LANCASTER, LANCASHIRE





WATCHING BRIEF REPORT CP. No: 10024/11 24/04/2012

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Quality Assurance

This report covers works as outlined in the brief for the above-named project as issued by the relevant authority, and as outlined in the agreed programme of works. Any deviation to the programme of works has been agreed by all parties. The works have been carried out according to the guidelines set out in the Institute for Archaeologists (IfA) Standards, Policy Statements and Codes of Conduct. The report has been prepared in keeping with the guidance set out by North Pennines Archaeology Ltd on the preparation of reports.

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SUMMARY

WA Archaeology Ltd (formerly NP Archaeology Ltd) were commissioned by United Utilities, to undertake an archaeological watching brief during groundworks associated with improvements to overflows on the north bank of the River Lune, referred to as 'Lancaster UID' (Unsatisfactory Intermittent Discharges)' on land to the south of Scale Hall and at Lune Street in Lancaster (NGR SD 4647 6237, SD 4772 6231, SD4799 6261).

This work follows an earlier desk-based assessment undertaken by NP Archaeology Ltd in 2011 which noted that there was the potential for the survival of Roman, medieval and post-medieval deposits within the development areas

The archaeological watching brief was undertaken over 35 days on and off between August 2011 and February 2012. The watching brief monitored topsoil stripping and shaft excavations in Areas A, B and C. Some 20th century remains were identified in Areas B and C, in the form of a stone wall and concrete curb from a road surface in Area C and two brick walls and a stone wall in Area B. In area C these remains appear to relate to housing demolished in the 20th century. In Area B the walls may be from buildings demolished for redevelopment at the north-east end of Lune Street, in particular the new road surface, again a 20th century development.

As this archaeological watching brief was conducted as part of a recommendation to observe groundwork's in association with the development of an improved overflow system into the River Lune, and since no archaeology of any significance was revealed, no further work is deemed necessary. However, given the high archaeological potential of the area, it is recommended that any future work be subject to a programme of archaeological investigation.

ACKNOWLEDGEMENTS

WA Archaeology Ltd would like to thank United Utilities for commissioning the project, and for all assistance throughout the work. WA Archaeology Ltd would also like to extend their thanks to Peter Caradice of Volker Stevin, and all staff at the site, for their help during this project.

The archaeological watching brief was undertaken by Miranda Haigh, Don O'Meara and Christopher Muirhead. The report was written by Miranda Haigh and Christopher Muirhead and the drawings were produced by Adrian Bailey. The project was managed by Frank Giecco, Project Manager for WA Archaeology Ltd.

1 INTRODUCTION

- 1.1 WA Archaeology Ltd were invited by United Utilities to maintain an archaeological watching brief at Lancaster UID, Lancaster, Lancashire SD 4647 6237, SD 4772 6231, SD4799 6261 Figure 1), during groundwork's associated with the insertion of a new rising main beneath the River Lune from the south bank and the insertion of new pipes and chambers. The proposed works lie in an area with a high potential of Roman, medieval and post-medieval remains to survive sub-surface.
- 1.2 A previous desk-based assessment had been produced by NP Archaeology Ltd (Strickland 2011) which identified a number of historic structures and features within the development area that were likely to be impacted by the proposed development. As a result, Lancashire County Council archaeological Service requested that all ground reduction be subject to a programme of archaeological observation and investigation. This was in line with government advice as set out in the DoE Planning Policy Guidance on Archaeology and Planning (PPG 16).
- 1.3 All groundwork's associated with the development of the improvement of overflows located on the north bank of the River Lune had to be excavated under full archaeological supervision and all stages of the archaeological work were undertaken following approved statutory guidelines (IfA 2008), and were consistent with the specification provided by NP Archaeology Ltd (Railton 2011) and generally accepted best practice.
- 1.4 This report outlines the monitoring works undertaken on-site, the subsequent programme of post-fieldwork analysis, and the results of this scheme of archaeological works.

2 METHODOLOGY

2.1 Project Design

2.1.1 A project design was submitted by WA Archaeology Ltd (formerly NP Archaeology Ltd) in response to a request by United Utilities, for an archaeological watching brief of the study area (Railton 2011). Following acceptance of the project design by Doug Moir, Archaeology Planning Officer of Lancashire County Council Archaeology Service, WA Archaeology Ltd was commissioned by the client to undertake the work.

2.2 THE WATCHING BRIEF

- 2.2.1 The works involved a structured watching brief to observe, record and excavate any archaeological deposits revealed during the groundworks. A watching brief is a formal programme of observation and investigation conducted during any operation carried out for non-archaeological reasons, on a specified area or site on land, inter-tidal zone or underwater, where there is a possibility that archaeological deposits may be disturbed or destroyed (IfA 2008).
- 2.2.2 The aims and principal methodology of the watching brief can be summarised as follows:
 - to establish the presence/absence, nature, extent and state of preservation of archaeological remains and to record them;
 - to carry out further excavation and recording work in adequate time, if intact archaeological remains are uncovered during the project;
 - to accurately tie the area watched by the archaeologist into the National Grid at an appropriate scale, with any archaeological deposits and features adequately levelled;
 - to sample environmental deposits encountered as required, in line with English Heritage (2002) guidelines;
 - to produce a photographic record of all contexts using colour digital with each photograph including a graduated metric scale;
 - to recover artefactual material, especially that useful of dating purposes;
 - to produce a site archive in accordance with MAP2 (English Heritage 1991) and MoRPHE standards (English Heritage 2006).

- 2.2.3 Archaeological monitoring and supervision of groundworks associated with the stripping and excavations commenced on 25th August 2011 and continued intermittedly until the 17th February 2012. The area between the Skerton Bridge and high-rise, and the River Lune and Mainway was stripped of topsoil before two large shafts and a trench were excavated (Figure 4). Shafts were dug on the south side of the river next to the pumping house near where an area was stripped right up to the river (Figure 4); an area of topsoil was stripped on the corner of Owen Road and Lune Street (Figure 3); and an area of topsoil was stripped and a shaft was excavated next to the sports ground at Salt Ayre (Figure 2). A trench was dug along Lune Street which was monitored at the north and south ends (Figure 3).
- 2.2.4 A summary of the findings of the watching brief is included within this report.

2.3 THE ARCHIVE

- 2.3.1 A full professional archive has been compiled according to the Archaeological Archives Forum recommendations (Brown 2007). The archive will be deposited within Lancashire Record Office at Preston, with copies of the report sent to the County Historic Environment Record at Preston, where viewing will be made available upon request.
- 2.3.2 WA Archaeology Ltd and Lancashire County Council, support the Online AccesS to the Index of Archaeological InvestigationS (OASIS) project. This project aims to provide an on-line index and access to the extensive and expanding body of grey literature, created as a result of developer-funded archaeological work. As a result, details of the results of this project will be made available by WA Archaeology, as a part of this national project.

3 SITE LOCATIONS AND GEOLOGY

- 3.1 Lancaster lies within the distinctive flat lowlands of the Morecambe Coast and Lune Estuary. The Morecambe Coast and Lune Estuary are bounded by the Lancashire and Amounderness Plain to the south and the Bowland Fringe to the east (Countryside Commission 1998). The proposed development comprised of three areas; Site A was to the south of Scale Hall, adjacent to the car park of the Salt Ayre Sports Centre. Sites B and C were located along Lune Street and an area parallel to Mainway that consisted of a footpath in an area known as the Ramparts (Figures 1 and 2).
- 3.2 The underlying solid geology of the area consists of Upper Carboniferous coarse-grained sandstones of the Pendle Grit Formation. The overlying deposits comprise mixed drift geology, and predominantly fluvio-glacial sheet horizons of clayey sandy gravel and gravel.
- 3.3 For the historical background to the present areas of study, the earlier desk-based assessment by North Pennines Archaeology Ltd should be consulted (Strickland 2011).

4 ARCHAEOLOGICAL WATCHING BRIEF

4.1 Introduction

4.1.1 The first phase of the watching brief monitoring was undertaken between the 25th August 2011 and the 1st September 2011. This related to the controlled stripping of the soil along the south side of the river bank in Area C (Figure 4).

4.2 Phase 1: Topsoil Strip in area C

- 4.2.1 The watching brief covered the controlled stripping of deposits around the site prior to the insertion of the new rising main beneath the River Lune (Figure 4).
- 4.2.2 The topsoil was stripped by a JCB tracked excavator. The topsoil (100) was comprised of dark bluish grey/black sandy gravelly soils with frequent ash and coal inclusions (Plate 1). It contained 19th and 20th century pottery sherds, fragments of rail track, bricks and electrical cable. This obviously indicated 20th century made ground associated with the old railway, and it was present across the whole of the site to a depth of *c*.0.5m-1m. Beneath this made ground, the natural drift geology (101) a reddish brown alluvial sandy silt was visible. Underneath this layer, in a small area right adjacent to the river, river gravels (102) were uncovered and this is where excavation ended.



Plate 1: View into the section of the strip on the south side of the River Lune

4.3 Phase 2 Introduction

4.3.1 The watching brief monitoring was undertaken between the 1st November 2011 and the 17th February 2012. The area between the Skerton Bridge and high-rise and the River Lune and Mainway was stripped of topsoil, where two shafts and a trench were also excavated (Figure 4). A shaft was excavated on the south side of the river next to the pumping house (Figure 4); a trench was excavated along Lune Street and an area of topsoil was stripped on the corner of Owen Road and Lune Street (Figure 3); and an area of topsoil was stripped and a shaft was excavated next to the sports ground at Salt Ayre (Figure 2).

4.4 Area A

4.4.1 The watching brief covered the controlled stripping of deposits around the site prior to the insertion of an off line sewer tank (Figure 2). Work was conducted with a tracked 360 degree excavator and the ground was reduced down to the level of an existing tank. The ground above this tank was a single deposit of modern made ground with 20th century rubbish in it.

4.5 Area C

- 4.5.1 The area between the Skerton Bridge and high-rise and the River Lune and Mainway was stripped of topsoil with a tracked 360 degree excavator (Figure 4). The topsoil (001) was comprised of mid-brown loamy soils with inclusions of modern rubbish and building material and was around 15cm deep. Beneath this, showing through in places, was a compact light redbrown silt (002) with inclusions of stones around 10cm diameter. After the 15cm layer of topsoil had been removed at the north end of the area a stone wall was recorded [006] partly consisting of sandstone blocks. The wall measured 4.9m in length by 0.6m in width, was aligned west north west east south east, and was bonded together with mortar and with flat outer faces (Plate 2).
- 4.5.2 Further south in the same area a stepped shaft was excavated 4.5 m wide south east to north west by 4 m for a concrete chamber (Figure 4). This went through *c*.1.5 m of (003), a mix of yellow-brown pebble and brown soil with inclusions of stone 10 15cm in diameter which was a modern deposit. Beneath this was revealed [005] three concrete blocks around 1.8m deep aligned east to west 77cm long by 31cm wide with a worn surface (Plate 3), (004) oily black soil to the north of [005], and [008] a large sandstone 1m by 70cm. [005] had a square shaped rust mark which may indicate the position of the remains of a metal fixture immediately beneath. These features were taken to be remains of the housing and associated streets demolished in the 20th century for redevelopment.



Plate 2: Photograph of stone wall [006] at north end of north bank of Area C from south



Plate 3: Photograph of (005) concrete curbs at south west end of Area ${\sf C}$

- 4.5.3 A square hole was dug to the south east of the high-rise to the west of the path along the River Lune 4m by 3m for a concrete chamber (Figure 4). A trench around 2m wide was excavated from this hole south west towards the large stepped shaft. These excavations revealed a modern tarmac surface just below the topsoil with successive layers of hard packed building material and industrial material (010) and (011) with slag and brick fragment inclusions beneath down to a depth of approximately 2m. No features of archaeological significance were observed.
- 4.5.4 At the south side of the River Lune a deep trench was dug for a new sewer pipe (see Figure 4) next to the pumping house to connect to existing works. This was excavated with a tracked 360 degree excavator that cut into a layer of dark-grey clay/silt (015) 2.5m thick that had modern rubbish in it, and (016) another 2.5m thick layer of grey-brown silt with pebbles and modern rubbish, both obviously made ground deposits (landfill). Beneath these were (017) a water-logged dark grey silty-gravel with pebbles which might have been natural river gravel or natural redeposited when the existing tank was inserted. Due to the depth of the excavation, shoring was used which inhibited the view of the sections.

4.6 Area B

4.6.1 The watching brief covered the controlled stripping of around 15cm of topsoil on the corner of Owen Road and Lune Street (Figure 3) with a tracked 360 degree excavator to create a compound area as a base for further works (see plate 4). Some 20th century rubbish was found in the form of pottery and brick fragments.



Plate 4: General photograph of works at north end of Area B next to Owen Road

- 4.6.2 The trench for the sewer pipe along Lune Street and the chamber at the north end of Lune Street (Figure 3) were dug with a tracked 360 degree excavator to a depth of around 6m. Due to the depth of excavation shoring was used which highly reduced visibility of the ground affected.
- 4.6.3 Beneath the modern road surface and a 10cm layer of hardcore was (009) a layer of demolition rubble was observed, at least 1m thick and partly composed of brick but mainly of fragments of sandstone masonry. Some of these pieces were very large (Plate 5). Within this rubble two brick walls [010] were found within the chamber excavation at the north end of Lune Street (Plate 6). One was aligned east to west and was at the north end of the excavation and one was aligned north to south and was at the east side of this excavation. These walls had a plaster rendered face and they were thought to be the remains of a house cellar from the 20th century.
- 4.6.4 Around 6m south of this shaft in the south east section of the trench another stone wall [013] was discovered (Plate 7). This one had a concrete floor surface [014] 40cm by 30cm in surface area and 20cm thick. The relationship between these two structures was unclear but the concrete surface was probably the floor surface of a cellar. The layer of rubble (009) beneath the road could be from the demolition of housing that took place in the 20th century during the redevelopment at the north end of Lune Street. Beneath (009) was (018), a red-brown clay silt with masonry and brick fragments. Beneath context (018) was (019) which was mid-brown silt-sand with stones up to 30cm in diameter and had no demolition material or rubbish. It started 3m below the surface of the road but its bottom was not reached. It may be a natural deposit. Due to the lack of archaeological features and deposits it was decided that monitoring should cease until excavation was taking place at the south end of Lune Street as a further check for archaeology.



Plate 5: Photograph of sandstone masonry from (**005**) rubble beneath road surface of Lune Street



Plate 6: Photograph of brick walls [**010**] in rubble (**009**) beneath road surface of Lune Street



Plate 7: Shot of stone wall (013) in Area B beneath Lune Street from north west

4.6.5 On the 17th March 2012, the excavation of a 7m long by 1.2m wide trench at the south end of Lune Street just north of Lord Street was monitored (Figure 3) and excavated with a tracked 360 degree excavator with a toothless bucket and using extensive shoring. Beneath 10cm of road surface was (020) *c*.40 cm of brown pebbly silt-sand with some infrequent inclusions of modern pottery then (021) *c*.40cm of orange silty sand with some pebble inclusions and then (022) an unknown depth (but at least 1.2m) of blue-grey clay. It was thought that the road and made up ground were built upon (022) the natural. Since no archaeological features or deposits were found it was decided that monitoring should cease.

4.7 ARCHAEOLOGICAL FINDS AND ENVIRONMENTAL SAMPLING

- 4.7.1 Only 20th century material was observed in the modern demolition and made-ground layer. No finds were retained.
- 4.7.2 No environmental samples were retained during the groundworks.

5 CONCLUSIONS

- 5.1 The various areas of the site were stripped of topsoil and subsoil to create a working area, under archaeological supervision. A single stone wall was uncovered in Area C near the high rise on the north bank of the River Lune which is thought to be the remains of housing demolished in the 20th century (see Figure 5).
- 5.2 The excavation of all service cuts were monitored during the watching brief. In the shaft to the south-east of Area C, on the north side of the River Lune, concrete curbs were discovered beneath made ground indicating the position of the old road beneath landscaping conducted in the 20th century. Walls which may have formed two sides of a house cellar were found beneath the road at the north end of Lune Street and another wall, this one of stone, was revealed around 6m south of these during the excavation of the sewer pipe trench. These features may indicate housing demolished in the 20th century during redevelopment works. Due to the depth and shored nature of the trenches, no detailed recording could be undertaken of these features.
- 5.3 As this archaeological watching brief was conducted as part of a recommendation to observe groundwork's in association with the development of an improved overflow system into the River Lune, and since no archaeology of any significance was revealed, no further work is deemed necessary. However, given the high archaeological potential of the area, it is recommended that any future work be subject to a programme of archaeological investigation.

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APPENDIX 1: CONTEXT TABLE

Context	Context	Description
Number	Type	Description
100	Deposit	Topsoil
101	Deposit	Grey blue – black sandy/gravel
102	Deposit	Reddish brown sandy silt
001	Deposit	Topsoil
002	Deposit	Light red-brown clay
003	Deposit	Yellow brown stone and brown soil
004	Deposit	Black oily soil
005	Structure	Linear stone surface
006	Structure	Stone wall
007	Structure?	Possible stone wall
008	Structure?	Large sandstone
009	Deposit	Rubble beneath road
010	Structure	Brick walls
011	Deposit	Dark brown soil with slag
012	Deposit	Dark brown/black soil with slag
013	Structure	Stone wall
014	Structure	Concrete surface
015	Deposit	Grey/brown silt
016	Deposit	Brown silt
017	Deposit	Dark grey silty gravel
018	Deposit	Red/brown clay silt
019	Deposit	Brown silt/sand and stones
020	Deposit	Brown silt/sand and stones
021	Deposit	Orange sand/silt
022	Deposit	Blue/grey clay

List of Contexts issued during Watching Brief

APPENDIX 2: FIGURES