SUERC-86212	TPA_112 <9> (0045) [0046]	<i>Secale cereale</i> 1 grain <i>Hordeum vulgare</i> 1 grain	-24.3	1023+/-28	907 to 975 cal AD (0.7%), 968 to 1044 cal AD (93.1%) and 1105 to 1119 cal AD (1.6%)	Phase 2
SUERC-78136	SFM-Evaluation <03>	Indet. grain	-22.5%	1287+/-29	665 to 770 cal AD	Phase 3

Lab Code	Sample information	Material dates	D ¹³ C (%)	Radiocarbon age (BP)	Calibrated Date (95.4%)	Ditch Phase
	(403)					

Table 6: Radiocarbon dating results

9 Discussion and Conclusion

Introduction

- 9.1 The Fruitmarket ditch sequence is a significant and largely unexpected find. The site demonstrates well the fragility of potential early medieval archaeological features that may remain preserved beneath Nottingham's urban landscape, especially beyond the historic borough defences. The archaeological excavation has allowed for the following questions from the original project design to be addressed in the following synthesis.

EMHERF: Early Medieval (c.410-1066)
6.5 Inland Towns, 'central places' and burhs
4. How did Nottingham develop during the Anglo-Saxon and Viking periods?
Site Specific Research Questions
What was the nature of land-use in the early medieval period in those areas unaffected by later truncation?
Is it possible to assess the potential for excavated features to contain important artefact/ecofact assemblages which could aid the understanding of settlement development and morphology throughout the Early- Medieval or earlier periods?

Site Interpretation

- 9.2 The ditch features identified on the site are best interpreted as a boundary sequence, but whether this demarcated early medieval landscape zones (with the low-lying beck to the south and the high land towards Victoria Park to the north) for some unknown purpose, or instead defined an otherwise unknown agricultural boundary is less certain.
- 9.3 It is not impossible, on the basis of the evidence of common finds of hammerscale from primary ditch fills, that both the north and south Fruitmarket ditches were in use contemporaneously (as opposed to one replacing the other). If this were the case, then a further functional explanation might be possible; perhaps that the features formalised some kind of pre-existing droveway? However, as the ditches are quite widely spaced and run against the contour of the valley slope (as opposed to guiding animals to water) this seems an improbable interpretation. Whatever the case, it seems unlikely, judging by the morphology, that the ditches had an exclusively defensive function (particularly as the Phase 2 ditches were shallower than the Phase 1 ditches). Yet, the steep profile of the Phase 1 northern ditch may hint that it was installed with such a potential function in mind.
- 9.4 On the basis of the artefact and radiocarbon dating evidence, it is suggested that the initial Phase 1 ditches may have been constructed sometime in the 10th Century AD. Following this, the ditch was most likely re-cut (Phase 2) in the late 10th to early Eleventh century. However, due to the potential for intrusive artefacts/ ecofacts and the conflicting radiocarbon dates obtained, it must be stressed that a date range from the 6th through to the 12th century is possible.

- 9.5 The radiocarbon date overlaps between the Phase 1 and Phase 2 ditches, perhaps suggest that the two phases of ditch use occurred in a relatively short space of time, implying a degree of intensity of land-use at this time. This pattern of land use continued to persist, however, as evidenced by the stratigraphically later (but undated) Phase 3 ditch cut. Earlier human activity of an unknown location, character or intensity is also indicated by the 7th to 8th century radiocarbon date from the charred grain obtained from the Phase 3 ditch.
- 9.5 Given the potential for sustained land use, as represented by the northern ditch re-cut, the paucity of associated artefacts is intriguing. Whether this is linked to either the function of the boundary (i.e. it was away from a habitation focus), is a bias of preservation (animal bone was not well preserved, for example) or alternatively is a reflection of the nature of the rapid infilling and subsequent lack of maintenance of the boundary features, is uncertain. Given the uncertainties surrounding the interpretation of the ditches and the lack of finds, the unifying presence of hammerscale in both northern and southern primary ditch fills is of additional intrigue. Does the relative abundance of residues from iron smithing reflect the presence of specialist artisan activities in the environs of this location in the 10th century? If so, what was the context of this activity? In order to further address these observations we must now consider the potential wider contexts for the activity at the Fruitmarket site, including the expansion of the early medieval borough and the extent and character of Scandinavian-influenced activity around the Beck.

The Wider Context

- 9.6 The discovery of early medieval activity, some 300m north of Nottingham's borough defences, albeit of uncertain function, raises a number of interesting points about the extent of early medieval land-use around the historic core and also the identity of the individuals or groups who were responsible for constructing the ditches. It is considered most likely that the ditches originate in the 10th century, however, given the potential for intrusive artefacts/ ecofacts and the conflicting radiocarbon a date range from the 6th through to the 12th century is possible.

Middle Anglo-Saxon

- 9.7 Although no tangible evidence for occupation of this early date was identified at the Fruitmarket site, the recovery of an intrusive grain sample of C7th-C8th and the early glass bead date does perhaps hint at activity of an uncertain extent and character north of the Beck at this early date. If we consider this to be the case, we must remind ourselves of Charles Young's earlier interpretation of the early medieval layout of Nottingham, derived from his excavations of ditches at the Boots Garage and Fisher Gate, which tentatively suggested that, prior to the installation of the borough defences, there was evidence for an earlier settlement of uncertain character lying further east as far The Beck (Young 1983). Does the Fruitmarket discovery now hint that Nottingham, like many other early medieval European towns, may have developed from a poly-focal group of settlements that coalesced into one principal focus?

Ninth and Tenth Centuries

- 9.8 The later 9th and 10th centuries, as documented historically, are a somewhat tumultuous time for both Nottingham and Anglo-Saxon England as a whole. In 868 AD the Viking great army is documented by the Anglo-Saxon chronicle as having overwintered at Nottingham. The Mercian and West-Saxon army is also documented as sending an army to Nottingham in response, but it appears that there was no heavy fighting and, following the outbreak of peace, Nottingham is documented by 873 as being a Scandinavian settlement; one of the five Boroughs of the Danelaw from 877 to 918 (Lomax 2013, 48-49). In 918, Edward the Elder is recorded as having recaptured the town from the Danes,

at which point he strengthened the borough defences (Roffe 1997). The town then fell again, to the Norse, in 939 AD and was recaptured for the final time in 942 AD (ibid.). Any one of the above listed documented events may potentially have influenced land-use around the Fruitmarket site, but the Scandinavian context is of particular interest.

- 9.8 The site of Nottingham's overwintering camp is unknown. It has traditionally been assumed that Nottingham's Viking camp corresponded to the area defined by the borough defences (Gregory 2017, 39-44). A best guess is, indeed, that the borough defences were laid out in the second half of the 9th Century, and widened in the 10th century (Knight, Lomax, Young 2012 48-49, see Figure 12). At present, however, with earlier excavations unpublished and opportunities for modern investigation restricted, whether this layout occurred before or during Danish occupation, remains unclear (Knight, Lomax, Young 2012 48-49). Furthermore, evidence emerging from other overwintering sites, such as Torksey (Lincs) and Repton (Derbys), is starting to demonstrate that Viking camps may not necessarily be situated on top of - but rather adjacent to - already established settlement foci (Jarman 2019, 24-25).
- 9.9 In the light of these observations, the discovery of the Scandinavian-style swords indicating the existence of at least two Viking burials (Anon 1851), probably at Victoria Park, adjacent to the Fruitmarket, site provide additional intrigue. Although the style of the weapons suggest a tenth century date (Lang & Ager 1989, 103), perhaps indicating the burials of Danish settlers from sometime after the Viking overwintering of 868 (Lomax 2013, 50), might the burials have been located in this area because of its pre-existing significance as the site of the early Viking camp? Following this line of enquiry, and considering the topography to the east of the borough and the Beck, there are two 'spurs' of high land that protrude into the valley of the Beck at Victoria Park and Sneinton which would seem to provide the best candidates for easily defensible headlands removed from, but overlooking the borough. It is worth bearing in mind then that it is not impossible that the Fruitmarket ditches might have been contemporary with this phase of Viking activity, although given the rather undefended profile of the ditches, perhaps not directly associated with the overwintering camp. However, on a cautionary note Gareth Williams' has recently highlighted the potential scale and variety of Viking overwintering camps. Using examples in Ireland (known as longhports), Williams demonstrated that at Linn Duachill a defensive rampart over 1km long cut off a peninsula, whilst at Woodstown two 'd-shaped' enclosures encompass an area of 2.91 hectares (Williams 2015). If the Fruitmarket ditches do relate to this Ninth century Viking context, the presence of hammerscale in the early ditches is of additional intrigue. Recent investigations at Torksey camp have also recovered evidence for specialist production activities, including smithing (Hadley and Richards 2016) (although of course this need not have been for the production of military items). At present though, this is all a highly speculative hypothesis that would only be resolved by further archaeological investigation.

Tenth to Twelfth Centuries

- 9.10 Alternatively, given that the Fruitmarket ditches may well date to the 10th and 11th centuries, we need to look at the role of the site within the context of the establishment of Nottingham as a central place, and its transformation into a 'burh' shire centre by the reign of Aethelstan in the 920s. At this time, we can more easily define Nottingham as a place of regional importance, administration and trade. However, the extent to which Nottingham should be defined as a shire 'town' during the 10th century is more debatable. Excavations at other centres transformed by the Scandinavians between the mid 9th and 10th centuries, such as York and Lincoln, show abundant archaeological evidence for large and diverse populations engaged in specialist production and trade, alongside secular and ecclesiastical administrative groups. Whereas, most 'burh' shire centres in West Saxon England, for example, Worcester, Stafford and Oxford, have proven to be sparsely occupied within their defended circuits until the end of the tenth century

(Loveluck 2013). Roffe’s research would suggest that, as opposed to a ‘town’ Nottingham at this time was very much a West Saxon-style ‘burh’ shire town that acted as a key strategic military hub (Roffe 2006). Only more comprehensive analysis of the excavated remains from Nottingham compared with the evidence from the West Saxon and Anglo-Scandinavian spheres of England will address this question. In this context, however, contemporary activity identified beyond the borough defences is of high significance; what actually was the extent of land use at this time, what was the character of this occupation and who was carrying it out? Only further archaeological investigations can hope to resolve such issues.

9.11 Whichever interpretation for the Fruitmarket site we consider most likely, one thing that the discovery certainly does do is ‘open-up’ for debate the traditional interpretation that, prior to the Norman conquest, concentrated human activity in Nottingham was restricted to areas within the borough defences.

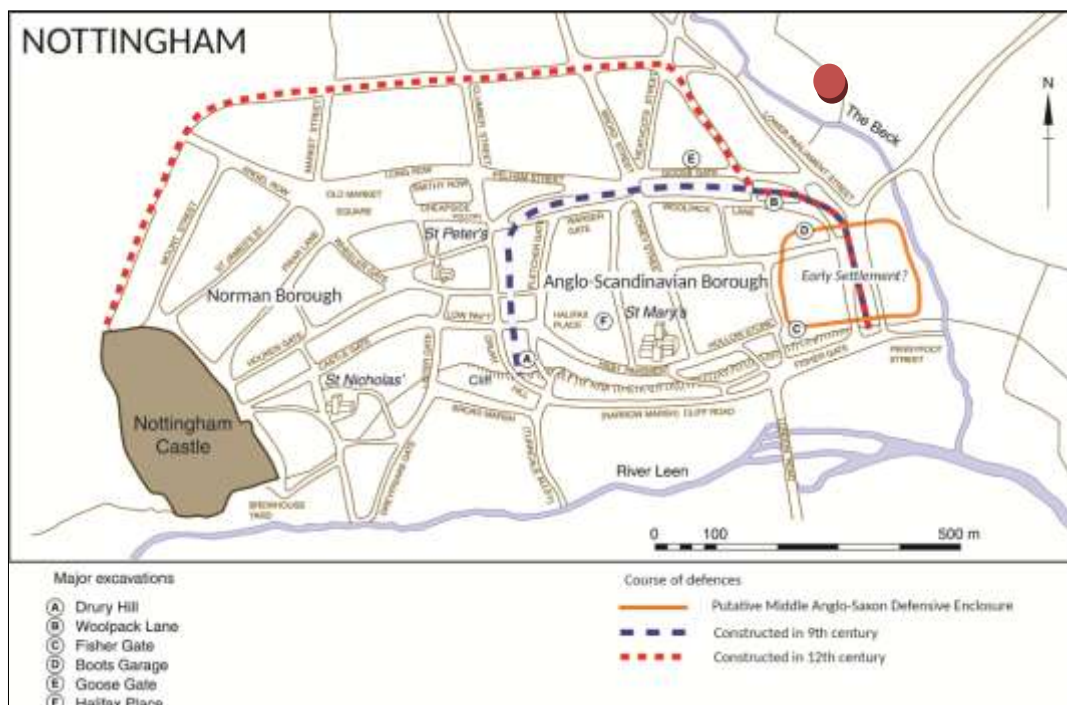


Figure 1: The Location of 1969-80 excavations and proposed extent of town defences (Fruitmarket site in red).

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Appendix 1: Context Register

Context	Category	Description	Group
0001	LAYER	TOP SOIL	-
0002	LAYER	BRICK & BUILDING MATERIAL	-
0003	LAYER	LIGHT SOIL WITH BROKEN BRICKS	-
0004	LAYER	PEBBLEY CRUMBLE SOIL (YELLOW)	-
0005	LAYER	TARMAC	-
0006	LAYER	DARK SOIL WITH CRUSHED BRICK	-
0007	LAYER	BROWN SOIL WITH CRUSHED BUILDING MAT.	-
0008	LAYER	NATURAL-SAND	-
0009	CUT	GAS PIPE SERVICE TRENCH	19
0010	FILL	FILL OF [0009]	19
0011	CUT	VICTORIAN CELLAR	-
0012	FILL	FILL OF [0011]	-
0013	CUT	CUT OF VICTORIAN CELLAR	-
0014	FILL	FILL OF [0013]	-
0015	CUT	CUT OF VICTORIAN DRAIN	-
0016	FILL	FILL OF [0015]	-
0017	CUT	CUT OF EARLY MEDIEVAL DITCH NE-SW	-
0018	FILL	FILL OF [0017]	-
0019	GROUP	CUT OF GAS SERVICE PIPE	-
0020	GROUP	CUT OF DITCH NE-SW (HIGH GROUND) V-SHAPE	-
0021	GROUP	CUT OF DITCH (LOWER AREA)	-
0022	GROUP	CUT OF DITCH NE-SW (HIGH GROUND) U-SHAPE	-
0023	FILL	SECONDARY FILL OF DITCH [0025]	20
0024	FILL	PRIMARY FILL OF DITCH [0025]	20

0025	CUT	CUT OF DITCH	20
0026	FILL	SECONDARY FILL OF DITCH [0028]	20
0027	FILL	PRIMARY FILL OF DITCH [0028]	20
0028	CUT	CUT OF DITCH	20
0029	FILL	PRIMARY FILL OF PIT [0030]	-
0030	CUT	CUT OF MODERN PIT-TRUNCATES [0028]	-
0031	FILL	FILL OF EVAL. TRENCH [0032]	-
0032	CUT	PREVIOUS EVAL TRENCH	-
0033	FILL	PRIMARY FILL OF DITCH [0042]	70
0034	FILL	SECONDARY FILL OF DITCH [0035]	20
0035	CUT	CUT OF DITCH NE/SW DITCH	20
0036	FILL	PRIMARY FILL OF DITCH [0037]	22
0037	CUT	CUT OF DITCH NE/SW DITCH	22
0038	FILL	PRIMARY FILL OF [0039]	70
0039	CUT	CUT OF DITCH NE/SW RECUT	70
0040	FILL	SECONDARY FILL OF [0041]	20
0041	CUT	CUT OF DITCH NE/SW	20
0042	CUT	CUT OF DITCH NE/SW RECUT	70
0043	FILL	PRIMARY FILL OF [0044]	22
0044	CUT	CUT OF DITCH NE/SW	22
0045	FILL	PRIMARY FILL OF [0046]	22
0046	CUT	CUT OF DITCH NE/SW	22
0047	FILL	PRIMARY FILL OF [0048]	70
0048	CUT	CUT OF DITCH NE-SW RECUT	70
0049	FILL	PRIMARY FILL OF [0050]	20
0050	CUT	CUT OF DITCH NE/SW	20

0051	FILL	PRIMARY FILL OF [0052]	70
0052	CUT	CUT OF DITCH NE/SW RECUT	70
0053	FILL	PRIMARY FILL OF [0054]	20
0054	CUT	CUT OF DITCH NE/SW	20
0055	FILL	PRIMARY FILL OF [0056]	22
0056	CUT	CUT OF DITCH NE/SW	22
0057	FILL	FILL OF MODERN PIT [0058]	-
0058	CUT	CUT OF MODERN PIT - CUTS [0062]	-
0059	FILL	FILL OF MODERN PIT [0060]	-
0060	CUT	CUT OF MODERN PIT - CUTS [0062]	-
0061	FILL	PRIMARY FILL OF [0062]	70
0062	CUT	CUT OF DITCH NE/SW RECUT	70
0063	FILL	SECONDARY FILL OF [0065]	20
0064	FILL	PRIMARY FILL OF [0065]	20
0065	CUT	CUT OF DITCH NE/SW	20
0066	FILL	PRIMARY FILL OF [0054]	20
0067	FILL	PRIMARY FILL OF [0035]	20
0068	FILL	PRIMARY FILL OF [0041]	20
0069	FILL	PRIMARY FILL OF [0050]	20
0070	GROUP	DITCH NE/SW RECUT	-
0071	FILL	FILL OF MODERN PIT [0072]	-
0072	CUT	CUT OF MODERN PIT	-
0073	FILL	FILL OF DRAIN	-
0074	CUT	CUT OF DRAIN	-
0075	FILL	PRIMARY FILL OF DITCH [0076]	22
0076	CUT	CUT OF DITCH NE/SW	22

0077	FILL	PRIMARY FILL OF DITCH [0078]	70
0078	CUT	CUT OF DITCH NE/SW RECUT	70
0079	FILL	PRIMARY FILL OF DITCH [0081]	20
0080	FILL	SECONDARY FILL OF DITCH [0081]	20
0081	CUT	CUT OF DITCH NE/SW	20
0082	FILL	FILL OF DITCH [0083]	21
0083	CUT	CUT OF DITCH NE/SW	21
0084	FILL	FILL OF DITCH [0085]	21
0085	CUT	CUT OF DITCH NE/SW	21
0086	FILL	FILL OF DITCH [0087]	21
0087	CUT	CUT OF DITCH NE/SW	21
0088	FILL	FILL OF DITCH [0089]	21
0089	CUT	CUT OF DITCH NE/SW	21
0090	FILL	FILL OF DITCH [0091]	21
0091	CUT	CUT OF DITCH NE/SW	21
0092	FILL	FILL OF DITCH [0093]	21
0093	CUT	CUT OF DITCH NE/SW	21
0094	FILL	FILL OF DRAIN [0095]	assoc. 21
0095	CUT	CUT OF MODERN DRAIN	assoc. 21
0096	STRUCTURE	MODERN BRICK SURFACE	assoc. 21
0097	FILL	FILL OF [0098]	20
0098	CUT	CUT OF DITCH NE/SW	20
0099	FILL	PRIMARY FILL OF [0100]	70
0100	CUT	CUT OF DITCH NE/SW RECUT	70
0101	FILL	PRIMARY FILL OF [0103]	20
0102	FILL	SECONDARY FILL OF [0103]	20

0103	CUT	CUT OF DITCH NE/SW	20
0104	LAYER	STONE MAKE-UP FOR ROAD	-
0105	CUT	CUT OF MODERN PIT	-
0106	FILL	FILL OF [0105]	-
0107	CUT	CUT OF MODERN FENCE	-
0108	FILL	FILL OF [0107]	-
0109	CUT	CUT OF GAS MAIN	-
0110	FILL	FILL OF [0109]	-

Appendix 2: Plates



Plate 4: Lower ditch group 0021; looking east



Plate 5: North-west facing section of [0093]; looking south-east



Plate 6: North-west facing section of [0098], [0100] & [0103]; looking south-west



Plate 7: South-east facing section of [0035], [0037] & [0042]; oblique view



Plate 8: East facing section of [0039], [0041] & [0044]; oblique view



Plate 9: Plan view of [0017] truncated by cellars [0011] & [00113]; looking north-west



Plate 10: South-east facing section of [0025]; looking north-west



Plate 11: North-west facing section of [0028] truncated by later pit [0030]; looking south-east



Plate 12: South-east facing section of [0046], [0048] & [0050]; looking north-west

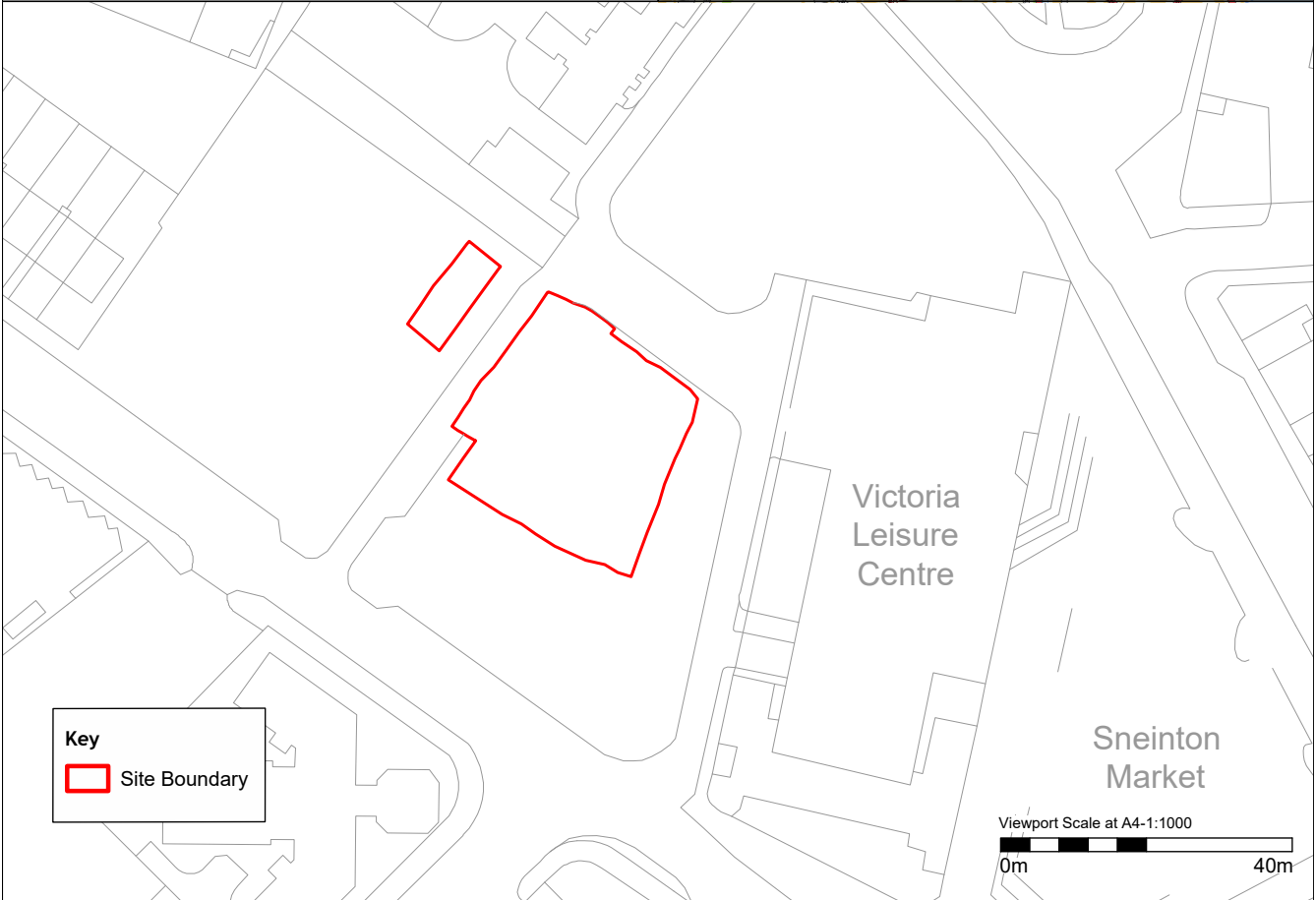


Plate 3: East facing section of [0052], [0054] & [0056]; looking west



Plate 14: West facing section of [0060] & [0065] truncated by later [0058] & [0060]; looking east

Appendix 3 Figures





Key:

- Site Boundary
- Phase 1 Ditch
- Phase 2 Ditch
- Phase 3 Ditch
- Modern Feature



Scale at A4 - 1:1000

Key:

— Site Boundary

■ Archaeological Feature

■ Modern Service Pipe

0 5m

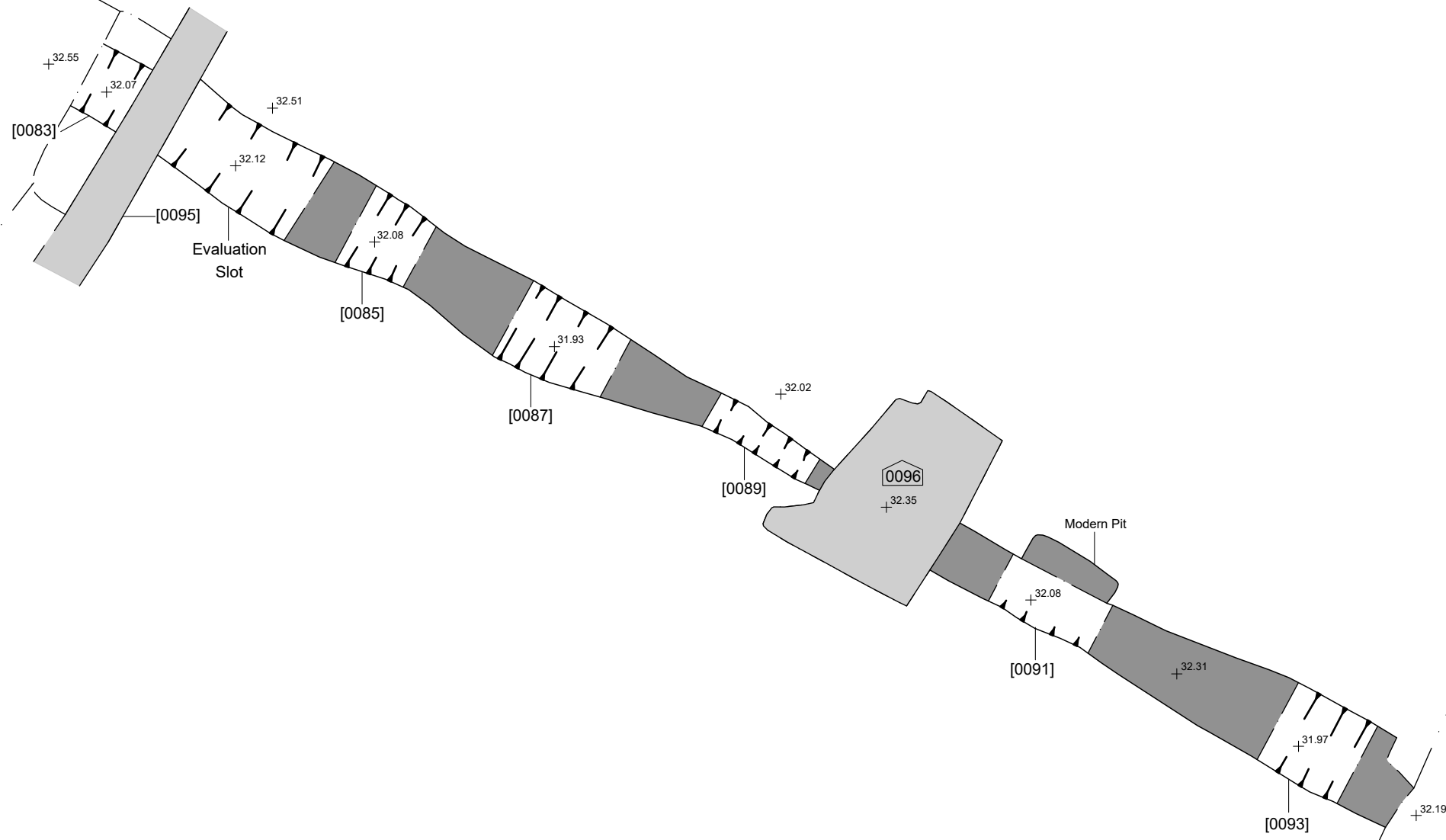
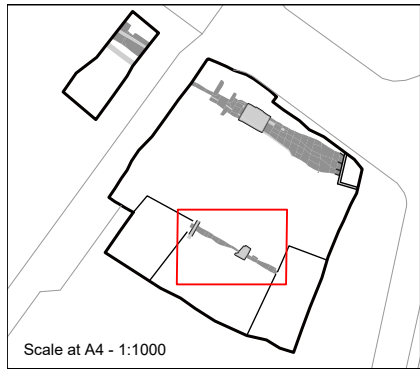


Key:

- Site Boundary
- Earliest Archaeological Feature
- Archaeological Feature
- Modern Feature

Figure 04 - Plan of Northern Area of Site
FSP - Fruitmarket Site, Nottingham

Scale at A3 - 1:60
Drawn by MI

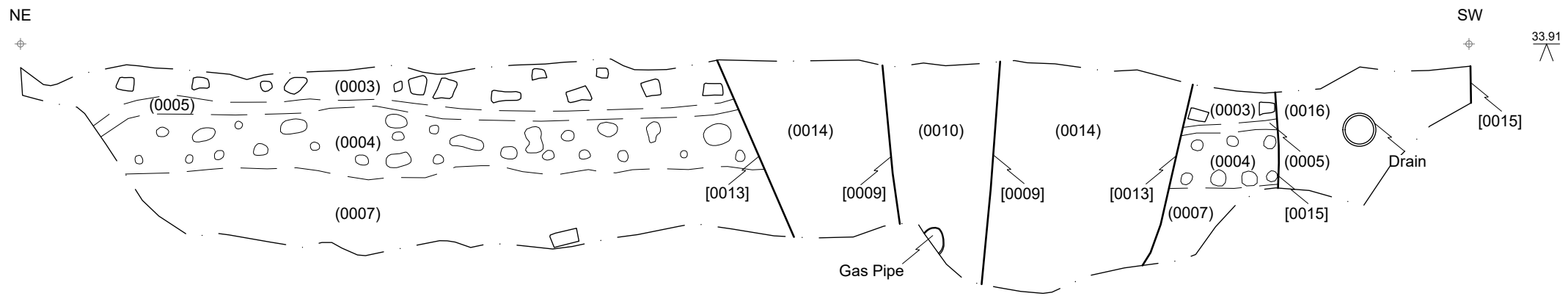


Key:

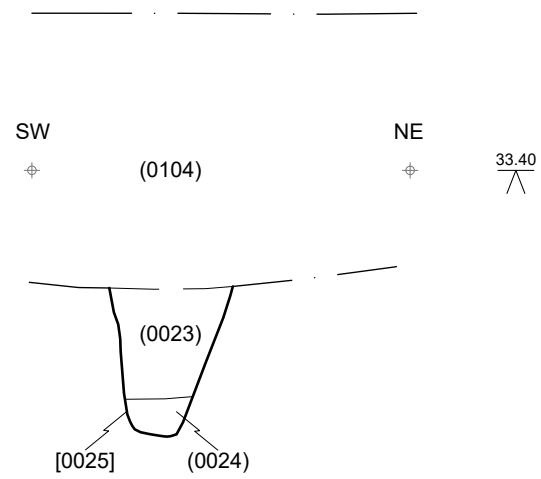
- - - Modern Truncation
- █ Archaeological Feature
- █ Modern Feature



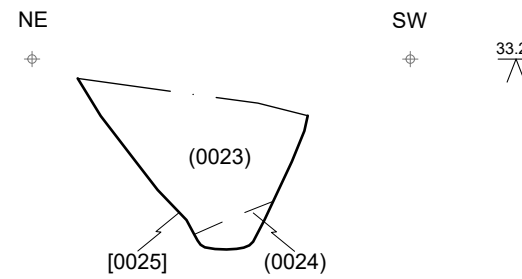
DR#01
North West Facing Section Of [0009], [0013] and [0015]



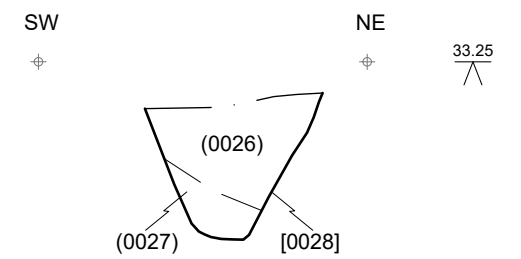
DR#02
South East Facing Section Of [0025]



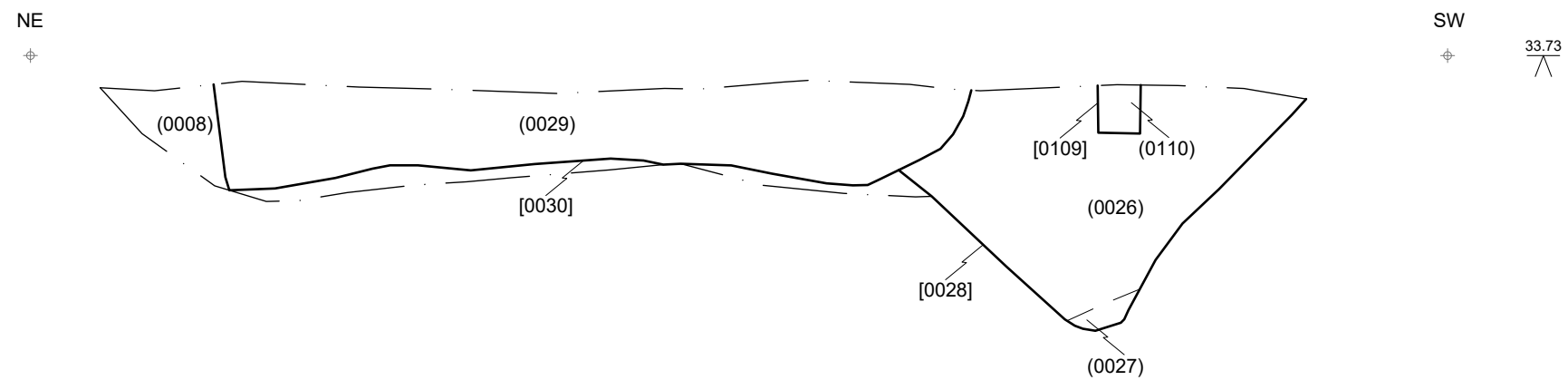
DR#03
North West Facing Section Of [0025]



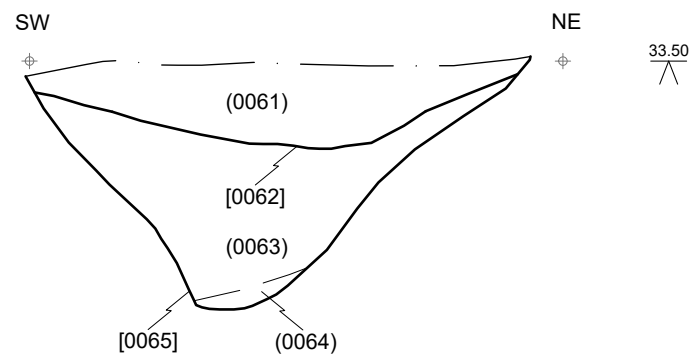
DR#04
South East Facing Section Of [0028]



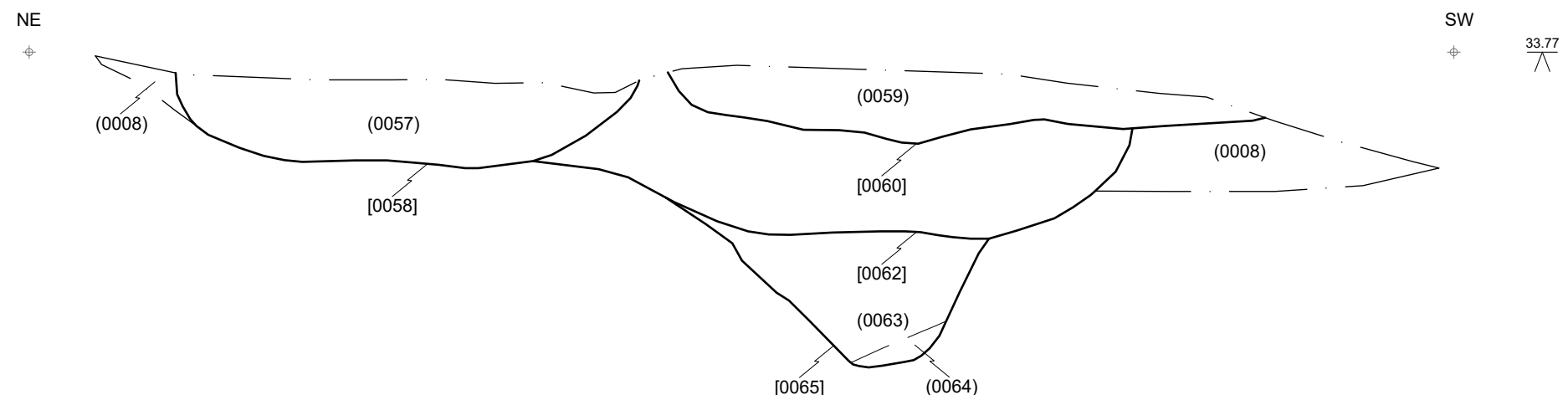
DR#05
North West Facing Section Of [0028], [0030] and [0109]



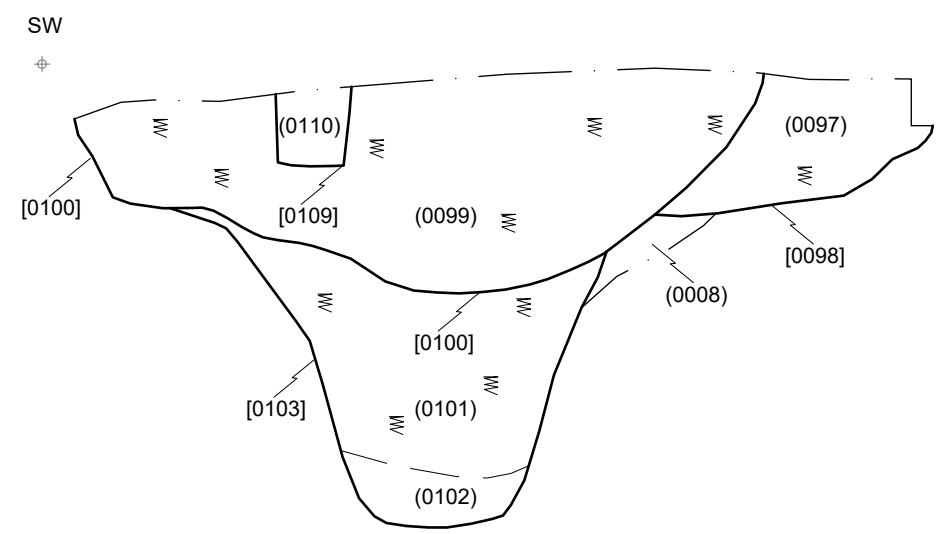
DR#06
South East Facing Section Of [0065]



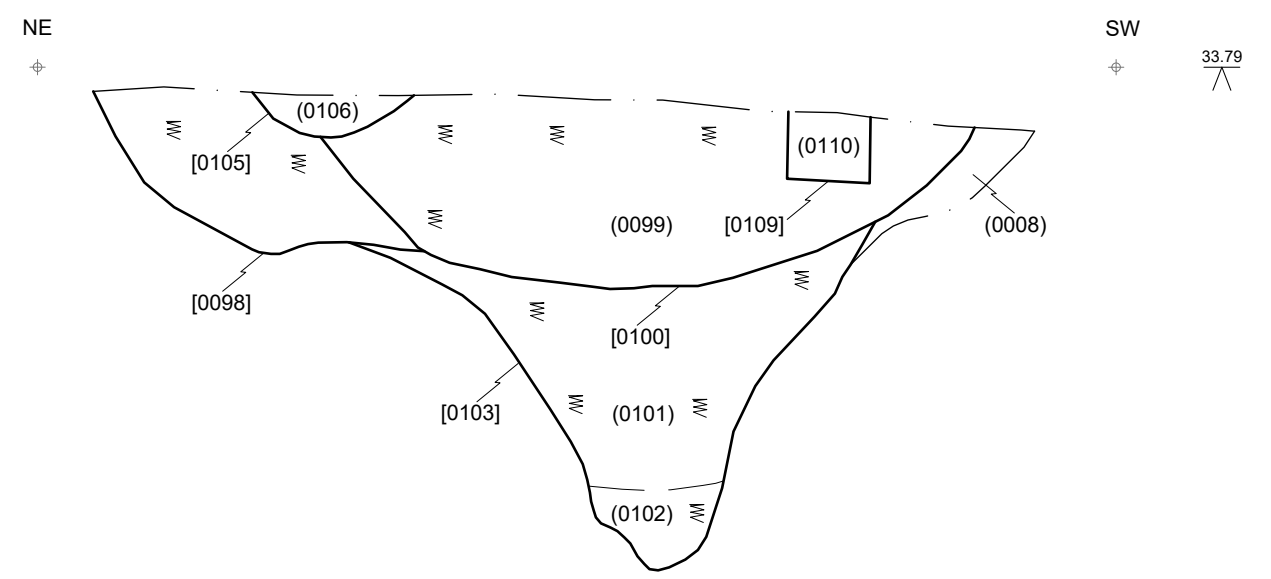
DR#07
North West Facing Section Of [0058], [0060] and [0065]



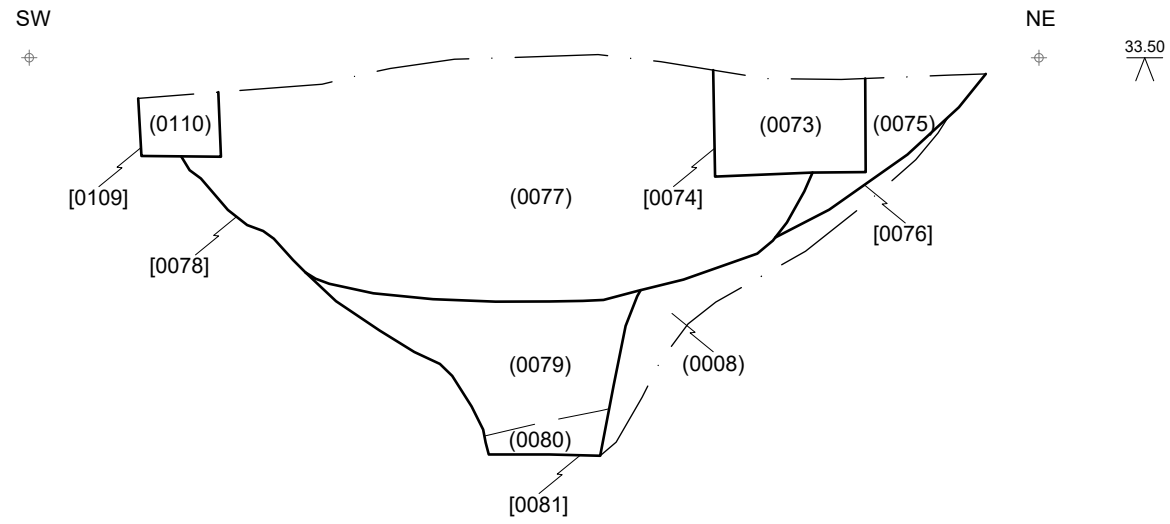
DR#08
South East Facing Section Of [0098], [0100], [0103] and [0109]



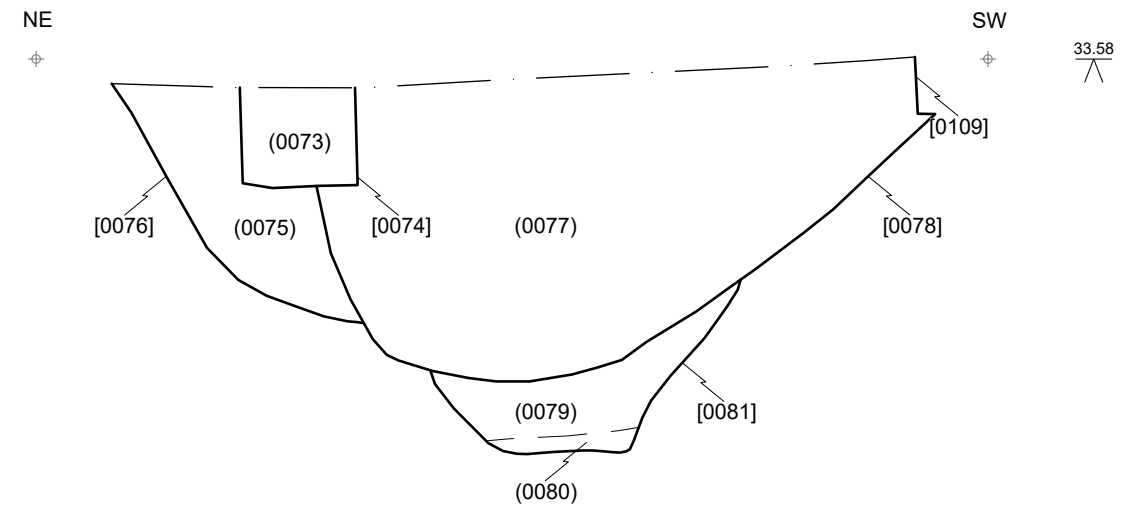
DR#09
North West Facing Section Of [0098], [0100], [0103], [0105] and [0109]



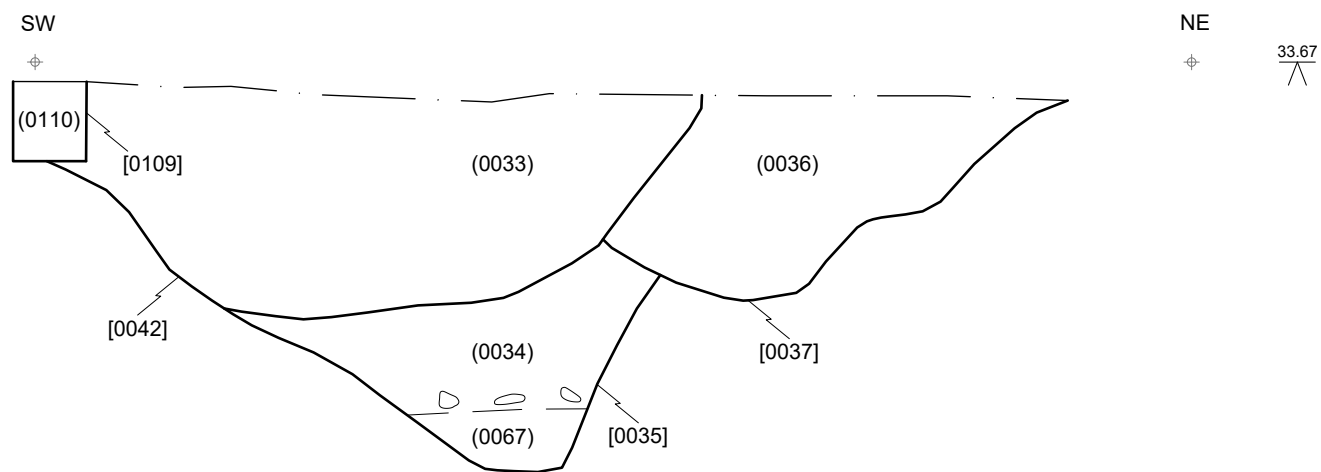
DR#10
South East Facing Section Of [0074], [0076], [0078], [0081] and [0109]



DR#11
North West Facing Section Of [0074], [0076], [0078], [0081] and [0109]



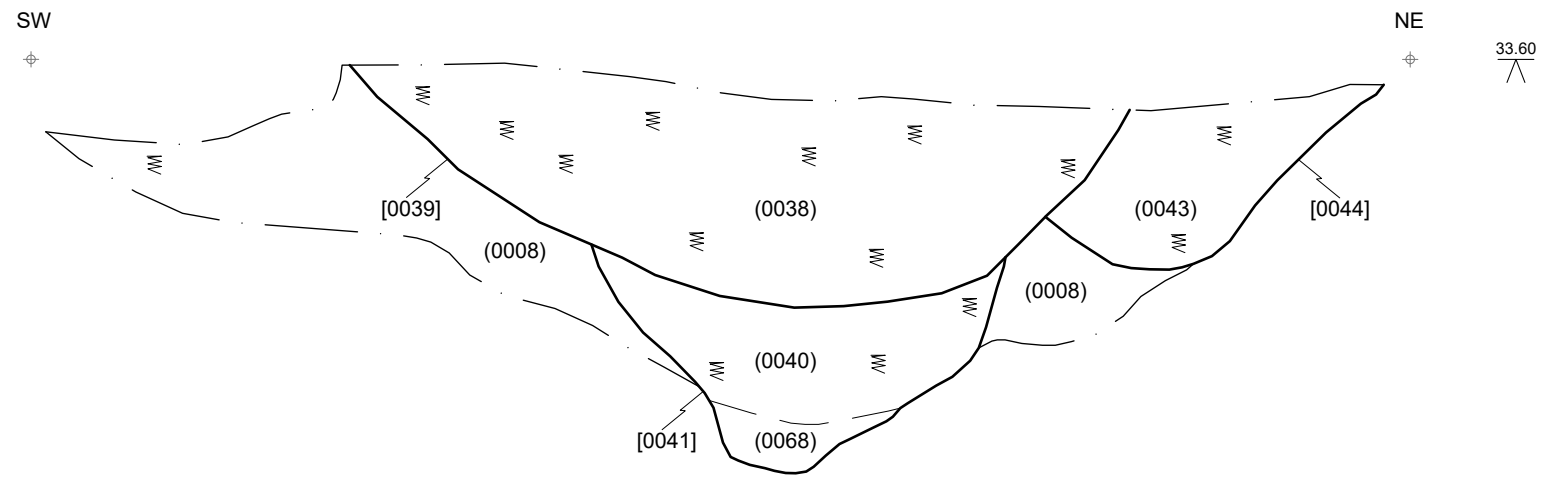
DR#12
South East Facing Section Of [0035], [0037], [0042] and [0109]



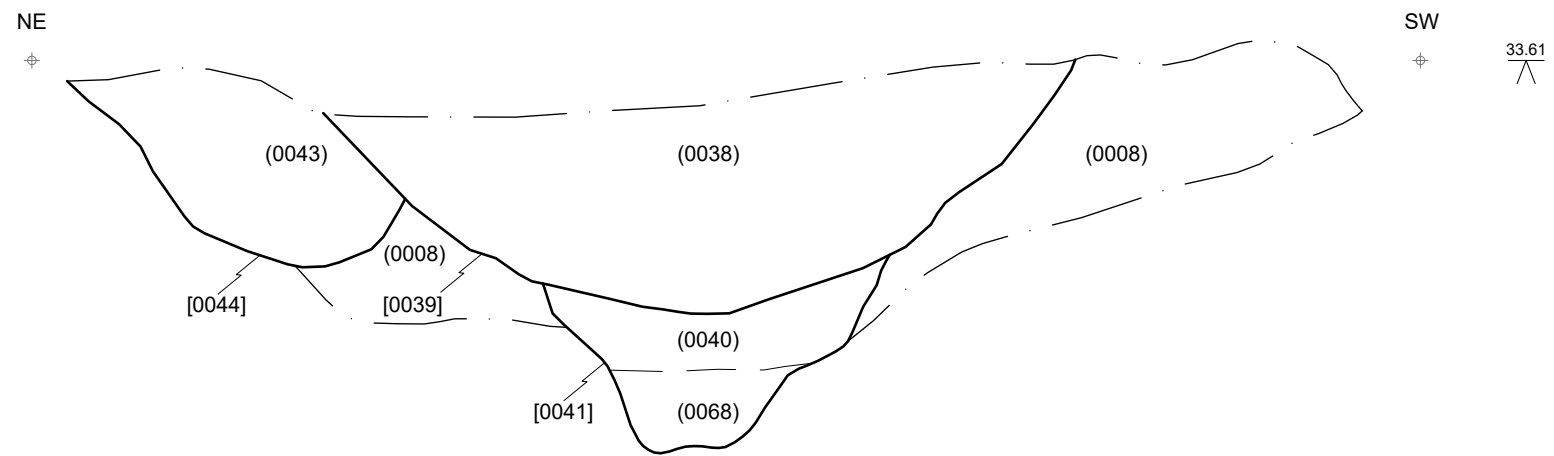
DR#13
North West Facing Section Of [0032], [0035], [0042] and [0109]



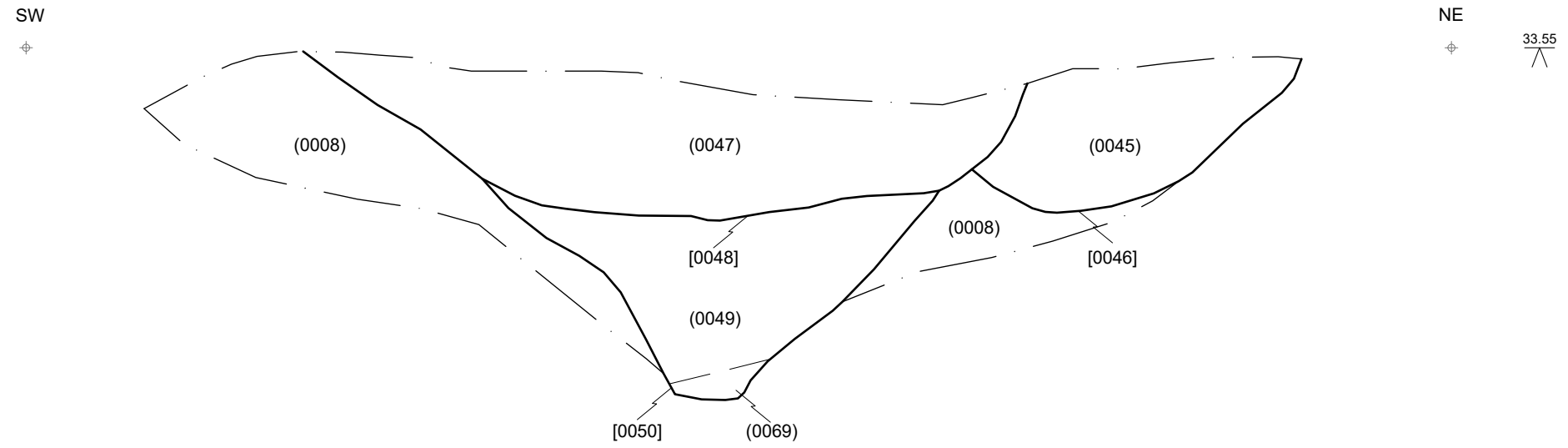
DR#14
South East Facing Section Of [0039], [0041], [0044] and [0109]



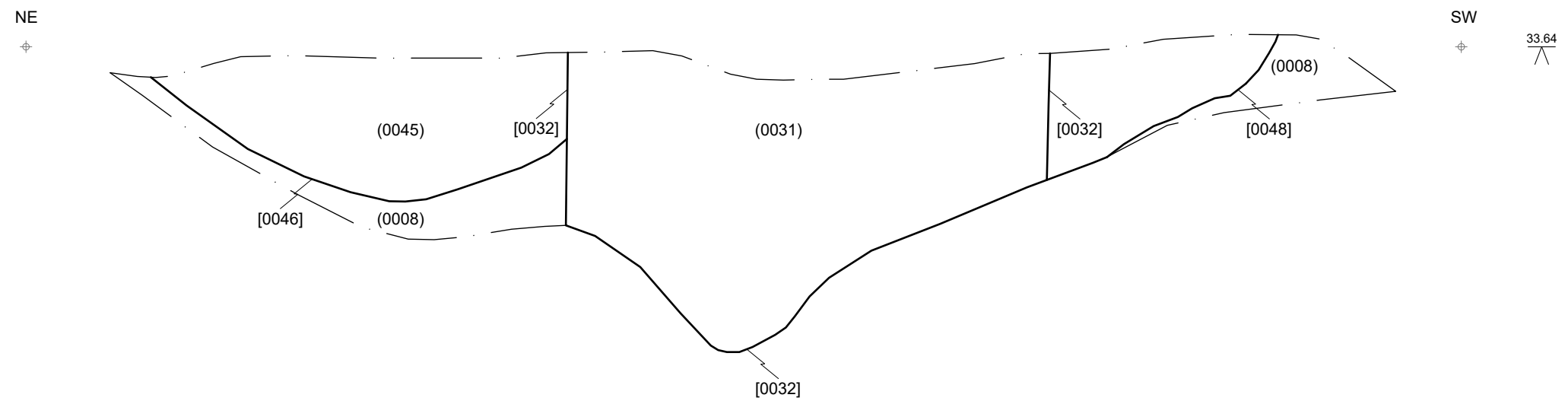
DR#15
North West Facing Section Of [0039], [0041] and [0044]



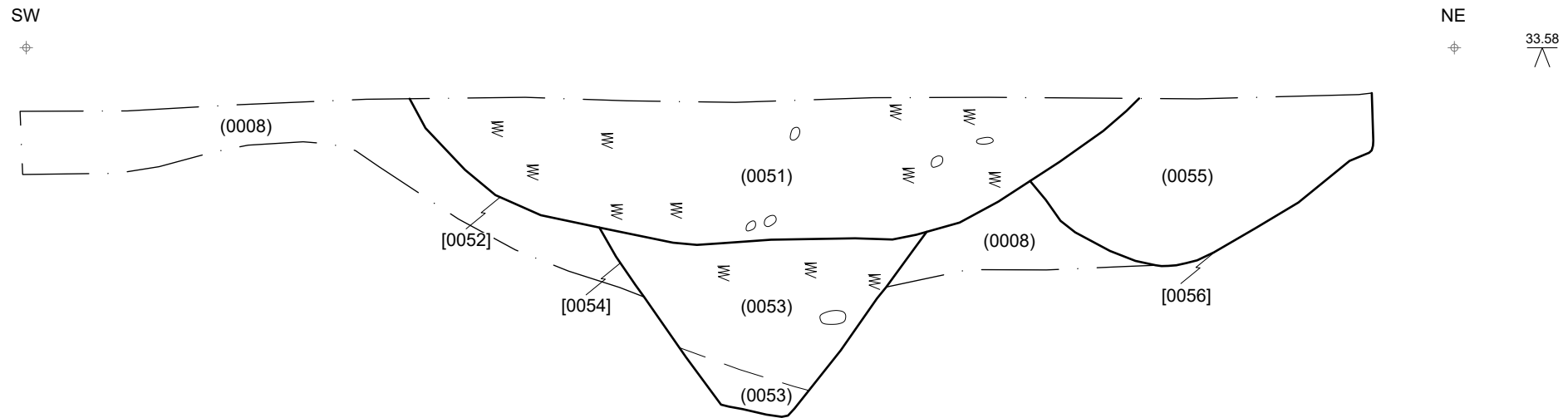
DR#16
South East Facing Section Of [0046], [0048] and [0050]



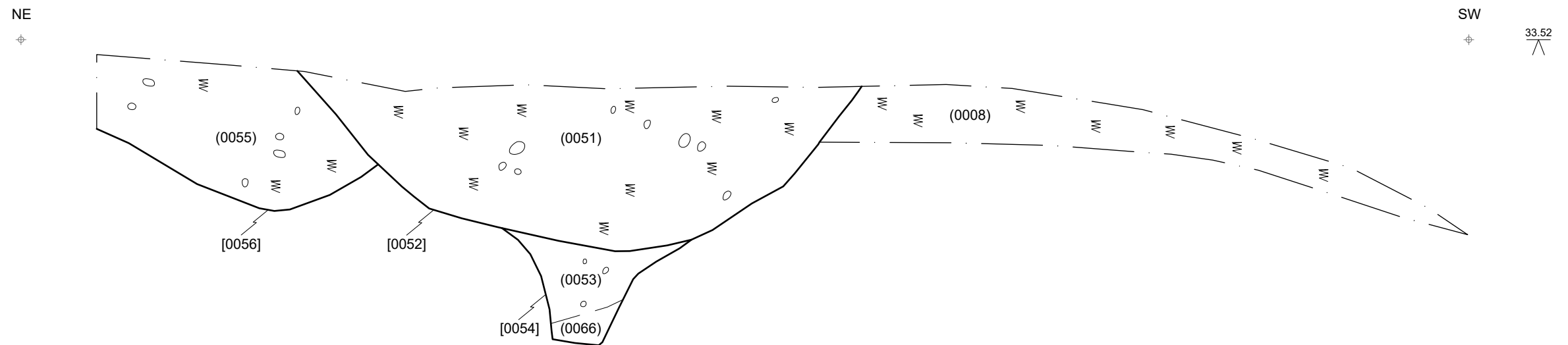
DR#17
North West Facing Section Of [0032], [0046] and [0110]



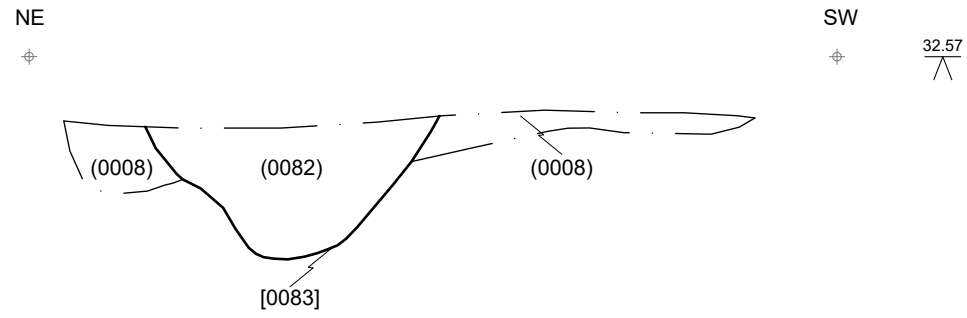
DR#18
South East Facing Section Of [0052], [0054] and [0056]



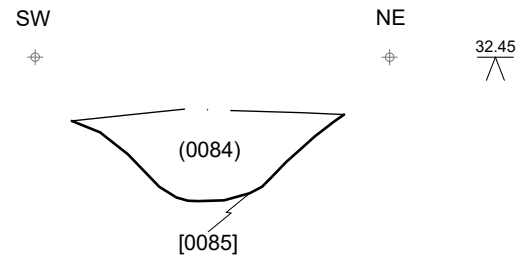
DR#19
North West Facing Section Of [0052], [0054] and [0056]



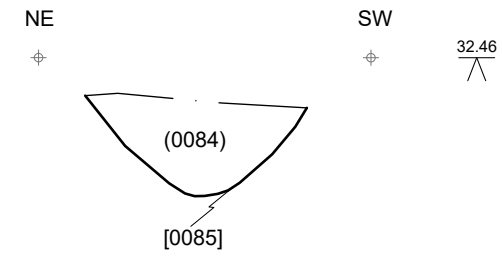
DR#20
North West Facing Section Of [0083]



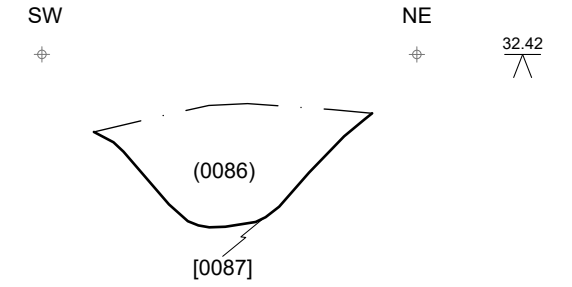
DR#21
South East Facing Section Of [0093]



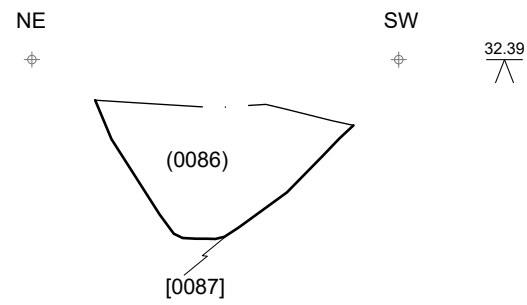
DR#22
North West Facing Section Of [0085]



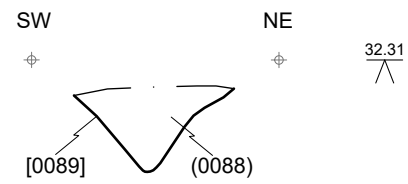
DR#23
South East Facing Section Of [0087]



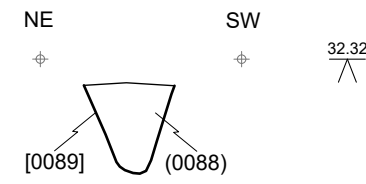
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North West Facing Section Of [0087]



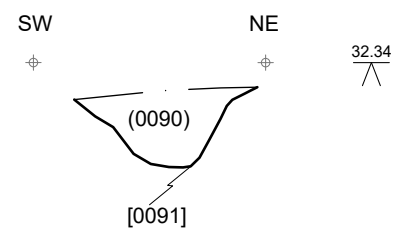
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South East Facing Section Of [0089]



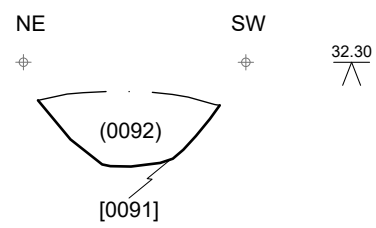
DR#26
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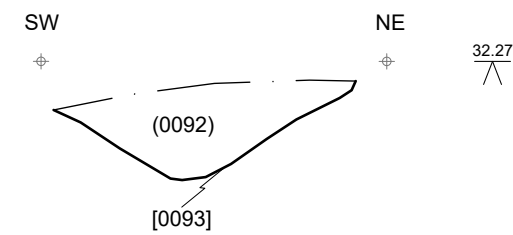
DR#27
South East Facing Section Of [0091]



DR#28
North West Facing Section Of [0091]



DR#29
South East Facing Section Of [0093]



DR#30
North West Facing Section Of [0093]

