

An Archaeological Evaluation On land at Cliff Road (Narrow Marsh) Nottingham.

NGR: SK 5649 4149 By Tim Higgins



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# An Archaeological Evaluation

# on land at Cliff Road/Canal Street (Narrow Marsh), Nottingham,

NGR: SK 5649 4149

**Tim Higgins** 

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# CONTENTS

# Contents

Summary	2
1. Introduction	2
2. Site Description, Topography and Geology	3
3. Historical and Archaeological Background	4
4. Aims and Objectives	6
4.1 Research Aims	7
5. Methodology	7
6. Results	10
7. The Finds	20
8. The plant and wood remains	21
9. Animal Bone	22
10. Discussion	26
12. Archive	28
13. OASIS	28
14. Publication	29
15. Bibliography	30
16. Acknowledgements	32
Trench Photos	33

# FIGURES

3
4
6
9
4
4
5
3
3
4
4
5
5
6
7
8
8
9

# TABLES

Table 1 Trench Summaries	19
Table 2 The medieval and later pottery and miscellaneous finds by fabric/material,	
number and weight (grams) by context.	20
Table 3 Taxa by element and context number	23

# An Archaeological Evaluation on land at Cliff Road/Canal Street (Narrow Marsh), Nottingham.

# **Tim Higgins**

# Summary

University of Leicester Archaeological Services (ULAS) carried out an archaeological evaluation on land at Cliff Road/Canal Street (Narrow Marsh), Nottingham, (SK 5649 4149) from the 20th February to 9th March 2017. Trenches were excavated to evaluate an area for a proposed construction of College Hub on derelict land.

The evaluation established the presence of possible buried medieval and post-medieval deposits close to the water table in most of the trenches. The deposits consisted of clay lined pits and layers that contained cattle horn cores, which were thought to be associated with tanneries. Other trenches revealed early post medieval deposits that may have been related to backyard activities associated with properties that once fronted on to Cliff Road. All these horizons were sealed under what were very deep post-medieval garden soils. Overlying the garden soils was a substantial modern overburden which included 19th-century cellars, wells and culverts.

The site archive will be held by Nottingham City Museums and Galleries under accession number NCMG 2017-28.

# 1. Introduction

An archaeological field evaluation was carried out on land at Cliff Road (Narrow Marsh) Nottingham (SK 5649 4149) by University of Leicester Archaeological Services (ULAS). This was undertaken in accordance with National Planning Policy Framework (NPPF) Section 12 *Conserving and Enhancing the Historic Environment* to establish the nature, extent, date, depth and significance of any archaeological deposits which might be present in order to assist the planning authority in assessing the impact upon them from the development proposals.

The report presents the results of the programme of trial trenching, which took place between the 20th February and 9th March 2017. It follows a strategy for the work devised by ULAS, which was set out in the *Design Specification for archaeological evaluation on Land at Cliff Road, Nottingham (SK 5649 4149)* (Richard Buckley 2016, hereinafter 'Specification'. The trial trenching was undertaken to provide a *c*. 3% sample of the 2.5ha area.



Figure 1: Site location plan

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# 2. Site Description, Topography and Geology

The site consists of a broadly rectangular area, oriented north to south of around 0.87ha at the southern edge of the city centre of Nottingham (Figure 1). The site is bordered by Cliff Road (formerly Narrow Marsh) to the north, Canal Street to the south and by the Nottingham NEC tram bridge to the west.

Popham Street runs through the site from north to south, bisecting the site into two areas, and Malt Mill Street runs part way into the western part of the site from the north (Figure 2).

The western part of the site is presently covered in demolition rubble and areas of hard standing. The eastern part of the site consists of three asphalted areas and an area of grass.

To the north of the site is an outcrop of Castle Sandstone and so the land lies within the flood plain of the River Leen. Therefore the underlying geology is likely to be alluvium overlying Castle Sandstone.

The land lies on broadly flat land at a height of around 25m aOD



Figure 2 Location of development area (Plan provided by developer). Scale Approx. 1:1250

# 3. Historical and Archaeological Background

The site lies immediately south of the cliff edge that once defined the southern defence of the pre-Conquest Borough (Saxon Borough; Young 1986; Figure 3). The early name of Cliff Road was Narrow Marsh and this ran along the bottom of the southern edge of the cliff, with access from the area to High Pavement via rock cut steps leading up into the town.

The site lies outside the pre-Conquest town boundaries on the area occupied by the Broad Marsh, part of the floodplain of the River Leen, which lay directly to the south of the present site and was culverted to run under Canal Street in 1863. Despite the name 'Broad Marsh', there is no evidence to suggest that the area itself was a marsh and it certainly seems to have been solid enough to support buildings. In addition, early maps show agriculture was practised here and there are references to a farmhouse in the area in the 15th century (Hunt 2014).

It is unclear at what stage the area around Narrow Marsh became settled, but by the 13th century an extensive tanning industry had developed in the Broadmarsh area between the sandstone cliffs and the River Leen. In 1385 tanners from Littlemarsh (Narrow Marsh) area were presented before the Micklethorn jury for blocking the Leen with the waste products from their industry (RBN I). There are records of men such as Watkyn Smyht owning pig folds cut into the rock in 1435 (RBN II). Tenements, pinfolds and stairs leading down from High Pavement are recorded in the Borough Records at Narrow Marsh from the 16th century (RBN III & IV). There were problems with latrines emptying into the Leen from the Narrow Marsh area throughout the 17th century onwards (RBN V) and by the mid-19th century, steps were taken to remove some of the buildings here, including those at 'Tanner's Hall' in 1838 (RBN IX). From here on an attempt was made to clean up the area, which was recorded in September 1875 as having some of the filthiest courts and yards in the whole town (RBN IX). Some of the tanning pits in the Broad Marsh area to the west were preserved and are on display as part of the Caves of Nottingham visitor attraction within the Broadmarsh Centre (Scheduled Monument 157) (Hunt 2014).

By 1820 the area was covered in small streets and yards with the still extant Malt Mill Lane first appearing on the 1820 map and Popham Street on the first edition OS map of 1881 (Figure 10). The Great Central and the Great Northern Railway later passed through the site with both lines elevated onto viaducts. The present NEC tram system currently uses the line of the former north-south oriented Great Central Railway. The north-west to south-east oriented Great Northern Railway viaduct was recently demolished. A field evaluation was carried out by Northamptonshire Archaeology in 2006 as part of a proposed extension to the Broadmarsh shopping centre. The evaluation included the present assessment area, where two trenches (1 and 4) and half of another (3) were excavated, whilst a fourth (2) was located just outside the boundary to the south (Figure 3). Those within the present assessment area measure about 87 sq m and therefore provide just under a 1% sample (Brown 2006).

Modern garden soils and demolition layers overlay earlier soils, some cut by red-brick cellars and latrines (Trenches 1 and 3), which overlay post-medieval soils and then medieval layers at between 2m depth or less. Trench 4 mainly revealed disturbance from the aforementioned viaduct. A large amount of animal bone, possibly tanning waste, was discovered along with 13th- to 14th-century pottery in Trench 2. Water ingress was a problem during the evaluation and it was not possibly to enter the trenches or excavate features due to the trench depth. A probable circular tanning pit was identified in Trench 3 before the trench become flooded (Brown 2006).



Figure 3 Plan of the Northamptonshire Archaeology evaluation trenches 2006 Original scale 1:1500

# 4. Aims and Objectives

The broad aims of the archaeological evaluation were:

- To determine, as far as is reasonably possible, the location, extent, date, character, condition, significance and quality of any surviving archaeological remains on the site as indicated by the geophysical survey
- To establish the nature and extent of any existing disturbance and intrusion to subsurface deposits and, where the data allows, assess the degree of archaeological survival of buried deposits of archaeological significance
- To enable the clients to establish a schedule for archaeological risks

The detailed objectives of the archaeological evaluation trenches were:

- Insofar as possible within methodological constraints, to explain any temporal, spatial or functional relationships between the structures/remains identified, and any relationships between these and the archaeological and historic elements of the wider landscape.
- Where the data allows, identify the research implications of the site with reference to the regional research agenda and recent work in Nottinghamshire.

# 4.1 Research Aims

While the nature, extent and quality of archaeological remains within the areas of investigation for the project remain unknown until archaeological work is undertaken, it is possible to determine some initial objectives derived from *East Midlands Heritage: An Updated Research Agenda and Strategy for the Historic Environment of the East Midlands (Knight et al. 2012) and The Archaeology of the East Midlands: An Archaeological Resource Assessment and Research Agenda (Cooper 2006).* 

The archaeological evaluation has the potential to contribute to the following research aims.

The Medieval period (Lewis 2006, Knight et al 2012; English Heritage 2012

The evaluation may contribute towards research into the origins and development of medieval settlement, landscape and society. Environmental evidence could provide information on local environmental conditions as well as settlement activity, craft, industry and land use. Artefacts can assist in the development of a type series within the region and provide evidence for evidence for craft, industry and exchange across broad landscape areas. The evaluation has the potential to contribute to Research Agenda topics 7.1.2, 7.1.4, 7.2.1-7.2.4, 7.3.1-7.3.5, 7.5.4, 7.6.1-2, 7.7.1-7.7.

#### 5. Methodology

Prior to any machining of trial trenches, general photographs of the site areas were taken.

Nine trenches were planned but a tenth trench was add as Trench 6 had to be subdivided into two which created Trench 10. This was due to constraints of live buried services. The eight remaining trenches were located throughout the site where it was possible to do so within the constraints provided by live buried services and geo-technical survey boreholes and test pits. (Fig 4).

The excavation of the trenches was conducted using 360° excavators, suitably sized for the working areas and were excavated with a 2m wide toothless ditching bucket.

Trenches were set out to their full extent, but were shortened where obstructions were encountered that could not be dug out such as service lines, storm drains and reinforced concrete footings. All machine operation was carried out under continuous archaeological supervision. The trenches were excavated until the medieval archaeological horizon or the natural substrate was encountered, or to the maximum reach of the excavator where neither was encountered. Whilst on site, it became apparent that many of the trenches would be of significant depth and it would not, therefore, be safe to enter them to undertake detailed investigation and recording. In view of this, it was agreed with the Acting Nottingham City Archaeologist that in such instances, potential archaeological features would be photographed, drawn to scale and recorded from the side of the excavations without risk to personnel. Although finds were recorded by observation and some were retained, they could only be attributed to an approximate level having been retrieved from the machine bucket, rather than from hand-excavated features. A site record was maintained using pro-forma ULAS trench record sheets supplemented by plans, sections and photographs on digital colour as appropriate. A single continuous context numbering sequence was employed with a unique number assigned to each event that is recorded in the paper archive. Levels were established in relation to above Ordnance Datum (aOD) and the trench positions were recorded in relation to the national Ordnance Survey grid.

The work followed the approved design specification (Clay 2016) and adhered to the Institute for Archaeologists (CIfA) *Code of Conduct* and adhered to their *Standard and Guidance for Archaeological Field Evaluations* (2013).



Figure 4 Trench plan of ULAS archaeological evaluation 2017, with location of proposed building and roadway

## 6. Results

The summary results of all excavated trenches are presented below in Table 1. The following presents a detailed description of the findings in each trench.

# Trench 1

A sondage was excavated at the southern end of the trench to a maximum depth of 22.40m aOD (2.40m below the current ground surface), where an alluvial deposit or natural substrata was evident.

A layer (109) of silty brown clay mixed with charcoal flecks was encountered as an uneven deposit at 22.34m aOD (1.90m below the current ground surface) in the northern end of the trench. Two sherds of green glaze pottery dated to the 13th - 14th centuries were retrieved from this deposit. This would perhaps suggest a potential medieval surface. Occasional cattle horn cores were also observed within this layer. Cut into the surface of layer (109) was a possible wall footing [114]. The wall footing was only partly exposed in the north east corner of the trench so the full extent of the feature could not be determined as it appeared to be running north east ward into the baulk. What was exposed was rectangular in shape and was running north to south and measured 3.00m long, 0.70m wide and minimum 0.25m depth. The wall foundation appeared to have a lower deposit (115) of pink reddish grey clay mixed charcoal flecks. Inserted into the clay were two courses of sandstone blocks constructed as uneven courses (116). The decaying sandstone blocks measured 0.30m long and 0.30m deep. The wall footings were possibly associated with a structure or possibly or stone lined pits.

The features were overlain by a homogenous garden soil that contained frequent charcoal and burning, distributed unevenly across the entire trench between 0.50m and 1.00m deep. No division into layers was visible from the side of the trench but finds found in similar deposits located within the other trenches dated from the early post medieval period onwards. The surface of the post medieval garden soil horizon was unevenly distributed at 23.88-23.18m aOD (between 1.10m and 1.40m below current ground level) across the trench.

The post medieval soil horizon was sealed by a late 19th to early 20th century formation layer and largely comprised fragmented brick, mixed aggregates and demolition material. Cut into this deposit were four features of red brick construction, three of which were disused wells and one that was a cellar. The fills of these features were comparable, comprising dark bluish-black silty loam with frequent chunks of fragmented brick, tile and builders rubble.

At the northern end of the trench overlying the top of the 19th-20th century brick wells and levelling layer was a cobbled surface which was sealed under modern tarmac surface. The southern end of the trench was capped with topsoil that lay over the levelling layer and the cellar below.

# Trench 2

A sondage was excavated at the northern end of the trench to a maximum depth of 22.80m aOD (2.30m below the current ground surface), where an alluvial deposit or natural substrata was evident. The basal deposit of the sondage comprised waterlogged grey sandy-silt. Above

this was a similar deposit (105) of pale yellowish silty clay, measuring c.0.80m thick, which contained a single pottery sherd dated to the 16th – 18th centuries and roof slate. The surface of this horizon was at 23.60 aOD 1.50m below the current ground surface.

At the southern end of the trench another sondage was excavated to a depth at 22.00m aOD (3.10m below the current ground surface). A natural alluvial deposit of waterlogged grey sandy-silt was reached at depth 23.10m aOD 2.00m below the surface. Overlying this was a homogenous garden soil (104) that contained frequent charcoal flecks, distributed unevenly across the entire trench between 0.80m and 1.00m deep. Pottery sherds towards the base of this deposit were dated to the 17th century. Observations from the side of the trench could not discern divisions in layers within the garden soil. It was thought that this layer was similar to other garden soils located in the other trenches and probably dates from the early post medieval period onwards. The surface of the post-medieval garden soil horizon was unevenly distributed at 24.00m aOD (between 0.80m and 1.10m below current ground level) across the trench. This post-medieval garden soil horizon was sealed by a late 19th to early 20th century formation layer that largely comprised fragmented brick, mixed aggregates and demolition material that measured between 0.60m and 1.10m deep.

Towards the centre of the trench both the garden soil and overlying formation layer had been truncated by two very large foundation trenches for railway viaduct stanchions. These trenches were located at 12.50m and 24.50m from the southern end of the trench and measured between 5.00m and 8.00m wide with a minimum depth of 2.00m. Both trenches contained concrete plinths at the base on to which a 1.70m wide blue brick stanchion base had been constructed. The trenches were back filled with deposits yellowish brown sand and redeposited garden soil. These stanchions supported the arches on the former 19th century railway viaduct that crossed the site from Drury Lane towards the industrial areas of Nottingham to the south-east of the site.

# Trench 3

Excavation of the trench was inhibited by the presence of large reinforced concrete slabs so a small sondage was excavated at the eastern end of the trench to the maximum at 23.10m aOD (2.70m below the current ground surface), and comprised waterlogged grey sandy-silt.

Another sondage was excavated at the western end of the trench to a depth of 2.50m below the ground surface (at 23.30m aOD) and reached a sublayer that comprised of crushed yellowish brown sand stone deposits thought to be a natural eroded deposit sourced from the cliff face located 40m directly to north of this trench. Both the natural alluvial clay silts and crushed sandstone layer were sealed by a second sub layer of yellowish-brown sandy silt sand that measured 0.70m deep. The surface of this sublayer horizon was reached at a depth of 23.00m aOD.

Overlying this was a sub layer that consisted of mixed red clay and yellowish brown sand mixed with occasional oyster shell and charcoal flecks and was 1.60m thick. These are thought to be post medieval horizon and the variety of colours and shades suggests that these were not formed from a homogenous garden soil. Due to the depth of the excavation these could not be investigated to assess their contextual integrity. The surface of this horizon was reached at a depth of 24.60m aOD 1.20m below the ground surface.

A 19th-century demolition layer overlay the whole trench and was heavily truncated in places by two 19th-century brick cellars and the deepest of these interventions extended 1.20m below the surface. The cellars had back fill that comprised brick and roof tile rubble mixed with crushed mortar. These cellars and the underlying demolition layer were in turn further truncated by four concrete slabs 0.90m deep, which were foundations for mid-20th century houses. A layer of top soil running the entire length of the trench had sealed the modern concrete foundations, back filled cellars and demolition rubble below.

# Trench 4

Excavation of this trench was limited by the constraints of buried services aligned east to west located to the north of the trench. The trench size was reduced to 15m in length. Excavation of the trench was further compromised by a small cellar back filled with scrap metal, car parts and refuse that was found at the centre of the trench. The cellar was retained and not fully excavated to reduce potential contamination of the site. This in turn had inhibited the full excavation of this trench.

On the west side of the trench a variety of medieval or early post medieval deposits were visible from the side of the trench appearing as different colours and shades, showing that these were not formed from a homogenous garden soil.

At the western end of the trench a potential surface (108) comprised a layer of pale greyish brown silty sand mixed with frequent charcoal and mortar flecks. Large sandstone fragments were also found embedded within this surface. A single pottery sherd retrieved from the layer was dated to 17th - 18th century, along with fragments of post-medieval roof tile and a single animal bone from a sheep. At the west end of the trench overlying surface (108) was a spread of red clay (121) mixed with fragments of crushed sandstone mortar. Two potential wall footings [115] and [117] were found cutting this surface. Both footings were orientated north to south and spaced 1.00m apart. They measured 0.20m wide and were constructed using rectangular sandstone blocks that measured between 0.30m to 0.40m long and 0.20m wide (116) and (118). Fragments of tile had been inserted between the blocks as part of its construction. This potential medieval to post medieval surface (121) was evenly distributed at 23.20m aOD (1.90m below current ground level) across the trench.

Overlying was another homogeneous garden soil that contained frequent charcoal and burning, distributed unevenly across the entire trench measuring 1.10m deep. It was thought that this layer was similar to other garden soils located in the other trenches and probably dates from the early post medieval period onwards. The surface of the post-medieval garden soil horizon was unevenly distributed at 24.00m-24.30m aOD (between 0.80m and 1.10m below current ground level) across the trench.

At the east end of the trench, and towards its centre, the garden soil was heavily cut in places by two 19th brick cellars, the deepest of these interventions extending 1.90m below the surface. The cellar located at east end of the trench had a fill that comprised brick and roof tile rubble mixed with crushed mortar. The second cellar in the centre of the trench is same one referred to above, which inhibited the excavations. The post-medieval soil horizon and cellars were sealed by a late 19th- to early 20th-century formation layer that largely comprised fragmented brick, mixed aggregates and demolition material measuring 0.80m deep.

# Trench 5

Trench 5 was limited to a length of 14.00m by the constraints of buried service lines aligned east to west located to the south of the trench. The trench was excavated to a depth 2.60m and encountered greyish brown silty clay at 22.60m aOD. A quantity of well-preserved animal bone consisting almost entirely of cattle horn cores was also present. Such remains were common waste products of the tanning industry and dated to the 13th-14th centuries

The layer was heavily disturbed by the 19th century brickwork. The surface of this deposit was overlain by homogenous garden soils. The top of this post medieval soil horizon was at 23.60m aOD 1.60m below the current ground level. The 19th-20th century overburden was compacted across the trench and packed around the base of a substantial brick and concrete footing found at the northern end of the trench.

The brick footing was another station constructed for one of the arches on the former 19th century railway viaduct that crossed the site and was part of the same line seen in Trench 2. The brick footing was excavated to a depth of 2.60m at which point a concrete plinth was encountered. The foundation cut for this measured at least 4.50m wide and it is likely to have severely damaged any medieval deposits where the foundation bases for the arch supports existed. A layer of mixed hard core and aggregate sealed the top of the trench and this was overlain by a layer of concrete.

#### Trench 6

Excavation of the trench was inhibited by the presence of live low voltage electricity cables located to the north and south of the trench and the presence of an active storm drain located to the east. As consequence the trench was reduced in length to 10.00 orientation was altered to running in a west to east direction. A second trench was excavated in this area to help maintain the area percentage that was archaeologically sampled within the development site (see Trench 10 below).

Within the trench excavation was further inhibited by the presence of large concrete foundation slabs and a storm drain located to the west of the trench. A small sondage was excavated at the eastern end of the trench to the maximum at 22.35m aOD (2.80m below the current ground surface), and the earliest layer consisted of waterlogged pale greyish silty sand.

Overlying was a layer (107) the pale grey silty sand mixed with frequent charcoal flecks and spreads of limestone spreads. The deposit also contained pottery sherd dated to 17 - 18th centuries, roof tile and animal bone, which was identified as sheep and cattle. A soil sample was taken from this deposit but analysis only revealed an abundance of charcoal fragments. This layer was distributed evenly across the entire trench and measured 0.60m deep. The post medieval surface was found at depth of 2.20m below current ground level at 22.95m aOD.

The potential post medieval deposit was sealed by a homogenous garden soil distributed evenly across the entire trench 0.60m. It was clear that this deposit was similar to deposits found within the other trenches that had produced material from the post medieval period onward. The surface of the post-medieval garden soil was evenly distributed at depth of 23.55m aOD (1.60m below current ground level) across the entire trench.

Above the post medieval soil horizon was a sequence of levelling layers, clearly formed from demolished 19th-20th century brick buildings, the top of which was at 24.15m OD. This material was heavily cut in two places by large 19th-20th century concrete foundations the deepest of these interventions extended 1.60m below the surface. A layer of coarse grey hardcore had been laid across the trench above the demolition layers and sealed by tarmac.

# Trench 7

Excavation of Trench 7 was inhibited by the presence of a live sewer located at the north end of the trench running along the same north to south alignment. As a consequence the trench was realigned and shifted to 2.50m to the east, but continued running in a north to south direction.

Potential early post medieval deposits were encountered across the trench at a depth of 2.30m below the surface (22.70m aOD). At the base of the trench a layer of grey sand silt and mixed with frequent charcoal flecks appeared to be disturbed by possible features. A variety of deposits were visible from the side of the trench appearing as different colours and shades, which again would suggest that these were not formed from a homogenous garden soil. Due to the depth of excavation these could not be investigated to assess their contextual data. Two discrete pits were clearly visible within this horizon. The first of these features was located 6.20m from the southern end of the trench and appeared to be part of a circular pit with pale reddish clay lining.

The pit was filled with dirty mixed greyish-brown silty clay and was running under the east baulk and was partly truncated by a wall foundation to the south. The part of the pit that was visible in plan measured approximately 1.5m in diameter. A second pit was partly exposed approximately 10.00m from the southern end of the trench. This pit appeared to be rectangular in shape and ran under the east baulk. What was visible measured 2.50m long and had a pale reddish-brown clay lining. The secondary fill comprised mixed greyish-brown silty clay and the clay lining suggests that that these may have been sunken clay-lined pits perhaps associated with tanning.

Above the early post medieval horizon was a sequence of levelling layers 1.30m deep, clearly formed from demolished brick buildings and mixed with dark greyish garden soils, the top of which was at 24.00m OD.

This material was heavily cut in three places by large 19th- to 20th-century brick cellars, the deepest of which extended 2.30m below the surface. The cellars had back fill that comprised brick and roof tile rubble mixed with crushed mortar. A layer of coarse grey hard-core had been laid across the trench above the demolition layers measuring 1.00m deep.

# Trench 8

Within this trench another potential early post-medieval horizon was reached which appeared to be similar to that found within Trench 7. These deposits were encountered across the trench at a depth between 2.70m (22.40m aOD) and 2.30m (22.80 m aOD) below the surface. At the base of the trench a layer (113) of grey sand silt was mixed with frequent charcoal flecks and crushed lime stone spreads and appeared to be disturbed by possible features. A variety of these deposits were visible from the side of the trench appearing as different colours and shades again suggested this was not a homogenous garden soil. Due to the depth of excavation these could not be investigated to assess their contextual data. A large discrete pit located towards the west end of the trench and appeared to be part of a rectangular pit with pale reddish clay lining. The pit was filled with dirty mixed greyish brown silty clay and was running under the north baulk and partly truncated by a wall foundation. The part of the pit that was visible in plan measured approximately 1.5m in long. The clay lining suggests that that these may have the potential to be sunken pits associated with tanning.

Above this was a similar deposit or layer (112) that measured 0.60m deep. This layer consisted of pale grey brown silty sand mixed with frequent charcoal flecks in which a quantity of well-preserved animal bone was evident that comprised cattle horn cores and a single rib. These assemblages, dominated by cattle horn cores, again would suggest waste products from the tanning industry. The surface of this horizon was at 23.60m OD approximately 1.50m below the current ground surface.

A homogenous garden soil (111) overlay these earlier deposits and contained a small collection of assorted late post-medieval and modern fabrics that included stoneware and indicated that these soils were of late 18th-19th century origin. A collection of animal bone was retrieved from this deposit and was identified as from both sheep and cattle. The top of the post-medieval soil horizon was at 23.70m OD. Overlying this was a mixture of brick rubble and clayey gravel a sequence of levelling layers up to 1.70m deep.

These formation layers were heavily cut in places by four 19th century interventions. Two of these were brick cellars and the deepest of these interventions extended 2.70m below the surface at 22.40m aOD. Both cellars had back fill that comprised brick and roof tile rubble mixed crushed mortar. Towards the centre of the trench a brick lined well was found and the base of this intervention was measured at 19.10m aOD, a depth of 5.00m below the current ground surface.

A brick culvert was found running across the trench at its eastern end in a north to south direction. The linear structure was located 5.00m from the east of the trench and measured 1.00m wide and 1.00m deep and had an intervention depth of 21.40m aOD. The culvert had a brick barrel-vaulted roof and it appeared to have silted up with a primary fill of yellowish-brown sandy silt with a secondary fill that comprised dark greyish silt loam. A layer of coarse grey hard-core had been laid across the trench above the demolition layers sealed by tarmac.

# Trench 9

Within this trench a large sondage was excavated down the centre of the excavation. At the southern end of the trench, the sondage was excavated to the maximum depth of 21.10m aOD

(3.70m below the current ground surface), and alluvial deposits or natural substrata were evident. This deposit comprised waterlogged grey sandy-silt and directly overlying was a brown organic silty clay deposit (**106**) and the top of this deposit was measured at a depth of 3.50m below the ground surface. This was another waterlogged deposit 0.20m thick that contained a high organic content, including animal bone, which comprised cattle horn cores. A soil sample taken from this deposit was analysed and a large content of wood chips and bark were found to be preserved within the waterlogged conditions. Both the high bark content and scatter of cattle horn cores found within this deposit were thought to be waste materials associated with the tanning process.

A potential early post medieval surface was reached across the remainder of the sondage at a depth of 2.80m below the ground surface (22.00m aOD). This layer comprised grey sand silt mixed with frequent charcoal and mortar flecks and appeared to be disturbed by possible features. It did not appear to be a homogenous garden soil. Due to the depth of excavation these deposits could not be investigated further.

Overlying this was a homogenous garden soil that contained frequent charcoal and burning, distributed unevenly across the entire trench between 1.20m and 2.20m deep. Observations from the side of the trench could not discern divisions in layers it was thought that this layer was similar to other post medieval garden soils located in the other trenches. The top of the post-medieval garden soil horizon was unevenly distributed at 22.90m-23.50m aOD (between 1.90m and 1.30m below current ground level) across the trench. The post-medieval garden soil horizon was sealed by a late 19th-century formation layer and largely comprised fragmented brick, mixed aggregates and demolition material that measured 1.50m deep.

Both the post medieval soil and overlying formation layer were heavily truncated by 19thcentury brick cellars. A row of three cellars was found in the northern half of the trench, the deepest of which extended 1.30m below the surface. At the southern end of the trench a single cellar was observed and had a depth of 1.90m below the surface. The cellars had a back fill that comprised brick and roof tile rubble mixed with crushed mortar. A layer of coarse grey hardcore 0.40m deep had been laid across the trench sealing the backfilled cellars and underlying formation layers below 1.00m deep.

# Trench 10

Trench 10 was located directly to the south of Trench 6. Its excavation was inhibited by the presence of live low-voltage electricity cables located to the north and south of Trench 6, and the presence of an active storm drain located to the east. As a consequence the trench was reduced in length and Trench 10 was excavated within this area to help maintain the percentage area that was archaeologically sampled (see Trench 6 above).

This trench was excavated to a maximum depth of 22.90m aOD (2.30m below the current ground surface) and reached a potential surface that comprised waterlogged pale greyish silty sand mixed with frequent charcoal flecks and spreads of limestone. Although no finds were recovered from this deposit it was thought to be a continuation of the deposit (107) found within Trench 6, to the north.

Overlying this was a homogenous garden soil distributed evenly across the entire trench at 0.90m deep. It was clear that this deposit was similar to other garden soils found within the

other trenches that produced material from the early post medieval period onwards. The surface of the post-medieval garden soil which was evenly distributed at depth of 23.80m aOD (1.40m below current ground level) across the entire trench.

Above the post medieval soil horizon was a sequence of levelling layers that were formed from demolished 19th- to 20th-century brick buildings and measured 1.40m deep. This material was heavily cut in two places by a large 19th-century cellar and brick culvert. At the centre of the trench, a single 3.50m-wide cellar was observed which had an excavated depth of 2.40m below the ground surface. The cellar was backfilled with brick and roof tile rubble mixed with crushed mortar.

The brick culvert was found running across the east end of the trench in a north to south direction and was believed to be continuation of the brick barrel-vaulted culvert seen in Trench 8. This linear structure measured 1.00m wide and 1.00m deep and had an intervention depth of 23.00m aOD. A layer of coarse grey hardcore 0.50m deep had been laid across the trench sealing both the backfilled cellar and underlying formation layers below.

Trench	Length (m)	Width (m)	Height of Trench base (m OD)	Orient	Overburden depth (including post-med garden soils bgl	Top of Significant Archaeology bgl	Top of Natural bgl	Depth bgl to Base of trenc h	Natural Substratum	Notes
1	c.16.50	2.00m	22.40m aOD	N-S	1.9m - 2.40m	1.9m	2.40m	2.40m	Greyish clay silt alluvial	Stone footings found below the garden soil. Spreads containing horn cores evidence tanneries in locality. Two sherds of green glaze pottery dated to 13th - 14th centuries. Three Victorian brick lined wells.
2	c.29.60m	2.90m	22.00m aOD	W-E	2.00m	N/A	2.00m	2.30m	Greyish clay silt alluvial	At northern end trench a second sub layer was found below the garden soil and measured 0.80m. A pale yellowish silty clay mixed with the occasional pebble. Contained a single pottery sherd dated to $16^{th} - 18^{th}$ centuries and roof slate The remainder of the trench was heavily disturbed by railway viaduct stations.
3	19.20m	2.30m	23.10m aOD	W-E	2.10m	N/A	2.50m		Greyish clay silt alluvial	At the east end of the trench a potential natural alluvial layer was reached. A third sublayer was seen at the west end of trench and comprised of crushed sand stone. Sealed by second sub layer yellowish brown silt sand 0.70m deep. Overlying was sub layer that consisted of mixed red clay and yellowish brown sand mixed with occasional oyster shell charcoal fleck. Sealed by Victorian cellars and modern foundations
4	c.15.10m	2.20m	23.20m	W-E	1.90m	1.9m	-	1.90m	Not reached	At the west end of the trench a layer pale greyish brown silty sand mixed with charcoal and mortar flecks. Spreads of pink red clay were also seen at this level. The deposits appear to be cut by two sand stone wall footings. Contained a single pottery sherd retrieved from the layer was dated to 17 – 18th along with fragments of post medieval roof tile These deposits were sealed by garden soil layer up to 1.10m thick.
5	14.20m	3.20m	22.60m	N-S	2.60m	N/A		2.60m	Not reached	At the southern end of the trench a greyish brown silty clay was reached. Mixed with animal bone horn core oyster shell. The northern half of the trench was heavily disturbed by railway viaduct stations.
6	10.80m	2.10m	22.35m	W-E	2.80m	N/A	2.80m	2.80m	Greyish clay silt alluvial	A natural alluvial silt was reached at the east end of the trench 2.80m below the surface Over laying was layer pale grey silty sand mixed with charcoal flecks and limestone spreads. The deposit also contained pottery sherd dated to 17 - 18th centuries, roof tile and animal bone, which was identified as sheep and cattle.
7	18.00m	2.50m	22.70m	N-S	2.30m	2.30m		2.30m	Not reached	Towards the northern end of the trench a layer was reached that consisted pale yellowish grey silty clay mixed with charcoal flecks and mortar. The layer appeared to be cut by oval and rectangular pits that were lined with red clay. The pits appeared to be filled with greyish brown silty clay. This was sealed by garden soil that was up to 1.00m deep.
8	16.50m	2.30m	22.40m	NW - SE	2.30m - 2.70m			2.70m	Not reached	At the SE end of the trench at depth of 2.30m a layer of pale grey brown silty sand was reached. The deposit was mixed with frequent flecks of charcoal. Spreads of limestone and oval clay lined pits. Overlying was a layer of garden soil up to

Table 1 Tranch	summarias.	donthe	halow	around	loval	(hal	1
	summaries,	ucpuis	UCIUW	ground		Ugi	)

										0.50m deep. It contained a small collection of assorted late post-medieval and modern fabrics that included stoneware and suggested that these soils were of late 18th-19th century origin. At the centre of the trench a brick lined well was observed. At the NE end a brick culvert or drain was observed.
9	28.20m	4.00m	20.90m	N-S	2.80m - 3.50m	3.50m	3.70m	3.70m	Grey silty clay alluvium	A natural grey alluvial clay was reached at depth 3.70m at the southern end of the trench. At the southern end overlying was organic clay deposit 0.20m thick. Contained wood bark and cattle horn cores perhaps associated with tanneries. This was sealed by another alluvial deposit mixed with charcoal and mortar flecks up to 1.40m thick. Overlying was garden soil which measured up to 2.40m deep. On top was modern overburden deposit which included Victorian cellars that measured up to 1.90m deep.
10	9.30m	2.40m	22.90m	W - E	2.30m	N/A		2.30m	Not reached	A mixed pale greyish brown silty clay was reached at the base of this trench. This was mixed with charcoal and mortar flecks. Overlying was layer garden soil that measured 0.90m deep. The overburden was measured up to 2.30m deep and comprised cellars and a brick culvert.

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# 7. The Finds

#### Deborah Sawday

The material was examined under an x20 binocular microscope with reference to current guidelines (MPRG 1998, MPRG 2016) and the Nottingham fabric series (Nailor and Young 2001).

#### The Results

The results for both the ceramic and miscellaneous finds are listed below by context, sherd or fragment numbers, weight (grams) and material/fabric (Table 2).

#### Discussion

The finds included five sherds, weighing 204 grams, of pottery dating from the early or mid-13th century to the 16th century. These provide clear evidence of medieval or early post medieval activity in the vicinity.

Similar evidence of further activity in the area is provided by the six sherds, weighing 251 grams of pottery in Midlands Yellow, Black Glazed Earthenware, Coarse ware and Mottled ware, which could date from the 16th or 17th centuries. A post medieval or perhaps early modern period is also suggested for the ceramic building material.

Table 2 The medieval and later pottery and miscellaneous finds by fabric/material, numberand weight (grams) by context.

Context	Fabric/Ware	Ν	Gr	Comments
		0		
РОТ				
104	CIST - Cistercian	1	18	Hollow ware body – glazed
				mid/late 15th – 17th C
104	PMX – Coarse ware	1	59	wide mouthed bowl/pancheon
				rim, 17 <sup>th</sup> C +
105	MY – Midlands Yellow	1	67	Bowl rim, c.16th – 18th C
107	MP – Midlands Purple	1	129	Jar/cistern rim with cut out and
				strap handle stub – 15th – 16th C
108	PMX - Mottled ware	3	42	Hollow ware mug/tankard
				fragmentsc.1680-c.1780
109	NOTGL – Light Bodied green Glazed	1	15	Externally sooted body, .early/mid
	_			13th – early/mid 14th C.

109	NOTGL – Light Bodied green Glazed	2	42	Two joining fragments, possibly from the base of a vessel0a
111	PMX – Black Glazed Earthenware	1	83	Body/rim fragment, c.1650-1750
111	PMLOC – Nottingham Salt Glazed	1	18	Machine rouletted body -modern
	Stoneware			
111	PMX – Fine White Earthenware/China	15	290	Modern
CBM				
107	Earthenware	2	566	Moulded flat roof tile - post medieval
108	Earthenware	2	180	Moulded flat roof tile - post medieval
108	Earthenware	2	1933	Moulded brick fragments- post medieval
MISC.				
105	Slate	1		Post medieval – hand cut.

#### 8. The plant and wood remains

#### Rachel Small

#### Introduction

During excavation at Narrow Marsh, Nottingham two samples were taken from waterlogged contexts. Sample 1 (106) was dated to the medieval/early post-medieval period and came from a tannery deposit. Sample 2 (107) was medieval in date and was a surface deposit. The results of the analysis of the plant and wood remains from these samples are presented together with a discussion on what this can tell us about plant/wood based activities at the site.

#### Methodology

For each sample, 250ml was processed using bucket floatation: the soil was put into a bucket, a stream of water applied and then the bucket swirled. The water was then drained off into a 0.3mm sieve to catch the floating organic material and the process continued until no further organic material was carried off. The flots and residues were kept wet and scanned under an x10-40 stereo microscope for plant remains and other finds, then disposed of. Unprocessed soil was retained (*circa* 10 litres in volume) for potential future analyses.

#### Results

#### Sample 1 (106)

Several large fragments of waterlogged root were present (the largest was *circa* 20mm in diameter) and smaller rootlets (less than 1mm in diameter) were abundant (over 50 specimens). Wood chips/bark were also abundant and ranged in size (the largest was *circa* 30mm long). Small fragments of charcoal (*circa* 2mm long) were occasionally present (10 to 50 items).

Sample 2 (107)

No waterlogged plant remains were present in this context. However, charcoal fragments were abundant (they were variable in size, the largest was 20mm long).

#### Discussion

Bark was used in the tanning process. Hides were immersed in a solution of crushed oak bark and water held in 'handler pits', then continuously moved around to ensure an even spread of colour (Burns 2012, Cherry 1991). They were then transferred to 'layaway pits' and layered with ground bark (normally from oak) and a weak tanning solution was added, the hides could be kept in these pits for up to a year (*ibid*.)

Archaeological evidence for medieval/post-medieval tanning pits has been found at Northampton (Shaw 1996), Leicester (Finn 2004) and York. Analysis of soil samples from Layerthorpe Bridge, York by Hall and Kenward (2003) revealed likely archaeological remains from tanning hides: large quantities of bark fragments and sclereids (small clumps of lignified cells characteristic of certain trees, notably oak, which are left when the bark decays) and an abundance of *Trox scaber*, a beetle which in the past populated piles of old bones and skins. The relationship between the presence of beetles and bark was shown to be statistically significant (*ibid*.).

#### **Recommendations for further work**

It is recommended that sample 1 (106) is studied in more detail to establish if the fragments are bark or wood chip and what species are present, also if insects such as beetles remain. This will help to understand the processes involved in tanning under taken at the site. It would also be interesting to undertake analysis of the charcoal from sample 2 (107) to compare the species of wood used for fuel and tanning. Currently, there is no/little archaeobotanical evidence for tanning in Nottinghamshire and it would be helpful to compare the results to other tannery sites such as Layerthorpe Bridge, York.

#### 9. Animal Bone

#### Emily Banfield

#### Introduction and methods

Stratified, hand collected animal bone recovered during evaluation excavation at Narrow Marsh were subject to macroscopic analysis. The assemblage comprises 27 bone fragments recovered from five contexts, and have been dated by association with the ceramic evidence to the early modern period.

Identifications were determined using the skeletal reference collection at the School of Archaeology and Ancient History, University of Leicester. Identification was made to element, side and taxon; where full identification could not be made due to the absence of diagnostic morphological markers, material was assigned to broader categories on the basis of element, size and class. Distinction between sheep and goat remains was attempted using standards published by Boessneck (1969). Elements were recorded using the zoning system detailed by Serjeantson (1996). Tooth wear in sheep was documented using Grant (1982). Measurements of bone specimens were taken following standards established by von den Driesch (1976). The presence and anatomical location and character of burning, butchery and gnawing was

described. Surface preservation was graded using the scale recommended by Harland et al. (2003). All fragments were documented; joining fragments were recorded as a single specimen to determine the number of specimens (NSP). The assemblage

#### The assemblage

This small assemblage of 27 specimens is dominated by cattle horn cores, which comprise 33% (NSP); MNI totals confirm the presence of remains format least 4 cattle and 2 sheep (see Table 1). Although the assemblage is characterised by low levels of fragmentation, surface preservation falls within the Harland (2003) descriptor for fair (63%) to poor (37%). All specimens could, however, be identified to element and to genus or broad size category, and despite its potential to limit identification of modifications, over half of the specimens evidenced butchery marks indicative of division of the carcass, skinning and removal of horn cores (see Figures 5, 6 and 7). Evidence for gnawing and/or burning was not observed. Elements from both the cranial and post-cranial skeleton were present in both cattle and sheep. Fusion data were recorded for 37% of the assemblage, evidencing the presence of young cattle, including bone from one foetal animal, and although a single sheep mandible provided the only material to permit aging by tooth wear, the majority of the tooth row survives in-situ confirming an age at death of 4-6 years. The small size of the assemblage represents the most significant limiting factor regarding interpretation of mortality profiles.

Context/element	Cattle	Sheep	Large mammal	Total
106				
Horn core	2			2
Metacarpal		1		1
107				
Mandible		1		1
Scapula	1	2		3
Rib			1	1
Humerus	1			1
Radius		1		1
Tibia		1		1
108				
Metacarpal		1		1
111				
Horn core	3			3
Cranium			2	2
Rib	3			3
Radius	1			1
Metatarsal	1			1
112				
Horn core	4			4
Rib	1			1
Total	17	7	3	27

Table 3 Taxa by element and context number



Figure 5 Context 111. Multiple fine cuts to left frontal at base of horn core



Figure 6 Context 112. Multiple fine cuts to parietal at base of right horn core



Figure 7 Context 112. Multiple fine cuts to parietal at base of right horn core

#### Discussion

This assessment reveals the composition of the bone assemblage to comprise predominantly cattle (63%) and sheep bone (26%), with cattle horn cores as the element represented most frequently, forming one third of the total. Low fragmentation coupled with the survival of evidence for modification suggests that valuable information regarding the use of the site could be gleaned, should the site proceed to excavation. Butchery marks indicative of skinning (Figure 5) and horn working (Figures 6 and 7) alongside evidence of carcass dismemberment from the bones of the appendicular skeleton represent a range of butchery practices. At present, the nature and composition of the bone assemblage certainly appears consistent with other sites at which butchery, tanning of hides and/or bone working have been demonstrated to have occurred (Armitage 1990; Serjeantson 1989; Shaw 1996). Further excavation holds potential to recover a range of evidence enabling the development a more refined understanding of the site.

#### 10. Discussion

The evaluation established that medieval to early post medieval horizon deposits survive on the site, buried beneath a substantial sequence of later material. The results of this evaluation were broadly similar to the earlier evaluation carried out by Northamptonshire Archaeology in 2006. Modern garden soils and demolition layers overlay earlier soils, some of which were cut by red brick cellars and latrines. Post medieval soils and medieval layers survived approximately 2m depth or less below the modern surface.

Some of the trenches excavated during this evaluation were spot-dated using pottery found within the soils and retrieved from the machine bucket. It was clear that a late medieval to early post medieval ground surface was closely associated with the top of alluvial deposits from the River Leen allowing for a potentially high level of organic preservation under anaerobic conditions. The potential late medieval or early post medieval horizon was only truncated in Trench 2 and 5 where the footings for the 19th century railway viaduct were constructed, in all other cases it would appear not to have been disturbed by 19th-20th century cellars or footings.

The trench results at Narrow Marsh provided evidence for extensive stratified garden soils that had formed between the 13th-18th centuries, one on top of another. Much of the ground between Cliff Road and Canal Street would seem to have been largely undeveloped as late as the 18th century. These soils were visible in nearly all of the trenches. There were indications of potential medieval or early post-medieval structures or surfaces within Trenches 1, 3 and 4. These were thought to be associated with potential back-yard plots of buildings that once fronted on to Cliff Road. The structures are thought to been sparsely distributed, most probably of a temporary or insubstantial nature.

It would seem likely that the activity is part of similar, potentially medieval, backyard plots identified by Northamptonshire Archaeology during their work (Brown 2006). A trench excavated in 2006, which was located close to the current evaluation Trench 3, found demolished masonry of substantial size in association with 15th-16th century pottery. It was thought that this suggested the presence of a permanent structure of the early post-medieval period and perhaps provides evidence of more permanent occupation of the area at this time.

The quantity of horn cores amongst the animal bone found in Trenches 4, 6, 8 and 9 within the 17th-18th century deposits was a strong indicator to corroborate the presence of tanning waste and the likely continuity of the industry into the early post-medieval period.

#### **11. Proposed Development Impact**

Nottingham College has provided a plan of the footprint for the proposed new building and new road. The alignment of the new road coincides with Trenches 3 and 4 which contained potential archaeological deposits at a of depth of 1.20m (24.60m aOD) and 1.90m (23.20m aOD) below the surface.

The footprint for the new building coincides with seven of the evaluation trenches (Trenches 2, 5, 6, 7, 8, 9, and 10). Potential archaeological surfaces were observed within trenches 6 and 10 at depth of 2.20m below the present (22.95 aOD). The archaeological deposits found with Trenches 5, 7, 8 and 9 were mix of alluvial deposits and sparsely distributed archaeological

features all found at minimum depth of 2.60m (22.60m aOD). The majority of Trench 2 and parts of Trench 5 were heavily truncated by modern activity

Depending on the engineering requirements of the new building, if piling is the choice of foundation then Historic England *Piling and Archaeology* (Historic England 2015) provides guidance on assessing the impact and will help make a clear and an informed decision about any proposed piling schemes and their potential impact upon archaeological remains.

In view of the fact that the archaeological deposits on this site are not especially dense or complicated and are also sealed beneath a significant depth of overburden, it is possible that pile caps and ground beams can be accommodated within the depth of the overburden, thereby avoiding impacting the archaeology. This then leaves the piles themselves and it will be a matter for further discussion with the City Archaeologist to determine whether such damage is acceptable.

# 12. Archive

The site archive will be held by Nottingham City Museums Galleries, *under accession no NCMG 2017-28*.

The site archive consists of: 1 Unbound A4 copy of this report 10 A4 Trench recording sheets Context Sheets Site Indices 2 A4 Photo record sheet A4 Colour digital contact print 1 CD of digital photos

#### 13. OASIS

Since 2004 ULAS has reported the results of all archaeological work to the *Online Access to the Index of Archaeological Investigations* (OASIS) database held by the Archaeological Data Service at the University of York (Appendix 1). A summary of the work will also be submitted for publication in the local archaeological journal, The Thoroton Society of Nottinghamshire, in due course

	Oasis No	universi1-00000							
	Project Name	Cliff Road, Canal	Street Nottingham						
	Start/end dates of field	020-02-2017 - 09-	03-2017						
	work								
	<b>Previous/Future Work</b>	Evaluation DBA /	Not known						
	Project Type	Evaluation							
	Site Status	None							
PROJECT	Current Land Use	Derelict ground/ca	ır park						
DETAILS	Monument Type/Period	None							
	Significant Finds/Period	Medieval Early Po	ost Medieval						
	Development Type	College Hub							
	Reason for	NPPF							
	Investigation								
	Position in the Planning	Pre Planning inqui	iry						
	Process								
	Planning Ref.								
	Site Address/Postcode	Cliff Road/Canal S	Street, Nottingham,						
PDAIFCT									
INCLUTION	Study Area	0.87 ha							
LOCATION	Site Coordinates	SK 5649 4149							
	Height OD	24m to 25m AOD							
	Organisation ULAS								
	Project Brief Originator	Local Planning Authority (NCC)							
	Project Design	ULAS							
PROJECT	Originator								
CREATORS	Project Manager	Richard Buckley							
	Project	Tim Higgins							
	Director/Supervisor								
	Sponsor/Funding Body	Gleeds Manageme	tingham College						
		Physical	Digital	Paper					
	Recipient	NC Mus	NC Mus	NC Mus Galleries					
PROJECT		Galleries	Galleries						
ARCHIVE	ID (Acc. No.)	NCMG 2017-28	NCMG 2017-28	NCMG 2017-28					
	Contents	Pottery CBM	Photos	Evaluation					
		Animal Bone		records					
	_	<b>A</b>		Field Notes					
	Туре	Grey Literature (unpublished)							
	Title	An Archaeologica	I Evaluation						
PROJECT BIBLIOGRAPHY	Author	Higgins, T.							
	Other bibliographic	ULAS Report No	2017-059						
	details								
	Date	20/02/2017 to 09/0	03/2017						
	Publisher/Place	University of Leic	ester Archaeologica	I Services /					
		University of Leic	ester						
	Description	Developer Report A4 ndf							

#### **OASIS** data entry

#### 14. Publication

A summary of the work will be submitted for publication in the local archaeological journal *Transactions of the Thoroton Society* in due course. The report has been added to the Archaeology Data Service's (ADS) Online Access to the Index of Archaeological Investigations (OASIS) database held by the University of York.

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#### 16. Acknowledgements

The fieldwork was carried out by the author and Esther Pilgrim both of ULAS. Richard Buckley managed the project. Scott Lomax Acting City Archaeologist of Nottingham City Museums Galleries monitored the work on behalf of the planning authority.

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24/04/2017

# **Trench Photos**



Figure 8 Trench 1 Possible Early Post-Medieval sand stone footings



Figure 9 Trench 2 looking south



Figure 10 Trench 3 looking north-east



Figure 11 Trench 4 looking east



Figure 12 Trench 5 looking north



Figure 13 North end of Trench 9



Figure 14 Trench 7 looking north-west



Figure 15 Trench 8 looking east



Figure 16 Trench 9 looking south



Figure 17 Trench 10 looking south west



Figure 18 Trench Plan with depths of excavation



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