

**NEVILLE HALL MIFA
FREELANCE ARCHAEOLOGIST & CONSULTANT**

AN ARCHAEOLOGICAL WATCHING BRIEF
AT 60, NETTLEHAM ROAD,
LINCOLN, LINCOLNSHIRE.

National Grid Reference: SK 9820 7245
Site Code: NRL115
Accession No: LCNCC: 2015.22
Planning Reference: 2014/0715/F

PREPARED FOR MR. MATT CARTER OF BUILD BY DESIGN ARCHITECTURAL SERVICES
ON BEHALF OF HIS CLIENTS - MR. & MRS. N. MATTHEW

By

Neville Hall MIFA

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Summary

An archaeological watching brief was undertaken by Neville Hall MIFA during the groundworks pertaining to the construction of a new two story rear extension and a new single storey front extension at 60, Nettleham Road, Lincoln, Lincolnshire. The archaeological monitoring was undertaken at the development site on the 2nd of March 2015.

The groundworks pertaining to this development which comprised the mechanical excavation of the foundations for the new Front and Rear Extensions along with two new soakaways identified a simple deposit sequence which consisted of a modern topsoil horizon, an undated and buried ploughsoil horizon and an underlying natural horizon of cornbrash. This deposit sequence was encountered throughout all of the monitored areas and was recorded within five representative sections. Along the Nettleham Road frontage to this property, the undated and buried ploughsoil horizon was observed to be deeper and more substantial. This was interpreted as being a former hedgerow bank along this frontage.

No archaeological activity was identified within this site and there were no finds.

It was clear from this archaeological monitoring that the known Roman inhumation and cremation cemetery, which has been known about at this general location since the 18th century did not extend into this area.

1. Introduction

- 1.1 Neville Hall MIFA was commissioned by Mr. Matt Carter of Build by Design Architectural Services on behalf of his clients - Mr. and Mrs. N. Matthew - to undertake an archaeological watching brief during the groundworks pertaining to the construction of a new two story rear extension and a new single storey front extension at 60, Nettleham Road, Lincoln, Lincolnshire centred at National Grid Reference SK 9820 7245. The archaeological monitoring was carried out at the development site on the 2nd of March 2015.
- 1.2 The work was carried out according to the requirements of an archaeological condition, which was attached to the granting of planning consent for this development by Lincoln City Council, the Local Planning Authority (LPA) and acting on the advice of Mr. Alastair Macintosh, City Archaeologist of Lincoln City Council, in his capacity as archaeological advisor on planning issues to the LPA. This is in accordance with the principles established in *NPPF: Planning for the Historic Environment: Historic Environment Planning Practice Guide* (Department of Culture, Media and Sport, 2010), and *Standard and guidance for archaeological watching briefs* (IFA, 2008).
- 1.3 Copies of the final report will be deposited with the clients, Mr. Alastair Macintosh, City Archaeologist of Lincoln City Council, (on behalf of the local planning authority), Lincoln City Council Planning Department, the Lincoln Heritage Database, (LHD), the Lincolnshire Heritage Environment Record (HER) and The Collection, Lincoln, along with an ordered project archive for long term storage and curation.

2. Site Location and Description

- 2.1 The development site is located within the built up urban area of the City of Lincoln, on the south-eastern frontage of the Nettleham Road with the two adjoining properties – Nos. 62 and 58 located to the north-east and south-west respectively. The Nettleham Road is one of the main thoroughfares into Lincoln from the north-east. The development site is situated at a height of approximately 60mAOD and at National Grid Reference SK 9820 7245 [Figures 1 and 2].
- 2.2 The development site is situated within an undulating upland area of the Jurassic limestone escarpment. The overlying soils of the area comprise shallow well drained brashy calcareous fine loams of the Elmton 1 Series, which in turn overlie the Lower Lias limestones of the Jurassic [BGS, 1973; Soil Survey 1983].

3. Planning Background

- 3.1 A planning application for the proposed construction of a new two story rear extension and a new single storey front extension at 60, Nettleham Road, Lincoln, Lincolnshire, (Planning Reference: 2014/0715/F) has been submitted to and granted consent by Lincoln City Council, the Local Planning Authority [Figure 3]. However, as the proposed development is situated within an archaeologically sensitive area and in an area of high archaeological potential, an archaeological condition (No. 3) was attached to this consent which stated that:

No development shall take place within the application area until the applicant has secured the implementation of an appropriate programme of archaeological work in accordance with a Written Scheme of Investigation (WSI) which has been submitted to and approved by the City of Lincoln Council as Local Planning Authority. The development shall be undertaken only in full accordance with the approved WSI. No

variation shall be undertaken without the prior written consent of the Local Planning Authority.

The applicant shall notify the Local Planning Authority of the intention to commence all works at least 7 days before commencement. Thereafter, the programme of archaeological work shall be completed in accordance with the approved Written Scheme of Investigation (WSI), including any necessary fieldwork, post-excavation analysis, report writing and archive deposition, as detailed in the approved scheme. The report shall be prepared and deposited with the City Council's Heritage Team within the LPA and the Lincolnshire Historic Environment Record, within six months of completion of the archaeological works. The archive shall be deposited with The Collection (Lincolnshire Museums) within 12 months of the completion of site works. No variation shall take place without prior written consent of the LPA.

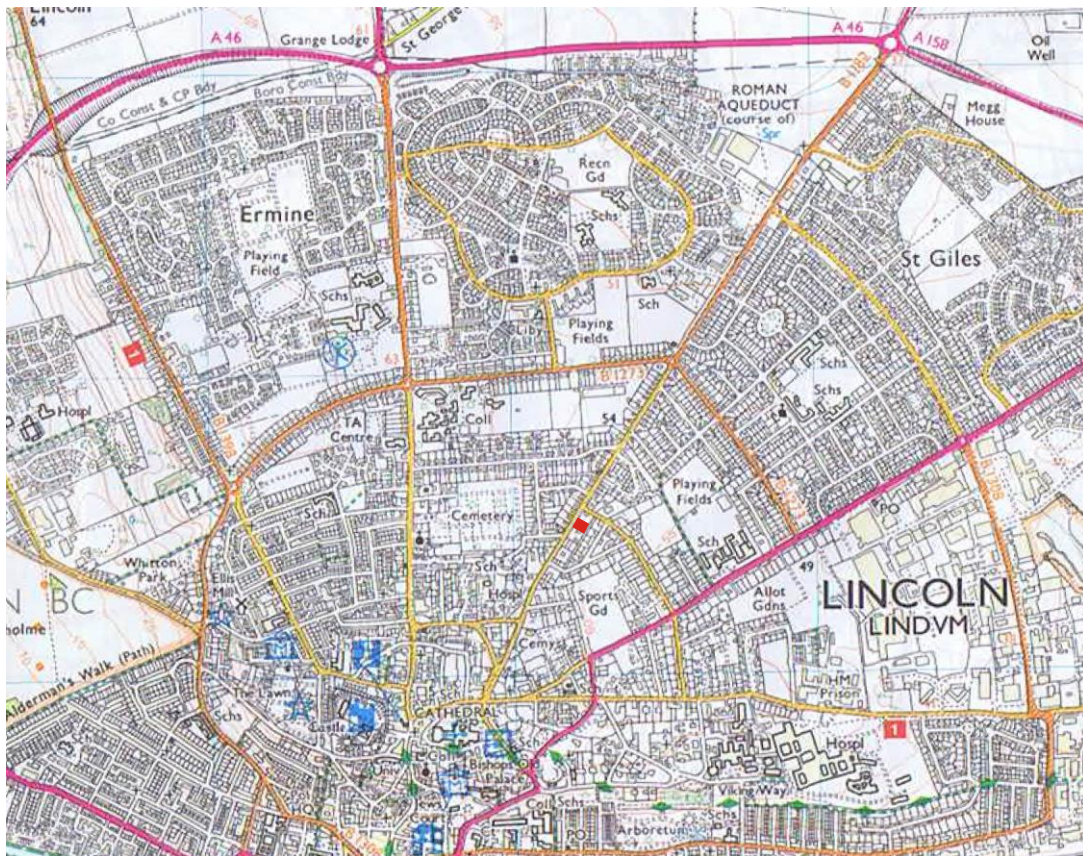


Figure 1: Site location at scale 1:25,000. The site is shown in red. (O.S. copyright licence number 100048723)

- 3.2 A specification or a written scheme of works for the archaeological watching brief was submitted to and agreed by Mr. Alastair Macintosh, City Archaeologist of Lincoln City Council, (on behalf of the local planning authority), prior to the commencement of the on-site archaeological monitoring.



Figure 2: Site location at an original scale of 1:1,250 (not to scale), (extract from Architects plan). The site is shown outlined in red.

4. Aims and Objectives of the Archaeological Watching Brief

4.1 The aims of the archaeological watching brief were the continual archaeological monitoring and recording of the groundworks phase of development at the site, which comprised the mechanical excavation of the foundations for the new two story rear extension and a new single storey front extension.

4.2 The objectives of the project were:

To establish the presence/absence of archaeological remains within the area of the development site;

To determine the extent, condition, nature, character, quality and date of any archaeological remains encountered;

To allow the preservation by record of archaeological deposits;

To produce a project archive for deposition with The Collection, Lincoln; and

To provide information for accession to the Lincolnshire County Historic Environment Record (HER) and the Lincoln Heritage Database (LHD).

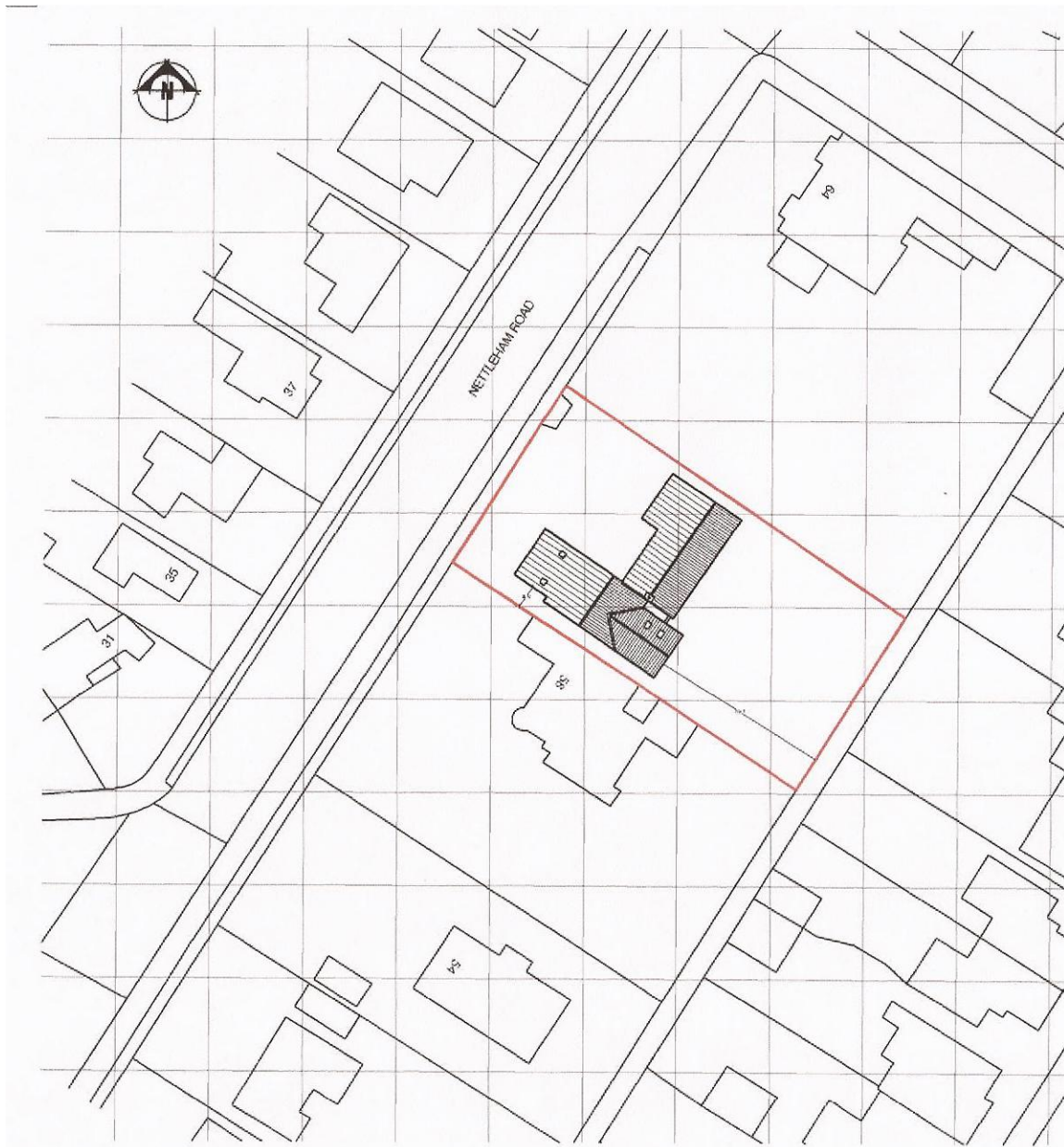


Figure 3: Plan showing the proposed layout of the development site at an original scale of 1:500 (not to scale), (extract from Architects plan).

4.3 It was thought that the development site may be situated within the area of a known Roman inhumation and cremation cemetery, which has been known about at this general location since the 18th century. Several cremation burials have been found to the west in the Newport Cemetery. It was considered highly likely that similar such activity and finds would be made on this development site. The specific objectives of the project were to record any archaeological activity and finds associated with this known cemetery site should they be encountered during the course of the archaeological monitoring.

5. Archaeological and Historical Background

- 5.1 Background research sources were consulted at the Lincolnshire Archives and the Lincoln Local Studies Library. A search was made of the Lincoln Heritage Database (LHD) and of the Lincoln Archaeological Research Assessment (LARA) of the immediate area of the development site.
- 5.2 Consultation of LARA revealed that the development site is located to the immediate east of the southern end of the Nettleham Road component of the **North Lincoln Ribbon Development Character Area**.
- 5.3 The majority of the North Lincoln Ribbon Development Character Area is composed of residential developments built for the middle classes during the inter-War period. The backbone of this Character Area is formed by the four main radial roads in the north of Lincoln (including the Nettleham Road), alongside connecting roads which form a circular route around the historic core of the city. Properties along roads in the Character Area are mostly semi-detached and detached houses dating to the Inter-War Period. Late Victorian and Edwardian properties, mostly in the form of terraced rows are located more towards the city centre, whereas modern development here is more dispersed and sporadic. During the late Victorian/Edwardian periods ribbon development occurred along the radial roads such as the Nettleham Road, mostly in the form of large individual villas close to the city centre.
- 5.4 Land within the Character Area may have been cultivated and grazed from the Prehistoric period onwards, although no evidence of early field boundaries has yet been found. During the Roman military and colonia periods, the area may have been part of the Roman 'territorium', an area of land surrounding the major Roman fortresses in which the agricultural production and services were dedicated to the service of the legion rather than the local population. It is likely that the modern Nettleham Road, which radiates from the historic core of the city, was first established during the Roman military era.
- 5.5 Economic decline of the city in the Early Medieval period may have resulted in much of the land within the Character Area becoming less intensively farmed., although it is likely that heathland in the area continued to be grazed. During the reorganisation of the landscape in the High Medieval period, land within the Character Area became part of the north and east common fields of Lincoln. The open fields may have been made up of several small strip fields.
- 5.6 Much of the land between the radial roads may have remained unenclosed until the Early Industrial Period as the open fields around Lincoln were enclosed by Act of Parliament in 1803. The process of enclosure entailed the division of former open lands in a pattern of rectilinear fields, the orientations of which are retained in housing plot boundaries within the Character Area. Common lands belonging to parishes such as Nettleham outside of the former city boundaries were also enclosed by Act of Parliament during the Early Industrial Period.
- 5.7 From possibly as early as the Roman Military Period, land in the Character Area has been used for the quarrying of limestone. Growth of the city during the Early Industrial Period required raw materials quarried from within the Character Area. Several small and now abandoned quarries were active during the Early Industrial Post Railway expansion of the mid-late 19th century and the late Victorian and Edwardian periods.
- 5.8 The areas of dry and flat land within the Jurassic limestone, and in the general area of the development site would have provided easily worked and cultivable soils in the Iron Age. It is possible that contemporary field systems may be located in this area, though as yet there is no evidence for this [Jones, Stocker & Vince, 2003].

- 5.9 The development site may be located to the east of the postulated line of the Foss Way and the Lincoln Aqueduct. The Foss Way was one of the main thoroughfares into and out of the Roman fortress and *colonia* of *Lindum* (LHD 714). The line of this road lies to the immediate west of the line of the modern Nettleham Road, though it is uncertain whether the line of the road will pass through the area of the development site. It was a common ritual practice of the Romans to bury their dead outside civilian settlements and alongside such roads. It is possible that Roman cremation and inhumation burials could also be encountered in this area [*ibid*].
- 5.10 To the west of the Fosse Way and running parallel to it is the line of the Lincoln Aqueduct (LHD 454, 951). This brought a piped water supply to the Roman settlement from the Roaring Meg Spring to the north. It is uncertain whether the line of the Aqueduct extended as far south as the general area of the development site [*ibid*].
- 5.11 There have been a number of attempts to locate the line of the Lincoln Aqueduct in the vicinity of the development site. Resistivity surveys carried at Nos. 83a and 87, Nettleham Road in 1975 did trace the line of this feature (LHD 642, ON 48 and LHD652, ON 49). Following the positive results obtained by the resistivity surveys at 83a and 87 Nettleham Road, an archaeological evaluation also in 1975 involving the excavation of five trial trenches was carried out at 87, Nettleham Road (LHD 678-682, ON 50). This evaluation identified a large Roman stone platform, which was thought to be associated with the Lincoln Aqueduct (LHD 8955). This platform was approximately 2.75m in width and was exposed in the garden of 87, Nettleham Road. Probing at 83, Nettleham Road suggested that it extended for a further 30m to the south. It was probably designed to carry the Aqueduct over a depression. The line of the Roman road – the Foss Way was also observed.
- 5.12 The archaeological work at 87, Nettleham Road marked the most southerly observation of the line of the Lincoln Aqueduct. Archaeological work to the south of this has failed to find the line of this aqueduct. It is probable that its route may have diverged from that of the Roman road to the south of 87, Nettleham Road and perhaps may have headed for the East Bight water tower. However, there is no evidence for this line, which may equally have extended to the east or north gates of the Roman settlement. No aqueduct pipes or other evidence have been recorded to the south of 87, Nettleham Road.
- 5.13 Despite this, there have been a large number of other attempts to locate the line of the Lincoln Aqueduct in the vicinity of the development site. In 1975, a trench excavated in the front garden of 57, Nettleham Road did not trace the line of the Lincoln Aqueduct at this location (to the north of the development site) (LHD604, ON 45). Similar negative results were obtained from the excavation of further investigative trenches at 71, Nettleham Road in 1975 (to the north of the development site) (LHD615, ON 46) and at 81, Nettleham Road, also in 1975, (LHD630, ON 47). A site visit by the City Archaeologist in 2003 to observe the foundations for a new extension at 53, Nettleham Road, similarly did not identify the line of the Aqueduct and found only natural deposits (LHD 7698, HT30).
- 5.14 An archaeological observation on a construction site at 39, Nettleham Road and to the immediate north-west of the development site in 1978 was a further attempt to the line of the Lincoln Aqueduct (LHD 10868). No trace of aqueduct was found and the site was much disturbed. An archaeological observation on a construction site at 75, Nettleham Road and to the north of the development site in 1978 similarly did not find any trace of Lincoln Aqueduct (LHD 10685). A further archaeological observation on a construction site at 63, Nettleham Road and to the north of the development site in 1978 identified a road surface which overlay a second road surface. No trace of Lincoln Aqueduct was found (LHD 10684).

- 5.15 An archaeological watching brief on the groundworks for a new extension at 33, Nettleham Road in 2001 did not identify any archaeological deposits or the line of the Aqueduct (LHD 7054, Site code: NGR01). Nearby, at 35, Nettleham Road, a further archaeological watching brief was carried out in 2002 on the groundworks for two new extensions and a soakaway. This was a further attempt to locate the line of the Lincoln Aqueduct, but it did not identify any archaeological features or deposits that pre-dated the early 18th–19th centuries. A geophysical survey undertaken at 77, Nettleham Road in 1974 was an attempt to locate the line of the Lincoln Aqueduct (LHD 10,668, ON590). Although the results of this survey suggested that the line of this feature may have turned to the south-west at this location, this hypothesis was not verified by archaeological excavation.
- 5.16 An archaeological watching brief in 2012 during groundworks for the construction of a new part two storey and part single storey rear extension identified a simple deposit sequence of a modern topsoil horizon, an undated ploughsoil horizon and a natural horizon throughout the monitored areas. This sequence had been disturbed to a certain extent by the foundations of the former extension, which were removed during the course of the groundworks programme. The archaeological monitoring did not identify any archaeological activity, did not locate the line of either the Fosse Way or of the Roman aqueduct and there were no finds (LHD 11197, Site Code: NRL112).
- 5.17 An archaeological watching brief took place in 2002 on the groundworks associated with the construction of two extensions and the excavation of a soakaway at 33, Nettleham Road and to the immediate west of the development site (LHD 7098-7101, Site code: NRI02). No archaeological features or deposits were found predating the early 18th-19th centuries and no evidence for the Roman Lincoln Aqueduct was found.
- 5.18 It is thought that the development site may lie within the area of the Nettleham Road Roman cemetery. This is marked as "Roman Burial Places" marked on William Stukeley's map of 1722 and repeated by Marrat on his map of Lincoln of 1817 in the general area to the east of the Nettleham Road and possibly within the area of the development site itself (LHD 870). Recent archaeological work in this area has identified several cremation and inhumation burials.
- 5.19 A flagon of Late Roman date was found in 1927 at Massey Road and to the east of the development site (LHD 4334). Further Roman finds were been made at the Newport Cemetery in 1975 and to the west of the development site (LHD 1517-8). The first find comprised a jar found in Lincoln Racecourse of Black-Burnished ware of mid-late 3rd century AD date. The jar contained a cremation. Further sherds of a Black-Burnished dish were also found associated with the jar. A further Black-Burnished jar of later 2nd century AD date was also found here at the same time. This second jar had also contained a cremation but the contents were thrown away. Further sherds of a Black-Burnished dish associated with this second jar were also found.
- 5.20 The Nettleham Road is first referred to in documentary sources of the early 13th century as *Nettelhamgate*, *Netllhamgate* or *Netelhamgate* or the 'road to Nettleham' leading from the Nettleham gate of the city [Stocker, Jones & Vince, 2003; Cameron, 1985].
- 5.21 A lead alloy button of early medieval date was found at 33, Nettleham Road in 1978 (LHD 1655).
- 5.22 A token of 17th century date was found in 1973 at Haffenden Road (LHD 10641). Its exact location remains uncertain.

- 5.23 To the south of the development site is a quarry entrance or a collapsed limestone quarry, which was situated in the area south of Mainwaring Road in a close near the remains of St Giles Hospital called St Giles Mede/Mead and possibly now the southern part of the adjoining sports field (LHD 2467). It is shown on Stukeley's map of Lincoln of 1722 (LHD 2239). It was described in 1786 as a "subterranean cavern", which was still then visible, though its origins were unknown. According to R. E. Leary in 1790, this was "A piece of ground in a Lincoln cornfield, in the upper part of the City, sunk several yards. On the chasm being explored, apartments extending in different directions were found. On a large stone in the wall or side of the cavern, many yards in, is the date 1137". It was reported by Willson in 1816 (repeating Britton 1807) that "Near the remains of a chapel called St. Giles's, on the top of the hill, in an adjoining close, is an entrance to a subterraneous passage, vulgarly called St. Giles' hole; how far it extends has not been ascertained. In and about the city are several of these passages through the rocks". This has been lately been closed by the proprietor of the field, to prevent damages therein, and accidents from the curiosity of people in exploring the excavations." It is thought that this was possibly a quarry for stone for the cathedral. The site was backfilled and levelled in 1931 for the present sports ground.
- 5.24 To the north-east of the development site is the site of a former stone quarry (LHD 6356). This was in production from the mid to the late 19th century and was situated in the area of 1, Nursery Grove/80, Nettleham Road. It is not featured on the map of 1885, so had presumably had gone out of use by then.
- 5.25 Also situated to the north-east of the development site are the sites of two former stone quarries (LHD 6357). These are shown on the O.S. map of 1885 and were situated in the area of the modern Nursery Grove. They were in production from the mid to the late 19th century. The easterly of the two quarries is marked by Padley on his 1851 map and shows a circular structure, possibly a lime kiln at this location. Afterwards the site was used as nursery gardens. A 1949 building application by the Nightingale Inn was to fill in an old pit. Back-filling continued until the 1970s. The edge of the eastern quarry was located in 2011.
- 5.26 Also situated to the north-east of the development site and to the rear of Stone Pit Houses (88-110 Nettleham Road) is the site of a ropewalk as shown on the O.S map of 1885 (LHD 6378). The site is also marked on the O.S. map of 1908 as a 'ropewalk'.
- 5.27 Situated to the north-west of the development site is the site of a second ropewalk, which occupied a strip of land to the west of the present 65 Nettleham Road. (LHD 6775). It is known from a Building Application for 69 Nettleham Road (BA6206) and for Haffenden Road in 1926 (BA6283). It is labelled as Bakers Rope Walk on BA6202, with a long structure along the northern boundary of the site. By the time of the 1930 O.S. map, a house (65) had been built at the east end (in 1926).
- 5.28 To the south-west of the development site, a WWII tank barrier was constructed across the Nettleham Road and on the pavement outside the Cathedral Nursing Home (LHD 8015). Five surviving square concrete shafts, with square concrete removable covers were designed to take vertically slotted barriers, such as lengths of railway track. Presumably these holes extended across the road.
- 5.29 Situated to the south-west of the development site was a well, which was situated on the western side of St Peter's Rectory, 23, Nettleham Road (LHD 8952). It is marked as a "W" on the 1907 O.S. map. The site of a second well that was located in the north-western corner of the garden of the house at 66, Nettleham Road and to the north of the development site (LHD 8955). This is also marked as a "W" on the 1907 OS map. It is now below the front garden of 70 Nettleham Road.

- 5.30 To the south-west of the development site is the rectory for the church of St Peter at Arches built in 1854 on five acres of glebe land (LHD3179). This is a detached house at No. 23, Nettleham Road and is located on the west side of the Nettleham Road. It was known as St Peters Rectory and was also called The Old Rectory by 1913. It is now the Cathedral Nursing Home. Alterations were made in 1867 and in 1933 and four extensions were added in 2004.
- 5.31 Nearby is No. 64, Nettleham Road, which was a house built in 1904 (LHD 5128). A rear stable block was part of the original build. Alterations to the house were subsequently made in 1919.
- 5.32 The adjoining property to the south-west is No. 58, Nettleham Road (LHD 5779). This is a detached house which was built in 1924 with a garage being added in 1934.
- 5.33 A large number of other previous archaeological investigations pertinent to this project have been conducted in the vicinity of the development site. These have included an archaeological evaluation comprising the excavation of two trenches at 46, Lee Road and to the north-east of the development site in 1979 (LHD 393-4, ON 306). This was an attempt to ascertain whether limestone quarrying or pitting was the cause of subsidence to this property. This was reported not to be the case.
- 5.34 A site visit by the City Archaeologist in 2006 to observe the foundations for a new extension at 70, Nettleham Road did not identify any archaeological features or deposits. This was an attempt to locate possible limestone quarrying activity to the north-east of the development site (LHD 9784, HT83).
- 5.35 An archaeological watching brief on the groundworks for a new residential dwelling at 48, Nettleham Road in 2008 and to the south of the development site identified a deposit sequence which consisted of a topsoil, a sandy subsoil with limestone pieces and an underlying natural horizon of cornbrash. No archaeological features or finds were recorded, suggesting agricultural use before the construction of 48, Nettleham Road (LHD 10234, Site code: LINR07).
- 5.36 An archaeological watching brief which took place in 1995 at 38-40, Nettleham Road and to the south-west of the development site during excavation work for the construction of a structure incorporating a lift well and service trenches did not identify any archaeological activity or finds (LHD 3311, ON552). Natural limestone brash was reached at c1.30m below the ground surface. The overlying sandy deposits could not be dated.
- 5.37 An archaeological watching brief at 8, Manor Road in 1998 and to the west of the development site yielded negative results (LHD 4690; Site code: MR98). An archaeological watching brief on the groundworks for a new extension and garage at 2, Bruce Road in 2001 and to the west of the development site also yielded negative results (LHD 7102, Site code: LBR01).
- 5.38 The archaeological observation of the excavation of the foundation trenches for a garage in 2012 at 19, Mainwaring Road and to the south-east of the development site did not identify any archaeological activity or finds (LHD 11143, HT116). Topsoil overlay sandy stony clayey natural layers. No archaeological features were observed. The archaeological observation of the excavation of the foundation trenches for a rear extension at 14, Bruce Road and to the north-west of the development site in 2003 did not identify any archaeological activity or finds (LHD 7675, HT23).
- 5.39 An archaeological watching brief on trenches excavated during the relining and reconfiguration of water mains on the Nettleham Road and to the south-west of the development site in 2002 did not identify any archaeological deposits (LHD 7935, Site

- code: LWMR02). Although the site contractor reported the finding of large limestone blocks, these were probably removed off site before they could be examined.
- 5.40 An archaeological watching brief which took place during the excavation of foundation trenches for the construction of four extensions at the Cathedral Nursing Home, Nettleham Road in 2004 and to the south-west of the development site did not identify any archaeological deposits or finds (LHD 8452-6, Site code: NRL03). The watching brief identified recent garden activity, undated and natural deposits. An earlier archaeological watching brief took place here in 1991 on the excavation of the foundations for a 2-storey garage/extension (LHD 486-7, ON364). The earliest deposits encountered during the monitoring of Trench 1 were sandy clay with considerable tabular limestone fragments, which were overlain by sandy clay with occasional limestone fragments and a layer of late destruction debris to topsoil and fill. Similar stratigraphy was identified in Trench 2. A north-south orientated wall was exposed consisting of 3-4 courses of roughly dressed mortar bonded limestone. It was cut by drains and displaced by tree roots and had formed the foundations for a later brick wall now gone. A further archaeological watching brief took place here in 1994 on the excavation of the foundations for a further extension. This did not identify any archaeological features or finds (LHD 668-9, ON497).
- 5.41 As part of the background research for this project, a detailed map regression exercise was undertaken. Dewhurst and Nichol's map of 1839, Padley's map of 1842, Padley's revised maps of 1851 and 1868 and Padley and Thropp's map of 1883 all show the area of the development site as lying within a large open field to the east of the Nettleham Road [Mills & Wheeler, 2004].
- 5.42 This situation is repeated on the First Edition 25 inch to one mile scale Ordnance Survey (O.S.) map of 1889. The Second Edition 25 inch to one mile scale Ordnance Survey (O.S.) map of 1908 shows the immediate area of the development site as having been subject to contemporary residential development. No. 62 Nettleham Road is in place by this time as are houses to the south along with Massey Street to the south-east which also has already been set out by this time. The extract from the 1932 Edition 25 inch to one mile scale Ordnance Survey (O.S.) map shows that by this time the development site is surrounded by modern residential developments, though the area of the development site itself remained undeveloped at this time. The extract from the 1:2,500 scale Ordnance Survey (O.S.) map of 1982 shows the current layout of the development site with it being occupied by the present residential dwelling

6. Methodology

- 6.1 The archaeological monitoring of the groundworks pertaining to this development were undertaken by Neville Hall MIFA on the 2nd of March 2015. This comprised the mechanical excavation of the foundations for the new two story rear extension and the new single storey front extension along with two associated soakaways.
- 6.2 Where necessary, surfaces were hand cleaned for examination and recording, and the deposits observed were recorded on standard *pro-forma* context recording sheets. A plan of the monitored groundworks for the new rear extension was compiled on site at a scale of 1:50. This is reproduced at this same scale on **Figure 4**. A total of four representative sections of the identified deposit sequence here [designated as **Representative Sections 1-4**] were compiled on site at a scale of 1:20. These are reproduced at this same scale also on **Figure 4**. A second plan of the monitored groundworks for the new front extension was also compiled on site at a scale of 1:50. This is similarly reproduced at this same scale on **Figure 5**. Two further representative sections of the identified deposit sequence here [designated as **Representative Sections 5-6**] were also compiled on site at a scale of 1:20 and are similarly reproduced at this same scale on **Figure 5**.

- 6.3 All site levels were taken from a spot height situated in the midst of the Nettleham Road of 59.44mAOD from a modern O.S. map (obtained from the Lincoln Central Library) utilising a dumpy level. A complimentary colour digital photographic record was also maintained, which are reproduced as **Plates 1-28, Appendix 1**. A list of the contexts recorded is detailed in **Appendix 2**.
- 6.4 All work was carried out according to the planning brief, subsequent approved Specification and to the Institute of Field Archaeologists (CHIFA) standards and guidance for archaeological watching briefs (2008).

7. Results [Figures; Appendix 1; Plates 1-28]

7.1 The Rear Extension

- 7.1.1 The foundations for the new rear extension had already been set out prior to arrival as had the removal of a paved slabbed area [**Plate 2**]. Monitored ground reduction took place within the internal area of the new build to an average depth of 0.25m below ground levels. The foundation trenches for this new rear extension were excavated to varying lengths, to a width of 0.70m and to depths of 1.0m below the reduced levels. [**Plates 3-4, 6-8, 10 and 14-19**]. The existing concrete foundations and brick offset of the existing dwelling were exposed by these excavations.
- 7.1.2 The monitoring identified a simple deposit sequence which consisted of a modern topsoil horizon (**001**), an undated and buried ploughsoil horizon (**002**), (which generally occurred here as a thin horizontal band of material) and an underlying natural horizon of cornbrash (**003**), which extended to the base of these excavations. This deposit sequence was recorded within **Representative Sections 1 and 2 [Plates 5 and 9]**. Within the internal area of the new build, the aforementioned ground reduction removed the topsoil horizon (**001**) and extended into the upper levels of the deposit (**002**).
- 7.1.3 In addition, a new soakaway was excavated to the east of this new build area. This excavation measured 1.0m in both length and width and was similarly excavated to a depth of 1.0m below ground levels [**Plates 11-12 and 17**]. The same deposit sequence noted and recorded nearby within the new build area was also identified within this excavations and was recorded within **Representative Section 3 [Plate 13]**.
- 7.1.4 No archaeological activity was identified within this area and there were no finds.

7.2 The Front Extension

- 7.2.1 The area of this second new build comprised the front lawn of No. 60, Nettleham Road along with an area of block paving adjacent to the existing dwelling, which had already been removed prior to arrival and had left exposed an underlying bedding layer composed of light orange brown sharp sand [**Plate 1**]. The removed block paving and bedding layer had a combined thickness of 0.09m. Below this bedding layer was a layer of modern tarmac plenings of some 0.15m in thickness. This sequence was confined to the blocked paved area. The eastern ends of two of the excavated foundation trenches extended through this modern sequence.
- 7.2.2 The foundation trenches here were excavated to varying lengths, to a width of 0.70m and to depths of 1.10m below ground levels [**Plates 20-21 and 25-28**]. Below the front lawn and the aforementioned modern sequence in the blocked paved area, the archaeological monitoring identified a simple deposit sequence which consisted of the modern topsoil horizon (**001**), the undated and buried ploughsoil horizon (**002**) and the underlying natural

horizon of cornbrash (**003**), which extended to the base of these excavations. This deposit sequence was recorded within **Representative Section 4 [Plate 22]**.

7.2.3 Situated to the east of this monitored area and adjacent to the western property boundary of 60, Nettleham Road, a second new soakaway was excavated within the front lawn area. This excavation measured 1.0m in both length and width and was excavated to a depth of 0.70m below ground levels [**Plate 24**]. This excavation identified the same simple deposit sequence here of the modern topsoil horizon (**001**), (which here occurred as a thin horizontal band of material), the undated and buried ploughsoil horizon (**002**), (which occurred here as a deep and substantial deposit) and the underlying natural horizon of cornbrash (**003**), which extended to the base of these excavations. This deposit sequence was recorded within **Representative Section 5 [Plate 24]**.

7.2.4 No archaeological activity was identified within this area and there were no finds.

8. Discussion and Conclusions

8.1 The groundworks pertaining to this development which comprised the mechanical excavation of the foundations for the new Front and Rear Extensions along with two new soakaways identified a simple deposit sequence which consisted of a modern topsoil horizon, an undated and buried ploughsoil horizon and an underlying natural horizon of cornbrash. This deposit sequence was encountered throughout all of the monitored areas and was recorded within five representative sections. Along the Nettleham Road frontage to this property, the undated and buried ploughsoil horizon was observed to be deeper and more substantial. This was interpreted as being a former hedgerow bank along this frontage.

8.2 No archaeological activity was identified on this site and there were no finds.

8.3 It was clear from this archaeological monitoring that the known Roman inhumation and cremation cemetery, which has been known about at this general location since the 18th century did not extend into this area.

9. Effectiveness of Methodology and Confidence Rating

9.1 The methodology chosen clearly demonstrated the absence of archaeological activity and finds and the nature of the deposit sequence observed and recorded during the course of the archaeological monitoring; while providing sufficient time to record the deposit sequence observed. A more detailed level of archaeological assessment and investigation clearly would not have been necessary. It is considered that the implemented methodology was sufficient to ensure the absence of archaeological activity and finds and the nature of the deposit sequence present within the area of the development site with a high degree of confidence.

10. Acknowledgements

10.1 Thanks are gratefully extended to Mr. Matt Carter of Build by Design Architectural Services and to Mr. and Mrs. N. Matthew for commissioning this work. Thanks are also extended to Mr. Alastair Macintosh of Lincoln City Council and to the staff of the Lincoln Local Studies Library and the Lincolnshire Archives for their kind assistance.

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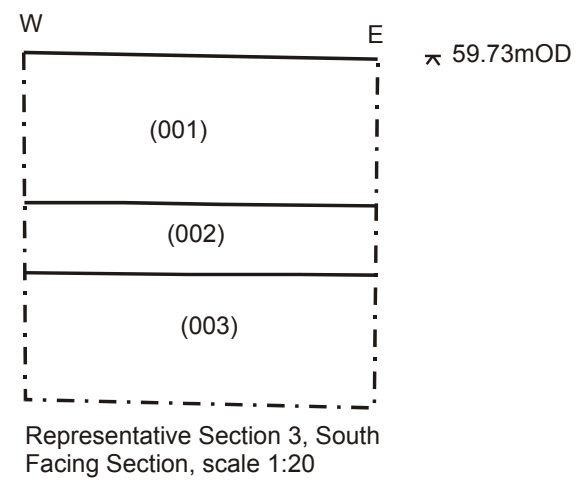
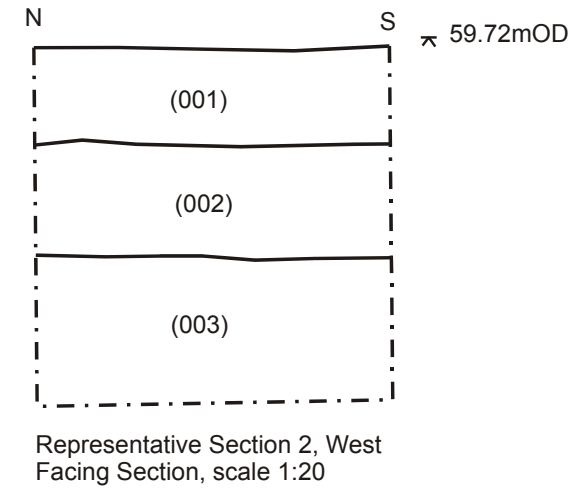
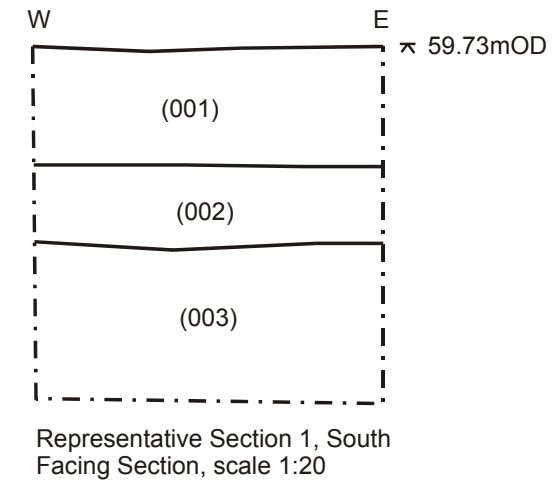
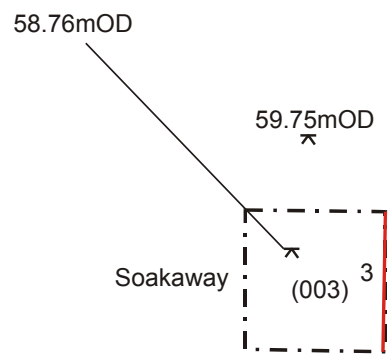
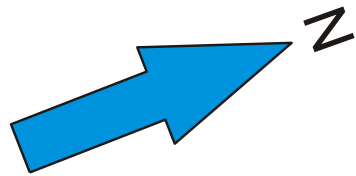
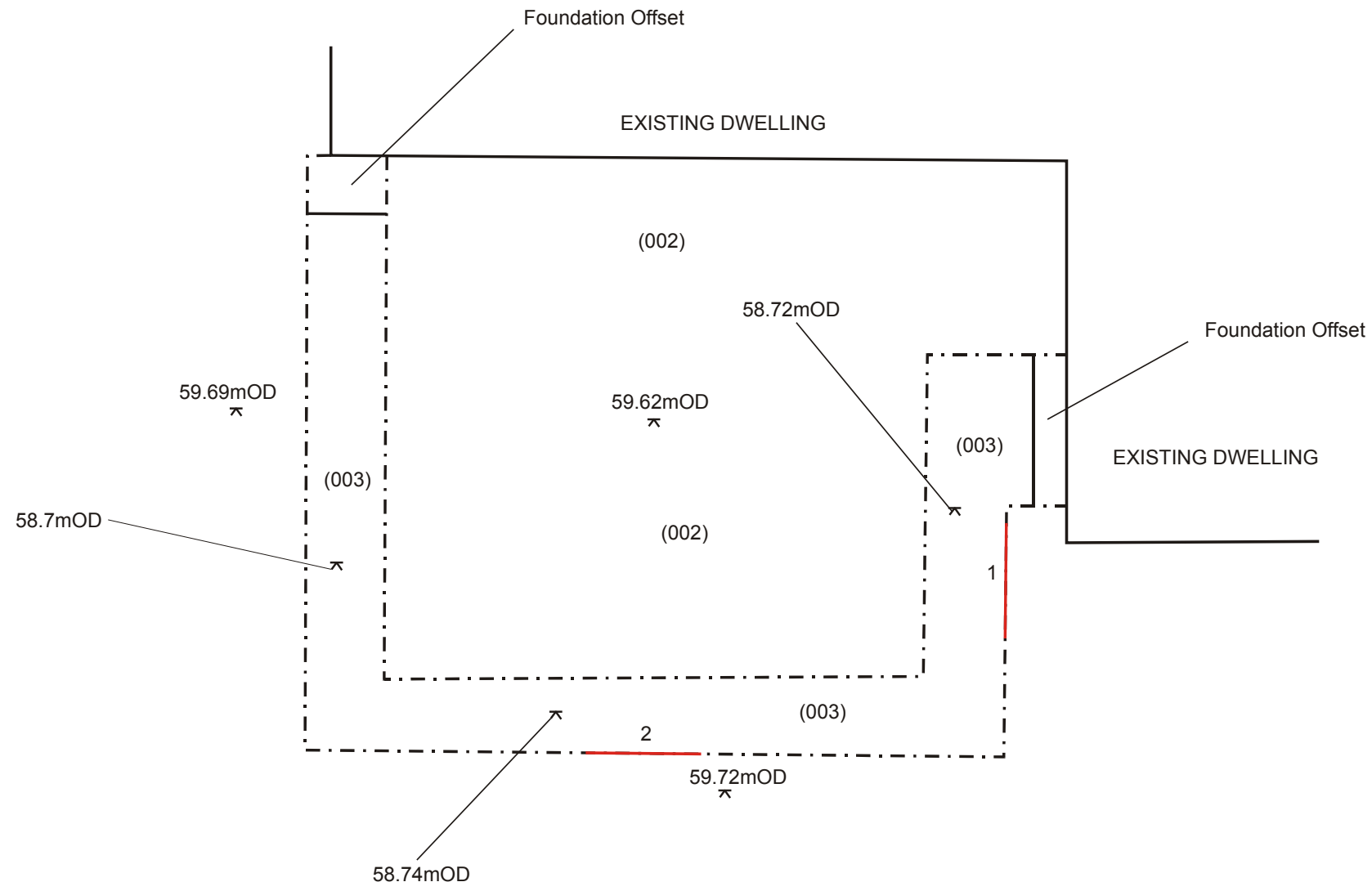
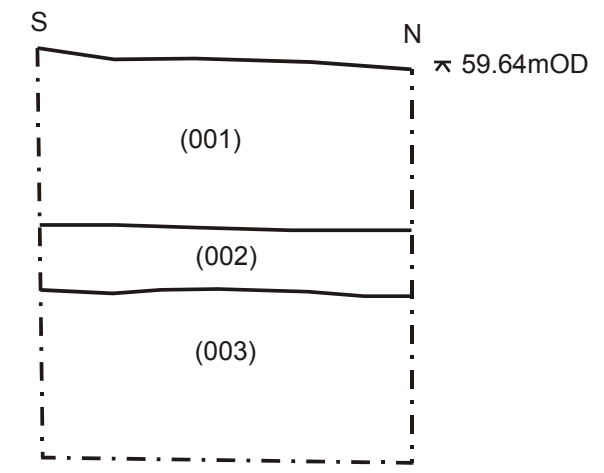
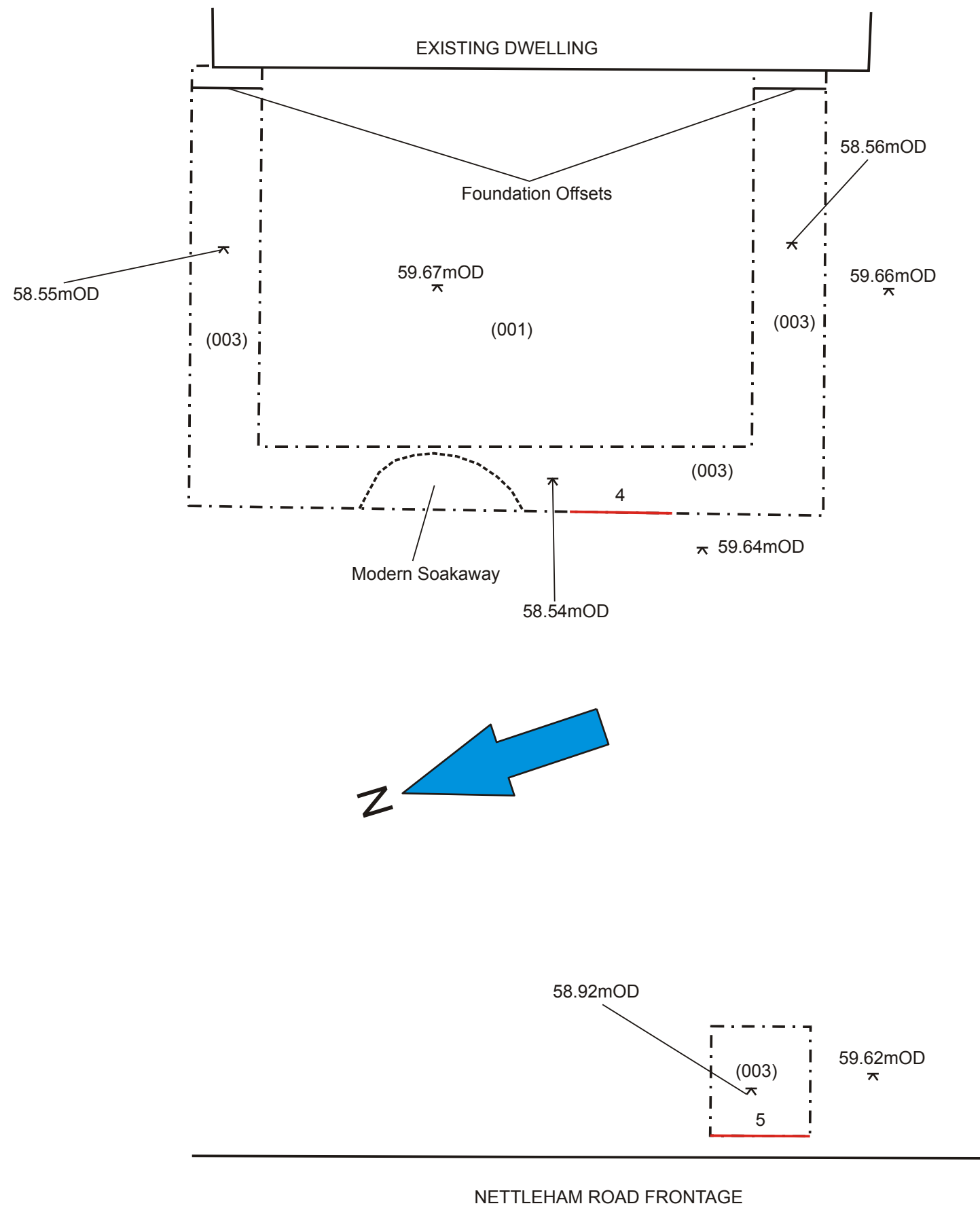
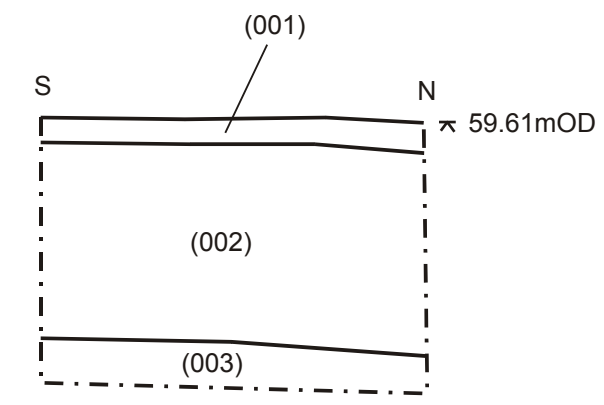


Figure 4: Plan of the Monitored Groundworks of the Rear Extension at a scale of 1:50 & Representative Sections 1-3 at a scale of 1:20



Representative Section 4, East Facing Section, scale 1:20



Representative Section 5, East Facing Section, scale 1:20

Figure 5: Plan of the Monitored Groundworks of the Front Extension at a scale of 1:50 & Representative Sections 4-5 at a scale of 1:20

Appendix 1: Plates



Plate 1: Pre-groundworks, Front Extension, from the north



Plate 2: Pre-groundworks, Rear Extension, from the south

The Rear Extension



Plate 3: Excavation of the foundations, from the south



Plate 4: Excavation of the foundations, from the south-east



Plate 5: Representative Section 1, from the south



Plate 6: Excavation of the foundations, from the south-east



Plate 7: Excavation of the foundations, from the south



Plate 10: Excavation of the foundations, from the south



Plate 8: Excavation of the foundations, from the south-west



Plate 11: Excavation of the first soakaway, from the east



Plate 9: Representative Section 2, from the west



Plate 12: Excavation of the first soakaway, from the east



Plate 13: Representative Section 3, from the south



Plate 16: Excavation of the foundations, from the east



Plate 14: Excavation of the foundations, from the east



Plate 17: The groundworks, Rear Extension, from the east



Plate 15: Excavation of the foundations, from the south-west



Plate 18: Excavated foundations, from the south-west



Plate 19: Excavated foundations, from the east

The Front Extension



Plate 20: Excavation of the foundations, from the west



Plate 21: Excavation of the foundations, from the south-west



Plate 22: Representative Section 5, from the east



Plate 23: Excavation of the second soakaway, from the north



Plate 24: Representative Section 6, from the east



Plate 27: Excavation of the foundations, from the south-west



Plate 25: Excavation of the foundations, from the south-west



Plate 28: Excavation of the foundations, from the south-west



Plate 26: Excavation of the foundations, from the south-west

Appendix 2: List of Contexts

- 001** Topsoil horizon. Friable, dark grey brown sandy silt with moderate small angular stones. Above (**002**). Recorded within **Representative Sections 1-5**. Depth - 0.43m.
- 002** Buried and undated ploughsoil horizon. Soft, mid orange brown sandy silt. Below (**001**) and above (**003**). Recorded within **Representative Sections 1-5**. Depth - 0.54m.
- 003** Natural horizon of cornbrash. Friable light orange brown sandy silt matrix with small-large angular limestone fragments 80%. Below (**002**). Recorded within **Representative Sections 1-5**. Depth - >0.44m.

Appendix 3: The Archive

The archive consists of:

Three context records
Two site plans at a scale of 1:50
Six section drawings at a scale of 1:20
One context register
One photographic register

All records are currently held at:
38 Finningley Road
Lincoln
LN6 0UP

And will be deposited in due course at:

The Collection
Danes Terrace
Lincoln
LN2 0UP

Under the accession number **LCNCC: 2015.22** and the site code **NRLI15**

Appendix 4: Photographic Register

Camera No.	Date Loaded	Time Loaded	Comments			B&W Col. Digi.
	1 / 1	:				<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>
Frame	Comments	View	Scale	Init & Date	Site	
	Identification Shot	N/A	N/A			
1	Pre-groundworks, Front Extension	N		At 2/3/15	MRL115	
2	Pre-groundworks, Rear Extension	S		At 2/3/15	MRL115	
	REAR EXTENSION					
3	Excavation of the Foundations	S		At 2/3/15	MRL115	
4	Excavation of the Foundations	SE		At 2/3/15	MRL115	
5	Representative Section 1	S		At 2/3/15	MRL115	
6	Excavation of the Foundations	SE		At 2/3/15	MRL115	
7	Excavation of the Foundations	S		At 2/3/15	MRL115	
8	Excavation of the Foundations	SW		At 2/3/15	MRL115	
9	Representative Section 2	W		At 2/3/15	MRL115	
10	Excavation of the Foundations	S		At 2/3/15	MRL115	
11	Excavation of the First soakaway	E		At 2/3/15	MRL115	
12	Excavation of the First soakaway	E		At 2/3/15	MRL115	
13	Representative Section 3	S		At 2/3/15	MRL115	
14	Excavation of the Foundations	E		At 2/3/15	MRL115	
15	Excavation of the Foundations	SW		At 2/3/15	MRL115	
16	Excavation of	E		At 2/3/15	MRL115	

Appendix 5: OASIS summary form

OASIS DATA COLLECTION FORM: England

[List of Projects](#) | [Manage Projects](#) | [Search Projects](#) | [New project](#) | [Change your details](#) | [HER coverage](#) | [Change country](#) | [Log out](#)

60, Nettleham Road, Lincoln, Lincolnshire - Neville Hall MIFA

OASIS ID - nevilleh1-212712

Versions

View	Version	Completed by	Email	Date
View 1	1	Neville Hall	nevillehallmifa@gmail.com	2 June 2015

Completed sections in current version

Details	Location	Creators	Archive	Publications
Yes	Yes	Yes	Yes	1/1

Validated sections in current version

Details	Location	Creators	Archive	Publications
No	No	No	No	0/1

File submission and form progress

Grey literature report submitted?	Yes	Grey literature report filename/s	Sent by other means
Boundary file submitted?	No	Boundary filename	
HER signed off?		NMR signed off?	

[Upload images](#) [Upload boundary file](#) [Request record re-opened](#) [Printable version](#)

Email Lincoln City UAD about this OASIS record

OASIS:

Please e-mail Historic England for OASIS help and advice

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Cite only: <http://www.oasis.ac.uk/form/formctl.cfm?OID=nevilleh1-212712> for this page

Appendix 6: Specification For Archaeological Monitoring

**Specification for an Archaeological Watching Brief
at 60, Nettleham Road,
Lincoln, Lincolnshire.**

Prepared for Mr. & Mrs. N. Matthew

National Grid Reference: SK 9820 7245

Site Code: NRL15

Accession No: LCNCC: 2015.22

Planning Reference: 2014/0715/F

Prepared by Neville Hall MIFA, Freelance Field Archaeologist & Consultant

February 2015

Non-technical summary

- S1 *A scheme of works comprising archaeological monitoring and recording is required during the groundworks pertaining to the construction of a new two story rear extension and a new single storey front extension at 60, Nettleham Road, Lincoln, Lincolnshire.*
- S2 *It is thought that the development site may be situated within the area of a known Roman inhumation and cremation cemetery, which has been known about at this general location since the 18th century. Several cremation burials have been found to the west in the Newport Cemetery. It is considered highly likely that similar such activity and finds made be made on this development site. The specific objectives of the project will be to record any archaeological activity and finds associated with this known cemetery site should they be encountered during the course of the archaeological monitoring.*
- S3 *The archaeological monitoring and recording will be continuous, and will be undertaken during the groundworks stage of development comprising the excavation of foundations for the new front and rear extensions. Any archaeological features, structures and/or deposits will be recorded in writing, graphically and photographically.*
- S4 *On the completion of the monitoring, a report will be produced detailing the results of the archaeological investigation. The report will consist of a narrative supported by illustrations and photographs.*

1. Site location and description, geological & topographical background

- 1.1 The development site is located within the built up urban area of the City of Lincoln, on the south-eastern frontage of the Nettleham Road with the two adjoining properties – Nos. 62 and 58 located to the north-east and south-west respectively. The Nettleham Road is one of the main thoroughfares into Lincoln from the north-east. The development site is situated at a height of approximately 60mAOD and at National Grid Reference SK 9820 7245.
- 1.2 The development site is situated within an undulating upland area of the Jurassic limestone escarpment. The overlying soils of the area comprise shallow well drained brashy calcareous fine loams of the Elmton 1 Series, which in turn overlie the Lower Lias limestones of the Jurassic.

2. Planning background

- 2.1 This document comprises a Specification or a written scheme of works for an archaeological watching brief which is to be undertaken during the groundworks for the erection of a new two story rear extension and a new single storey front extension at 60, Nettleham Road, Lincoln, Lincolnshire.
- 2.2 A planning application for the proposed erection of a new two story rear extension and a new single storey front extension (Planning Reference 2014/0715/F) has been submitted to and granted consent by Lincoln City Council, the Local Planning Authority. However, as the proposed development is situated within an area of known archaeological significance, an archaeological condition (No. 3) was attached to this consent, which stated that:

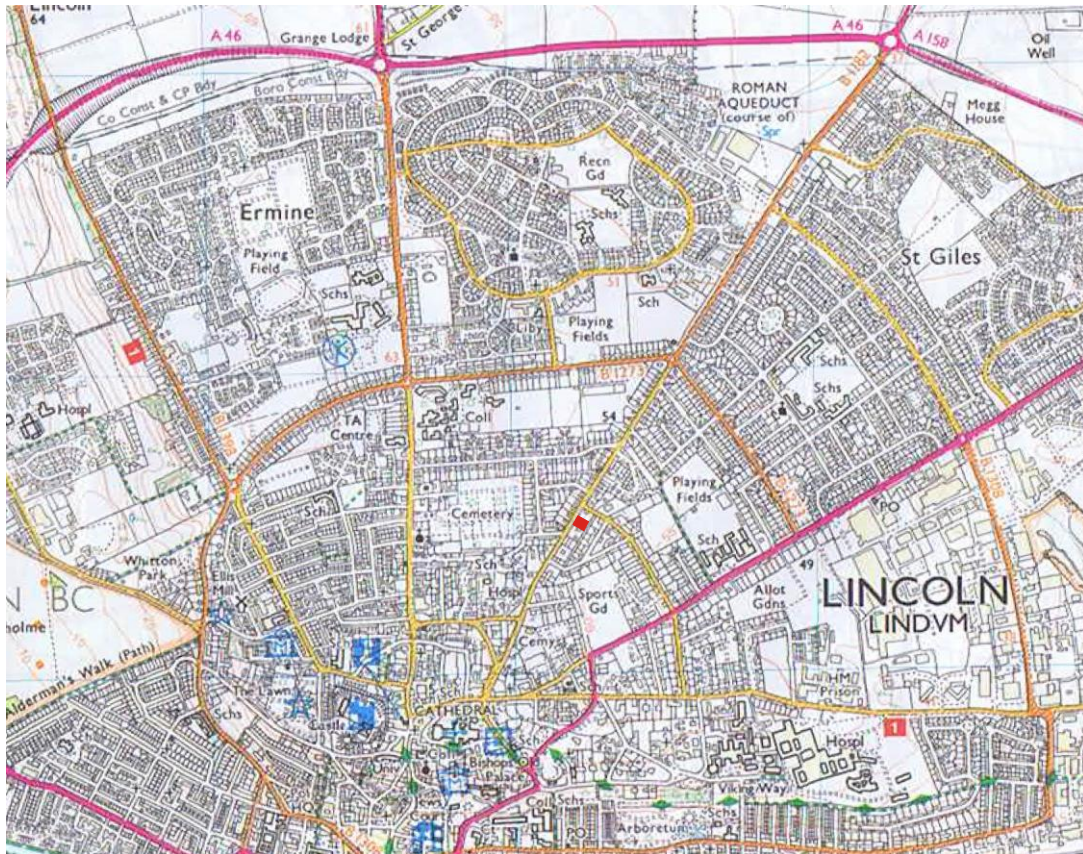


Figure 1: Site location at scale 1:25,000. The site is shown in red. (O.S. copyright licence number 100048723)

No development shall take place within the application area until the applicant has secured the implementation of an appropriate programme of archaeological work in accordance with a Written Scheme of Investigation (WSI) which has been submitted to and approved by the City of Lincoln Council as Local Planning Authority. The development shall be undertaken only in full accordance with the approved WSI. No variation shall take place without the prior written consent of the Local Planning Authority.

The applicant shall notify the Local Planning Authority of the intention to commence all works at least 7 days before commencement. Thereafter, the programme of archaeological work shall be completed in accordance with the approved WSI, including any necessary fieldwork, post-excavation analysis and archive deposition, as detailed in the approved scheme. The report shall be prepared and deposited with the City Council's Heritage Team within the LPA and the Lincolnshire Historic Environment Record, within six months of the completion of the archaeological works. The archive shall be deposited with The Collection, (Lincolnshire Museums) within 12 months of the completion of site works. No variation shall take place without prior written consent of the LPA.

- 2.3 This specification or written scheme of works was submitted for approval to Mr. Alastair Macintosh, City Archaeologist of Lincoln City Council, on behalf of the Local Planning Authority and agreed by same prior to the start of the archaeological site works.

3. Historical and Archaeological Background

- 3.1 Background research sources were consulted at the Lincolnshire Archives, and the Lincoln Local Studies Library. A search was made of the Lincoln Heritage Database (LHD) of the immediate area of the development site.



- 3.2 The areas of dry and flat land within the Jurassic limestone, and in the general area of the development site would have provided easily worked and cultivable soils in the Iron Age. It is possible that contemporary field systems may be located in this area, though as yet there is no evidence for this.
- 3.3 The development site may be located to the east of the postulated line of the Fosse Way and the Lincoln Aqueduct. The Fosse Way was one of the main thoroughfares into and out of the Roman fortress and *colonia* of *Lindum* (LHD 714). The line of this road lies to the immediate west of the line of the modern Nettleham Road, though it is uncertain whether the line of the road will pass through the area of the development site. It was a common ritual practice of the Romans to bury their dead outside civilian settlements and alongside such roads. It is possible that Roman cremation and inhumation burials could also be encountered in this area.
- 3.4 To the west of the Fosse Way and running parallel to it is the line of the Lincoln Aqueduct (LHD 454, 951). This brought a piped water supply to the Roman settlement from the Roaring Meg Spring to the north. It is uncertain whether the line of the Aqueduct extended as far south as the general area of the development site.
- 3.5 There have been a number of attempts to locate the line of the Lincoln Aqueduct in the vicinity of the development site. Resistivity surveys carried at Nos. 83a and 87, Nettleham Road in 1975 did trace the line of this feature (LHD 642, ON 48 and LHD652, ON 49).

Following the positive results obtained by the resistivity surveys at 83a and 87 Nettleham Road, an archaeological evaluation also in 1975 involving the excavation of five trial trenches was carried out at 87, Nettleham Road (LHD 678-682, ON 50). This evaluation identified a large Roman stone platform, which was thought to be associated with the Lincoln Aqueduct (LHD 8955). This platform was approximately 2.75m in width and was exposed in the garden of 87, Nettleham Road. Probing at 83, Nettleham Road suggested that it extended for a further 30m to the south. It was probably designed to carry the Aqueduct over a depression. The line of the Roman road – the Foss Way was also observed.

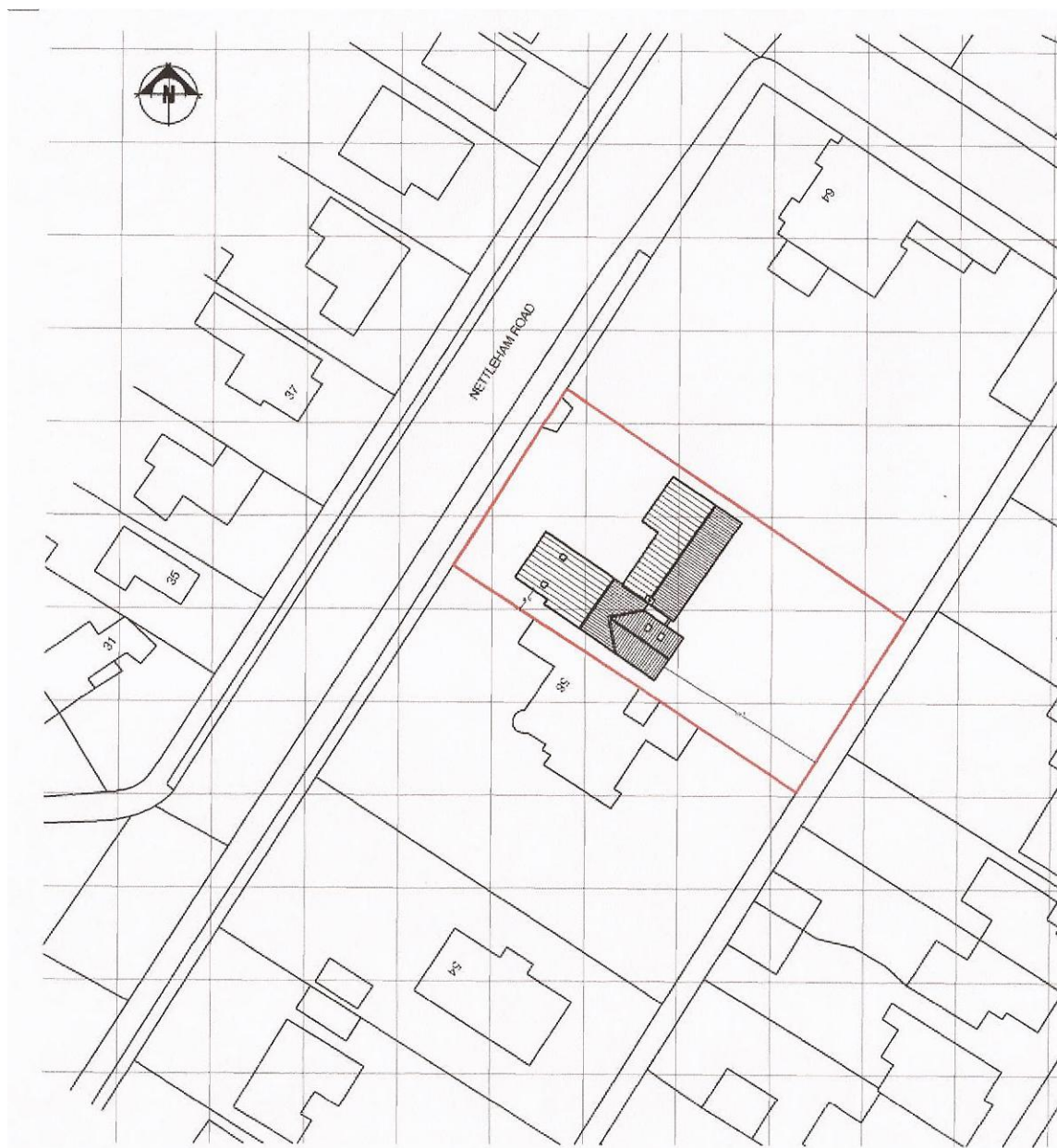


Figure 3: Plan showing the proposed layout of the development site at an original scale of 1:500 (not to scale), (extract from Architects plan).

- 3.6 The archaeological work at 87, Nettleham Road marked the most southerly observation of the line of the Lincoln Aqueduct. Archaeological work to the south of this has failed to find the line of this aqueduct. It is probable that its route may have diverged from that of the Roman road to the south of 87, Nettleham Road and perhaps may have headed for the East Bight water tower. However, there is no evidence for this line, which may equally have extended to the east or north gates of the Roman settlement. No aqueduct pipes or other evidence have been recorded to the south of 87, Nettleham Road.
- 3.7 Despite this, there have been a large number of other attempts to locate the line of the Lincoln Aqueduct in the vicinity of the development site. In 1975, a trench excavated in the front garden of 57, Nettleham Road did not trace the line of the Lincoln Aqueduct at this location (to the north of the development site) (LHD604, ON 45). Similar negative results were obtained from the excavation of further investigative trenches at 71, Nettleham Road in 1975 (to the north of the development site) (LHD615, ON 46) and at 81, Nettleham Road, also in 1975, (LHD630, ON 47). A site visit by the City Archaeologist in 2003 to observe the foundations for a new extension at 53, Nettleham Road, similarly did not identify the line of the Aqueduct and found only natural deposits (LHD 7698, HT30).
- 3.8 An archaeological observation on a construction site at 39, Nettleham Road and to the immediate north-west of the development site in 1978 was a further attempt to the line of the Lincoln Aqueduct (LHD 10868). No trace of aqueduct was found and the site was much disturbed. An archaeological observation on a construction site at 75, Nettleham Road and to the north of the development site in 1978 similarly did not find any trace of Lincoln Aqueduct (LHD 10685). A further archaeological observation on a construction site at 63, Nettleham Road and to the north of the development site in 1978 identified a road surface which overlay a second road surface. No trace of Lincoln Aqueduct was found (LHD 10684).
- 3.9 An archaeological watching brief on the groundworks for a new extension at 33, Nettleham Road in 2001 did not identify any archaeological deposits or the line of the Aqueduct (LHD 7054, Site code: NGR01). Nearby, at 35, Nettleham Road, a further archaeological watching brief was carried out in 2002 on the groundworks for two new extensions and a soakaway. This was a further attempt to locate the line of the Lincoln Aqueduct, but it did not identify any archaeological features or deposits that pre-dated the early 18th–19th centuries. A geophysical survey undertaken at 77, Nettleham Road in 1974 was an attempt to locate the line of the Lincoln Aqueduct (LHD 10,668, ON590). Although the results of this survey suggested that the line of this feature may have turned to the south-west at this location, this hypothesis was not verified by archaeological excavation.
- 3.10 An archaeological watching brief in 2012 during groundworks for the construction of a new part two storey and part single storey rear extension identified a simple deposit sequence of a modern topsoil horizon, an undated ploughsoil horizon and a natural horizon throughout the monitored areas. This sequence had been disturbed to a certain extent by the foundations of the former extension, which were removed during the course of the groundworks programme. The archaeological monitoring did not identify any archaeological activity, did not locate the line of either the Fosse Way or of the Roman aqueduct and there were no finds (LHD 11197, Site Code: NRL112).
- 3.11 An archaeological watching brief took place in 2002 on the groundworks associated with the construction of two extensions and the excavation of a soakaway at 33, Nettleham Road and to the immediate west of the development site (LHD 7098-7101, Site code: NRI02). No archaeological features or deposits were found predating the early 18th-19th centuries and no evidence for the Roman Lincoln Aqueduct was found.

- 3.12 It is thought that the development site may lie within the area of the Nettleham Road Roman cemetery. This is marked as "Roman Burial Places" marked on William Stukeley's map of 1722 and repeated by Marrat on his map of Lincoln of 1817 in the general area to the east of the Nettleham Road and possibly within the area of the development site itself (LHD 870). Recent archaeological work in this area has identified several cremation and inhumation burials.
- 3.13 A flagon of Late Roman date was found in 1927 at Massey Road and to the east of the development site (LHD 4334). Further Roman finds were been made at the Newport Cemetery in 1975 and to the west of the development site (LHD 1517-8). The first find comprised a jar in Lincoln Racecourse or Black-Burnished ware of mid-late 3rd century AD date. The jar contained a cremation. Further sherds of a Black-Burnished dish were also found associated with the jar. A further Black-Burnished jar of later 2nd century AD date was also found here at the same time. This second jar had also contained a cremation but the contents were thrown away. Further sherds of Black-Burnished dish associated with this second jar were also found.
- 3.14 The Nettleham Road is first referred to in documentary sources of the early 13th century as *Nettelhamgate*, *Netllhamgate* or *Netelhamgate* or the 'road to Nettleham' leading from the Nettleham gate of the city.
- 3.15 A lead alloy button of early medieval date was found at 33, Nettleham Road in 1978 (LHD 1655).
- 3.16 A token of 17th century date was found in 1973 at Haffenden Road (LHD 10641). Its exact location remains uncertain.
- 3.17 To the south of the development site is a quarry entrance or a collapsed limestone quarry, which was situated in the area south of Mainwaring Road in a close near the remains of St Giles Hospital called St Giles Mede/Mead and possibly now the southern part of the adjoining sports field (LHD 2467). It is shown on Stukeley's map of Lincoln of 1722 (LHD 2239). It was described in 1786 as a "subterranean cavern", which was still then visible, though its origins were unknown. According to R. E. Leary in 1790, this was "A piece of ground in a Lincoln cornfield, in the upper part of the City, sunk several yards. On the chasm being explored, apartments extending in different directions were found. On a large stone in the wall or side of the cavern, many yards in, is the date 1137". It was reported by Willson in 1816 (repeating Britton 1807) that "Near the remains of a chapel called St. Giles's, on the top of the hill, in an adjoining close, is an entrance to a subterraneous passage, vulgarly called St. Giles' hole; how far it extends has not been ascertained. In and about the city are several of these passages through the rocks". This has been lately been closed by the proprietor of the field, to prevent damages therein, and accidents from the curiosity of people in exploring the excavations." It is thought that this was possibly a quarry for stone for the cathedral. The site was backfilled and levelled in 1931 for the present sports ground.
- 3.18 To the north-east of the development site is the site of a former stone quarry (LHD 6356). This was in production from the mid to the late 19th century and was situated in the area of 1, Nursery Grove/80, Nettleham Road. It is not featured on the map of 1885, so had presumably had gone out of use by then.
- 3.19 Also situated to the north-east of the development site are the sites of two former stone quarries (LHD 6357). These are shown on the O.S. map of 1885 and were situated in the area of the modern Nursery Grove. They were in production from the mid to the late 19th century. The easterly of the two quarries is marked by Padley on his 1851 map and shows a circular structure, possibly a lime kiln at this location. Afterwards the site was used as nursery gardens. A 1949 building application by the Nightingale Inn was to fill in

an old pit. Back-filling continued until the 1970s. The edge of the eastern quarry was located in 2011.

- 3.20 Also situated to the north-east of the development site and to the rear of Stone Pit Houses (88-110 Nettleham Road) is the site of a ropewalk as shown on the O.S map of 1885 (LHD 6378). The site is also marked on the O.S. map of 1908 as a 'ropewalk'.
- 3.21 Situated to the north-west of the development site is the site of a second ropewalk, which occupied a strip of land to the west of the present 65 Nettleham Road. (LHD 6775). It is known from a Building Applications for 69 Nettleham Road (BA6206) and for Haffenden Road in 1926 (BA6283). It is labelled as Bakers Rope Walk on BA6202, with a long structure along the north boundary of the site. By the time of the 1930 OS map, a house (65) had been built at the east end (in 1926).
- 3.22 To the south-west of the development site, a WWII tank barrier was constructed across the Nettleham Road and on the pavement outside the Cathedral Nursing Home (LHD 8015). Five surviving square concrete shafts, with square concrete removable covers were designed to take vertically slotted barriers, such as lengths of railway track. Presumably these holes extended across the road.
- 3.23 Situated to the south-west of the development site was a well, which was situated on the western side of St Peter' Rectory, 23, Nettleham Road (LHD 8952). It is marked as a "W" on the 1907 O.S. map. The site of a second well that was located in the north west corner of the garden of the house at 66, Nettleham Road and to the north of the development site (LHD 8955). This is also marked as a "W" on the 1907 OS map. It is now below the front garden of 70 Nettleham Road.
- 3.24 To the south-west of the development site is the rectory for the church of St Peter at Arches built in 1854 on five acres of glebe land (LHD3179). This is a detached house at No. 23, Nettleham Road and is located on the west side of the Nettleham Road. It was known as St Peters Rectory and was also called The Old Rectory by 1913. It is now the Cathedral Nursing Home. Alterations were made in 1867 and in 1933 and four extensions were added in 2004.
- 3.25 Nearby is No. 64, Nettleham Road, which was a house built in 1904 (LHD 5128). A rear stable block was part of the original build. Alterations to the house were subsequently made in 1919.
- 3.26 The adjoining property to the south-west is No. 58, Nettleham Road (LHD 5779). This is a detached house which was built in 1924 with a garage being added in 1934.
- 3.27 A large number of other previous archaeological investigations pertinent to this project have been conducted in the vicinity of the development site. These have included an archaeological evaluation comprising the excavation of two trenches at 46, Lee Road and to the north east of the development site in 1979 (LHD 393-4, ON 306). This was an attempt to ascertain whether limestone quarrying or pitting was the cause of subsidence to this property. This was reported not to be the case.
- 3.28 A site visit by the City Archaeologist in 2006 to observe the foundations for a new extension at 70, Nettleham Road did not identify any archaeological features or deposits. This was an attempt to locate possible limestone quarrying activity to the north-east of the development site (LHD 9784, HT83).
- 3.29 An archaeological watching brief on the groundworks for a new residential dwelling at 48, Nettleham Road in 2008 and to the south of the development site identified a deposit sequence which consisted of a topsoil, a sandy subsoil with limestone pieces and an

- underlying natural horizon of cornbrash. No archaeological features or finds were recorded, suggesting agricultural use before the construction of 48 Nettleham Road (LHD 10234, Site code: LINR07).
- 3.30 An archaeological watching brief which took place in 1995 at 38-40, Nettleham Road and to the south-west of the development site during excavation work for the construction of a structure incorporating a lift well and service trenches did not identify any archaeological activity or finds (LHD 3311, ON552). Natural limestone brash was reached at c1.30m below the ground surface. The overlying sandy deposits could not be dated.
- 3.31 An archaeological watching brief at 8, Manor Road in 1998 and to the west of the development site yielded negative results (LHD 4690; Site code: MR98). An archaeological watching brief on the groundworks for a new extension and garage at 2, Bruce Road in 2001 and to the west of the development site also yielded negative results (LHD 7102, Site code: LBR01).
- 3.32 The archaeological observation of the excavation of the foundation trenches for a garage in 2012 at 19, Mainwaring Road and to the south-east of the development site did not identify any archaeological activity or finds (LHD 11143, HT116). Topsoil overlay sandy stony clayey natural layers. No archaeological features were observed. The archaeological observation of the excavation of the foundation trenches for a rear extension at 14, Bruce Road and to the north-west of the development site in 2003 did not identify any archaeological activity or finds (LHD 7675, HT23).
- 3.33 An archaeological watching brief of trenches excavated during the relining and reconfiguration of water mains on the Nettleham Road and to the south-west of the development site in 2002 did not identify any archaeological deposits (LHD 7935, Site code: LWMR02). Although the site contractor reported the finding of large limestone blocks, these were probably removed off site before they could be examined.
- 3.34 An archaeological watching brief which took place during the excavation of foundation trenches for the construction of four extensions at the Cathedral Nursing Home, Nettleham Road in 2004 and to the south-west of the development site did not identify any archaeological deposits or finds (LHD 8452-6, Site code: NRL03). The watching brief identified recent garden activity, undated and natural deposits. An earlier archaeological watching brief took place here in 1991 on the excavation of the foundations for a 2-storey garage/extension (LHD 486-7, ON364). The earliest deposits encountered during the monitoring of Trench 1 were sandy clay with considerable tabular limestone fragments, which were overlain by sandy clay with occasional limestone fragments and a layer of late destruction debris to topsoil and fill. Similar stratigraphy was identified in Trench 2. A north-south orientated wall was exposed consisting of 3-4 courses of roughly dressed mortar bonded limestone. It was cut by drains and displaced by tree roots and had formed the foundations for later brick wall now gone. A further archaeological watching brief took place here in 1994 on the excavation of the foundations for a further extension. This did not identify any archaeological features or finds (LHD 668-9, ON497).
- 3.35 As part of the background research for this project, a detailed map regression exercise was undertaken. Dewhirst and Nichol's map of 1839, Padley's map of 1842, Padley's revised maps of 1851 and 1868 and Padley and Thropp's map of 1883 all show the area of the development site as lying within a large open field to the east of the Nettleham Road.
- 3.36 This situation is repeated on the First Edition 25 inch to one mile scale Ordnance Survey (O.S.) map of 1889. The Second Edition 25 inch to one mile scale Ordnance Survey (O.S.) map of 1908 shows the immediate area of the development site as having been subject to contemporary residential development. No. 62 Nettleham Road is in place by

this time as are houses to the south along with Massey Street to the south-east which also has already been set out by this time. The extract from the 1932 Edition 25 inch to one mile scale Ordnance Survey (O.S.) map shows that by this time the development site is surrounded by modern residential developments, though the area of the development site itself remained undeveloped at this time. The extract from the 1:2,500 scale Ordnance Survey (O.S.) map of 1982 shows the current layout of the development site with it being occupied by the present residential dwelling

4. Aims and objectives of the project

- 4.1 The aims of the watching brief are the continual archaeological monitoring and recording of the groundworks phase of development at the site, which will comprise the mechanical excavation of the foundations for the new two story rear extension and a new single storey front extension.
- 4.2 The objectives of the project will be:
- To establish the presence/absence of archaeological remains within the area of the development site;
 - To determine the extent, condition, nature, character, quality and date of any archaeological remains encountered;
 - To allow the preservation by record of archaeological deposits;
 - To produce a project archive for deposition with The Collection, Lincoln; and
 - To provide information for accession to the Lincolnshire County Historic Environment Record (HER) and the Lincoln Heritage Database (LHD).
- 4.3 It is thought that the development site may be situated within the area of a known Roman inhumation and cremation cemetery, which has been known about at this general location since the 18th century. Several cremation burials have been found to the west in the Newport Cemetery. It is considered highly likely that similar such activity and finds made be made on this development site. The specific objectives of the project will be to record any archaeological activity and finds associated with this known cemetery site should they be encountered during the course of the archaeological monitoring.

5. Methodology

- 5.1 The archaeological watching brief will be undertaken during the groundworks phase of development at the site, and will include the **continual monitoring and recording** of the mechanical excavation of the foundations for the new two story rear extension and a new single storey front extension. The mechanical excavations will be undertaken by a machine of sufficient power that will be equipped with a toothless bucket. All mechanical excavation will be undertaken under the supervision of an experienced archaeologist.
- 5.2 All work will be carried out according to the Institute of Field Archaeologists (IFA) standards, and will be under the management of a Member of the IFA (MIFA).
- 5.3 All work will be undertaken following all statutory Health and Safety requirements and legislation in operation at the time of the monitoring. Safe working practices will be maintained on site at all times as required either by the archaeological contractors health and safety policies and those of the main site contractor.
- 5.4 No member of staff will work within deep and unsupported trenches. Where such support is required, this will be provided by the main site contractor. If the excavation of a trench

is to exceed maximum recognised safe working depths of 1.20m below ground levels, they will be stepped back or shoring shall be provided by the main site contractor.

- 5.5 The applicant or the main site contractor shall provide information on possible contamination issues and the location of all 'live' services before the commencement of the archaeological site works.
- 5.6 A Risk Assessment will be prepared for the site.
- 5.7 Neville Hall MIFA shall reach agreement with the applicants on the arrangements of such matters as site access, health and safety (including public safety and security) and on the location of existing buried services.
- 5.8 Sections of the foundations will be continually observed to identify any archaeological features and/or deposits which may be exposed. Should this be necessary, this may be followed by the hand cleaning and excavation of discrete archaeological features.
- 5.9 Section drawings at a scale of 1:10 will be made of any archaeological features, structures and/or deposits identified in the course of the groundworks, including representative sections at appropriate intervals. These will be related to a site plan drawing at a scale of 1:20, which may also record archaeological features and/or deposits identified. Any significant archaeological features in plan will also be recorded at a scale of 1:20.
- 5.10 *Written descriptions detailing the nature of archaeological features and/or deposits encountered will be compiled on pro-forma context record sheets.*
- 5.11 The heights of all archaeological deposits, archaeological features and the natural horizons encountered will be recorded in relation to the Ordnance Datum using a dumpy level.
- 5.12 Where appropriate, a programme of sampling of archaeological contexts will be carried out for subsequent analysis. A sampling strategy [to gather a statistically viable sample] will be used to sample all intrusive features excavated e.g. from the fills of pits and ditches, which are considered to be relatively undisturbed in order to assist in the establishment to their date, nature, extent and condition. In some instances purposive sampling will also be implemented. The samples taken will ideally be a minimum of 10 litres, and these will be sieved using a flotation tank [screen sieving to 1mm and with a flot screen of 250µm]. The residues produced will be air-dried, sorted and assessed as part of the post-excavation phase, and the results will be produced in the final project report. It is understood that this sampling strategy is based on a Watching Brief condition. In the event of significant archaeology being exposed consultation with Mr. Alastair Macintosh will take place to revise/modify sampling procedures. The recommendations for environmental sampling as detailed in *Environmental Archaeology. A guide to the theory and practice of methods, from sampling and recovery to post-excavation.*, English Heritage (2002) will be adhered to.
- 5.13 Any finds recovered will be bagged and labelled for further analysis. All relevant finds will be ordered into an archive. Most modern material will not be retained, although notes will be made of the appropriate context. An appropriate sample of materials such as ceramic building materials will be made.
- 5.14 Any and all artefacts found during the monitoring and thought to come under the provisions of the *Treasure Act* (1996), will be removed from the site to a secure location, and will be promptly reported to the appropriate coroner's office. Should removal not be

possible at the same time as the discovery, suitable security will be taken to protect the finds from theft.

- 5.15 Throughout the monitoring a digital colour photographic record will be compiled, and will comprise an overview of the site prior to work starting, and during as well as after completion of the work, and will include any excavated features, sections and other relevant details that aid interpretation.
- 5.16 Should human remains be encountered, they will be left *in situ*, and only excavated if absolutely necessary. Proper respect will be accorded to these remains, which will be cleaned to allow positive identification. Should removal be required, the appropriate Ministry of Justice Licence will be obtained prior to the removal of the remains. In addition, any remains will be reported to the local Environmental Health Department, coroner and the police will be informed, where appropriate and in accordance with the *Disused Burial Ground (Amendment) Act, 1981*.
- 5.17 The fieldwork will be undertaken by Neville Hall MIFA and will take up to two days on site to complete. Additional personnel may be appointed if required.

6. Post-fieldwork methodology

- 6.1 On the completion of the fieldwork, all of the written, drawn and photographic records produced by the archaeological monitoring will be checked, ordered, labelled (where appropriate) and catalogued to compile a distinctive site archive.
- 6.2 All finds recovered during the fieldwork will be washed, marked and packaged according to the deposit from which they were recovered in accordance with the UK Institute for Conservation (UKIC) *First Aid for Finds* (1998). They will also be ordered into (and form part of) the site archive.
- 6.3 An assessment of significant finds will be made in light of general site information.
- 6.4 Any finds requiring specialist treatment and/or conservation will be sent to the Conservation Laboratory at The Collection, Lincoln, and in consultation with the relevant curator.
- 6.5 The site archive will be examined to enable the determination of various phases of activity on the site (if appropriate).
- 6.6 Relevant finds will be sent to specialists for identification and dating.
- 6.7 The post-excavation work including report preparation will be completed in three days.

7. Monitoring arrangements

- 7.1 Provision will be made for Mr. Alastair Macintosh, the Lincoln City Council Archaeologist, (on behalf of the Local Planning Authority) to monitor the project during the fieldwork stage and any other aspect of the archaeological project as required including the post fieldwork analysis and report preparation stages of the project.
- 7.2 Mr. Alastair Macintosh, the Lincoln City Council Archaeologist will be notified at least two weeks in advance of the start date of groundworks on the site.
- 7.3 All aspects of the archaeological programme will be undertaken in accordance with this project specification.

- 7.4 Any variation to the project programme in terms of works or recording on or off site will be fully discussed and agreed with Mr. Alastair Macintosh, the Lincoln City Council Archaeologist.
- 7.5 Arrangements will be made for Mr. Alastair Macintosh, the Lincoln City Council Archaeologist to have access to the site to undertake monitoring visits, and such visits will be accounted for in the final report preparation.
- 7.6 Mr. Alastair Macintosh, the Lincoln City Council Archaeologist shall be kept fully informed of any unexpected or unforeseen discoveries made during the course of the archaeological monitoring and recording programme.

8. Archive preparation and deposition

- 8.1 The documentation and records generated by the archaeological monitoring will be sorted and ordered in the format acceptable to The Collection, Lincoln, and to the standards and requirements as laid out in their '*Conditions for the Acceptance of Project Archives*'. The preparation of the site archive will take one working day to complete.
- 8.2 The archive will be deposited at The Collection, Lincoln.
- 8.3 A unique accession number will be obtained from The Collection for the site archive prior to the start of the fieldwork stage of the project.
- 8.4 It is anticipated that the project archive will be deposited with The Collection, Lincoln by February 2016,

9. Reporting procedures

- 9.1 A report detailing the findings of the archaeological monitoring will be completed within three months after the completion of the fieldwork according to the standards outlined in *Management of Research Projects in the Historic Environment, The MoRPHE Managers Guide*, (English Heritage, 2009). Any delays will be related to the relevant authorities.
- 9.2 The report will consist of:
- A title page, with project name and location, national grid reference, planning reference, site code, accession number, client name, author and date;
 - A contents page listing report sections, illustrations and appendices;
 - A non-technical summary of the results of the monitoring;
 - An introduction, site description and location, including a description of the site topography and geology;
 - Planning background to the project;
 - A statement of the aims and objectives of the archaeological monitoring and recording;
 - A section on the archaeological and historical background to the project;
 - A description of the methodology used in the project;
 - A section describing the results of the monitoring;

A section on the discussion and results of the project including a consideration of the findings of the project in a local, regional and national context;

A consideration of the effectiveness of the project methodology and a confidence rating of the results;

Acknowledgements;

A Bibliography of the published and unpublished sources consulted;

Illustrations including: site location plans, a plan of the groundworks, plans and sections of the trial pits with appropriate horizontal scales, datum lines and level heights above AOD.

Appendices comprising appropriate colour photographs of the site and of specific and significant archaeological features and representative sections, a tabulated list of contexts and any specialist reports on finds from the site.

An index to and the location of the site archive.

A summary of the project data will be prepared for entry onto the Lincoln Heritage Database (LHD).

An electronic copy of the report will be deposited with the OASIS project (On-line Access to the Index of Archaeological Investigations) <http://ads.ahds.ac.uk/project/oasis/index.cfm>. A summary form of the OASIS record will be reproduced as an additional appendix to this report.

- 9.3 Hard and digital copies of the final report will be deposited with Mr. Alastair Macintosh, the Lincoln Heritage database and the Lincolnshire Historic Environment Record within six months of the completion of the site work.

10. Publication and dissemination

- 10.1 Copies of the final report will be deposited with the clients, Mr. Alastair Macintosh, the Lincoln City Council Archaeologist of Lincoln City Council (on behalf of the local planning authority), Lincoln City Council Planning Department, the Lincoln Heritage database, the Lincolnshire Heritage Environment Record, The Collection, Lincoln (along with the project archive) and with the National Monuments Record of English Heritage. The deposition of the final report with the Lincolnshire Heritage Environment Record will place this information into the public domain.
- 10.2 A note will be placed in 'Lincolnshire History and Archaeology' describing the results.
- 10.3 The deposition of the site archive will be in accordance with guidelines outlined in the Lincolnshire Archaeological Handbook (LCC, 2012).
- 10.4 Should the results of the archaeological investigation merit it, a note will also be placed in appropriate national journals e.g. *Medieval Archaeology*.

11. Other factors (including contingency)

- 11.1 In the event of the discovery of any unexpected remains of archaeological importance, or of any changed circumstances, it is the responsibility of the archaeological contractor to inform Mr. Alastair Macintosh, the Lincoln City Council Archaeologist.

- 11.2 Where important archaeological remains are discovered and deemed to merit further investigation, additional financial resources may be required to provide an appropriate level of investigation, recording and analysis.
- 11.3 Any additional financial contingency requirement for additional fieldwork or post-excavation analysis outside the scope of the proposed scheme of works will only be activated following full consultation with Mr. Alastair Macintosh, the Lincoln City Council Archaeologist.

12. Variations to the proposed scheme

- 12.1 Variations to the proposed scheme of works will only be made following written confirmation with Mr. Alastair Macintosh, the Lincoln City Council Archaeologist.

13. Resources

- 13.1 The monitoring will be undertaken by Neville Hall using standard archaeological field techniques.
- 13.2 Post-excavation analysis will be undertaken by Neville Hall and where available specialist analysis from:-

Jane Young	Medieval and Post-medieval Ceramics
Ian Rowlandson	Roman and Iron Age Ceramics
Val Fryer	Environmental
Carol Allen	Neolithic and Bronze Age
Malin Holst	Osteoarchaeology
Jane Cowgill	Metallurgy

- 13.3 Small finds requiring conservation will be conserved by the City and County Museum Laboratory.
- 13.4 Recognised specialists will be sought in the event that other data are retrieved in the course of the monitoring.

14. Insurance statement

- 14.1 Public indemnity of £2,000,000 and private indemnity insurance of £250,000 with Towergate Insurance.

15. Copyright

- 15.1 Copyright will remain that of the author. Licence will be given to the client to present any reports, copyright of the author, to the planning authority in good faith of satisfactory settlement of account.

16. Ownership

- 16.1 It will be asked of the client, at the outset, that the ownership of any portable objects discovered in the course of the monitoring be donated along with the archive.