

**PROPOSED HOUSING DEVELOPMENT: “STRELIZIA”  
MICHAELGATE, LINCOLN**

**Archaeological Evaluation**

Prepared by

NETWORK ARCHAEOLOGY LTD

For

Mr David Lewis

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# CONTENTS

	List of Appendices .....	ii
	List of Figures .....	ii
	List of Plates.....	ii
	Non-Technical Summary .....	iii
1	Introduction.....	1
	1.1 Commissioning Bodies .....	1
	1.2 The Development .....	1
	1.3 Legislation, Regulations and Guidance.....	1
	1.4 Previous Archaeological Investigation.....	2
	1.5 Archaeological Background.....	2
	1.6 Aims .....	3
	1.7 Terms of Reference .....	3
	1.8 Resourcing .....	3
	1.9 Limitations .....	3
	1.10 Report Structure .....	4
	1.11 Fieldwork Procedures.....	4
	1.12 Field Records .....	4
	1.13 Post-excavation Procedures .....	5
	1.14 Client Report.....	6
2	Description of the Development Area.....	7
	2.1 Location .....	7
	2.2 Geology (Solid and Drift) .....	7
	2.3 Soils and Land Use.....	7
3	Results.....	8
	3.1 Trench 1 .....	8
	3.2 Trench 2 .....	9
	3.3 Trench 3 .....	10
4	Discussion .....	13
5	Conclusions.....	15
6	Acknowledgements .....	16
7	Statement of Indemnity .....	17
8	References.....	18

# LIST OF APPENDICES

Appendix A: Context Summary Table.....	1
Appendix B: Roman Pottery Report .....	1
Appendix C: Medieval, Post Medieval & Modern Pottery Report .....	1
Appendix D: Ceramic Building Materials Report.....	1
Appendix E: Animal Bone Report .....	1
Appendix F: Clay Pipe Report .....	1
Appendix G Glass Report .....	1
Appendix H: Heat Affected Stone Report.....	1
Appendix I: Iron Objects Report.....	1
Appendix J: Shell Report .....	1
Appendix K: Figures 1-5.....	1
Appendix L: Engineers Plans .....	1
Appendix M: Plates.....	1

# LIST OF FIGURES

Figure 1:	Location of development, superimposed on 1851 map (not to scale)
Figure 2:	Trench location plan (scale 1:400)
Figure 3:	Trench 1 plan (scale 1:20)
Figure 3a:	South facing section of Trench 1 (scale 1:20)
Figure 3b:	East facing section of Trench 1 (scale 1:20)
Figure 4:	Trench 2 plan (scale 1:20)
Figure 4a:	South facing section of Trench 2 (scale 1:20)
Figure 4b:	East facing section of Trench 2 (scale 1:20)
Figure 5:	Trench 3 plan (scale 1:20)
Figure 5a:	North facing section of Trench 3 (scale 1:20)
Figure 5b:	West facing section of Trench 3 (scale 1:20)

# LIST OF PLATES

Plate 1:	Trench 1, rubble filled pit 104
Plate 2:	Trench 2, layer 206
Plate 3:	Trench 3, wall 307
Plate 4:	Trench 3, wall 307

## NON-TECHNICAL SUMMARY

An archaeological evaluation was undertaken in July 2005 on a proposed housing development site adjacent to Michaelgate, Lincoln. The evaluation comprised three 1m by 2m hand-excavated trenches located in the north, west and south parts of the proposed development area.

The development site lies within Scheduled Ancient Monument (SAM) 115, the Roman *Colonia* of Lindum. Previous archaeological work within the SAM, immediately to the south of the development site, revealed Roman and medieval layers and structures.

The evaluation located likely Roman and medieval deposits within 0.40m of the current ground surface; these represent the most significant archaeological remains exposed in the evaluation trenches. They were sealed by a series of post-medieval/early modern deposits including occupation/demolition debris, a section of brick/stone wall probably dating to the mid 17<sup>th</sup> to 19<sup>th</sup> centuries, and a section of stone wall undated but probably also post-medieval in date. Modern layers were represented by the surface of a former tennis court and later car park.

# **1 INTRODUCTION**

This report presents the results of an archaeological evaluation undertaken on the area of a proposed housing development at Michaelgate, Lincoln, in Lincolnshire (Figures 1 & 2).

## **1.1 Commissioning Bodies**

The project was commissioned by Mr D Lewis, the client. The archaeological contractor was Network Archaeology Ltd, a professional archaeological organisation which provides consultancy advice and undertakes field services. Network Archaeology Ltd have liaised both with the client and LKR Architects LLP over the proposed development and its potential impact on any archaeology.

## **1.2 The Development**

The new house will be a three storey building, with an attached garage to the rear, and a landscaped garden. The principal element of the garden will be a series of large water features.

The house is to be constructed on ground beams, generally raised above existing ground levels on piled foundations, and will therefore have a relatively restricted impact on any archaeological remains. The garage at the north end of the site will cut into the slope of a fairly modern bank of debris piled up against a retaining wall; the garage foundations will not penetrate the general existing ground level. The retaining walls for the ponds will be carried on strip foundations. These were to be below existing ground level, but following the evaluation they have been revised and now are above existing ground level (see Appendix L). It is understood that there will be one main service trench; this may have an impact on archaeological deposits.

## **1.3 Legislation, Regulations and Guidance**

An application for Scheduled Monument Consent (SMC), to carry out an archaeological evaluation on the site, was submitted by LKR Architects LLP on behalf of Mr David Lewis, to the Department for Culture, Media and Sport (DCMS), on 5<sup>th</sup> August 2004. Subsequently, LKR received a letter from the DCMS (dated 6<sup>th</sup> September 2004) granting SMC, subject to the works being carried out to the satisfaction of the regional English Heritage (EH) inspector Dr Glyn Coppack (on behalf of the Secretary of State), and the approval by Dr Coppack of a Written Scheme of Investigation, to be written by the archaeological contractor.

Following the granting of SMC for an archaeological evaluation, LKR (on behalf of David Lewis) submitted a planning application (autumn 2004) (ref 2004/0900/F) for the development, to Lincoln City Council (LCC). The latter informed EH of the application, and in January 2005, EH advised LCC that EH would expect to advise DCMS that SMC should be granted for the development, if the archaeological evaluation is successful in developing a mitigation strategy for the site. EH also recommended that the planning application be deferred until the evaluation had taken place. Accordingly, LCC informed LKR (in April 2005) that a decision by the local planning authority regarding planning permission for the development would be deferred until SMC was granted for the development.

In June 2005, LKR (on behalf of Mr Lewis) instructed Network Archaeology Ltd to provide a costing for an evaluation, to discuss and agree the evaluation strategy with Dr Glyn Coppack, and to produce a Written Scheme of Investigation. The latter was produced by Network Archaeology, and approved by Dr Coppack later in June. Mr Lewis formally commissioned Network Archaeology to carry out the evaluation in a letter dated 15<sup>th</sup> June 2005.

## **1.4 Previous Archaeological Investigation**

The terraces below the site have been redeveloped for housing in the last three years. Excavations at St Cuthbert's Court in 2003 immediately to the south, found extensive medieval remains at depths of between 0.30m and 1m, but no Roman levels were reached (Lindsey Archaeological Services (LAS), reports 648 and 655 forthcoming). Further to the south, excavations on the site of St Martin's School, Hungate, also found a variation in the depth of significant archaeological deposits across the site: Roman features were less than 0.5m below the ground surface on the eastern side (LAS, reports 560, 561, 564), whereas over 1.5m of post-medieval and modern overburden was recorded on the western side.

## **1.5 Archaeological Background**

The site lies within the area covered by the Scheduled Ancient Monument of the Roman *Colonia* of Lindum, County Monument Li 115. Consequently, any archaeological remains on the site, of any date and of any type, are, by legal definition, of national importance.

The site is situated within what would have been the lower part of the walled Roman city. The Romans are known to have terraced the steeply sloping hillside in this part of the city, in order to build structures and occupy/utilise the ground. The major Roman Road of Ermine Street passed through the centre of the Roman city from south to north, where it would have been known as the *via principalis*. The known course of this thoroughfare is along modern High Street (at the bottom of the hill), straight up to upper Steep Hill (on the hillside) and then onto Bailgate (at the top of the hill) (Jones, 2002, 40). The development site lies directly between High Street and upper Steep Hill, and the road course therefore passes through its eastern half.

Since Roman times, the hillside has continued to be used, and is known to have been repeatedly terraced for building work, especially in medieval and later periods. The present street pattern, however, has probably changed little since it was established in medieval times.

Historic maps of Lincoln, such as Padley's Maps of 1842 and 1851, show a variety of buildings within the development site: a series of dwellings fronting onto Michaelgate to the west, a small number sitting where the modern footpath runs east-west along part of the southern boundary of the site, a few in the centre, and some others in the north-eastern part of the site. All of these buildings have since, of course, been demolished.

The consequence of the use and re-use of the hillside, in particular its repeated terracing, is that the archaeological deposits which exist, usually have been disturbed, often heavily and repeatedly. When, therefore, such deposits are encountered during archaeological investigations, they must be treated with caution. This is especially the case with regard to the dating of deposits from pottery and other artefacts found within them, since earlier artefacts are frequently discovered within much later deposits (ie., they are residual), and later artefacts are often found in earlier deposits (ie. they are intrusive).

## **1.6 Aims**

The overall aims of the evaluation were to establish the presence or absence of archaeological or palaeo-environmental remains, and to assess their extent, condition, character, date, and quality of preservation. In addition, an assessment of the significance of any such remains, and the potential impact of the proposed development upon them, will allow informed decisions to be made on the need for further mitigation prior to construction. More specifically, the objective was to establish the depth of significant archaeological deposits to enable the client to avoid damaging these remains, and thereby assist him in gaining planning permission and Scheduled Monument Consent to develop the site.

## **1.7 Terms of Reference**

This report is intended for the client Mr D Lewis. Copies will also be given to LKR Architects LLP, English Heritage Inspector Dr G Coppack, the Department for Culture, Media and Sport (DCMS), Lincoln City Archaeologist Mr M. J. Jones for his approval, and, subsequently, the Lincoln Sites and Monuments Record for public access.

## **1.8 Resourcing**

The project was overseen by a project manager. The evaluation was undertaken by one project supervisor and one project assistant over four days from 5<sup>th</sup> July to 8<sup>th</sup> July 2005. The post excavation work was conducted during July 2005. This report was produced during July and August 2005.

## **1.9 Limitations**

Visibility of archaeological remains is always a significant factor during trench evaluation. Visibility was dependent on many factors including depth and width of trenches, weather, and disturbance from tree roots, especially in the north and west parts of the development site.



## 1.10 Report Structure

The report has been divided into four main parts.

**Introductory section:** explaining the background to the project and this stage of investigation.

**Results and discussion:** description of the archaeology revealed within the development area and how the remains relate to each other.

**Conclusions:** a synthesis of the development area and how it fits within the wider context of its surroundings.

**Appendices:** context database, five figures, animal bone report, Roman pottery archive, engineer's plans.

## 1.11 Fieldwork Procedures

### 1.11.1 Standards

All works conform to the Institute of Field Archaeologists' (IFA) *Code of Conduct* (1985, Revised September 2002), the IFA's *Code of Approved Practice for the Regulation of Contractual Arrangements in Field Archaeology* (1990, Revised September 2002), *Standard and Guidance for Archaeological Watching Briefs* (1994, Revised September 2001). The work was managed in accordance with the methods and practice described in *The Management of Archaeological Projects, second edition* (English Heritage, 1991)

### 1.11.2 Evaluation

Three trenches, 2m in length and 1m in width, were excavated by hand in a controlled, stratigraphic manner. The depth of excavation was determined by the depth of significant archaeology, up to the safe manageable depth of c.1.2m:

- Trench 1, situated near the north boundary of the site, was excavated to a depth of 0.37m.
- Trench 2, situated near the west side of the site, was excavated to a depth of 0.65m.
- Trench 3, situated on the south side of the site, upon a terraced bank, was excavated to a depth of 1.2m.

The trenches, after the evaluation was complete, were inspected by a representative of English Heritage, and subsequently backfilled by the client.

## 1.12 Field Records

### 1.12.1 Project Code

The project code for the watching brief is SML05.

### 1.12.2 Written Records

A system of *pro forma* record sheets was used for on-site recording. This system, developed by Network Archaeology Ltd, is in a format acceptable to the IFA. Multi-context recording was used for all archaeological deposits and any significant natural deposits located during surface inspection.

### **1.12.3 Drawn Records**

The drawing numbering system began at 1. Sections and plans were listed together on an overall drawing register. Each sheet containing sections or plans was also allocated a sheet number from a sequence starting at 1.

The drawn records included:

- Excavation area plans at 1:20 and 1:200 scales, detailing the location of the evaluation trenches in relation to the extant of the proposed housing development.
- Section drawings at 1:10 scale.

### **1.12.4 Photographic Records**

Monochrome and colour slide photographs were taken in 35mm format. These included shots of excavated evaluation trenches, general shots of the area of development and working shots. A full written record was made of all photographs taken. The context number and/or trench number, appropriate scales, and a north arrow appeared in all photographs whenever possible.

## **1.13 Post-excavation Procedures**

### **1.13.1 Consolidation of Archive**

The archive has been consolidated in accordance with the standards set out in Appendix 3 of the Management of Archaeological Projects (MAP 2, Stage 2).

### **1.13.2 Finds Processing**

A small amount of pottery, ceramic building materials, clay pipe and animal bone was retrieved from each of the three trenches. All retained artefacts were cleaned, marked, packaged and stored in accordance with current IFA guidelines. The long-term conservation and storage needs of the artefacts will be assessed and allowance made for preliminary conservation and stabilisation of all objects.

Specialist assessment reports, detailing the potential for further analysis, will be produced for each artefact type.

Certain categories of artefact, such as modern and post-medieval pottery, undiagnostic tile or brick, glass, and animal bone, may be selected for disposal with agreement with the museum that will hold the site archive.

## **1.14 Client Report**

### **1.14.1 Referencing**

The evaluation trenches are referred to in the text as Trench 1, Trench 2, or Trench 3, using capital letters for the word 'Trench'. Archaeological deposits are referred to as layers, eg. 'layer 105', with no capital letter for the word 'layer'.

### **1.14.2 Figures**

Five figures are presented. These comprise one overall A4 location map (Figure 1), a plan showing the proposed housing development area and location of the three evaluation trenches at 1:400 scale (Figure 2), and three figures detailing the trench plans and relevant sections at 1:20 scale (Figures 3 – 5). In addition, Appendix L consists of a copy of the latest Structural Engineer's plans and elevations of the development.

### **1.14.3 Publication**

This report supersedes the previous interim report, and dissemination of the results will be the final stage of work. This will be in the form of a note in Lincolnshire History and Archaeology, the journal of The Society for Lincolnshire History and Archaeology.

### **1.14.4 Archive and Archive Deposition**

The project archive has been prepared in accordance with the guidelines outlined in Management of Archaeological Projects, (English Heritage 1991, Appendix 3). The archive is currently housed at the Lincolnshire office of Network Archaeology Ltd. Lincoln City Sites and Monuments Record will receive the document archive. The finds archive will be deposited at Lincoln City and County Museum. A microfilm or microfiche copy of the complete archive will be deposited with the National Monuments Record. The data will also be put on the online database OASIS.

## **2 DESCRIPTION OF THE DEVELOPMENT AREA**

### **2.1 Location**

The development site is an irregularly-shaped plot of land between Michaelgate and St Martin's Street, at the back the former St Cuthbert's Nursery School, in the centre of Lincoln city (NGR 497590 371610, Figure 1).

The site is located on a steep, south-facing slope, on the northern flank of the Lincoln Gap (see below 2.2). The slope has been extensively terraced, to facilitate the construction of buildings, gardens, driveways and the like. The development site is itself on a terrace, so in general is fairly flat and level. It is bounded to the north by a substantial brick retaining wall for the dwellings further up the hill on the adjacent terrace, and to the south by a grassy bank sloping down and southwards to a public footpath.

### **2.2 Geology (Solid and Drift)**

A Jurassic Ridge (oolitic limestone) runs north to south through Lincolnshire, forming an area of higher ground. The Ridge drops down steeply on its west side, roughly on the same easting as Lincoln, and this steep scarp is known as the Lincoln Edge. The uphill part of Lincoln sits on the northern scarp of a 2km-wide break in the Ridge, known as the Lincoln Gap, and formed by glacial and fluvial action. The downhill portion of Lincoln sits on undifferentiated alluvium and river terrace deposits, whilst on the hillside between the uphill and downhill parts of the city, which is where the development site lays, Lias clays exist.

### **2.3 Soils and Land Use**

Until recently the site was largely occupied by tennis courts but is currently used as a temporary car park and otherwise is rough ground. Notably, up against the central and western portions of the northern retaining wall, is a 5-6m-wide pile of debris, rubble and soil overgrown with bushes and small trees, which also slopes from high up against the retaining wall, down to the tarmac car park surface. This bank is probably of fairly modern origin, and perhaps represents the piling up of waste material after the demolition of housing.

Apart from Michaelgate and St. Martin's Street to the immediate west and east of the site, the surrounding land is covered with houses.

The local soil in the area of development is Elmtun 1, a shallow well-drained calcareous fine loamy soil, although how much of this survives is unknown and the soils encountered may well have been re-deposited from other areas.

### 3 RESULTS

The evaluation produced the following:

- Trench 1: three likely Roman soil layers, two of which may represent upper pit fills, and an undated stone-filled pit;
- Trench 2: a likely Roman rubbly demolition deposit, a probably medieval (Saxo-Norman) soil layer, and the foundations of a post-medieval brick/stone wall;
- Trench 3: a stone wall, probably post-medieval or later in date, and post-medieval or later soil deposits.

#### 3.1 Trench 1

The earliest layer encountered was 107 (Figure 3a), the upper surface of which was located at 37.08m AOD. It comprised a mid orange friable mortar, mixed with patches of mid brown clay and frequent limestone fragments, and was approximately 1.4m wide.

On the west side of Trench 1, above layer 107, was a pale brown sandy clay (layer 106) with frequent patches of orange mortar and small limestone fragments. The upper surface of this deposit was recorded at 37.10m AOD. Three fragments of Roman grey ware (late 3<sup>rd</sup> to 4<sup>th</sup> centuries AD) were retrieved; no other artefacts were found in this deposit.

Above layer 106 was a dark brown sandy clay with occasional mortar flecking and limestone fragments (layer 105). Its upper surface was at 37.06m AOD (Figures 3a, b & c). A single artefact was found in this material: a fairly large sherd of decorated Roman grey ware pottery, dating from the 3<sup>rd</sup> to 4<sup>th</sup> centuries AD. Deposits 106 and 105 may have been the upper and lower fills of a pit.

An area of limestone rubble (104) was located on the east side of Trench 1, its upper surface at 37.11m AOD. This deposit, approximately 1m in width, comprised frequent loose limestone fragments up to 0.20m in size, within a disturbed brown silt clay which became more compact towards its edge. No finds were retrieved from this context. It may have been the fill of a pit which cut layer 107. Although deposits 104 and 106 each overlaid earlier deposit 107, no stratigraphical relationship existed between 104 and 106 themselves.

Overlying all the above layers was 103, a 0.12m thick layer of mid yellowish brown sandy mortar containing frequent limestone fragments up to 0.30m in size, the latter possibly derived from stony rubble 104 (Figures 3b and 3c). This layer may have been a foundation/levelling deposit, possibly for the construction of houses in the Victorian era. It yielded one sherd of late 18<sup>th</sup> to mid 19<sup>th</sup> century pottery, and two residual Roman sherds, one a Nene Valley beaker base dating from the late 2<sup>nd</sup> to the early 3<sup>rd</sup> centuries AD.

Above 103 was deposit 102 (Figures 3b & c), a mid brownish grey, compact sandy clay, 0.20m thick, and containing frequent limestone flecks and moderately small amounts of red brick fragments. This deposit may represent a topsoil layer, brought in for levelling/landscaping associated with the houses which once stood here.

Above layer 102 was demolition/levelling deposit 101 (Figures 3b & c). This was 0.23m thick, and comprised a mid to dark silty clay. It contained frequent brick rubble, limestone fragments, rusted metal fittings, clay pipe, and fragments of early modern pottery dating from the late 18<sup>th</sup> to the mid 19<sup>th</sup> centuries. This deposit probably represents the demolition in the 1930s of the Victorian dwellings which once stood here.

The most recent layer (100) was recorded at a upper height of 37.44m AOD. This was tarmac for a tennis court.

## 3.2 Trench 2

Heavy root disturbance was encountered in this area, especially at the eastern end of the trench, which was close to a sycamore tree.

The surface of the earliest deposit within Trench 2, layer 210, was recorded at 36.72m AOD (Figures 4a & b). It comprised a loose, mid brown silt with frequent limestone fragments up to approximately 0.18m in size, was similar to 104 in Trench 1, and may represent a demolition layer. Three sherds of Roman Grey ware pottery were recovered from it, dating from the 3<sup>rd</sup> to 4<sup>th</sup> centuries AD; no other artefacts were recovered, suggesting the Roman pottery may be securely stratified, and that layer 210 may be Roman in date.

Rubble layer 210 was sealed by 206, a 0.06m thick layer whose upper surface was recorded at 36.78m AOD. It comprised a mid brown silt with frequent crushed limestone fragments, and was disturbed by root activity; it may represent levelling of the site above rubble 210.

Dating evidence from layer 206 included six sherds of late 3<sup>rd</sup> to 4<sup>th</sup> century Roman Grey ware and a fragment of semi-vitrified Roman brick. These finds were probably disturbed from earlier layers, as there was a great deal more evidence relating to the 11<sup>th</sup> to 14<sup>th</sup> centuries in this deposit: one sherd of Lincoln Saxo-Norman sandy ware pottery, a fragment of 11<sup>th</sup> to 12<sup>th</sup> century Stamford crucible, sixteen sherds of Lincolnshire fine shelled ware dating from the 11<sup>th</sup> to 13<sup>th</sup> centuries, and two sherds each of 13<sup>th</sup> to 14<sup>th</sup> century Lincoln Glazed ware and Lincoln kiln type shelly ware. As a whole, these artefacts suggest a medieval date for deposit 206. The crucible fragment is indicative of copper working, possibly in the immediate environs. In addition, several fragments of cattle bone were found in layer 206. These included two butchered ulnas with sawn edges. These bones are most probably intrusive (ie. are derived from later layers above), because the type of saw evidently used indicates a mid 19<sup>th</sup> century or later date for the bones.

Above 206 was layer 209, the upper surface of which was recorded at 36.81m AOD. This layer was confined to the north-west part of the trench (in plan), and comprised a dark brown sandy clay with some root disturbance. Although recorded as a layer, this context may represent the upper fill of a linear feature, oriented roughly east to west with a length of 0.70m and width of 0.30m. No finds were retrieved.

Overlying 206 and 209 was layer 205, a friable, mid brown sandy clay deposit containing frequent limestone fragments up to 0.15m across, and measuring up to 0.30m thick. Two residual Roman pottery sherds, including a Nene Valley ware (a burnt bowl fragment of the 3<sup>rd</sup> to 4<sup>th</sup> centuries), and five sherds of Lincoln glazed ware dating to the 12<sup>th</sup> – 14<sup>th</sup> century were thought to be residual within the deposit, as 16<sup>th</sup> – 18<sup>th</sup> century pottery sherds and a fragment of 18<sup>th</sup> – 20<sup>th</sup> century pantile were also recovered. This may represent a levelling layer

Layer 205 was either cut by or abutted some limestone footings (208). The footings comprised three blocks, 0.23m wide by 0.15m deep, with a combined length of 0.70m revealed in the trench. The blocks were bonded by pale buff coloured sandy mortar, which had also formed in thick deposits on the faces of the blocks.

A single course of red bricks (207) sat on top of the limestone footings (208) and appeared to extend directly over layer 205. The course of bricks was located at 37.18m AOD. The individual bricks were 0.21m long by 0.11m wide and 0.05m thick. They were bonded by a pale buff coloured sandy mortar. The presence of this mortar on the upper surfaces of the bricks suggests that at least one or more course had existed. However, the layout of the brick work was not consistent with that of a wall, having two headers and then two stretchers (fig 4a), with two headers continuing behind the single stretcher at the front. It may therefore have been a yard surface.

Two sherds of 17<sup>th</sup> to 18<sup>th</sup> century Black-Glazed ware were found between the limestone footings and the brick course. This was an insufficient quantity to provide dating for the footings and bricks, but layer 205 which was either the same date as or earlier than the footings, was dated to the 16<sup>th</sup> – 18<sup>th</sup> century, which indicates that the footings and bricks were 16<sup>th</sup> – 18<sup>th</sup> century in date or later.

Layer 204 represents a levelling deposit of material, probably from masonry contexts 207 and 208. This deposit (204) up to 0.22m in depth was comprised mid grey/brown silty sandy clay with frequent mortar/crushed limestone and coal flecking. A variety of pottery was retrieved; the majority being early modern, dating to the late 18<sup>th</sup> to 19<sup>th</sup> centuries. Several clay pipe stem fragments were also recovered. Residual material present included one Roman Grey ware sherd dating to the 3<sup>rd</sup> century AD.

Situated above layer 204 was deposit 203, which was 0.08m thick and comprised mid brown silty sandy clay with occasional limestone fragments. No finds were retrieved from this context which possibly represents redeposited topsoil used for landscaping or borders to the tennis court which was situated to the east of Trench 2.

Located above layer 203 was a thin deposit of small limestone and red brick fragments (202), approximately 0.04m thick. The origin or function of this deposit is unknown but may represent 'raked' over debris between the redeposited topsoil (203) and topsoil (201).

The penultimate deposit was represented by a thin layer of topsoil (201). This was 0.07m thick and formed a small area of soil around the base of a large sycamore tree to the north of Trench 2.

Encroaching upon and located above the topsoil layer 201 was context 200. This deposit comprised pale buff hardcore/mortar and represents an overspill of material from the car park entrance to the south onto the topsoil area to the north.

### **3.3 Trench 3**

A mid to dark brown slightly compacted silty sandy clay deposit (311) with occasional limestone flecking was the earliest deposit in Trench 3. The deposit was under a north to south wall (307) and layer (306) (fig 5 b & c). No dating evidence was retrieved from layer 311 which the surface of was located at a depth of 36m AOD.

Situated above layer 311 were the substantial remains of limestone wall footings (307) oriented north to south. This wall (307) was constructed from limestone blocks, the largest measuring 0.40m by 0.25m. No bonding agent was visible, neither was any construction cut although there may have been one evident on the east side of the wall beyond the edge of the trench. The faces of the stone appeared weathered and roughly hewn. However, if these are indeed footings, they would have been buried and therefore not subject to weathering. Perhaps the stone had been weathered prior to use in the construction of this wall and re-used. The dimensions of the wall (307) were 0.55m wide and 0.75m high, the base being recorded at 36m AOD and the top at 36.77m AOD. No dating evidence was retrieved from the wall (307) or the underlying deposit 311.

Located towards the eastern side of wall 307 were the remains of what appeared to be wall tumble (310). This comprised frequent limestone fragments, approximately 0.15m to 0.20m that had been deposited next to the wall (307) (Figure 5b). Due to the dimensions of the trench the full depth and extent of this tumble could not be established and only a tentative depth of 0.10m was recorded.

Against the east side of wall 307 were two several deposits of material. The earlier deposit was context 306. This comprised a mid/dark brown silt, sand, clay 0.30m thick, yielding one residual sherd of Roman Grey ware dating from the late 1<sup>st</sup> to 2<sup>nd</sup> century AD, medieval pottery in the form of three sherds of Lincoln Glazed Ware from the 12<sup>th</sup> to 15<sup>th</sup> century, three sherds of Toynton Late Medieval Ware and cockle shells, clay pipe and pottery dating from the mid 17<sup>th</sup> to 19<sup>th</sup> century. Context 306 also yielded the largest assemblage of animal bone on the site, mainly cattle and occasionally sheep, some showing signs of butchery using a saw. Other fragments included hare, possibly all from the same animal.

The later deposit (305) was very similar to the earlier deposit 306 and comprised the same mid/dark brown silty sandy clay, but contained occasional fragments of tile and red brick. A depth of 0.20m was recorded for this layer. The relationship between the wall (307) and deposits 305 and 306 was not clear. The wall footings (307) have possibly been cut into deposits 311, 305 and 306, with 311 being the same as 306. The footings may also have initially been cut into deposits that were subsequently removed by later activity and then 'banked' up by deposits 306 and 305, or represent material banked up against the footings leaving no evidence for a cut. Most of the evidence points to deposits (306) and (305) being derived from an accumulation of demolition and activity over an already established terraced area situated midway up a steep, south facing slope, leading to raised ground levels in this vicinity.

The remains of an old turf horizon (304) sealed the footings and their associated deposits. The horizon (304) comprised dark grey/brown friable organic looking silty sand 0.06m to 0.12m deep. Finds retrieved included early modern pottery dating to the 19<sup>th</sup> century, glass, oyster shell and a femur, probably from a sheep.

Deposited upon the old turf horizon (304) was layer 303. This comprised mid yellow/brown friable silt 0.30m deep, containing frequent large fragments of brick and tile. Sherds of early modern pottery dating to the 19<sup>th</sup> century, oyster shell and animal bone including cattle and a tibia fragment from a dog, indicate that this deposit was possibly derived from the demolition of dwellings upon the terrace, thrown down to raise the ground level, and subsequently levelled off. This layer may have remained exposed as a surface for a reasonable amount of time to allow for a later feature (309) to be cut into it.

A probable pit or post hole (309) was recorded in the north facing section of Trench 3 (Figure 5a). This feature, not visible in plan, had a steep profile, approximately 0.55 in width,



descending to a slightly rounded base 0.38m deep. It truncates layers 303, 304 and 305 and was filled by (308) mid brown/grey silty sandy clay containing frequent brick and tile. The function of this feature remains unknown although it could have been part of a revetment along the top of the terraced bank, dating to the early modern period.

Forming part of the uppermost archaeological deposit was light grey/brown friable silt (302) 0.20m thick, containing frequent mortar flecking and brick/tile fragments. Finds retrieved comprised glass, clay pipe, animal bone to include pig, sheep and cow, early modern pottery dating from the late 18<sup>th</sup> to 19<sup>th</sup> century. Residual pottery took the form of one sherd of Lincoln Glazed Ware dating to the 13<sup>th</sup> to 14<sup>th</sup> century and three Roman sherds including an everted-rimmed jar in Legionary ware, dating to the mid 2<sup>nd</sup> to early 3<sup>rd</sup> century AD. The content of this deposit appears finer than deposit 303 below and it possibly represents the final consolidation of the ground surface prior to its resurfacing as a tennis court post 1930.

Trench 3 was sealed by turf and topsoil layers 300 and 301. The topsoil (301) comprised dark brown silty sandy clay with occasional brick fragments and a variety of finds that included early modern pottery dating from the 19<sup>th</sup> to 20<sup>th</sup> century, clay pipe, animal bone, oyster shell and residual Toynton Late Medieval ware. The combined depth of both turf and topsoil deposits was 0.10m.

## 4 DISCUSSION

Roman activity at or in the vicinity of the proposed development site is represented by twenty-two sherds of Roman pottery: six from deposits in Trench 1, twelve from deposits in Trench 2, and four from deposits in Trench 3. Insufficient quantities of pottery were recovered from each deposit to allow any to be dated with certainty. Furthermore, most of the Roman sherds came from deposits thought to be medieval or later in date, that is, they are residual: in Trench 1, layer 103 produced two Roman and one post-Roman sherd; in Trench 2, 206 contained six Roman and sixteen post-Roman sherds, 205 yielded two Roman and eleven post-Roman sherds, and 204 produced one Roman and four post-Roman sherds; in Trench 3, 306 produced one Roman and twelve post-Roman sherds, and 302 contained three Roman and twenty post-Roman sherds.

Most of the Roman pottery dates from the 3<sup>rd</sup> to 4<sup>th</sup> centuries, while only one sherd dates from the late 1<sup>st</sup> to 2<sup>nd</sup> centuries (Trench 3), and two others date from the late 2<sup>nd</sup> to early 3<sup>rd</sup> centuries (Trench 1). This could suggest that post-Roman activity at or near the site had disturbed more 3<sup>rd</sup> to 4<sup>th</sup> century deposits than 1<sup>st</sup> to 2<sup>nd</sup> century deposits, though it might equally be due to a greater quantity of pottery being discarded in the later Roman period than in the earlier period.

Deposits containing only Roman pottery were 105 and 106 in Trench 1 (one and three sherds respectively), and 210 in Trench 2 (three sherds). This pottery may be securely stratified, and these deposits may therefore be Roman in date.

A single sherd of Saxo-Norman sandy ware was the only evidence of this period. The sherd was retrieved from layer 206 in Trench 2, and was residual within what appeared to be an 11<sup>th</sup> to 14<sup>th</sup> century context (see below). The presence of the sherd suggests either a low level of activity of this date in the area, and/or that deposits containing evidence of this period remain largely undisturbed.

Medieval pottery had a higher representation than pottery from earlier periods, although no medieval sherds were retrieved from Trench 1 on the north side of the proposed development site. The majority of 11<sup>th</sup> to 14<sup>th</sup> century pottery (21 sherds) was recovered from layer 206 (see above), which pre-dated a post-medieval structure in Trench 2 on the west side of the site (see below). A fragment of crucible from layer 206 alludes to copper working and the possibility that industrial activity of unknown, but probably modest scale, took place in the medieval period. Medieval pottery was also found in a later layer (207) within Trench 2, but was evidently residual. Six sherds of medieval pottery and some 17<sup>th</sup> to 19<sup>th</sup> century pottery sherds were recovered from one of the earliest deposits (306) seen in Trench 3. It is uncertain whether the earlier sherds were residual or if the later sherds were intrusive, and as deposit 306 had an unclear relationship with wall 307 it was not possible to use the evidence from deposit 306 to date the structural remains or early build up of the ground in Trench 3 with any certainty. A single sherd of 13<sup>th</sup> to 14<sup>th</sup> century pottery from one of the upper layers (302) in Trench 3 was residual and had evidently been disturbed during the late 18<sup>th</sup> to 19<sup>th</sup> century.

As with the medieval evidence, post-medieval remains were found only in Trenches 2 and 3. Dating evidence suggested that the stone footings (208) and brick course (207) in Trench 2 were 16<sup>th</sup> to 18<sup>th</sup> century, and that layer 306 in Trench 3 dated to the medieval period or to the 17<sup>th</sup> to 19<sup>th</sup> century (see above). The stone footings and brick coursing in Trench 2 appear to be aligned (north-north-west to south-south-east) with buildings shown along the street frontage of

Michaelgate on a map dating to 1851 (Figure 1). Wall 307 in Trench 3 aligned roughly north to south, and may have tallied with buildings on the same orientation, also shown on the map of 1851 (Figure 1).

The later layers and a pit (309) in all three trenches mainly characterised the accumulation of rubble, representing the demolition of late 18<sup>th</sup> century or more recent buildings. This fits with the comparison of the 1851 map (Figure 1) with the present layout of the city of Lincoln, which shows that extensive demolition and rebuilding has taken place throughout the city since the map was published in 1851.

## 5 CONCLUSIONS

The small size of the evaluated areas offered limited visibility and interpretation of any archaeological layers. This also resulted in the low retrieval of pottery and other finds which made identification and dating of deposits and structures tenuous.

Significant archaeology was found in all three trenches.

- Trench 1 revealed possible Roman layers at 0.39m below the existing ground surface (37.06 AOD)
- Trench 2 revealed Roman and medieval layers at 0.74m below the existing ground surface (36.78 AOD)
- Trench 3 revealed a possible Post medieval wall at 0.58m below the existing ground surface (36.77 AOD)

The impact of the development upon the archaeology may possibly be significant if any subsequent ground works penetrate 0.40m or more.

Ground disturbance would include the truncation of possible archaeology by the retaining walls for the ponds and services, penetration of deposits by piles and compression of remains by concrete rafts. The proposed garage will be cut into the slope of material adjacent to the northern retaining wall which lies above the archaeological deposits and should not affect them.

It is for these reasons that the architect has revised their ground/foundation plans to raise the level of the development approximately 0.55m above the archaeological layers revealed (Appendix L)

It is however recommended that a watching brief be imposed on any ground disturbing works that may possibly impact on archaeology in the area due to the uncertain alignment and nature of the terraced deposits.

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## **7 STATEMENT OF INDEMNITY**

Every effort has been taken in the preparation and submission of this report in order to provide as complete an assessment as possible within the terms of the brief and all statements and opinions are offered in good faith. Network Archaeology Ltd cannot accept responsibility for errors of fact or opinion resulting from data supplied by any third party, or for any loss or other consequences arising from decisions or actions made upon the basis of facts or opinions expressed in this report and any supplementary papers, howsoever such facts and opinions may have been derived, or as a result of unforeseen and undiscovered sites or artefacts.

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# APPENDIX A: CONTEXT SUMMARY TABLE



## Appendix A Context Summary Table

CONTEXT	TRENCH	TYPE	DESCRIPTION	INTERPRETATION	DATE
100	1	Layer	Mid grey/black tarmac with a cinder base. Depth 0.07m.	Surface of old tennis court/carpark.	Modern
101	1	Layer	Mid/dark brown silt clay, friable with frequent brick rubble, limestone fragments and metal debris. Depth 0.23m.	Levelling for old tennis court.	Modern
102	1	Layer	Mid brown compacted silt, sand, clay with frequent limestone flecking and moderate red brick fragments. Depth 0.20m.	Landscaping associated with housing	Modern
103	1	Layer	Mid yellow/brown sand and mortar mix with mid brown clay lensing and frequent limestone fragments up to 0.30m in size. Depth 0.12m.	Levelling deposit sealing Roman layers 105 and 106.	Early modern
104	1	Layer	loose limestone fragments, up to 0.20m in size mixed with mid brown silt clay, becoming more compact towards the edges. Width 1m.	Dump deposit or possible stone fill of pit.	Undated
105	1	Layer	Dark brown silt, sand, clay, friable with occasional mortar flecks and limestone fragments. Width 0.60m.	Layer or upper fill of possible pit.	Roman
106	1	Layer	Pale/mid brown silt, sand, clay with frequent orange mortar patches and small stone fragments. Width 0.70m.	Layer or fill of possible pit under 105.	Roman
107	1	Layer	Mid orange friable mortar mixed with patches of mid brown clay and frequent limestone fragments. Width 1.4m.	Levelling deposit under Roman layers.	Roman
200	2	Layer	Pale buff compacted hardcore/mortar. Depth 0.06m.	Surface of carpark.	Modern
201	2	Layer	Dark brown friable silt, sand, clay. Depth 0.07m.	Topsoil buried under hardcore 200.	Modern
202	2	Layer	Frequent small limestone and red brick fragments forming a horizon between 201 and 203. Depth 0.04m.	Levelling horizon.	Modern
203	2	Layer	Mid brown silt, sand, clay, friable with occasional limestone fragments and moderate root disturbance. Depth 0.08m.	Levelling of re-deposited topsoil.	Modern
204	2	Layer	Mid grey/brown silt, sand, clay, friable with frequent crushed limestone/coal flecking and occasional brick/tile debris. Root disturbance moderate. Depth 0.22m.	Levelling of demolition debris.	Early modern
205	2	Layer	Mid brown silt, sand, clay, friable with frequent limestone fragments up to 0.15m in size. Heavy root disturbance. Depth 0.30m.	Levelling of demolition debris.	Post medieval
206	2	Layer	Mid/pale brown silt with frequent crushed limestone fragments and root disturbance. Depth 0.06m.	Surface deposit.	Saxon-medieval
207	2	Masonry	Single course of red bricks, 0.21m by 0.11m by 0.05m in size, forming an area 0.80m by 0.38m, oriented north-east to south-west.	Remains of demolished wall.	Post medieval
208	2	Masonry	Limestone blocks, 0.23m by 0.15m in size and bonded by same mortar as 207. Oriented north-east to south-west with a total length of 0.70m.	Foundations for wall 207.	Early modern
209	2	Layer	Dark brown friable silt, sand, clay with occasional root disturbance. Width 0.30m, length 0.70m.	Layer or possible fill of east-west linear cutting 206.	Undated
210	2	Layer	Mid brown loose silt with frequent limestone fragments up to 0.18m in size. Heavy root disturbance at eastern end. Approximately 1m sq revealed in plan.	Demolition layer.	Roman
300	3	Layer	Turf layer within a dark brown silt, sand, clay. Depth 0.05m.	Turf overlying bank deposits.	Modern
301	3	Layer	Dark brown silt, sand, clay, friable with occasional brick fragments, Depth 0.05m.	Topsoil.	Modern
302	3	Layer	Light grey/brown friable silt with frequent mortar flecking and brick/tile fragments. Depth 0.20m.	Upper bank deposit of demolition.	Early modern
303	3	Layer	Mid yellow/brown friable silt with frequent large fragments of tile/brick up to 0.15m in size. Depth 0.30m.	Upper bank deposit of demolition under 302.	Early modern

## Appendix A Context Summary Table

304	3	Layer	Dark brown friable silt, sand. Depth 0.06m to 0.12m.	Old turf horizon.	Early modern
305	3	Layer	Mid/dark brown silt, sand, clay, friable with occasional tile/brick. Depth 0.20m.	Bank deposit under 304.	Early modern
306	3	Layer	Mid/dark brown silt, sand, clay, friable in compaction. Depth 0.30m.	Bank deposit under 305.	Early modern
307	3	Masonry	Five courses of roughly hewn and weathered limestone blocks, approximately 0.40m by 0.25m in size. Combined height is 0.75m by a width of 0.55m.	Wall under bank deposits.	Undated
308	3	Fill	Mid/dark brown silt, sand, clay, friable with frequent brick/tile. Depth 0.38m.	Single fill of Pit 309.	Early modern
309	3	Cut	Steep cut descending to a slightly rounded base. Depth 0.38m, width 0.55m.	Pit cut containing 308.	Early modern
310	3	Layer	Large limestone blocks, approximately 0.15m to 0.20m in size, under and partially within old turf horizon 304. Depth 0.10m+ revealed.	Wall tumble.	Undated
311	3	Layer	Mid/dark brown silt, sand, clay, slightly compact with occasional limestone flecking. Depth 0.05m.	Possible bank deposit under wall 307 and deposit 306	Undated

## **APPENDIX B: ROMAN POTTERY REPORT**

## ROMAN POTTERY REPORT

CONTEXT	FABRIC	FORM	DEC	ALTER	COMMENTS	SHS	WT
103	GRSAN	JBK			BS BN CORE	1	2
103	NVCC	BKBAG			BASE NARROW; WHT FAB	1	36
103	ZDATE				L2-E3		
105	GREY	BWM?	BWL		BS; SPOOL	1	70
105	ZDATE				L3-4C		
105	ZZZ				GREY SPOOL? ONLY		
106	GREY	BFB	BWL		RIM UPPER WALL; SMUDGED RIM; SPOOL	1	27
106	GREY	CLSD			BS; SPOOLISH	1	5
106	GREY	CP	LA		BS; SPOOLISH	1	9
106	ZDATE				L3-4C		
204	GREY	CLSD	BDL		BS	1	8
204	ZDATE				3C+		
204	ZZZ				GREY BDL ONLY		
205	CC	OPEN		VBURNT	BASE STRING; SMALL BOWL; PROB NVCC	1	28
205	GREY	J			BASE; SPOOLISH	1	10
205	ZDATE				3-4C		
205	ZZZ				POSS 4C		
206	BB1?	CP	B	BURNT	BS SCALE INT	1	3
206	GREY	BD	B		BASE SPOOL?	1	28
206	GREY	CLSD			BSS SPOOLISH	2	13
206	GREY	JDW			RIM	1	14
206	GREY	JFO			BS	1	6
206	ZDATE				L3-4C		
210	GREY	CLSD			BSS; LATER ROM FAB	2	11
210	GREY	CLSD		ABR	BS LROM FAB	1	6
210	ZDATE				3-4C		
302	GREY	CP	LA		BS; ANTO-E3	1	26

## Appendix B: Roman Pottery Report

CONTEXT	FABRIC	FORM	DEC	ALTER	COMMENTS	SHS	WT
302	IASA?	CLSD	HM?	BURNT	BS SCALE INT; COARSE; EROM?	1	18
302	LEG	JEV		BURNTR	RIM NECK;EROM	1	13
302	ZDATE				M2-E3		
302	ZZZ				MIX DATES SOME EROM		
306	GREY	JBK			BS THIN	1	2
306	ZDATE				RO		
306	ZZZ				PROB L1-2C		

## **APPENDIX C: MEDIEVAL, POST MEDIEVAL & MODERN POTTERY REPORT**

## Appendix C: Medieval, Post Medieval & Modern Pottery Report

site code	trench	context	cname	full name	form type	sherds	vessels	weight	decoration	part	description	date
smli05	1	101	PEARL	Pearlware	small dish	1	1	5	transfer print	base		
smli05	1	101	NCBW	19th-century Buff ware	jar	1	1	3	blue & white banded & mocha	BS		
smli05	1	101	NOTS	Nottingham stoneware	jar	1	1	18	roller stamped	BS		
smli05	1	103	ENGS	Unspecified English Stoneware	large jar	1	1	50		base		
smli05	2	204	STSL	Staffordshire/Bristol slipware	press mould dish	1	1	11	trailed & combed	base		
smli05	2	204	STSL	Staffordshire/Bristol slipware	cup/porringer	1	1	2	trailed & joggled ?	BS		
smli05	2	204	LFS	Lincolnshire Fine-shelled ware	jar/bowl	1	1	6		BS		
smli05	2	204	WHITE	Modern whiteware	small bowl ?	1	1	2	blue painted band	rim	? Or PEARL	
smli05	2	205	LSW1	12th century Lincoln Glazed ware	jug	1	1	5		BS		
smli05	2	205	LSW2	13th to 14th century Lincoln Glazed Ware	jug	1	1	4	applied fe scales	BS		
smli05	2	205	LSW2	13th to 14th century Lincoln Glazed Ware	jug	1	1	24		handle	strap handle with thumb pressed edges	
smli05	2	205	DUTRT	Dutch Red Earthenware-types	jar/bowl	1	1	15		BS	soot	
smli05	2	205	ST	Stamford Ware	hemispherical vessel	1	1	49		BS	soot;Fabric A	
smli05	2	205	DUTRT	Dutch Red Earthenware-types	jar/bowl	1	1	61		base	soot;odd saw/file marks across underneath	
smli05	2	205	LSW2	13th to 14th century Lincoln Glazed Ware	small jug	2	1	12	vertical scales btwn applied vert strips	BS		
smli05	2	205	GRE	Glazed Red Earthenware	jar ?	1	1	7		BS	int glaze	

# Appendix C: Medieval, Post Medieval & Modern Pottery Report

site code	trench	context	cname	full name	form type	sherds	vessels	weight	decoration	part	description	date
smli05	2	205	TOY	Toynton Medieval Ware	jug	1	1	9		BS		
smli05	2	205	CIST	Cistercian-type ware	jug	1	1	30		BS	brown fabric	
smli05	2	206	LFS	Lincolnshire Fine-shelled ware	jar/bowl	1	1	10		BS	internal deposit	
smli05	2	206	LSW2	13th to 14th century Lincoln Glazed Ware	jug	1	1	12		BS		
smli05	2	206	LSW2	13th to 14th century Lincoln Glazed Ware	pipkin	1	1	13		base	soot	
smli05	2	206	STCRUC	Stamford-type Crucible	small ? Biconical crucible	1	1	3		BS	int & ext glassy waste;recorded find 1	
smli05	2	206	POTT	Potterhanworth-type Ware	large vessel	1	1	5		BS	soot	
smli05	2	206	ST	Stamford Ware	jar	1	1	12		BS	int & ext soot;Fabric A	
smli05	2	206	LFS	Lincolnshire Fine-shelled ware	?	1	1	1		BS	flake	
smli05	2	206	LFS	Lincolnshire Fine-shelled ware	?	1	1	1		BS	soot	
smli05	2	206	LFS	Lincolnshire Fine-shelled ware	large bowl ?	2	1	49		base		
smli05	2	206	LFS	Lincolnshire Fine-shelled ware	large jar ?	6	1	49		base & BS	soot	
smli05	2	206	LFS	Lincolnshire Fine-shelled ware	jar/bowl	1	1	11		BS		
smli05	2	206	LKT	Lincoln kiln-type shelly ware	large jar	1	1	9		rim	EVERA3 rim	
smli05	2	206	LFS	Lincolnshire Fine-shelled ware	jar/bowl	1	1	7		base	internal deposit	
smli05	2	206	LFS	Lincolnshire Fine-shelled ware	jar	1	1	18		base	soot	



# Appendix C: Medieval, Post Medieval & Modern Pottery Report

site code	trench	context	cname	full name	form type	sherds	vessels	weight	decoration	part	description	date
smli05	2	206	SNLS	Saxo-Norman Lincoln Sandy Ware	jar	1	1	10		BS	int & ext soot	
smli05	2	206	LFS	Lincolnshire Fine-shelled ware	?	1	1	3		BS	soot int & ext	
smli05	2	206	LFS	Lincolnshire Fine-shelled ware	jar	1	1	11		BS		
smli05	2	206	LFS	Lincolnshire Fine-shelled ware	jar	1	1	7		BS		
smli05	2	206	LKT	Lincoln kiln-type shelly ware	jar	1	1	3		BS	flake	
smli05	2	207	BL	Black-glazed wares	large jar	2	1	49		BS	Staffs;semi-vitrified;int glaze	mid 17th to 18th
smli05	3	301	CREA	Creamware	cup	1	1	23		base	late;discarded	
smli05	3	301	WHITE	Modern whiteware	jar	2	1	33		rim	late;discarded	
smli05	3	301	WHITE	Modern whiteware	dish	2	1	12		BS	late;discarded	
smli05	3	301	TPW	Transfer printed ware	dish	2	1	4		BS	late;discarded	
smli05	3	301	WHITE	Modern whiteware	small jar ?	1	1	7	rilled	BS	light green int & ext glaze;late discarded	
smli05	3	301	BL	Black-glazed wares	bowl	2	1	112		BS		19th to 20th
smli05	3	301	WHITE	Modern whiteware	small jar ?	2	1	13		BS	brown int & ext glaze	
smli05	3	301	TOYII	Toynton Late Medieval ware	jug	1	1	38		handle	oval strap handle	
smli05	3	301	POTT	Potterhanworth-type Ware	large bowl	2	1	71		rim	everted rim	
smli05	3	301	LERTH	Late earthenwares	small flower pot	1	1	51		base	discarded	
smli05	3	302	BL	Black-glazed wares	jar	1	1	9		BS		18th
smli05	3	302	CREA	Creamware	small jar/bowl	1	1	10		BS		
smli05	3	302	PORC	Porcelain	small dish ?	1	1	5	overglaze paint	BS		
smli05	3	302	PEARL	Pearlware	small dish	1	1	4	transfer print	BS		
smli05	3	302	PEARL	Pearlware	small vessel	1	1	2		BS		

# Appendix C: Medieval, Post Medieval & Modern Pottery Report

site code	trench	context	cname	full name	form type	sherds	vessels	weight	decoration	part	description	date
smli05	3	302	PEARL	Pearlware	flat	1	1	4	transfer print chinese	BS		
smli05	3	302	BL	Black-glazed wares	bowl	2	1	65		BS		19th to 20th
smli05	3	302	CREA	Creamware	small vessel	1	1	3		BS		
smli05	3	302	CREA	Creamware	bowl ?	1	1	12		BS		
smli05	3	302	WHITE	Modern whiteware	small bowl	4	1	19		BS	? ID or late creamware	
smli05	3	302	LSW2	13th to 14th century Lincoln Glazed Ware	small jug	1	1	4		BS		
smli05	3	302	NOTS	Nottingham stoneware	jar	2	1	29	roller stamping	BS		
smli05	3	302	BERTH	Brown glazed earthenware	bowl ?	1	1	5		BS		late 17th to 18th
smli05	3	302	BL	Black-glazed wares	jar	1	1	25		base	vitrified;Staffs	mid 17th to 18th
smli05	3	302	PEARL	Pearlware	flat	1	1	4	transfer print chinese	BS		
smli05	3	303	NCBW	19th-century Buff ware	?	1	1	4		base		
smli05	3	303	WHITE	Modern whiteware	large ornate vessel	1	1	72	underglaze painted floral dec	base	fluted pedestal base	
smli05	3	303	NCBW	19th-century Buff ware	hollow	1	1	2		BS	flake	
smli05	3	303	NCBW	19th-century Buff ware	?	1	1	7		base		
smli05	3	303	ENGS	Unspecified English Stoneware	small bottle	1	1	16		BS		
smli05	3	303	WHITE	Modern whiteware	?	1	1	5		BS		
smli05	3	303	PEARL	Pearlware	?	1	1	6		base		
smli05	3	303	CREA	Creamware	fluted jug ?	1	1	15		BS		
smli05	3	303	PORC	Porcelain	small dish	1	1	12		base		
smli05	3	303	PORC	Porcelain	cup	1	1	4	overglaze paint	rim	? ID	
smli05	3	303	WHITE	Modern whiteware	cup ?	1	1	9		base	? Bone China	

# Appendix C: Medieval, Post Medieval & Modern Pottery Report

site code	trench	context	cname	full name	form type	sherds	vessels	weight	decoration	part	description	date
smli05	3	303	TPW	Transfer printed ware	small cup/tea bowl	1	1	5	brown trans print with overglaze paint floral	BS	? ID or PEARL	
smli05	3	303	PEARL	Pearlware	chamber pot ?	1	1	22		rim		
smli05	3	303	NCBW	19th-century Buff ware	small jar	1	1	6	white banded	base		
smli05	3	303	ENGs	Unspecified English Stoneware	small bottle	1	1	66		BS		
smli05	3	303	BL	Black-glazed wares	large jar	1	1	43		BS		18th
smli05	3	303	ENGs	Unspecified English Stoneware	bottle/jar	1	1	4		BS		
smli05	3	303	ENGs	Unspecified English Stoneware	bottle	1	1	19		BS		
smli05	3	303	NOTS	Nottingham stoneware	jar ?	1	1	38		base		
smli05	3	303	NCBW	19th-century Buff ware	?	1	1	12		base		
smli05	3	303	NCBW	19th-century Buff ware	?	1	1	15		base		
smli05	3	303	NCBW	19th-century Buff ware	open ?	1	1	6		base		
smli05	3	303	ENGs	Unspecified English Stoneware	bottle	1	1	132		base		
smli05	3	303	TPW	Transfer printed ware	dish	1	1	7		rim		
smli05	3	303	ENGs	Unspecified English Stoneware	tiny bottle	1	1	6		rim		
smli05	3	303	CREA	Creamware	?	1	1	7		base		
smli05	3	303	NCBW	19th-century Buff ware	small jar	1	1	4	white banded with brown over painted swirls	BS		
smli05	3	303	NCBW	19th-century Buff ware	jar ?	1	1	12		base	white ext underglaze	
smli05	3	303	BASA		hollow	1	1	6	moulded dec	BS		
smli05	3	303	TPW	Transfer printed ware	dish	1	1	19		base		
smli05	3	303	TPW	Transfer printed ware	dish ?	1	1	5		BS		

# Appendix C: Medieval, Post Medieval & Modern Pottery Report

site code	trench	context	cname	full name	form type	sherds	vessels	weight	decoration	part	description	date
smli05	3	303	TPW	Transfer printed ware	fluted jug/jar	1	1	8		BS		
smli05	3	303	TPW	Transfer printed ware	?	1	1	3		BS		
smli05	3	303	TPW	Transfer printed ware	?	1	1	2		BS		
smli05	3	303	TPW	Transfer printed ware	jug	1	1	18		handle	? Or PEARL	
smli05	3	303	WHITE	Modern whiteware	jug	1	1	17	sponged	LHJ		
smli05	3	303	TPW	Transfer printed ware	hollow	1	1	4		BS		
smli05	3	303	PEARL	Pearlware	dish	1	1	3	painteds	rim		
smli05	3	303	PEARL	Pearlware	?	1	1	3		BS		
smli05	3	303	TPW	Transfer printed ware	large dish	1	1	31		rim to base		
smli05	3	304	TPW	Transfer printed ware	teapot ?	1	1	2	chinese scene	BS		
smli05	3	304	NOTS	Nottingham stoneware	small dish	1	1	70	roller stamping	rim		
smli05	3	304	BL	Black-glazed wares	cup ?	1	1	23		BS	poss refined	18th
smli05	3	304	CREA	Creamware	jar ?	1	1	18		base		
smli05	3	304	NOTS	Nottingham stoneware	?	1	1	2		BS		
smli05	3	304	NCBW	19th-century Buff ware	jar ?	1	1	4	white & brown banded	BS		
smli05	3	304	TPW	Transfer printed ware	dish	1	1	4		BS		
smli05	3	304	BL	Black-glazed wares	cup ?	1	1	12		BS	poss refined	18th
smli05	3	304	ENGS	Unspecified English Stoneware	bottle/jar	1	1	16		BS	grey stoneware	
smli05	3	304	WHITE	Modern whiteware	hollow	1	1	3		BS		
smli05	3	306	LLSW	Late Lincoln Glazed ware	jug	1	1	15		BS		
smli05	3	306	TGW	Tin-glazed ware	hollow	1	1	12		BS		
smli05	3	306	WHITE	Modern whiteware	?	1	1	1		BS	flake	
smli05	3	306	CIST	Cistercian-type ware	cup	1	1	5		BS	? ID	
smli05	3	306	CIST	Cistercian-type ware	cup	1	1	3		BS	? ID	
smli05	3	306	LSW3	14th to 15th century Lincoln Glazed Ware	jug ?	1	1	18		base	stacking scar	
smli05	3	306	TOYII	Toynton Late Medieval ware	jug	1	1	8		BS		

# Appendix C: Medieval, Post Medieval & Modern Pottery Report

site code	trench	context	cname	full name	form type	sherds	vessels	weight	decoration	part	description	date
smli05	3	306	GRE	Glazed Red Earthenware	?	1	1	8		BS	int glaze	
smli05	3	306	LSW1	12th century Lincoln Glazed ware	jug	1	1	8		basal angle		
smli05	3	306	LSW1	12th century Lincoln Glazed ware	jug	1	1	4		BS		
smli05	3	306	TGW	Tin-glazed ware	bowl	1	1	33	blue dec	rim	lead backed	early to mid/late 17th
smli05	3	306	TOYII	Toynton Late Medieval ware	jug/jar	2	1	15		BS		

## **APPENDIX D: CERAMIC BUILDING MATERIALS REPORT**

Appendix D: Ceramic Building Materials Report

site code	trench	context	cname	full name	fabric	sub type	frags	weight	description	date
smli05	2	205	PANTDISC	Pantile (discarded)			1	388		late 18th to 20th
smli05	2	206	RBRK	Roman brick	semi-vitrified		1	116	42mm thick	Roman
smli05	2	206	PNRDISC	Discarded peg, nib or ridge tile	LSWA		1	10	thin; abraded	13th

## **APPENDIX E: ANIMAL BONE REPORT**



## ANIMAL BONE REPORT

Richard Moore

A total of 385g of animal bone was retrieved from six contexts during the course of the archaeological evaluations on this site. The bone had quite a hard consistency but was fragmentary and with eroded surfaces. This would indicate that soil conditions were broadly favourable to bone preservation, but that much of the material had been exposed on the ground surface for some time before burial. Along with the relatively small quantities found, this suggests that this bone was residual material derived from scattered ambient waste, rather than the result of deliberate dumping.

Three of the contexts (302, 306 and 206) contained fragments with sawn edges. Before the introduction of cheap, machine-milled hacksaw blades, saws were unlikely to have ever been used in butchery. There is no evidence that this material has been used for fine working, and the saw marks almost certainly imply that these contexts date to the mid-nineteenth century or later.

Of particular note were the hind leg bones of a hare, found in Context 306, together with a number of small mammal ribs, possibly from the same animal. These could have been food remains, or been the remains of an animal living in the wild. The other identified bones were all from the common domestic food species: cattle, sheep and pig. An unfused leg bone in Context 302 was probably from a young dog.

The distribution of body parts shows little pattern, though two almost identically butchered ulnas in Context 206 perhaps indicate selection for a particular cut of meat. Other sites in this part of Lincoln have yielded rich assemblages of animal bone. The relative paucity of material from this site shows that there was no systematic butchery occurring nearby at the time when the deposits sampled by the evaluations were laid down. The assemblage is perhaps more characteristic of the general detritus that would accumulate in yards and gardens of a fairly densely occupied area of the city as a result of normal domestic activity.

Context	Bone	Animal	Side	Comments
206	Tooth	Cattle	L	Upper premolar.
206	Atlas	Cattle		Large frag of lower and right side of neural arch.
206	Rad+Ulna	Cattle	L	Fragment of fused shafts, ?sawn.
206	Ulna	Cattle	L	Shaft fragment.
206	Rib	Cow-sized		Large frag of prox end of shaft.
Total weight 206: 115g				
301	Calcaneum	Cattle	R	Fragment of articular region, incompletely mineralised
Total weight 301: 19g				
302	Metacarpal	Pig	L	Prox end of Mc IV.

## Appendix E: Animal Bone Report

Context	Bone	Animal	Side	Comments
302	Scapula	Sheep	L	Large fragment of blade.
302	Metapodial	Sheep		Fragment of ?metacarpal shaft.
302	Rib	Cow-sized		Large blade fragment, sawn.
Total weight 302: 45g				
303	Tibia	??Dog	L	Shaft, incompletely mineralised & missing unfused epiphyses.
303	Metatarsal	Cattle	R	Fragment with most of prox end and part shaft; cut marks.
Total weight 303: 37g				
304	??Femur	Sheep-sized		Shaft fragment.
Total weight 304: 9g				
306	Femur	Hare	R	Complete; GL 95.5, GLC 90.5, Bp 19.4, BTr 18.3, DC 7.7, SD 7.7, BD 16.0 (for measurements, see von den Driesch, 1976, p85)
306	Femur	Hare	L	Proximal end damaged.
306	Tib+Fib	Hare	R	Medial part of distal end missing.
306	Tib+Fib	Hare	L	Dist end and half of shaft missing, prox part of fibula missing.
306	Ribs	?Hare		6 ribs, one unidentified fragment.
		All of above probably from same animal.		
306	Tooth	Cattle	L	Incisor.
306	Phalange	Cattle		3rd (hoof), complete; DLS 64.5 LD 49.5 MBS 21.5 (von den Driesch, 1976, p101)
306	Femur	Cattle	R	Part of unfused distal epiphysis.
306	Tooth	Sheep	L	Upper ?first molar.
306	Metacarpal		R	Prox end and upper part of shaft only.
306	Scapula	?Cattle	L	Neck region, unfused epiphysial surface, sawn across base of blade.
306	Vertebra	Cow-sized		Cervical frag with articulating surfaces of lateral processes.
306	Ribs	Cow-sized		One large and two small fragments.
306	Unid	Cow-sized		Shaft fragment.

## Appendix E: Animal Bone Report

Context	Bone	Animal	Side	Comments
306	Unid	Sheep-sized		2 shaft or rib frags.
Total weight 306: 160g				

### Reference

von den Driesch A, 1976, A Guide to the Measurement of Animal Bones from Archaeological Sites, Peabody Museum Bulletins, Harvard University, Cambridge, Massachusetts Roman Pottery Spot Dates.

## **APPENDIX F: CLAY PIPE REPORT**

## CLAY PIPE REPORT

### Wendy Booth

Sixteen pieces of clay pipe, weighing 62 g, were recovered during the trench evaluations of the ‘Strelizia’, Michaelgate development in the centre of Lincoln. These fragments were collected from seven separate contexts.

The pieces were counted, weighed and examined by eye and the results are detailed below. The majority of the fragments were undecorated stem fragments of varying lengths, the longest at 118mm long and the shortest at 13mm long. Three of the fragments exhibited features. The 118mm long stem fragment from trench 2 (context 205), retained part of a shallow pedestal spur which would appear to date the pipe to the first half of the 18<sup>th</sup> century or earlier. One of two fragments from context 303, trench 3 retained the base of what was probably a long pedestal spur, of which 4.5mm remained, which would appear to date the pipe to the early 18<sup>th</sup> century onwards. Finally, some moulded foliate decoration was noted on single fragment recovered from context 101, trench 1, mostly on the remains of the bowl, but also utilising the first part of the stem. The decoration appears to have been poorly moulded and is not well preserved, so it was not possible to define it more closely. Decorated pipes were not common until after 1850, so this would also indicate a later date for this pipe. Due to the undiagnostic nature of the assemblage, it was not possible to gain any further information.

### Claypipe Catalogue

Trench	Context No.	Material Type	Provisional Period	Count	Weight (gms)	Comments
1	101	Clay pipe	Post-Medieval	1	5	Base of bowl with short section of stem. Moulded foliate decoration on the bowl and c. 10mm of stem.
2	204	Clay pipe	Post-Medieval	3	11	Undecorated stem frags.
2	205	Clay pipe	Post-Medieval	1	15	Undecorated stem frag.
3	301	Clay pipe	Post-Medieval	2	6	Undecorated stem frags.
3	302	Clay pipe	Post-Medieval	3	7	Undecorated stem frags.
3	303	Clay pipe	Post-Medieval	2	7	Undecorated stem frags., one with heel of bowl.
3	306	Clay pipe	Post-Medieval	4	11	Undecorated stem frags.

## **APPENDIX G GLASS REPORT**

## GLASS REPORT

### Wendy Booth

Seven fragments of glass, weighing 160 g, were recovered during the trench evaluations of the 'Strelizia', Michaelgate development in the centre of Lincoln. These fragments were recovered from three separate contexts in trench 3.

The pieces were counted, weighed and examined by eye and the results are detailed below. All the fragments except one were from post-medieval or early modern moulded bottles. The other fragment was a piece of moulded sheet glass, probably from a decorative window pane. Due to the undiagnostic nature of the assemblage, it was not possible to gain any further information.

### Glass Catalogue

Trench	Context No.	Material Type	Provisional Period	Count	Weight (gms)	Comments
3	302	Glass	Post-Medieval	3	129	Bottle neck and 1 other bottle frag. Frag. of sheet glass with moulded decoration.
3	303	Glass	Post-Medieval	2	16	Bottle glass.
3	304	Glass	Post-Medieval	2	15	Bottle glass.

# **APPENDIX H: HEAT AFFECTED STONE REPORT**



## HEAT AFFECTED STONE REPORT

### Wendy Booth

A single piece of heat affected stone, weighing 36 g, was recovered during the trench evaluations of the 'Strelizia', Michaelgate development in the centre of Lincoln. The fragment was collected from context 306 in trench 3.

The piece was weighed and examined by eye and the results are detailed below. The fragment was of a piece of limestone measuring 46mm x 43mm x 35mm, and was possibly part of a larger fragment at the time of heating, as the evidence for heating was clearly concentrated on one side of the piece. This side exhibited moderate cracking, as well as pink and black discolouration. As the context also contained modern pottery, the deposition of the stone may also be of a modern date.

### Heat Affected Stone Catalogue

Trench	Context No.	Material Type	Provisional Period	Count	Weight (gms)
3	306	Heat affected stone	Undetermined	1	36

## **APPENDIX I: IRON OBJECTS REPORT**

## IRON OBJECTS REPORT

### Wendy Booth

Three iron objects, weighing 28 g, were recovered during the trench evaluations of the ‘Strelizia’, Michaelgate development in the centre of Lincoln. These objects were collected from contexts 304 and 306 in trench 3.

The pieces were counted, weighed and examined by eye and the results are detailed below. All three iron objects appear to be nails, with the heads clearly discernible. As both contexts also contained modern pottery, the nails are probably also of a modern date.

#### Iron Objects Catalogue

Trench	Context No.	Material Type	Provisional Period	Count	Weight (gms)	Comments
3	304	Iron object	Undetermined	1	13	Nail.
3	306	Iron object	Undetermined	2	15	Nails.

## **APPENDIX J: SHELL REPORT**

## SHELL REPORT

### Wendy Booth

Twenty pieces of shell, weighing 303 g, were recovered during the trench evaluations of the ‘Strelizia’, Michaelgate development in the centre of Lincoln. These fragments were collected from six separate contexts.

The pieces were counted, weighed and examined by eye and the results are detailed below. The majority of the fragments were oyster shell and, together with the mussel and cockle shell fragments from context 306, probably constituted food debris. The other shell fragments collected were from land snails and these are probably naturally occurring in context 205. Due to the undiagnostic nature of the assemblage, it was not possible to gain any further information.

### Shell Catalogue

Trench	Context No.	Material Type	Provisional Period	Count	Weight (gms)	Comments
1	103	Shell	Undetermined	1	22	Oyster shell.
2	205	Shell	Undetermined	4	56	2 x oyster, 2 x snail.
3	301	Shell	Undetermined	1	8	Oyster shell.
3	303	Shell	Undetermined	9	182	Oyster shell.
3	304	Shell	Undetermined	1	19	Oyster shell.
3	306	Shell	Undetermined	4	16	1 x oyster, 1 x mussel, 2 x cockle.

## **APPENDIX K: FIGURES 1-5**

## **APPENDIX L: ENGINEERS PLANS**

## **APPENDIX M: PLATES**