WESTMINSTER PARK, CREWE, CHESHIRE



ARCHAEOLOGICAL RECORDING REPORT

CP. No: 10581/14

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archaeology

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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 WA Archaeology Ltd on the preparation of reports.

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SUMMARY

Wardell Armstrong Archaeology was commissioned by Kay Morris of United Utilities, to undertake a programme of archaeological recording in advance of the submission of a planning application for proposed groundworks associated with new sewage infrastructure which involves the removal of this historic structure at Westminster Park, Crewe, Cheshire (NGR SJ 7034 5470).

Wardell Armstrong Archaeology undertook a desk-based assessment in 2013 in order to establish the scope of the archaeological work required to fulfil the archaeological conditions of the planning decision. The report identified a number of similar and associated structures within the area.

As a result, the Cheshire West and Chester Council granted planning consent for the development, on the condition that a programme of archaeological recording was undertaken during the removal of the air raid shelter.

The archaeological recording monitored the uncovering of a Second World War air raid shelter which was subsequently planned and recorded prior to being demolished as part of United Utilities infrastructure project.

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ACKNOWLEDGEMENTS

Wardell Armstrong Archaeology thank Kay Morris of United Utilities, for commissioning the project, and for all assistance throughout the work. Wardell Armstrong Archaeology also thank Mark Leah, Development Control Archaeologist, Cheshire Archaeology Planning Advisory Service, for all his assistance throughout the project.

Wardell Armstrong Archaeology would also like to extend their thanks to James Dunlevy of Balfour Beatty, and all staff at Westminster Park, for their help during this project.

The archaeological watching brief was undertaken by Mike McElligott. The report was written by Mike McElligott and Fiona Wooler. The drawings were produced by Adrian Bailey. The project was managed by Frank Giecco, Regional Manager for WAA. The report was edited by Richard Newman, Post Excavation Manager for WAA.

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1 INTRODUCTION

1.1 CIRCUMSTANCES OF THE PROJECT

- 1.1.1 In May 2014, Wardell Armstrong Archaeology were invited by Kay Morris of United Utilities to undertake a programme of archaeological recording at Westminster Park, Crewe, Cheshire (NGR SJ 7034 5470; Figure 1), during groundworks associated with new sewage infrastructure which involves the removal of a Second World War air raid shelter. Mark Leah, Development Control Archaeologist, Cheshire Archaeology Planning Advisory Service requested the monitoring of all groundworks associated with the project outside of the tank area and final demolition of the shelter be subject to a programme of archaeological observation and investigation. This is in line with government advice as set out in Section 12 of the National Planning Policy Framework (NPPF 2012).
- 1.1.2 Groundworks associated with the removal of the air raid shelter prior to the development of new sewage infrastructure had to be carried out 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 Wardell Armstrong Archaeology (Giecco 2013) and generally accepted best practice.
- 1.1.3 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.

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2 METHODOLOGY

2.1 PROJECT DESIGN

2.1.1 A project design was submitted by Wardell Armstrong Archaeology in response to a request by Kay Morris of United Utilities, for a programme of archaeological recording of the study area. Following acceptance of the project design by Mark Leah, Development Control Archaeologist, Cheshire Archaeology Planning Advisory Service, Wardell Armstrong Archaeology was commissioned by the client to undertake the work. The project design was adhered to in full, and the work was consistent with the Institute for Archaeologists (IfA) standard guidance for archaeological watching briefs.

2.2 THE ARCHAEOLOGICAL RECORDING

- 2.2.1 The works involved a structured watching brief to observe, record and excavate any archaeological deposits from the development site. 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 leveled;
 - 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 and monochrome formats as applicable, 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 An area of approximately 198m² was stripped of topsoil down to the top of the air raid shelter. The mound formed a rectangle that approximated to 26m by 19m. Archaeological monitoring and supervision of groundworks associated with the stripping commenced on 20th May 2014. A summary of the findings of the archaeological recording is included within this report.

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2.3 THE ARCHIVE

- 2.3.1 A full professional archive has been compiled according to the Archaeological Archives Forum recommendations (Brown 2011). The archive will be deposited within Cheshire West Museums, with copies of the report sent to the County Historic Environment Record at Cheshire Historic Environment Record in Chester, available upon request. The archive can be accessed under the unique project identifier WAA14, WSC-A, CP 10581.
- 2.3.2 Wardell Armstrong Archaeology and Cheshire West and Chester 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 Wardell Armstrong Archaeology Ltd, as a part of this national project.

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3 BACKGROUND

3.1 LOCATION AND GEOLOGICAL CONTEXT

- 3.1.1 The town of Crewe is located in south-east Cheshire, approximately 6km to the north-east of Nantwich and 7km to the south-west of Sandbach. The township lies at *c*.50m AOD and is surrounded by the gently undulating land of the Cheshire Plain, which is used primarily for dairy farming (Cheshire County Council 2003).
- 3.1.2 Westminster Park is situated to the south of Crewe town centre, and to the west of the main railway line and Crewe Station (Figure 1). Westminster Road defines the western boundary of Westminster Park, with Furnival Street to the south, Nelson Street to the east and Nile Street to the north. The air raid shelter is located to the south side of Westminster Park, with a Day Nursery to the north-west and children's play area to the north (Figure 2).
- 3.1.3 The underlying geology comprises Lower Keuper Marl, above which is boulder clay (Cheshire County Council 2003, 1).

3.2 HISTORICAL CONTEXT

- 3.2.1 *Introduction:* this historical background is compiled mostly from secondary sources, and is intended only as a brief summary of historical developments specific to the study area. References to the County Historic Environment Record (HER) are included where known.
- 3.2.2 At the end of the 18th century, Crewe is depicted as little more than a cluster of properties, with Crewe Hall and its enclosed estate shown to the south, and the larger settlement of Church Coppenhall to the north-west. In the early 19th century Crewe consisted of 'a few farms and the great Crewe mansion and estate'. The census returns for 1831 record small populations for each township: Monks Coppenhall (148), Crewe (295) and Church Coppenhall (350), and tithe maps of 1839 and 1840 depict their dispersed settlement patterns (Cheshire County Council 2003, 6). At this date, the site of Westminster Park was part of regular field systems, located on the north side of Nantwich Road (Cheshire County Council 2013). Writing in 1977, R N Done noted: 'There is not a single building in Crewe that was put up before the 1840s...not even a hamlet preceded the town' (Done 1977, 158 and 161).
- 3.2.3 By 1910, Westminster Park had been laid out and was annotated 'Recreation Ground', and was surrounded by terraced housing on parallel streets leading northwards off Nantwich Road. The character and form of these houses, being closely constructed with little in the way of gardens, may have been the reason why the communal air raid shelter would be constructed within the 'Recreation Ground' three decades later, as there would presumably have been little scope for providing an Anderson shelter in each yard.
- 3.2.4 The HER presently contains entries relating to three air raid shelters: a domestic Anderson air raid shelter was located to the north of the town, on Mablin Lane, although this is likely to be only one of many examples that formerly existed. Two

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communal air raid shelters are recorded, one of which was located in a park on Samuel Street, close to the town centre. This shelter was noted to have been constructed to accommodate approximately 500 people, and it is reported that when the shelter was last opened in 1992, it still contained aluminum bunk beds and chemical toilets (HER No. 7720). This shelter was discovered when a council working was cutting the grass in the park; a newspaper article in The Chronicle reported: 'He was going about his business cutting the grass on the Samuel Street playing fields when his mower sunk down into the ground. At first he was unsure of what he had found until the small hole was opened wider and an old bunk bed came into view. He had unwittingly come across the escape hatch of an old air-raid shelter'. The report went on to quote the memories of a local resident who had used the shelter during the war: 'I remember when it was built in 1939; they had to build it very quickly once the war had started. Three hundred men, women and children would cram into the shelter once the sirens started. People came from the surrounding streets and from Crewe Works just a few yards away'. The form of the shelter was also described, indicating that it was square-shaped with a maze of narrow corridors, many of which were lined with benches. It was noted that in the event of the shelter being hit, apart from the two entrances, there were three escape shuts where ladders led up to small hatches (Tim Previtt 2013).

- 3.2.5 The second communal air raid shelter which is presently recorded in the HER is that which is located within Westminster Park, although very little information appears to be known about this site (HER No. 7221).
- 3.2.6 There appears to have been other locations for 'air raid shelters' in Crewe, although these appear to have utilised existing buildings rather than being purpose-built. A newspaper article relating to the 70th anniversary of Crewe's Flag Lane swimming baths (SJ 700 553) refers to the baths being constructed in 1936, and during the Second World War 'it was used as an air raid shelter, with families sheltering underneath the pool' (Crewe Chronicle 14th November 2007). At Bedford Street School (located to the south of Nantwich Road, and now demolished), an air raid shelter is referred to in reminiscences of a lady who attended the school (BBC 2013). A shelter at Broad Street School is also remembered by Mrs. P Minshall of Crewe Historical Society (pers. comm.). A surface shelter is noted to have existed on Martin Street (Potts and Marks 2006, 214).
- 3.2.7 Whilst Ordnance Survey mapping from the mid-20th century clearly shows the extent of Westminster Park, to the north side of Nantwich Road, the outline of the air raid shelter is not given on sheets dating from 1954, 1960 or 1993, suggesting that the shelter may have gone out of use, and was not considered to be worthy of labelling. Although buildings of some form are shown to have existed within the Recreation Ground in 1954, Westminster Street School does not appear to have been constructed until after that date, but before 1960. Other features within the park during the 20th century include a 'shelter' to the west side, and two public lavatories in the south-west corner.

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4 ARCHAEOLOGICAL RECORDING

4.1 Introduction

- 4.1.1 The archaeological recording programme ran concurrently with the site groundworks programme and started on the 20th May 2014. It consisted of the removal of the covering topsoil and the planning and recording of the structure before it was demolished (Figure 2). Health and safety concerns that the structure was unstable meant that access into the shelter was not permitted and it could only be recorded from a safe distance.
- 4.1.2 All context numbers have been placed within brackets throughout the discussion and are differentiated between cuts [], deposits () and structures {}, a table of which is provided in Appendix 1 below.

4.2 THE AIR RAID SHELTER

- 4.2.1 The air raid shelter was located in the south end of the park and was visible above the surface as a grass covered mound with rounded corners. Initially the covering soil was removed by a tracked 14-ton 360 excavator with a toothless bucket. The mound was reduced in height until the roof of the shelter was exposed. The removal of the roof and the demolition of the shelter were done using a tracked 30-ton 360 excavator with a toothed bucket.
- 4.2.2 The shelter consisted of five linking corridors of which two, corridors A and C were aligned east-west and three, corridors B, D and F were aligned north-south (Figures 3 & 4). All corridors varied in length but all were 1.39m wide by 2.04m high. The trench cut [102] was rectilinear shaped with vertical sides and a flat base that measured 50.45m in overall length by 1.55m wide by approximately 1.95m deep. The shelter was covered over by a layer of topsoil (100) that consisted of a dark brown silty clay and was roughly 0.3m thick. The shelter was not flooded and only had shallow, muddy puddles of water in places. It was mostly dry with some damp patches and there was debris scattered throughout the corridors along with a couple of broken tools, bunk beds and rubbish (Plates 10 11).
- 4.2.3 Corridor A was located at the south end of the shelter and measured 5.7m in length. Corridor B joined to A on its northern side, 0.64 from its western end. It measured 4.5m long and joined to the southern side of Corridor C, 3.77m from its western end. On the northern sides 0.64m from either end corridors E and F extended northwards for 7.16m. There were no rooms observed within the structure. The west end of corridor A extended beyond the junction with corridor B and formed a recess. This arrangement was also seen at either end of corridor C and the junctions with corridors D and E where there were recesses. It is possible that the features at the junctions with corridors D and E were the locations of chemical toilets.
- 4.2.4 The shelter was constructed with concrete panels and braces that were reinforced with metal bars that measured 5mm in diameter. The panels varied in sized for the walls, floor and roof but all had reinforced horizontal strips of concrete that

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projected out 0.03m along the inner sides that measured 0.83m long by 0.04m thick and were in evenly spaced rows of three or four. The sections of the wall {103} were made up of three rows of panels that were laid on end against the sides of the cut. The lower and middle panels measured 0.89m wide by 0.76m high by 0.05m - 0.08m thick with the top panel 0.66m high for most of the shelter except at the ends and sections where the corridors join. The panels at the ends of the corridors were largest and measured 1.55m wide by 0.16m thick and the panels on either side of the adjoining corridors were 0.68m wide. The panels were kept in place by concrete and rebar braces {109} that were rectangular shaped and measured 2.18m high by 1.45m wide by 0.08m thick on the sides and 0.14m thick on the base and top. They were spaced at intervals of between 0.84m - 0.86m. The braces were closer together at both ends of corridor C and the west end of corridor A and at the junctions with the other corridors. In these locations they were 0.52m and 0.6m apart. They had holes near their top corners that suggested that they were lowered into trench and placed where the ends of the panels met, in a vertical gap created by the reinforced bars on the inner sides of the panels as they stopped 0.04m short of either end (Figure 5) (Plates 4 - 7 & 11).

- 4.2.5 The floor panels {104} were placed in the gaps between the braces and measured 0.14m thick that were also the same thickness as the base of the braces. The flat side of the panels faced upwards with the reinforcing strips underneath. The panels measured 1.35m long by 0.81m wide throughout the shelter except at either end of corridor C at its junctions with D and E and also at the junction between corridors A and B. Additional braces that were closer together at the junctions meant smaller panels in the recesses and third of the proceeding panels at either end of C and in A. The panels measured 0.52m and 0.61m respectively. A panel in corridor A had holes in its northern half near to the opening into corridor B that appeared to have been a drain. It consisted of three narrow parallel slits in a cross shape with a round hole in the centre. The drain could not be measured as there was no safe access to it (Figure 5) (Plate 15).
- 4.2.6 The roof panels {105} were placed flat on the top of the structure and rested on the one half of the concrete braces {109} and on the wall panels {103}. The panels measured 1.55m by 0.92m and were 0.08m thick. The flat side faced upwards with the reinforcing strips on the ceiling underneath. The panels were covered by a thin layer of concrete (106) that was slightly raised along its centre and sloped down towards either side. There were two escape hatches {110} that were located in the northwest corners of corridors D and E (Plates 2 & 8). The hatch in corridor D was 1.38m by 0.84m and was 0.35m high, from the top of the roof. It consisted of two smaller braces laid flat that were 0.175m thick. There was a metal ladder in the centre of the opening on northern end. The hatch in corridor E was 1m by 0.86m and was 0.35m thick, made up of two braces of the same dimensions and measuring 0.175m thick. If there was a ladder for this hatch, it had been removed. Both hatches were sealed with a reinforced concrete slab that matched the dimensions of the respective openings and were both 0.08m thick.
- 4.2.7 There was a total of seven vents {111} that were visible in the shelter roof. There was one apiece in corridors B, D and E and five in corridor C (Figure 3) (Plates 1 &

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- 3). A section of the roof on the western side towards the middle had collapsed inwards and was sealed over by a large concrete slab {112} that measured 1.22m long by 1.06m wide by 0.08m thick. Its location in relation to the vents to the east and west suggested that there had been a sixth vent. The vents were rectangular shaped and followed the same alignment as the corridor which they ventilated. They varied in size but on average were 0.78m long by 0.49m wide. The largest vent was in corridor C that measured 1.05m long by 0.55m wide and was located to the east of concrete slab {112}. The smallest one was also in corridor C and measured 0.61m long by 0.57m wide. One side of each vent was sealed over by concrete with a square vent on the other side. It consisted of four courses of red brick that measured 0.23m long by 0.13m wide by 0.07m thick. They were laid in a stretcher pattern and bonded using cement. They formed a square 0.49m by 0.49m. The surviving vents were sealed by a concrete slab that measured 0.51m by 0.51m by 0.04m thick.
- 4.2.8 The entrance to the shelter was located at the east end of corridor A. It had been blocked by brick infilling {114} consisting of 23 courses of red bricks in stretcher bond using cement mortar (Plate 9). The blocking measured 2.04m high by 1.39m wide. The bricks measured 0.23m long by 0.11m wide by 0.07m thick. The stairs that lead down to the entrance had been backfilled with a mixture of topsoil, light brown clay and modern rubbish (113). The stairs measured 5.4m in length by 1.865m and had a fall of 2.045m high. It also appeared that two or three of the upper steps had been removed prior to this recording project. The stairs consisted of twelve concrete steps {108} between brick walls {107} on the north and south sides. Ten of the concrete steps had risers of 0.29m thick by 0.16m high on average, with a wider step at the bottom of the stairs at the entrance that measured 0.66m wide and the seventh step measured 1.6m wide. The walls on both sides consisted of at least 23 courses of red brick that was laid down in English bond using cement mortar (Plates 12 - 14). The bricks measured 0.23m long by 0.11m wide by 0.075m thick and both walls measured 5.4m long by 0.24m wide (Figure 6). There were circular ceramic pipes visible in the 2^{nd} , 12^{th} and 19^{th} courses of the wall that mirrored each other and measured 0.08m in diameter. It was unclear what their function was but it may have been for drainage or holding the base of railings.
- 4.2.9 Along the northern side of corridor C there were pieces of timber attached to the concrete braces and may have been the remains of bench that ran the length of the corridor. In both corridors D and E, along their western and eastern sides respectively, there were three triple bunk bed frames though they looked more like shelving units (Plate 10). In corridor D also, along upper corner of the brace on the eastern side, there were metal hooks that appeared to have been for lighting. The recesses at either end of the corridor C may have been the location of the chemical toilets as there was the crushed remains of a metal container that may have been one. It was clear that once the shelter had gone out of use, anything of value had been stripped out of it before the entrance was sealed.

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Plate 1: Shot of corridors B, C & D, before removal of the roof, looking southwest



Plate 2: Shot of corridor E, showing escape hatch {110}, looking southwest

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Plate 3: Shot of vent {111}, with concrete slab {112} in the background – corridor C, looking east



Plate 4: Shot corridors C & E, showing the recess on the right side, looking north

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Plate 5: Shot of corridors C & E, showing bunk beds on left side, looking southeast

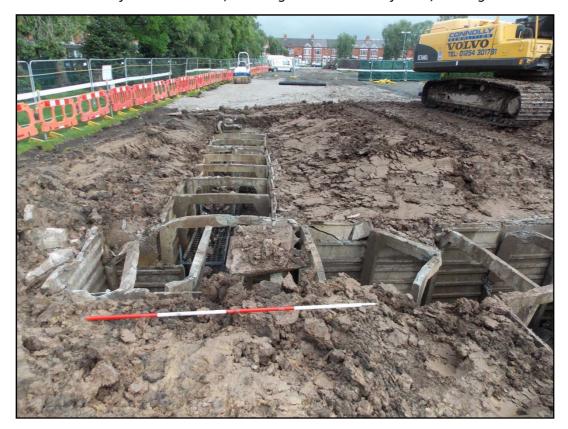


Plate 6: Shot of corridors C & D, showing the recess on the left side, looking north

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Plate 7: Shot of corridors C, E & B, looking southwest



Plate 8: Shot of corridor D, showing escape hatch {110} with ladder in the background, looking northwest

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Plate 9: Shot of corridors A & B with bricked up entrance in the background, looking east



Plate 10: Interior shot of corridor D, showing bunk beds, looking south

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Plate 11: Interior shot of corridor B, showing corridor A in the background, looking south



Plate 12: Shot of stairs {108} and brick walls {107}, looking northwest

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Plate 13: Shot of stairs {108} & walls {107}, after corridor A removed, looking east



Plate 14: Shot of stairs {108} & wall {107}, looking north

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Plate 15: Close-up shot of drain in corridor A, looking north

4.3 ARCHAEOLOGICAL FINDS AND ENVIRONMENTAL SAMPLING

4.3.1 No archaeological finds were recovered, and no environmental samples were retained during the groundworks.

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5 CONCLUSION

5.1 CONCLUSION

- 5.1.1 A Second World War air raid shelter was planned and recorded before being demolished in Westminster Park, Crewe. Beforehand, the shelters lay out was unknown but after the covering topsoil mound had been removed, it revealed five linking corridors of which two were aligned east-west and three were aligned north-south with an entrance at its southern end and two escape hatches at the northern ends of two corridors. A concrete stairs led down to the shelter bound by brick walls on either side. The shelter was constructed by reinforced concrete panels held in place by reinforced concrete braces. Panels were also used for the floor and the roof which was also covered in a thin layer of concrete. There vents in the roofs of four of the five corridors and which two of the vents were over small recesses at either end of one corridor that may have been for chemical toilets. There were remnants of timber along one side of the same corridor appeared to have been originally a long bench. There were also three triple bunk beds each in two of corridors. After it was decommissioned, the entrance was bricked up and the stairs was backfilled in.
- 5.1.2 This air raid shelter in Westminster Park was noted to be of similar design and form, and contained similar bunk beds, to a further air raid shelter located in Samuel Street playing fields. The discovery of that shelter was reported in the local press, with a local resident noting that it had been constructed in 1939, and was square-shaped in plan with 'a maze of narrow corridors running around it' (Wooler 2013, 16). It is possible that the Westminster Park shelter may have been constructed at a similar time and to a similar design. The design appears to have provided maximum protection and ease of construction with the minimum of resources. The narrow corridors provided little surface area and maximum support for the narrow roof spans, which were supported by reinforced concrete bracing and buttressed by the natural clay which remained *in situ* around the maze of narrow corridors.

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Giecco, F, (2013), Westminster Road, Crewe, Cheshire: Written Scheme of Investigation, Wardell Armstrong Archaeology, Unpublished Document

IfA (2008) Standard Guidance for Archaeological Watching Briefs. Reading: Institute for Archaeologists.

NPPF (2012) *National Planning Policy Framework: Archaeology and Planning*. Department for Communities and Local Government

Potts, M and Marks, T, (2006) Crewe and Nantwich at War: A Visual Memory, Volume 1, Nantwich: Brookmark Publications

Wooler, F. (2013) Westminster Park, Crewe: Desk-based Assessment, WA Archaeology Unpublished Report CP10566/13

6.2 WEBSITES

BBC

http://www.bbc.co.uk/history/ww2peopleswar/stories/52/a8640452.shtml - Accessed 22/05/2013

Cheshire County Council

http://www.cheshire.gov.uk/tithemaps/TwinMaps.aspx?township+EDT 130-2 – Accessed 22/05/2013

Tim Prevett http://timprevett.blogspot.co.uk/2009_01_01_archive.html - Accessed 22/05/2013

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APPENDIX 1: CONTEXT TABLE

Context Number	Context Type	Description
(100)	Deposit	Topsoil
(101)	Deposit	Natural
[102]	Cut	Trench for the air raid shelter
{103}	Structural	Shelter walls
{104}	Structural	Shelter floor
{105}	Structural	Shelter roof
(106)	Deposit	Layer of concrete covering the roof
{107}	Masonry	Brick walls – part of the stairs
{108}	Structural	Concrete stairs
{109}	Structural	Reinforced concrete braces
{110}	Structural	Escape hatches
{111}	Structural	Brick vents
{112}	Structural	Concrete slab
(113)	Deposit	Modern backfill
{114}	Structural	Brick wall – sealing the entrance

Table 1: List of Contexts issued during Watching Brief

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APPENDIX 2: PROJECT DESIGN

1 INTRODUCTION

- 1.1 Wardell Armstrong Archaeology (WAA) has been invited by Kay Morris of United Utilities to undertake a programme of archaeological fieldwork on the site of a World War Two air raid shelter (centred on National Grid Reference SJ 703 546).
- 1.2 Following consultation with Mark Leah the Development Control Archaeologist, Cheshire West and Chester Council, a desk based study was undertaken (Wooler 2013) which confirmed the location of a World War Two air raid shelter. This project design deals with the follow up recording programme that will be implemented prior to during the demolition of the shelter remains. This work is required, in order to record the archaeological evidence contained within the proposed development area, and to attempt a reconstruction of the history and use of the site.
- 1.3 This Written Scheme of Investigation (WSI) is for the recording of the remains of the shelter, and was prepared in accordance with the recommendations of English Heritage in *The Management of Archaeological Projects*, 2nd ed. 1991, and the former Cheshire County Council's *Guidance and general Conditions for Archaeological Contractors and Consultants in Cheshire* (CCC 2003).

2 LOCATION

2.1 The site is located within a recreation ground on the junction of Furnival Street and Westminster Street in Crewe, Cheshire (SJ 703 546).

3 MAIN RECORDING PHASE OF AIR RAID SHELTER

- 3.1 The building assessment will be undertaken in close cooperation with the main site contractors, as there are numerous health and safety concerns in this project the archaeological recording programme will have to follow what is considered safe by the site foreman. The goal of this work is therefore to safely achieve as full an understanding of the nature of the surviving shelter remains that is possible given the site constraints and place it in a geographical, topographical, archaeological and historical context.
- 3.2 Following a pre-start meeting it has been agreed that due to issues relating to the structural stability of the shelter there will be no access to the interior of the building. The structure will be exposed on three sides by excavation and the exterior recorded from a safe distance.
- 3.3 Once the exterior has been recorded a section of the exterior wall will be removed to allow the shelter interior to be photographed from the outside and sketch plans of the interior made. This will be followed by removal of the roof structure and 3 sides of the structure to allow access to the interior of the shelter. The archaeology team will only access the site with full agreement from the main contractor and a full health and safety assessment and briefing will precede each phase of

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- archaeological recording. If the site conditions are favourable a full measured plan will be produced.
- 3.4 We will aim to produce a Level 2 building survey of the air raid shelter according to the standard and guidance set out by the Institute for Archaeologists (IfA 2008) and English Heritage. A Level 2 survey comprises a descriptive record of a building or buildings as described by English Heritage (2006, 14).

The survey will include:

- a written description of the buildings, including their plan, form, function, age, development sequence and construction materials. The landscape and historical context of the buildings will also be considered.
- a digital photographic record of the buildings and their relationship with other structures in the immediate area. A selection of the digital photographs will included within this report for illustrative purposes.
- scaled floor plans and elevations of the buildings, with features of archaeological/historical interest identified.

4 ARCHAEOLOGICAL WATCHING BRIEF

- 4.1 This will comprise of the archaeological monitoring of all groundworks associated with the project outside of the tank area and final demolition of the shelter. All work will be conducted according to the recommendations of the Institute of Field Archaeologists (IFA 2001).
- 4.2 In summary, the main objectives of the watching brief will be:
 - to establish the presence/absence, nature, extent and state of preservation of archaeological remains and to record these where they are observed
 - to establish the character of those features in terms of cuts, soil matrices and interfaces
 - to recover artefactual material, especially that useful for dating purposes
 - to recover palaeoenvironmental material where it survives in order to understand site and landscape formation processes
- 4.3 Any archaeological deposits will be cleaned by hand and all features will be investigated and recorded according to the WA Archaeology standard procedure as set out in the Excavation manual (Giecco 2012). This will be subject to a ongoing health and safety appraisal.
- 4.4 All non-modern finds will be collected, including those from excavated topsoil. A metal detector will be used to maximise collection of artefacts. Finds will be managed by Megan Stoakley, WAA Finds and Archives Officer. who will undertake first aid conservation, but if further conservation is required there will be extensive consultation with appropriate specialists.

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- 4.5 All finds belong to the landowner, but initially they will be transferred to the WA Archaeology premises at Carlisle. Agreement will be sought on the final deposition of finds prior to the fieldwork commencing. During and after the watching brief, all recovered artefacts will be stored in the appropriate conditions to ensure minimal deterioration and loss of information (this will include controlled storage, correct packaging, regular monitoring of conditions, immediate selection for conversation of vulnerable materials). All work will be carried out in compliance with IFA Guidelines for Finds Work and those set by UKIC.
- 4.6 Any environmental evidence found during the work will be sampled in agreement with UU under the guidance of the English Heritage Regional Adviser for Archaeological Science, and undertaken according to the WA Archaeology standard environmental sampling procedure. Environmental samples will be processed under the direction of Don O'Meara, BSc Hons, WAA Environmental Supervisor, who will also assess any human remains recovered during the evaluation.
- 4.7 Should any human remains be encountered during the watching brief area all work will cease in the vicinity of the burial and Development Control Archaeologist, UU and the Coroner's office will be informed immediately. The removal of any human remains will be done under strict Home Office licence and environmental health regulations.
- 4.8 It is recognised that the primary stakeholders in this project are United Utilities, who are funding this work, and who wish to see the project completed on time and budget, to allow for the satisfactory completion of their new interceptor tank.
- 4.9 WA Archaeology is actively remodelling its project management systems to MoRPHE (English Heritage 2006) standard, and is currently certified to meet the requirements of BS/EN/ISO 9001:2000. We are also currently seeking IfA Registered Archaeological Organisation status. Finds

5 REPORTING

- 5.1 This process will culminate in the production of a bound report with each page and paragraph numbered, following the guidance set out in the *Management of Archaeological Projects* (2nd Edition, 1991), including:
 - A location plan showing the proposed development area, related to the national grid.
 - The dates on which the project was undertaken.
 - A concise, non-technical summary of the results
 - A summary of the historical and archaeological background
 - Digital photographs where appropriate
 - Recommendations for further work if applicable
 - A copy of the Written Scheme of Investigation/Project Brief

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- The associated OASIS reference and Planning Application Number.
- 5.2 Produce a single interpretation panel.

6 HEALTH AND SAFETY

- Wardell Armstrong Archaeology is fully compliant with HSE guidance and legislation. It is the duty of all personnel, under the Health and Safety at Work Act etc 1974, to take reasonable care for the health and safety of him/herself and other persons who may be affected by his/her acts or omissions at work. He/she must also cooperate with the Technical Director regarding any duty or requirement imposed on the Technical Director or any other person by or under any of the relevant statutory provisions so far as it is necessary to enable that duty or requirement to be performed or complied with. Any personnel contravening relevant statutory provision may be prosecuted in a Sheriff Court (Scotland) or Magistrates' Court. All personnel taking part in field work have a responsibility to adhere to sensible standards of behaviour. Personnel are made aware that fieldwork activities have inherent hazards which staff members minimise with appropriate safety precautions. However, the potential dangers make it imperative that personnel cooperate by behaving responsibly in order to reduce the risk of accidents.
- Wardell Armstrong Archaeology Health and Safety Statement conform to the provisions of the Standing Conference of Archaeological Unit Managers (SCAUM) Health and Safety Manual. Field projects are undertaken according to the SCAUM Health and Safety in Field Archaeology (SCAUM 1986) and according to the WAA Standard Safety Procedure.
- The main contractor will prepare a full Risk Assessment and Method statement for the demolition of the shelter and provide a full induction prior to any site access. Risk assessments are undertaken prior to any fieldwork taking place and staff are fully briefed regarding on site hazards and safe working procedure at the start of the fieldwork at a site induction. Full consideration will be given to health and safety issues during all fieldwork for this project

7. STAFFING AND COMPANY SUMMARY

- 7.1 Wardell Armstrong Archaeology is the archaeological contracting division of Wardell Armstrong LLP. The company has a fully staffed professional field team and is highly experienced in the assessment and recording of archaeological sites and monuments throughout the UK. Based in Carlisle, Cumbria, the company has considerable experience extending over more than twelve years of archaeological investigation.
- 7.2 The work will be undertaken under the overall direction of Frank Giecco, BA (Hons) DipArch MIfA, WAA Technical Director, who has more than 20 years experience in the management of archaeological projects

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7.3 Wardell Armstrong Archaeology maintains Professional Indemnity Insurance of £2,000,000, Public Liability Insurance of £10,000,000 and Employers Liability Insurance of £10,000,000.

8 WORK TIMETABLE

8.1 It is anticipated that the desk based study will be undertaken between April and May 2014, following the acceptance of the project design by the Development Control Archaeologist, Cheshire West and Chester Council.

9 ARCHIVE

9.1 The site archive will be prepared to the standard specification in the Management of Archaeological Projects, appendix 3 (1991), and Brown, DH, 2011, Archaeological Archives A Guide to Best Practice in Creation, Compilation, Transfer and Curation, and in accordance with the Cheshire West Museums Service's 'Standards for the preparation and presentation of archaeological archives' and labelled with an accession number provided by Cheshire West Museums.

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APPENDIX 3: FIGURES

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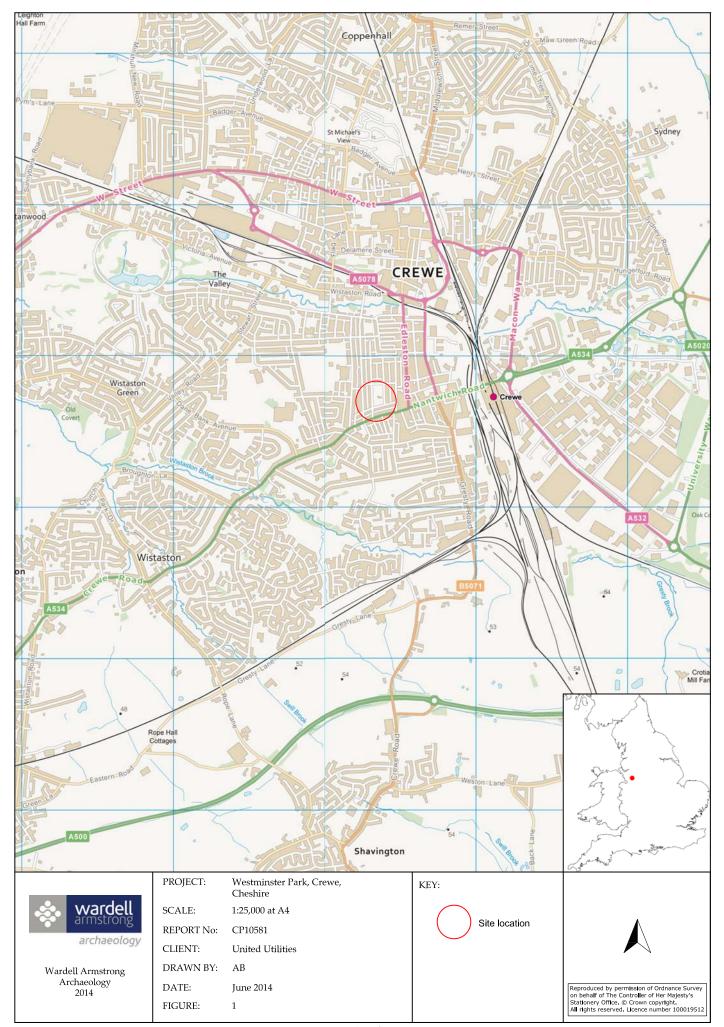


Figure 1: Site location.

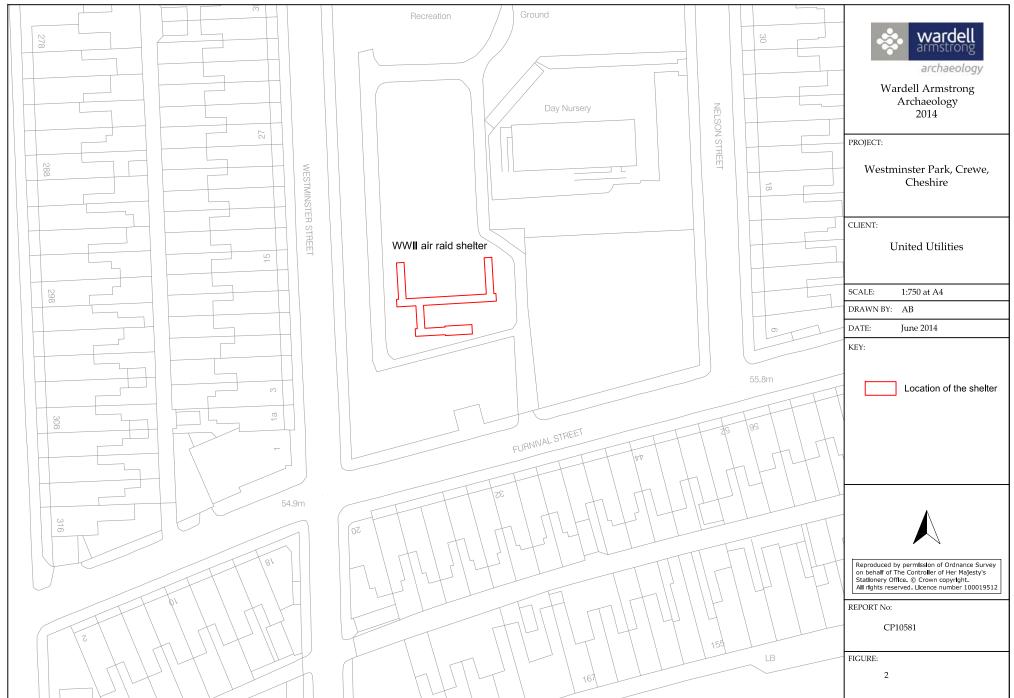


Figure 2: Detailed site location.

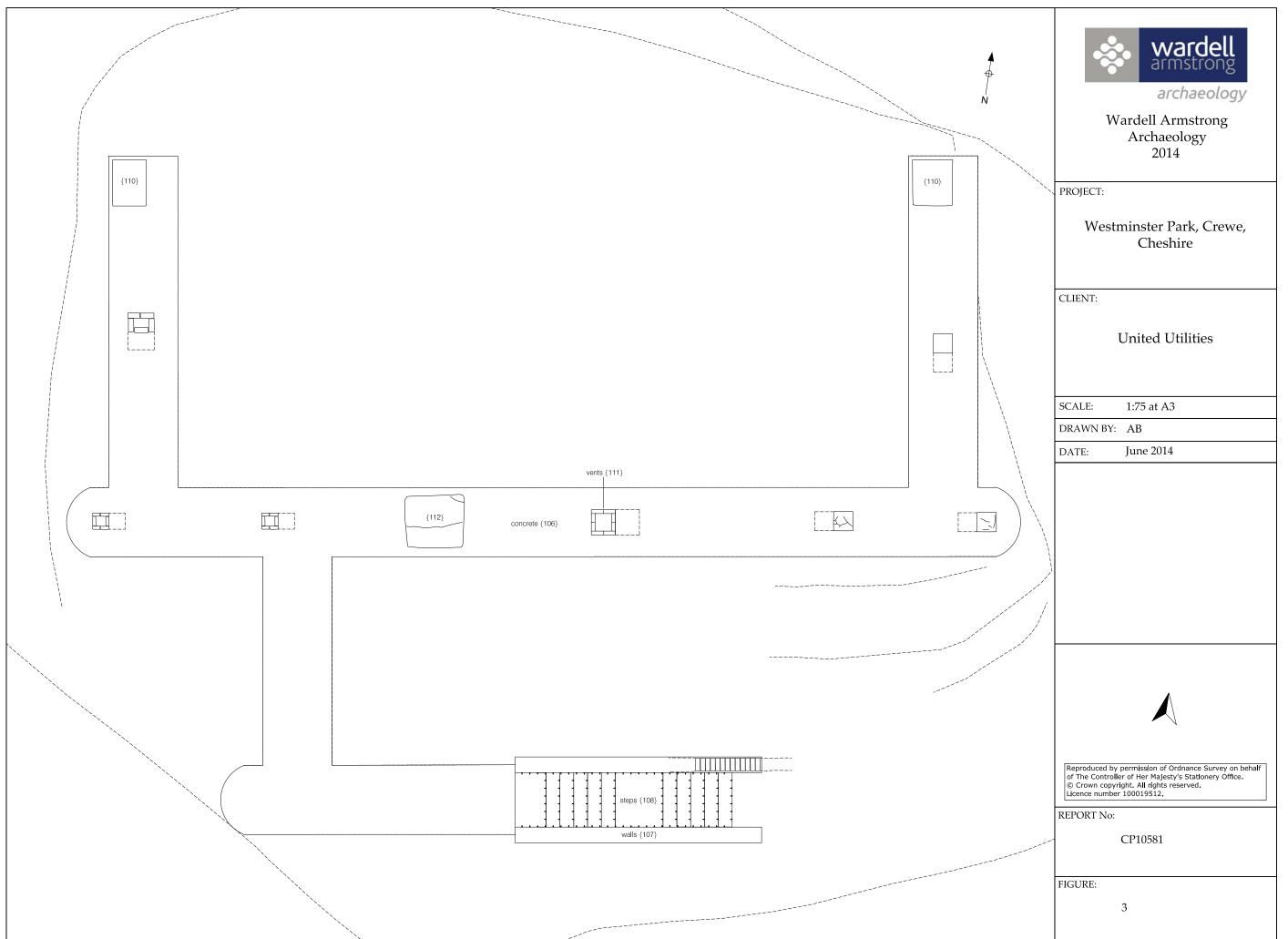


Figure 3: Plan of the air raid shelter prior to excavation.

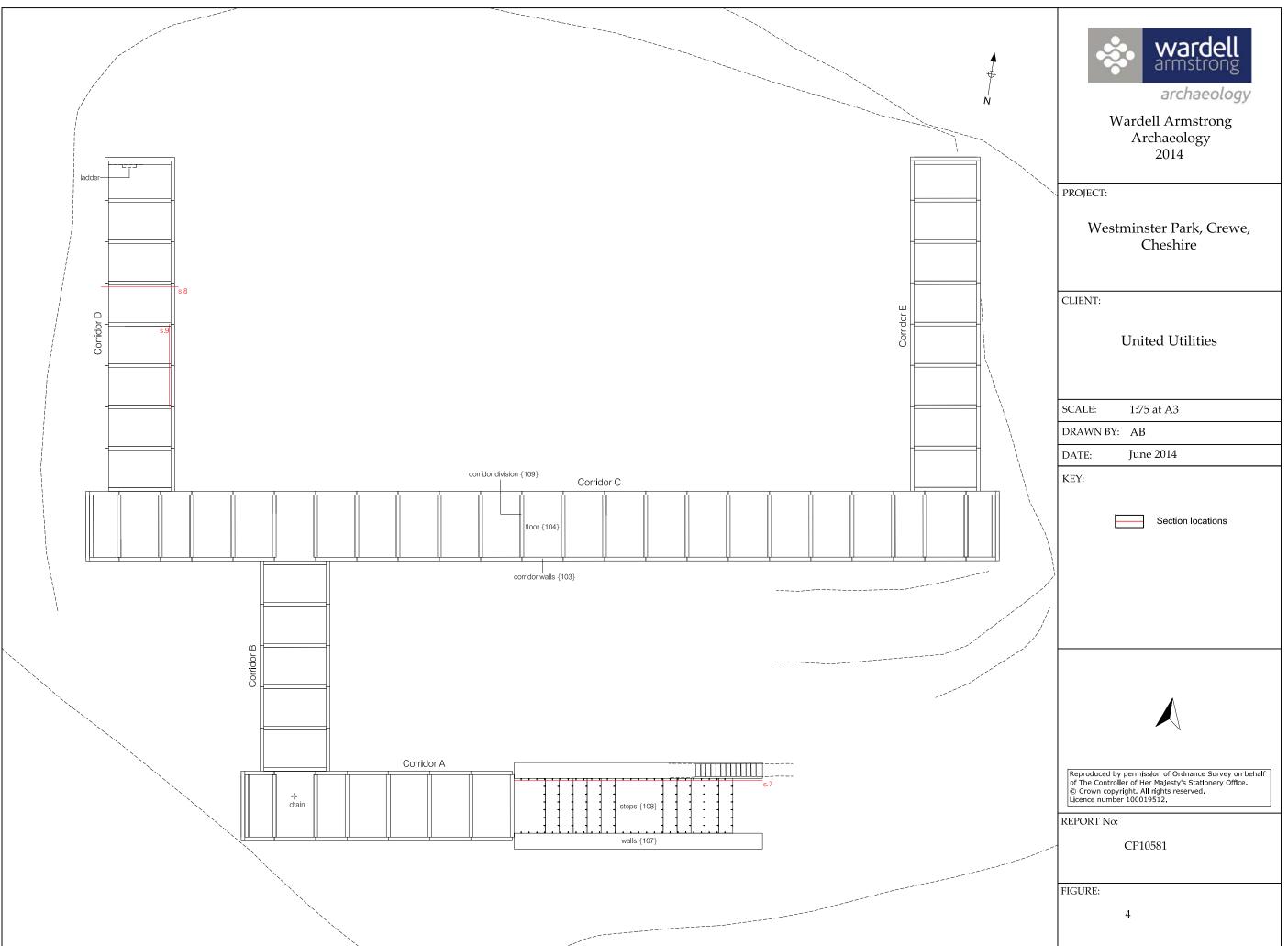


Figure 4: Detailed plan of the remains of the air raid shelter.

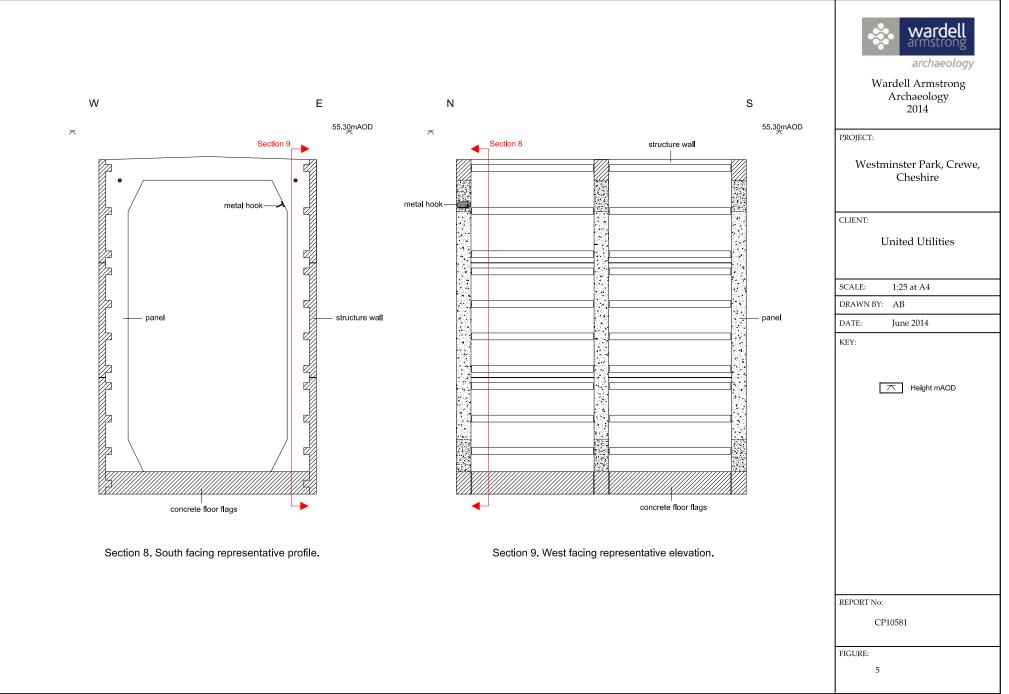


Figure 5: Representative elevations of the shelter (Corridor D).

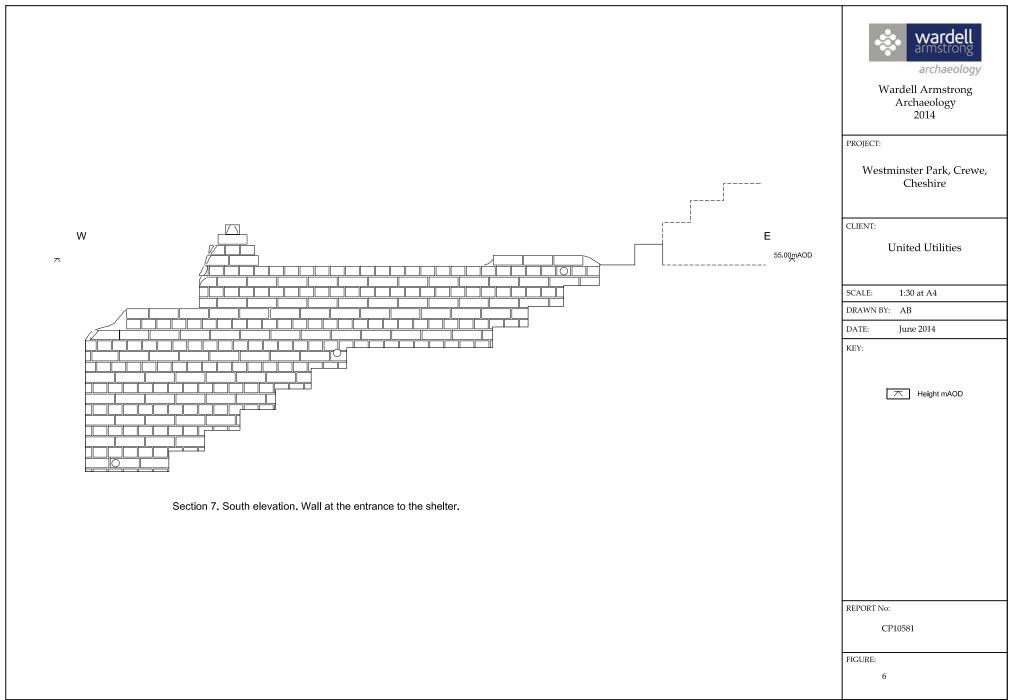


Figure 6: Elevation of wall at the entrance to the shelter.