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**ARCHAEOLOGICAL MONITORING AND  
RECORDING AT  
RED BRIDGE,  
GRIMSTHORPE,  
LINCOLNSHIRE  
(GCRB 16)**

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Work Undertaken For  
**Grimsthorpe and Drummond  
Castle Trust Limited**

November 2016

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National Grid Reference: TF 0357 2248  
The Collection Accession No: LCNCC: 2016.129  
OASIS Record No: archaeol1-269561

APS Report No. **89/16**

**ARCHAEOLOGICAL  
PROJECT  
SERVICES**



Cover Undated photograph of the Red Bridge (*Courtesy of Grimsthorpe and Drummond Castle Trust Limited*)

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## 1. SUMMARY

*A programme of archaeological investigations was undertaken at the Red Bridge, Grimsthorpe, Lincolnshire. The investigations comprised a survey of the Bridge/Causeway and a programme of archaeological monitoring and recording during groundworks associated with its repair and renovation.*

*The Red Bridge is in fact an earthen dam, incorporating a folly bridge, which divides the Great Lake from Red Bridge Pond. It lies within the landscaped gardens of Grimsthorpe Castle, designed in part by Lancelot 'Capability' Brown during the later 18<sup>th</sup> century, although the Red Bridge was probably constructed by John Grundy, who worked at Grimsthorpe during the mid-18<sup>th</sup> century.*

*The investigation monitored exploratory works undertaken prior to the potential restoration of the bridge. The works revealed a brick retaining wall upon which was constructed the mock bridge. Also revealed was the partial metalling of the track, the Four Mile Riding, which was carried over the dam/bridge.*

## 2. INTRODUCTION

### 2.1 Definition of a Watching Brief

An archaeological watching brief is defined as “a formal programme of observation and investigation conducted during any operation carried out for non-archaeological reasons. This will be within a specified area or site on land, inter-tidal zone or underwater, where there is a possibility that archaeological deposits maybe disturbed or destroyed.” (ClfA 2014b).

### 2.2 Background

The Red Bridge is an earthen dam incorporating a folly bridge which divides the Great Lake from Red Bridge Pond. Remedial repairs are considered necessary and so limited excavation behind two of the bridges stone arches was proposed in order to uncover the existing foundation arrangements and provide engineers with information to inform future repair work.

Archaeological Project Services was commissioned by Grimsthorpe and Drummond Castle Trust Limited to undertake archaeological investigations prior to the exploratory works. The work was undertaken between the 3<sup>rd</sup> and 7<sup>th</sup> November 2016 in accordance with a Scheme of Works prepared by Archaeological Project Services and approved by the Historic Environment Service, Lincolnshire County Council.

### 2.3 Site Location

Grimsthorpe is located 15km north of Stamford and 22km west of Spalding in the administrative district of South Kesteven, Lincolnshire (Fig. 1).

Red Bridge is situated 920m west and slightly south of Grimsthorpe Castle within Grimsthorpe Park (Fig. 3). It spans an artificial lake within a valley, and lies at a height of c. 44m OD centred on National Grid Reference TF 0357 2248 (Fig. 2).

Local soils at the site are of the Elmton 3 Association, typically shallow loamy and clayey soils (Hodge *et al.* 1984, 181). These soils overlie a solid geology of Jurassic Cornbrash (GSGB 1972).

### 3. AIMS

The aim of this work was to record and interpret the deposits and any archaeological features exposed during the development groundworks. The objectives were to;

- Determine the form and function of the archaeological features encountered;
- Determine the spatial arrangement of the archaeological features encountered;
- As far as practicable, recover dating evidence from archaeological deposits, and
- Establish the sequence of the archaeological remains present on the site.

### 4. METHODS

The mock bridge in its original form comprised 13 arches set into the upstream side of an earthen dam (Fig. 3). There are two minor overflow sluices at each end of the dam with a central drainage sluice. Silting and vegetation has buried much of the bridge structure so that only six arches are visible. These have also suffered from collapse and loss of masonry.

A mechanical excavator was employed to remove limited material from behind Arches 11 and 12 in order to expose the underlying structural remains. Exposed surfaces were cleaned and each deposit identified was allocated a unique reference number (context number) with an individual written description. A list of all contexts and their descriptions appears as Appendix 1. A photographic record was compiled and sections were drawn at a scale of 1:10 and 1:20. Recording was undertaken according to standard Archaeological Project Services' practice.

The location of areas of excavation were surveyed using a survey grade differential GPS and all plans and sections were tied into the Ordnance Survey National Grid.

Following excavation, the records were checked and a stratigraphic matrix produced. Phasing was assigned based on the nature of the deposits and recognisable relationships between them.

### 5. HISTORICAL BACKGROUND

Grimsthorpe is first mentioned in the Red Book of the Exchequer of 1166 and was a secondary settlement, as implied by the Old Danish suffix *Thorpe*, of Edenham (Cameron 1998, 54). Edenham at the time of Domesday (c. 1086) was largely held by Gilbert de Ghent and was the centre of a large estate with sokeland in a number of surrounding parishes (Foster and Longley 1976, 25/23). Despite its relevant importance in south Lincolnshire, Edenham was still subservient to Gilbert's *caput* at Folkingham.

Despite being a secondary manor to Folkingham, surviving evidence suggests that the Castle at Grimsthorpe was constructed in the 13<sup>th</sup> century, before Folkingham Castle was given licence to crenellate in 1312 (Cathcart-King 1983, 261). Grimsthorpe Castle was possibly built to serve a number of deer parks situated amidst the woodland.

The park is believed first to have been landscaped during the mid-17<sup>th</sup> century by the 14<sup>th</sup> Lord Willoughby de Eresby. Dating to this period is the Four Mile Riding which connected two deer parks, one to the east of the Castle and one in the south of the estate. An engraving by Kip shows the Four Mile Riding crossing a dam between two very formal lakes.

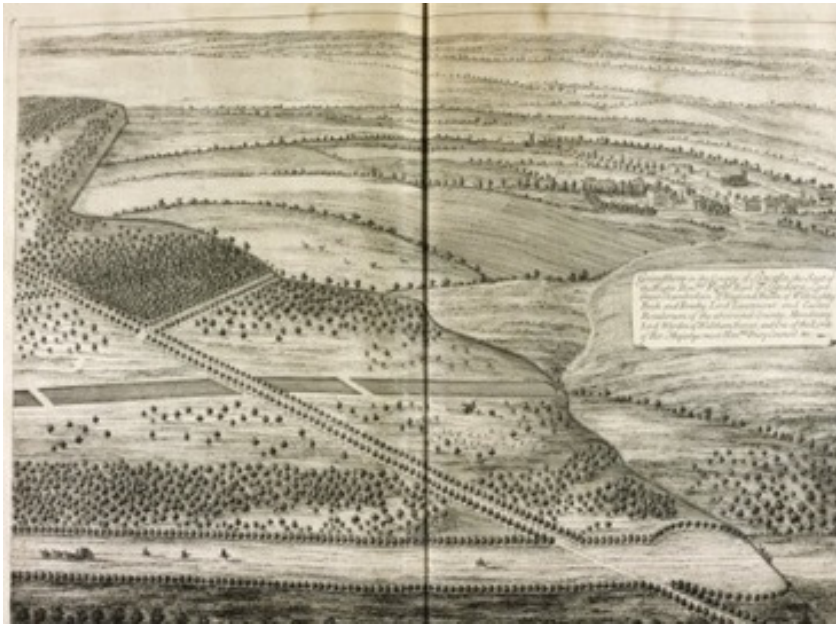


Plate 1 – Kip's view showing the Four Mile Riding connecting the avenue and crossing the formal lakes (left of centre)

Between 1744 and 1752, the Duke of Ancaster commissioned the Spalding engineer, John Grundy Jnr, to undertake improvements to the estate. A number of improvements concerned the lakes of the estate and plans for naturalising the *Great Lake* are dated to 1746. This shows the mock bridge, comprising at least 11 arches, incorporated into the dam depicted by Kip. The upper lake is named as Red Bridge Pond. Grundy's proposals for the Vaudey Pond included a similar mock bridge incorporated into the dam (Plate 2), the Rococo style of which is in keeping with the Red Bridge.



Plate 2 – Grundy's proposed sham bridge over the Vaudey Pond

## 6. RESULTS

The investigation area is shown in Figure 3 with a detailed plan of Arch 12 provided as Figure 4.

Contexts are listed and described below. The numbers in brackets are the context numbers assigned in the field. Detailed descriptions are also found in Appendix 1.

The earliest feature recorded during the investigation was a hand-made brick retaining wall (1105). This span the full width of the arch (Plate 5) and is likely to extend for the full length of the bridge, apart from the central sluice gate. It was constructed in stretcher bond and was at least 15 courses high (> 0.95m).

Constructed on wall (1105) was the stone wall and arches. Arch 12 had previously collapsed with only the first springer still remaining adjacent to the arch recess to a height of 0.45m. The wall was carried on into the recess as (1102) and survived to a height of 0.6m (Fig. 4, Section 1; Plate 6). This wall was capped by limestone slabs (1101) which also provided a kerb or edging to a metal track (1108), representing the Four Mile Riding, and comprising smaller limestone fragments (Plate 7).

Behind the upper course of the brick wall (1105) was a limestone surface (1103) contained within the arch recess represented by walls (1104 and 1102). The limestone blocks measured approximately 0.2m by 0.1m in extent.

A trench excavated against the brick retaining wall (1105) revealed a firm/plastic light greyish blue clay (1106) which measured approximately 1m thick. This was interpreted as a possible lining to Red Bridge Pond. This was subsequently sealed by recent pond deposition in the form of soft dark greyish brown silt (1107).

### **The Finds**

*By Alex Beeby*

#### **Introduction**

The Brick was recorded at archive level in accordance with the guidelines laid out by the Archaeological Ceramic Building Materials Group (2002) and to conform to Lincolnshire County Council's *Archaeology Handbook*. A single fragment of ceramic building material, weighing 3046 grams was recovered from the site.

#### **Methodology**

The material was laid out and weighed. The ceramic building material was examined visually and using x20 magnification. This information was then added to an Access database. An archive list of the ceramic building material is included in Table 1 below.

#### **Condition**

There is a complete brick. The item is fresh and unabraded. All of the surfaces, with the exception of one stretcher face, have mortar adhered.

#### **Results**

*Table 1, Ceramic Building Material Archive*

<b>Cxt</b>	<b>Cname</b>	<b>Fabric</b>	<b>NoF</b>	<b>W(g)</b>	<b>Description</b>	<b>Date</b>
1105	BRK	Oxidised; fine-medium sandy	1	3046	Complete brick; sand moulded very fresh condition; 232mm x 112mm x 56mm; stuck upper; basal stacking scar	18th-M19th

#### **Provenance**

The brick was recovered from a foundation course within Arch 11 in the Red Bridge (1105).

#### **Range**

There is a single handmade brick measuring 232mm x 112mm x 56mm. The brick is highly fired in a slightly sandy oxidised fabric. The piece is entirely consistent in size and finish with others produced during the later post-medieval period.

#### **Potential**

The brick was collected specifically for specialist examination and is not worthy of retention. The piece has been discarded.

## **7. DISCUSSION**

The investigations, undertaken around the collapsed arch and recess of Arch 12, revealed the method of construction of John Grundy's mock bridge. No evidence for an earlier dam, as shown in engravings of c. 1700, was revealed but it is likely that the brick retaining wall was constructed alongside the former dam. The brick is contemporary with Grundy's involvement



at Grimsthorpe Park. Above the brickwork were the remains of the stone mock bridge, which in its original form is similar to designs prepared by Grundy for proposed bridges elsewhere at Grimsthorpe. Moreover, the Red Bridge and the modelling of Red Bridge Pond and the Great Water predate Lancelot 'Capability' Brown's work involvement at Grimsthorpe of c. 1771.

The investigations also revealed the former metalling of the Four Mile Riding which was carried over the lakes by the preceding dam and subsequently the Red Bridge.

## 8. CONCLUSION

Archaeological monitoring and recording was undertaken during exploratory works on the Red Bridge, Grimsthorpe, in advance of the possible restoration of the sham bridge.

The work revealed the structure of the mid-18<sup>th</sup> century Rococo sham bridge constructed by John Grundy. No earlier dam structure was revealed during these works that would have carried the Four Mile Riding across known ornamental lakes perhaps dating to the 17<sup>th</sup> century.

## 9. ACKNOWLEDGEMENTS

Archaeological Project Services wishes to acknowledge the assistance of Mr T Clarke, Managing Agent for Grimsthorpe and Drummond Castle Trust Limited, for commissioning the investigations. Additional assistance was also provided by Mr R Giles-Grant of Abacus Design Associates and surveys were based on those undertaken by the Greenhatch Group. Thanks are also due to the staff of Lincolnshire Archive Office and Liz Bates kindly allowed access to the parish files and library maintained by Heritage Lincolnshire. The project was coordinated by Paul Cope-Faulkner. Gary Taylor edited this report along with Denise Drury.

## 10. PERSONNEL

Project Coordinator: Paul Cope-Faulkner  
Supervisor: Neil Parker  
Finds Processing: Denise Buckley  
Finds Analysis: Alex Beeby  
Photographic Reproduction: Sue Unsworth  
Archiving : Sarah Pritchard  
Illustration: Paul Cope-Faulkner, Andrew Failes  
Analysis and Reporting: Paul Cope-Faulkner, Andrew Failes

## 11. BIBLIOGRAPHY

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LAO 3ANC 5/84-7 *Bundle of maps of the estate, mainly engravings by J Kip, 18<sup>th</sup> century*

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## 12. ABBREVIATIONS

ACBMG	Archaeological Ceramic Building Materials Group
ALGAO	Association of Local Government Archaeological Officers
APS	Archaeological Project Services
CBM	Ceramic Building Material
ClfA	Chartered Institute for Archaeologists
CXT	Context
GSGB	Geological Survey of Great Britain
NoF	Number of Fragments
OS	Ordnance Survey
W(g)	Weight (grams)



Figure 1 - General location plan

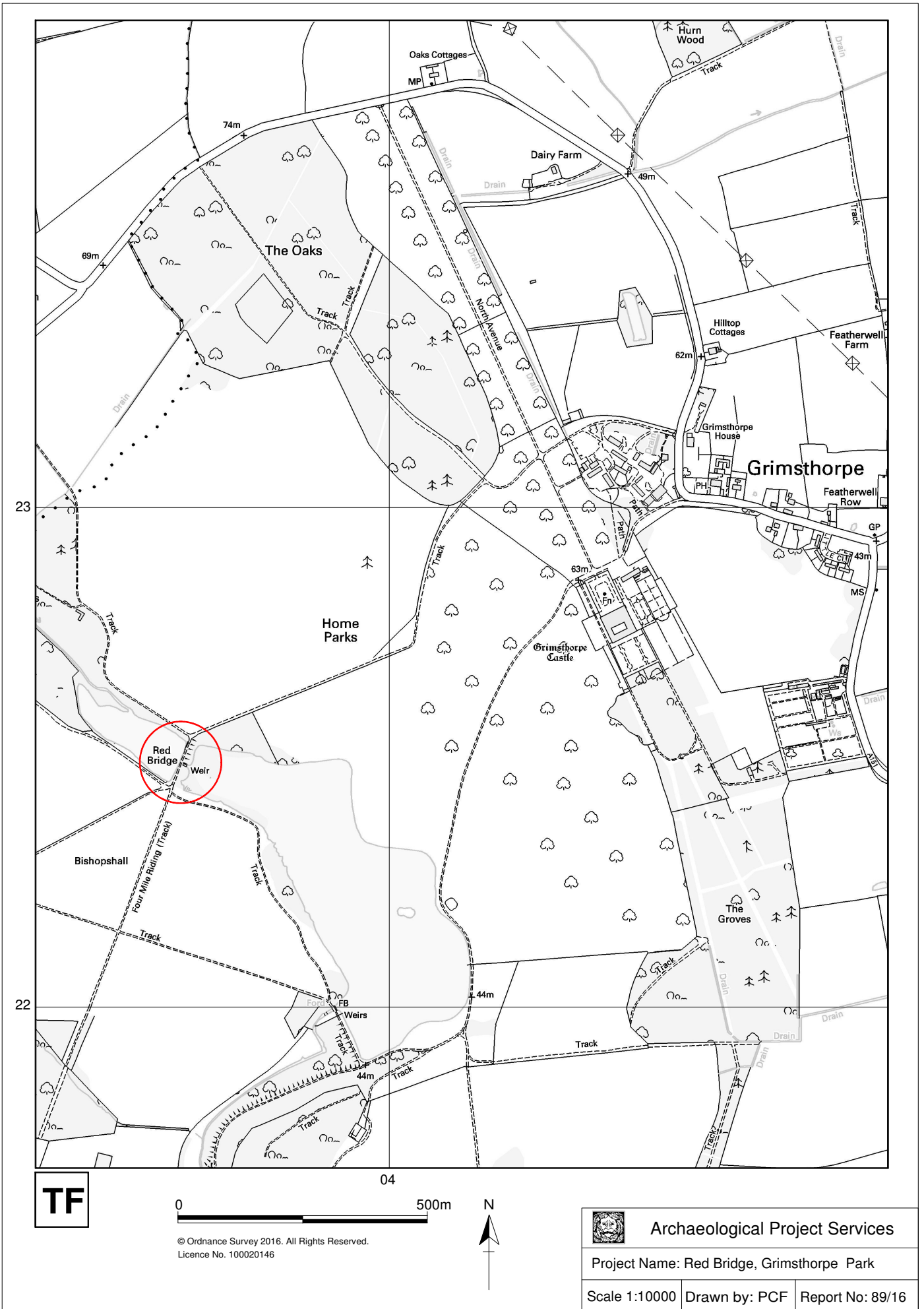
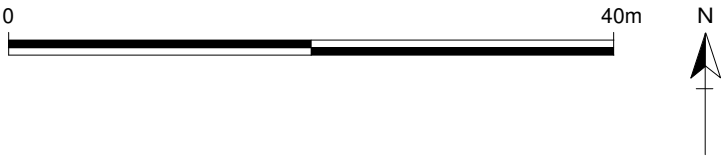
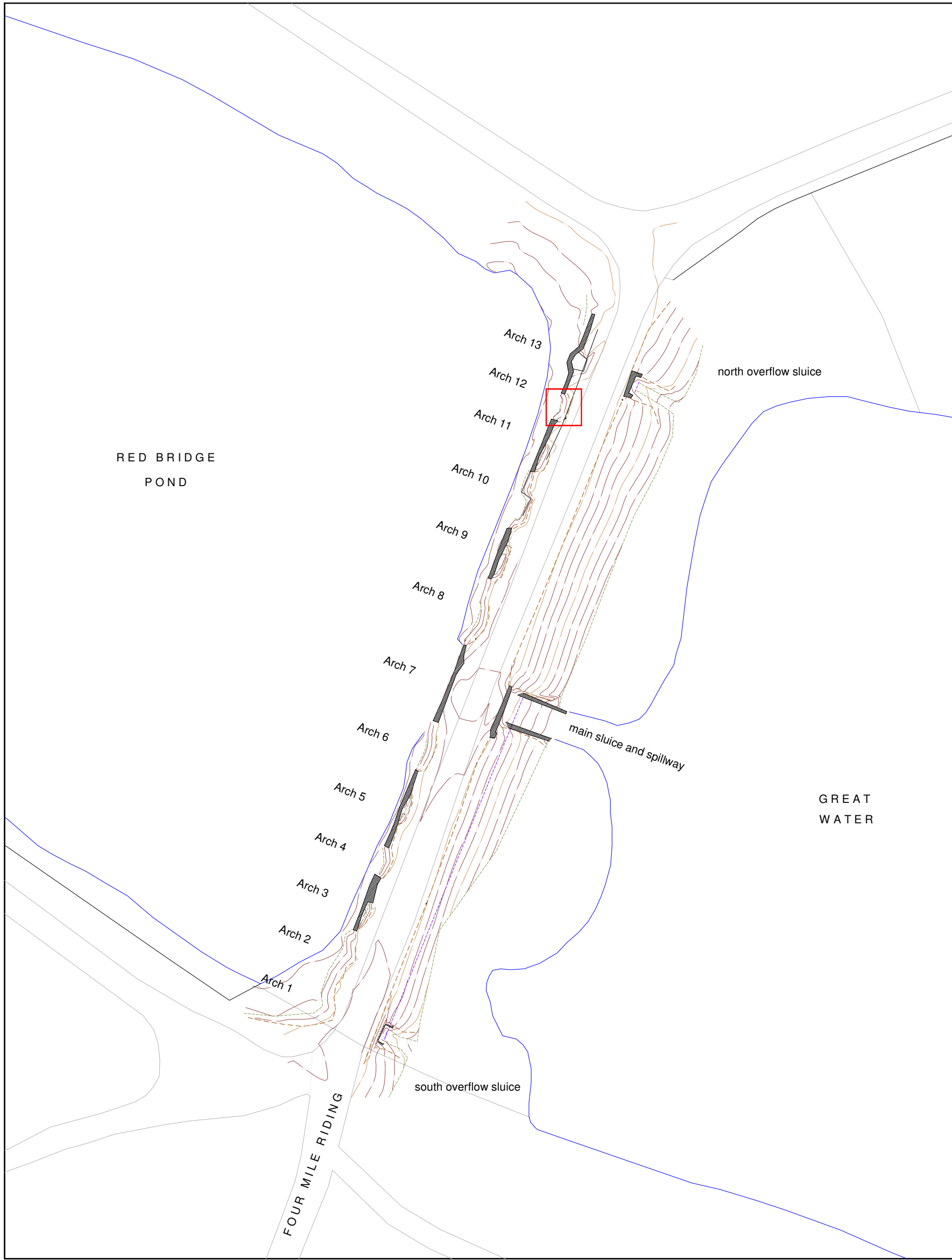




Figure 2 - Site location plan



-  Masonry
-  Area detailed in Figure 4


 Archaeological Project Services		
Project Name: Red Bridge, Grimsthorpe Park		
Scale 1:500	Drawn by: PCF	Report No: 89/16

Figure 3 - Plan of the Red Bridge showing location of exploratory works

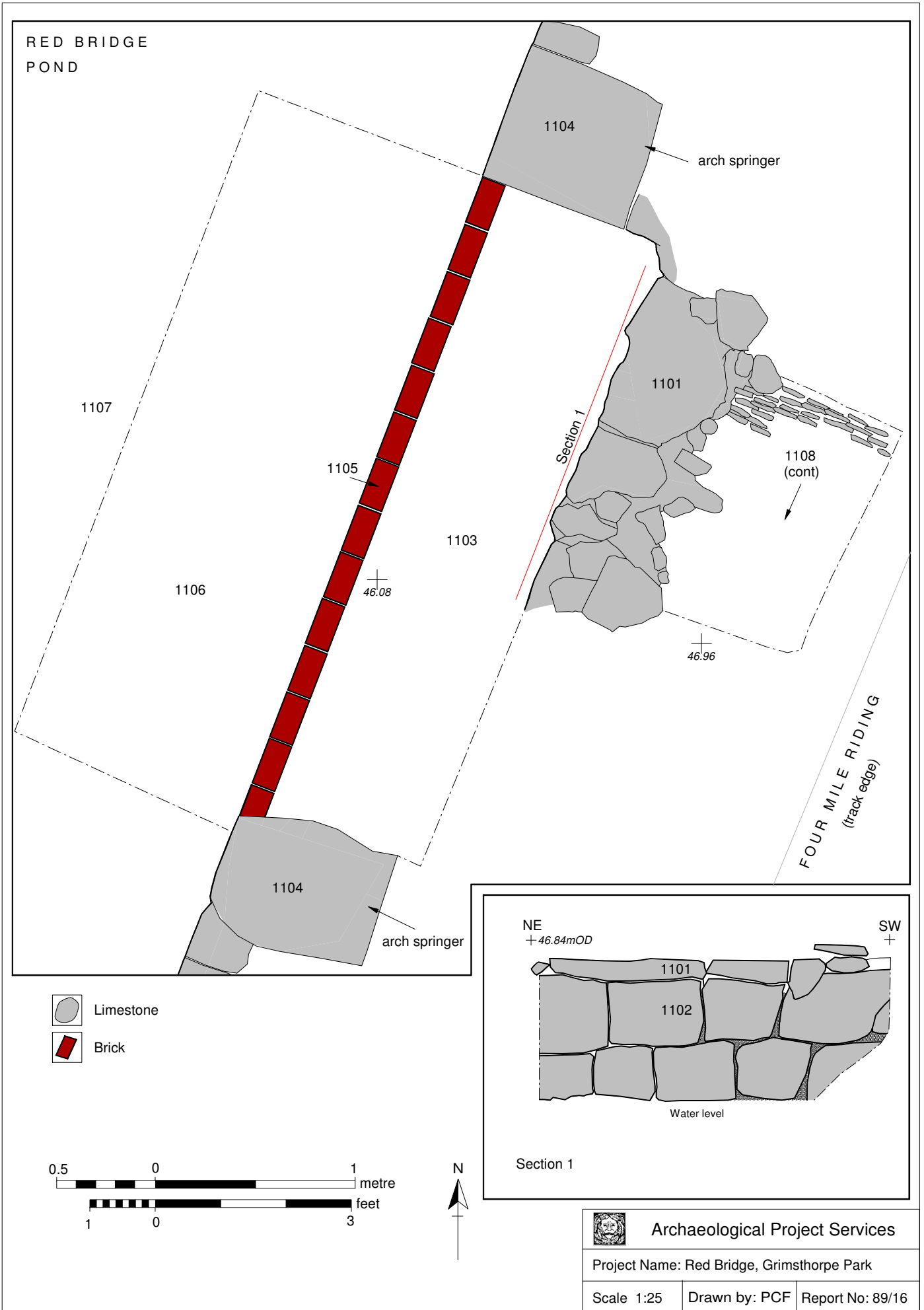


Figure 4 - Arch 12: Plan and section



Plate 3 – View looking along Red Bridge to the area of investigation, Arch 11 in the foreground, looking northeast



Plate 4 – Excavation of the recess behind Arch 12



Plate 5 – The investigation area following excavation showing the brick retaining wall (1105) and limestone superstructure (1104), looking southeast



Plate 6 – Section 1, looking east



Plate 7 – View showing the former metalling (1108) of the Four Mile Riding



## Appendix 1

### CONTEXT SUMMARY

No.	Description	Interpretation
1101	Rough unfaced limestone slabs, 150mm thick and up to 0.5m wide by 0.8m long in a single course with gaps, capping a retaining wall and facing west, approximately 2.5m by 0.6m of this context exposed in Arch 11	Capping stones on western retaining wall behind Arch 11
1102	Roughly faced limestone block retaining wall, with blocks up to 0.4m thick by 0.6m wide, no pattern to coursing, 2.5m in length by 0.8m height	Retaining wall behind Arch11
1103	Unfinished angular limestone blocks c. 0.2m x 0.1m average size forming hardstanding base	Stone surface within arch recess
1104	Squared and faced limestone blocks the largest of which is 0.7m long by 0.5m wide by 0.4m thick, mostly collapsed	Arch and wall of mock bridge
1105	120mm by 60mm by 240mm size bricks forming structure below arch, 15 courses revealed	Retaining wall
1106	Firm to plastic light greyish blue clay, containing frequent angular limestone fragments of various sizes, approximately 1.1m thick	Pond lining?
1107	Soft dark greyish brown silt with organic content	Pond silt
1108	Packed limestone metalled surface, 1m by 1m extent exposed	Causeway surface

## Appendix 2

### GLOSSARY

<b>Caput</b>	The chief or central settlement of an estate, the latter having probable early medieval origins.
<b>Context</b>	An archaeological context represents a distinct archaeological event or process. For example, the action of digging a pit creates a context (the cut) as does the process of its subsequent backfill (the fill). Each context encountered during an archaeological investigation is allocated a unique number by the archaeologist and a record sheet detailing the description and interpretation of the context (the context sheet) is created and placed in the site archive. Context numbers are identified within the report text by brackets, e.g. [004].
<b>Domesday Survey</b>	A survey of property ownership in England compiled on the instruction of William I for taxation purposes in 1086 AD.
<b>Layer</b>	A layer is a term used to describe an accumulation of soil or other material that is not contained within a cut.
<b>Medieval</b>	The Middle Ages, dating from approximately AD 1066-1500.
<b>Post-medieval</b>	The period following the Middle Ages, dating from approximately AD 1500-1800.

## Appendix 3

### THE ARCHIVE

The archive consists of:

8	Context records
1	Photographic record sheet
1	Section record sheet
1	Plan record sheet
2	Daily record sheets
3	Sheets of scale drawings

All primary records and finds are currently kept at:

Archaeological Project Services  
The Old School  
Cameron Street  
Heckington  
Sleaford  
Lincolnshire  
NG34 9RW

The ultimate destination of the project archive is:

The Collection  
Art and Archaeology in Lincolnshire  
Danes Terrace  
Lincoln  
LN2 1LP

Accession Number	LCNCC: 2016.129
Archaeological Project Services Site Code:	GCRB 16
OASIS Record Number	archaeo11-269561

The discussion and comments provided in this report are based on the archaeology revealed during the site investigations. Other archaeological finds and features may exist on the development site but away from the areas exposed during the course of this fieldwork. *Archaeological Project Services* cannot confirm that those areas unexposed are free from archaeology nor that any archaeology present there is of a similar character to that revealed during the current investigation.

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**OASIS ID: archaeol1-269561**

### Project details

Project name	Red Bridge, Grimsthorpe Park
Short description of the project	Exploratory work undertaken prior to potential restoration of the Red Bridge, a mock bridge set into an earthen dam, revealed the structural make-up of the mid-18th century bridge designed by John Grundy of Spalding.
Project dates	Start: 03-11-2016 End: 07-11-2016
Previous/future work	No / Not known
Any associated project reference codes	GCRB16 - Sitecode
Any associated project reference codes	LCNCC: 2016.129 - Museum accession ID
Type of project	Recording project
Site status	English Heritage List of Parks and Gardens of Special Historic Interest
Current Land use	Other 15 - Other
Monument type	ROCK BRIDGE Post Medieval
Significant Finds	BRICK Post Medieval
Investigation type	"Watching Brief"
Prompt	Voluntary/self-interest

### Project location

Country	England
Site location	LINCOLNSHIRE SOUTH KESTEVEN EDENHAM Red Bridge, Grimsthorpe Park
Study area	19 Square metres
Site coordinates	TF 0357 2248 52.789599394212 -0.463979365225 52 47 22 N 000 27 50 W Point

### Project creators

Archaeological Project Services

Name of Organisation	
Project brief originator	None
Project design originator	Paul Cope-Faulkner
Project director/manager	Paul Cope-Faulkner
Project supervisor	Neil Parker
Type of sponsor/funding body	Other Charitable Trust
Name of sponsor/funding body	Grimsthorpe and Drummond Castle Trust

### Project archives

Physical Archive recipient	The Collection
Physical Archive ID	LCNCC:2016.129
Physical Contents	"Ceramics"
Digital Archive recipient	Archaeological Project Services
Digital Contents	"Ceramics","Stratigraphic","Survey"
Digital Media available	"Images raster / digital photography","Images vector","Survey","Text"
Paper Archive recipient	The Collection
Paper Contents	"Ceramics","Stratigraphic","Survey"
Paper Media available	"Aerial Photograph","Context sheet","Correspondence","Map","Notebook - Excavation',' Research',' General Notes","Photograph","Plan","Report","Section","Survey "

### Project bibliography 1

Publication type	Grey literature (unpublished document/manuscript)
Title	Archaeological Monitoring and Recording at Red Bridge, Grimsthorpe Park, Lincolnshire (GCRB 16)
Author(s)/Editor(s)	Cope-Faulkner, P and Failes, A
Other bibliographic details	89/16
Date	2016
Issuer or publisher	Archaeological Project Services
Place of issue or publication	Heckington, Sleaford
Description	A4 comb-bound with one A3 sheet
Entered by	paul (info@apsarchaeology.co.uk)
Entered on	23 November 2016