



EVALUATION REPORT

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LAND AT MIDDRIDGE ROAD,
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DURHAM

prepared for

Persimmon Homes Durham

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Client Persimmon Homes (Durham)
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**LAND AT MIDDRIDGE ROAD, NEWTON AYCLIFFE,
ARCHAEOLOGICAL EVALUATION
FINAL REPORT**

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LAND AT MIDDRIDGE ROAD, NEWTON AYCLIFFE

ARCHAEOLOGICAL EVALUATION

Summary

This document presents the results of an archaeological trial trench evaluation of land to the north of Middridge Road, Newton Aycliffe (centred on NZ 262 263), which was conducted by Northern Archaeological Associates Ltd. The work was required as a condition of planning consent for the construction of 69 houses, access, landscaping and associated infrastructure (Durham County Council planning reference DM/17/01436/FPA).

A geophysical survey of the development site indicated the presence of several linear, curvilinear, and isolated sub-surface features of uncertain origin (Phase SI 2014). The trial trenching aimed to investigate these features to establish the presence, nature, extent, preservation, and significance of any archaeological remains.

Eleven trial trenches were excavated to sample the geophysical anomalies and investigate apparently 'blank' areas in the geophysical survey. Where sub-surface features corresponding to geophysical anomalies were present, they were related to natural geological features or recent land drainage. No archaeological features or deposits were identified by the trial trenching and it is considered unlikely that archaeological remains survive elsewhere within the development site.

1.0 INTRODUCTION

1.1 This document presents the results of an archaeological trial trench evaluation of land to the north of Middridge Road, Newton Aycliffe (centred on NZ 262 263; Fig. 1). The work was required as a condition of planning consent for the construction of 69 houses, access, landscaping and associated infrastructure (Durham County Council planning reference DM/17/01436/FPA).

1.2 The report on the evaluation has been prepared by Northern Archaeological Associates Ltd (NAA) for Persimmon Homes (Durham). The trenching conformed to an agreed programme of evaluation (NAA 2018) approved by all parties and prepared with reference to relevant standards and guidance published by Historic England (2015) and the Chartered Institute for Archaeologists (2014).

2.0 LOCATION, TOPOGRAPHY AND GEOLOGY

2.1 The development site lies to the north of Middridge Road, where the thoroughfare passes the north-west outskirts of Newton Aycliffe (Fig. 1).

2.2 The area evaluated was located almost centrally on a ridge of land extending between the valleys of the River Gaunless (to the west) and the River Skerne (to the east). The site is situated at an elevation of approximately 110m above Ordnance Datum (aOD), on the gently sloping south-facing side of the ridge, immediately west of a break of slope descending to Woodham Burn.

2.3 Hedgerows of varying maturity bound the site, with agricultural fields to the north, east and west. Mature woodland of Cobbler's Hall plantation lies to the north-east, while an outlying residential area of Newton Aycliffe lies to the south, beyond Middridge Road.

2.4 The solid geology of the area of the evaluation comprises Permian and Triassic Magnesian Limestone (British Geological Survey 2018). The drift geology comprises boulder clay and morainic drift. The soils of the area, where surveyed, are predominantly loamy and clayey surface-water gleys of the Brickfield 3 association (Jarvis *et al.* 1984, 123–6).

3.0 SUMMARY ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

3.1 The archaeological and historical background to the evaluation site is discussed in further detail in a cultural heritage assessment (NAA 2016), and only a summary of information relevant to the current archaeological investigations is given here.

Post-medieval (AD1536–1900)

3.2 Little development within the area seems to have occurred prior to the industrial revolution, with the later medieval settlement pattern seemingly continuing into the earlier post-medieval period. However, major landscape changes occurred in association with greater exploitation of the Durham Coalfield in the late 18th and 19th centuries, and the subsequent creation of the railways.

3.3 The Aggregates Levy Sustainability Fund (ALSF) Archaeological Assessment analysed historical aerial photographs of the area and noted examples of cropmarks and earthworks indicative of ridge and furrow. There were extensive earthworks near the development, although many were removed by 20th-century development or intensive agriculture.

3.4 Ridge and furrow earthworks were recorded to the immediate west and east of the development site, although none are known within the boundary of the site. The ALSF assessment noted that the ridge and furrow earthworks adjacent to the development site were narrow, suggesting a post-medieval origin, although they may have replaced a medieval cultivation pattern.

3.5 The most detailed early map available for the development area is Greenwood's Map of the County Palatine of Durham, published c.1820. This depicts a well-developed network of roadways around the development site, which broadly reflects that of today.

3.6 Greenwood's map also depicts individual buildings, including several in the near vicinity of the development site. These buildings are:

- **Cobbler's Hall** (*sic*): formerly stood to the north-east of the development site. It survived until the mid-1990s, at which time it was demolished ahead of housing construction;
- **Eldon Moor House**: survives to the north-west of the development site, off Moor Lane.

- Blue Bells: formerly located to the south-east of the development site. Cartographic sources indicate that it was demolished post-1965.

3.7 A title map for Middridge Township from 1844 shows that the development site was located in the north-centre of this boundary. The township was peculiar in that the majority of it lay to the east of the village. The accompanying apportionment identifies the field currently occupied by Cobbler's Hall Plantation as 'East Middle Moor', which was under grass at the time of the 19th-century survey. The field to its east was 'East Moor', also under grass, and the field to the south was named 'Blue Bell Close' and was under cultivation at that time. The boundaries of the fields closely resemble those that survive today, except for the eastern boundary of Blue Bell Close, which has been altered relatively recently during road realignment works.

20th century

3.8 During World War II (1939–1945), a large part of what is now Newton Aycliffe was occupied by a Royal Ordnance Factory (ROF). The Aycliffe factory (ROF 59) was operational by 1941 and was a substantial development, loading shells and firearms cases manufactured elsewhere with propellant and explosives. A large quantity of the casings filled at Aycliffe came from an engineering factory at Spennymoor (ROF 21). The two factories were linked by rail.

3.9 The town of Newton Aycliffe was founded in 1947 under the New Towns Act of 1946. It was built to the north of Aycliffe and the east of Middridge, on ground previously occupied by farmland and the disused ROF factory.

4.0 AIMS AND OBJECTIVES

4.1 All archaeological works were undertaken in line with the Written Scheme of Investigation (NAA 2018), and in accordance with current standards, guidance and best practice outlined by Durham County Council (2017), Historic England (2015), the Chartered Institute for Archaeologists (2014) and South Yorkshire Archaeology Service (2011).

4.2 The objectives of the evaluation were:

- to investigate selected geophysical anomalies and 'blank' areas;
- to establish the presence, nature, extent, preservation, and significance of any archaeological remains in each trench;

- to provide a record of any such archaeological remains;
- to recover and assess any associated structural, artefactual and environmental evidence;
- to evaluate the potential for further unrecorded significant archaeological remains to be present at the site;
- to determine whether any area within the footprint of the scheme requires archaeological mitigation in advance of, or during, construction works; and
- to prepare an illustrated report on the results of the evaluation to be deposited with Durham County Council Historic Environment Record.

5.0 METHODOLOGY

Evaluation

5.1 Eleven evaluation trenches were excavated across the development site in a range of sizes and alignments designed to provide a c.3% sample of the site (Fig. 2). The trenches were located to investigate a representative sample of geophysical anomalies and areas that were seemingly 'blank':

- Trench 1: 50m x 2m, approximately east to west at the north end of the site, to examine a geophysical 'blank' area.
- Trench 2: 25m x 2m, approximately north to south in the north half of the site, to examine a geophysical 'blank' area.
- Trench 3: 10m x 10m, approximately east to west on the west side of the site, to investigate linear and isolated geophysical anomalies.
- Trench 4: 25m x 2m, approximately north-east to south-west on the east side of the site, to investigate a linear geophysical anomaly.
- Trench 5: 50m x 2m, approximately north-east to south-west on the west side of the site, to investigate a series of linear geophysical anomalies.
- Trench 6; 50m x 2m, approximately north to south on the east side of the site, to investigate a series of linear geophysical anomalies.
- Trench 7: 50m x 2m, approximately north-east to south-west at the south end of the site to investigate a series of linear geophysical anomalies.
- Trench 8: 25m x 2m, approximately north-east to south-west in the south-east corner of the site, to examine a series of linear geophysical anomalies

- Trench 9: 25m x 2m, approximately north-west to south-east in the western access area, to investigate enclosure-like and linear geophysical anomalies.
- Trench 10: 50m x 2m, approximately north to south in the western access area, to investigate enclosure-like and linear geophysical anomalies.
- Trench 11: 25m x 2m, approximately south-east to north-west in the western access area, to examine a geophysical 'blank' area and isolated anomalies.

Machine Excavation

- 5.2 The initial site works comprised the stripping of topsoil and non-archaeological subsoil in each trench. The removal of all overburden was undertaken using a JCB fitted with a toothless ditching bucket. All overburden material was removed under archaeological supervision and guidance down to a level at which potential archaeological deposits were identified, or down to natural subsoil deposits, whichever was revealed first.

Recording

- 5.3 A record of each trench was made using NAA pro-forma sheets. Digital photographs were taken of each trench; unfortunately, the work failed to obtain photographs of cleaned trenches, which was not realised until they had been backfilled. Therefore, pre-excavation shots are included in this report.

6.0 RESULTS

Trench 1

- 6.1 Trench 1 was located at the north end of the rectangular eastern field, measured 50m by 2m and was oriented east to west. The trench was positioned to examine a geophysical 'blank' area of land (Phase SI 2014).
- 6.2 No archaeological features or deposits were identified in Trench 1. The underlying natural subsoil varied from clean reddish-brown clay at the west end of the trench to brownish-grey boulder clay towards the east. Natural subsoils were overlain by agricultural subsoil (2), approximately 0.22m thick, which consisted of pale brownish yellow silty sand with frequent angular stone fragments and represented modern agricultural activity. Deposit 2 was sealed by topsoil (1), which consisted of dark greyish-brown slightly sandy silt and measured up to 0.44m thick. Fragments of post-medieval blue and white pottery, glass, and ceramic building material were noted in 1, but were not retained as they were not archaeologically significant.

Trench 2

- 6.3 Trench 2 was located to the south of Trench 1, measured 25m by 2m, and was aligned north to south. The trench was positioned to examine a geophysical 'blank' area of land (Phase SI 2014).



Plate 1. Trench 2 from the south, showing natural boulder clay

- 6.4 No archaeological features or deposits were present in Trench 2. Natural subsoils were recorded 0.65m below ground level (BGL) and consisted of brownish-grey boulder clay (Plate 1). The natural subsoil was recorded below agricultural subsoil (2), which measured 0.25m thick and consisted of pale brownish yellow silty sand with frequent angular stone fragments. The agricultural subsoil was overlain by topsoil (1), which consisted of dark greyish-brown slightly sandy silt and measured up to 0.40m thick.

Trench 3

- 6.5 Trench 3 was located to the south-west of Trench 2 and measured 10m by 10m. The trench was positioned to target two isolated features and a linear sub-surface feature identified by the geophysical survey (Phase SI 2014).
- 6.6 No archaeological features or deposits were identified in Trench 3. There was no evidence of the two isolated features or the linear sub-surface feature. The features

identified by the geophysical survey were therefore considered to be geological, and not archaeological, in origin.

- 6.7 Natural subsoil was exposed at 0.67m BGL and consisted of greyish-brown boulder clay with bands of paler greyish-brown clay. Above the natural subsoil, agricultural subsoil (2) was recorded, which measured 0.26m thick and consisted of pale brownish yellow silty sand with frequent angular stone fragments. The agricultural subsoil was overlain by topsoil (1), which consisted of dark greyish-brown slightly sandy silt which measured up to 0.41m thick. Fragments of post-medieval blue and white pottery were present within the topsoil of Trench 3 and were not retained.

Trench 4

- 6.8 Trench 4 was located to the north-east of Trench 3, measured 25m by 2m and was oriented north-east to south-west. The trench was positioned to target an intermittent north-west to south-east linear sub-surface feature identified by the geophysical survey (Phase SI 2014).
- 6.9 No archaeological features or deposits were visible in Trench 4, and there was no indication of the linear sub-surface feature recorded by the geophysical survey. It is most likely that the feature was geological in origin.
- 6.10 Natural subsoil was recorded at 0.55m BGL and consisted of greyish-brown boulder clay with bands of paler greyish-brown clay (Plate 2). Agricultural subsoil (2) overlay the natural subsoil, measured 0.20m thick and consisted of pale brownish yellow silty sand with frequent angular stone fragments. The agricultural subsoil was sealed by topsoil (1), which consisted of dark greyish-brown slightly sandy silt up to 0.35m thick.



Plate 2. Trench 4 viewed from the south

Trench 5

- 6.11 Trench 5 was located to the south-west of Trench 4, measured 50m by 2m, and was positioned to target two north-west to south-east sub-surface linear features, and two isolated features identified by the geophysical survey (Phase SI 2014).
- 6.12 No archaeological features or deposits were encountered within Trench 5, and there was no indication of the central linear feature or the two isolated features. The north-west to south-east aligned linear feature at the south-west end of the trench was visible, and consisted of a band of natural orange mottled sand, which was also picked up in Trench 7. This feature was not archaeological in origin and is a result of natural geology.
- 6.13 Natural subsoil was encountered at a depth of 0.59m BGL and consisted of a greyish-brown boulder clay. Overlying natural subsoil was an agricultural subsoil (2), which measured 0.15m thick and consisted of a pale brownish yellow silty sand with frequent angular stone fragments. The agricultural subsoil was overlain by topsoil (1), which consisted of a dark greyish-brown slightly sandy silt and measured up to 0.44m thick.

Trench 6

- 6.14 Trench 6 was located to the south-east of Trench 5, measured 50m by 2m, and was oriented north-east to south-west (Plate 3). The trench was positioned to target four parallel north-west to south-east sub-surface linear features identified by the geophysical survey (Phase SI 2014).
- 6.15 No archaeological features or deposits were observed in Trench 6, and there was no archaeological evidence for the presence of any of the four linear features. It is likely that the features identified by the geophysical survey were of a natural, geological origin.



Plate 3. Trench 6 viewed from the south-west

- 6.16 Natural subsoil was exposed at 0.51m BGL and consisted of greyish-brown boulder clay with bands of paler greyish-brown clay. Agricultural subsoil (2) overlay the natural subsoil, measured 0.21m thick and consisted of pale brownish yellow silty sand with frequent angular stone fragments. The agricultural subsoil was overlain by topsoil (1), which consisted of dark greyish-brown slightly sandy silt and measured 0.30m thick.

Trench 7

- 6.17 Trench 7 was located to the south-west of Trench 6, measured 50m by 2m and was positioned to target three sub-surface linear features identified by the geophysical survey (Phase SI 2014).
- 6.18 No archaeological features or deposits were present in Trench 7, and there was no evidence for two of the three linear features. The north-east-most feature was identifiable as a band of natural orange mottled sand, which was also visible in Trench 5. It is likely that the features identified by the geophysical survey were of geological origin.
- 6.19 Natural subsoil was recorded at 0.57m BGL and consisted of greyish-brown boulder clay. Agricultural subsoil (2) overlay the natural subsoil, measured 0.22m thick and consisted of pale brownish yellow silty sand with frequent angular stone fragments. The agricultural subsoil was overlain by topsoil (1), which consisted of dark greyish-brown slightly sandy silt and measured up to 0.35m thick.

Trench 8

- 6.20 Trench 8 was located to the south-east of Trench 7, measured 25m by 2m and was positioned north-east to south-west (Plate 4). The trench was located to investigate two sub-surface linear features identified by the geophysical survey (Phase SI 2014).
- 6.21 No archaeological features or deposits were recognised in the trench and there was no evidence for either of the two linear sub-surface features.
- 6.22 Natural subsoil was revealed at 0.50m BGL and consisted of greyish-brown boulder clay. Agricultural subsoil (2) overlay natural subsoil, which measured 0.15m thick and consisted of pale brownish yellow silty sand with frequent angular stone fragments. The agricultural subsoil was overlain by topsoil (1), which consisted of dark greyish-brown slightly sandy silt and measured up to 0.35m thick.



Plate 4. Trench 8 viewed from the south-west

Trench 9

- 6.23 Trench 9 was located at the west end of a smaller area to the west of the large rectangular field. The trench measured 25m by 2m, was oriented north-west to south-east, and was positioned to investigate two linear sub-surface features thought by geophysics interpretations to represent part of a sub-rectangular field enclosure (Phase SI 2014).
- 6.24 Both linear features were visible in the trench and were found to be recent land drains probably associated with an area of wet land just outside the development area to the north-west.
- 6.25 Natural subsoil was visible at 0.60m BGL and consisted of greyish-brown boulder clay. Agricultural subsoil (2) overlay the natural subsoil, measured 0.20m thick and consisted of pale brownish yellow silty sand with frequent angular stone fragments. The agricultural subsoil was overlain by topsoil (1), which consisted of dark greyish-brown slightly sandy silt and measured up to 0.40m thick.

Trench 10

- 6.26 Trench 10 was located to the north-east of Trench 9, measured 50m by 2m, and was aligned north-east to south-west. The trench was located in this position to investigate two linear sub-surface features identified by the geophysical survey (Phase SI 2014).
- 6.27 The south-most linear feature produced a strong geophysical response and was thought to form part of an enclosure ditch. The trial trenching revealed this feature as a stone filled drain, and not of an archaeological nature (Plate 5). The north-most linear feature was a ceramic land drain.
- 6.28 Natural subsoil was recorded at 0.70m BGL and consisted of greyish-brown boulder clay. Agricultural subsoil (2) overlay the natural subsoil, measured 0.25m thick and consisted of pale brownish yellow silty sand with frequent angular stone fragments. The agricultural subsoil was overlain by topsoil (1), which comprised dark greyish-brown slightly sandy silt that measured up to 0.45m thick.



Plate 4. Stone-filled land drain in Trench 10, viewed from the west

Trench 11

- 6.29 Trench 11 was located to the east of Trench 10, measured 25m by 2m and was orientated south-east to north-west. The trench was located to investigate two isolated features identified by the geophysical survey of the site (Phase SI 2014).
- 6.30 No archaeological features or deposits were recorded in Trench 11 and there was no indication of either isolated geophysical anomaly. Both features are likely to be geological in origin and are not of archaeological origin.
- 6.31 Natural subsoil was exposed at 0.57m BGL and consisted of greyish-brown boulder clay. Agricultural subsoil (2) overlay the natural subsoil, measured 0.22m thick and consisted of pale brownish yellow silty sand with frequent angular stone fragments. The agricultural subsoil was overlain by topsoil (1), which consisted of dark greyish-brown slightly sandy silt and measured up to 0.35m thick.

7.0 DISCUSSION

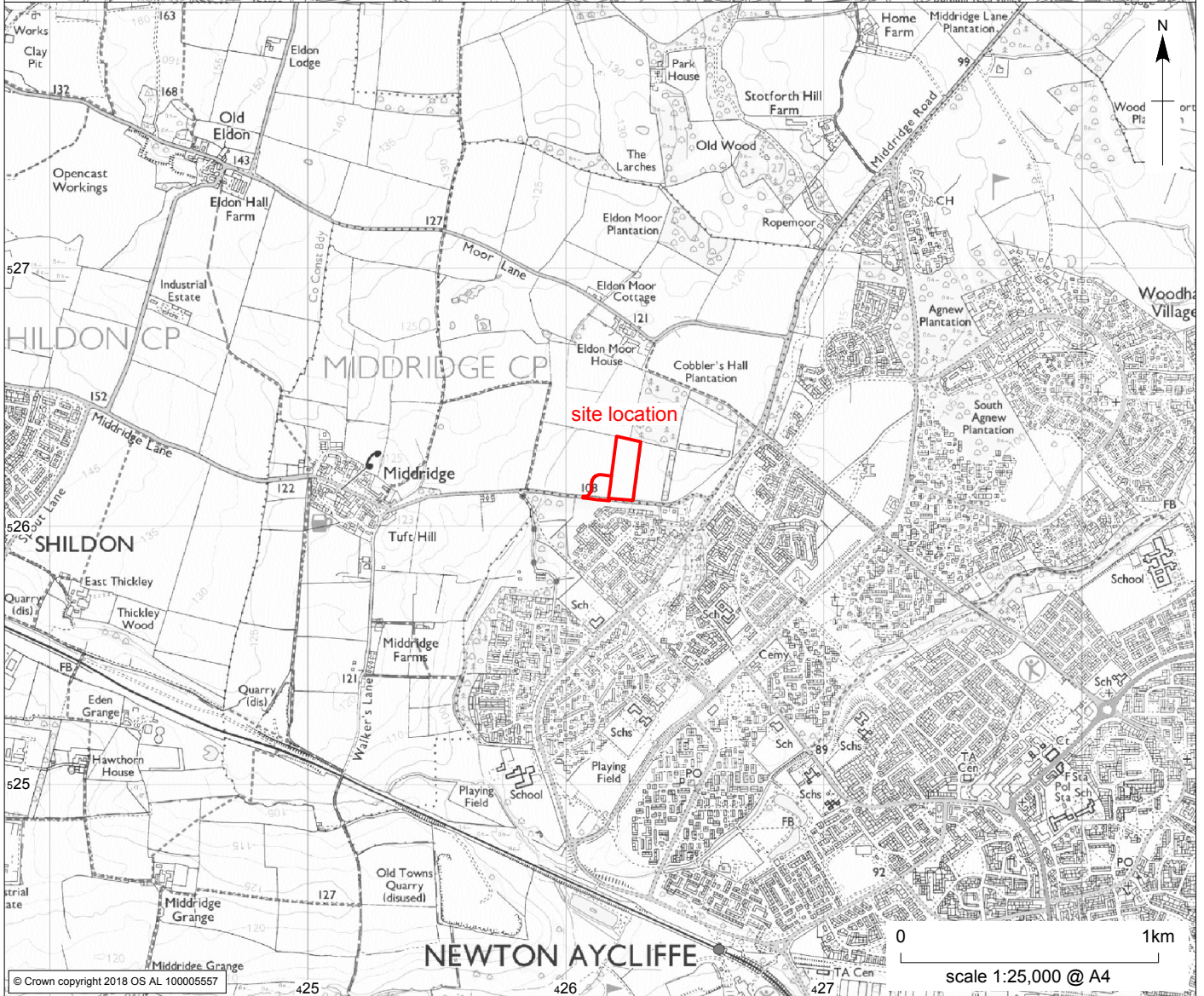
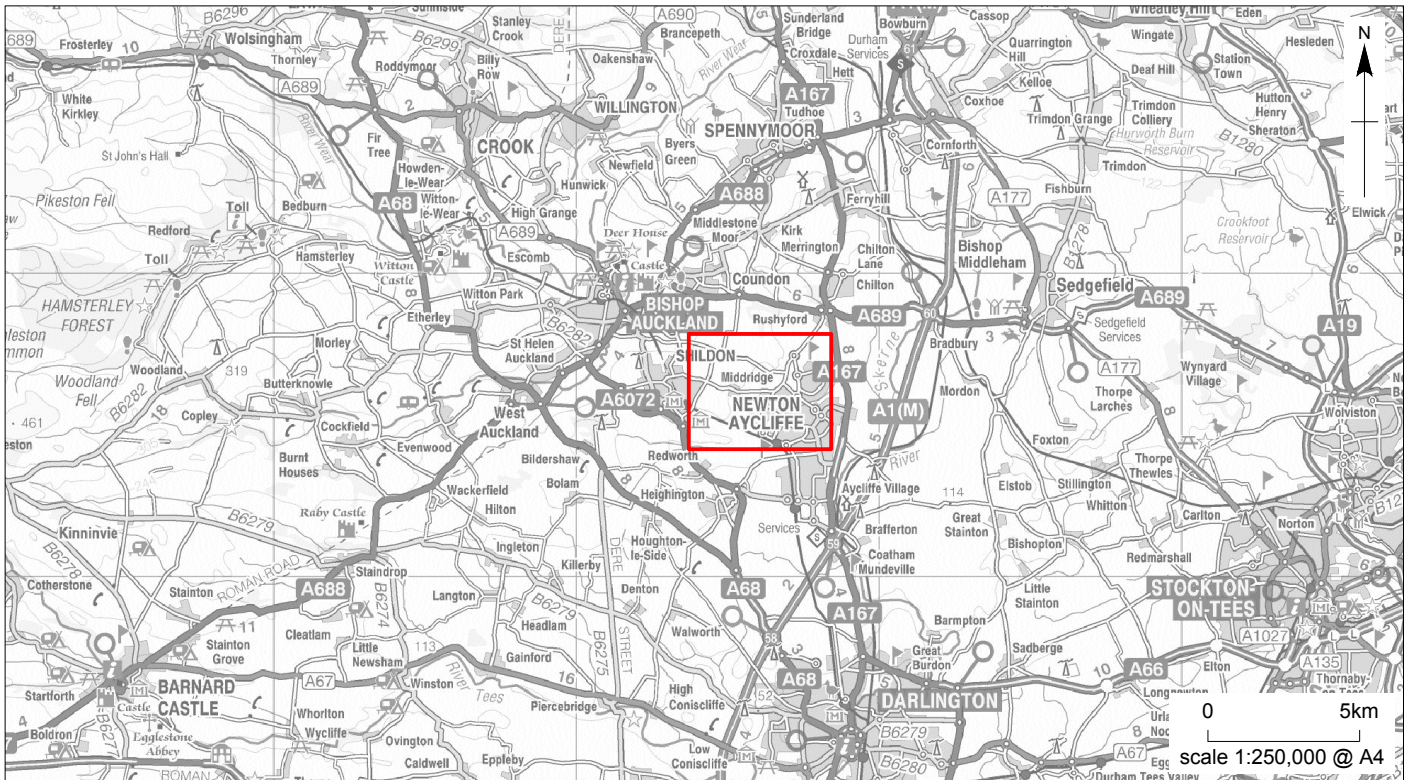
- 7.1 No archaeological features or deposits were observed by the trial trench evaluation. The linear and isolated anomalies identified by geophysical survey in the eastern field (Trenches 1–8) were found to be geological in origin, whereas, the linear features identified in the western field (Trenches 9–11) were all found to be modern land drains. All trenches contained an identical sequence of topsoil and subsoil indicative of recent agricultural activity.
- 7.2 Given that the evaluation trenches have provided a sufficient representative sample of the underlying geophysical anomalies and geophysical 'blank' areas, it is considered unlikely that archaeological remains are present within the remainder of the development site.

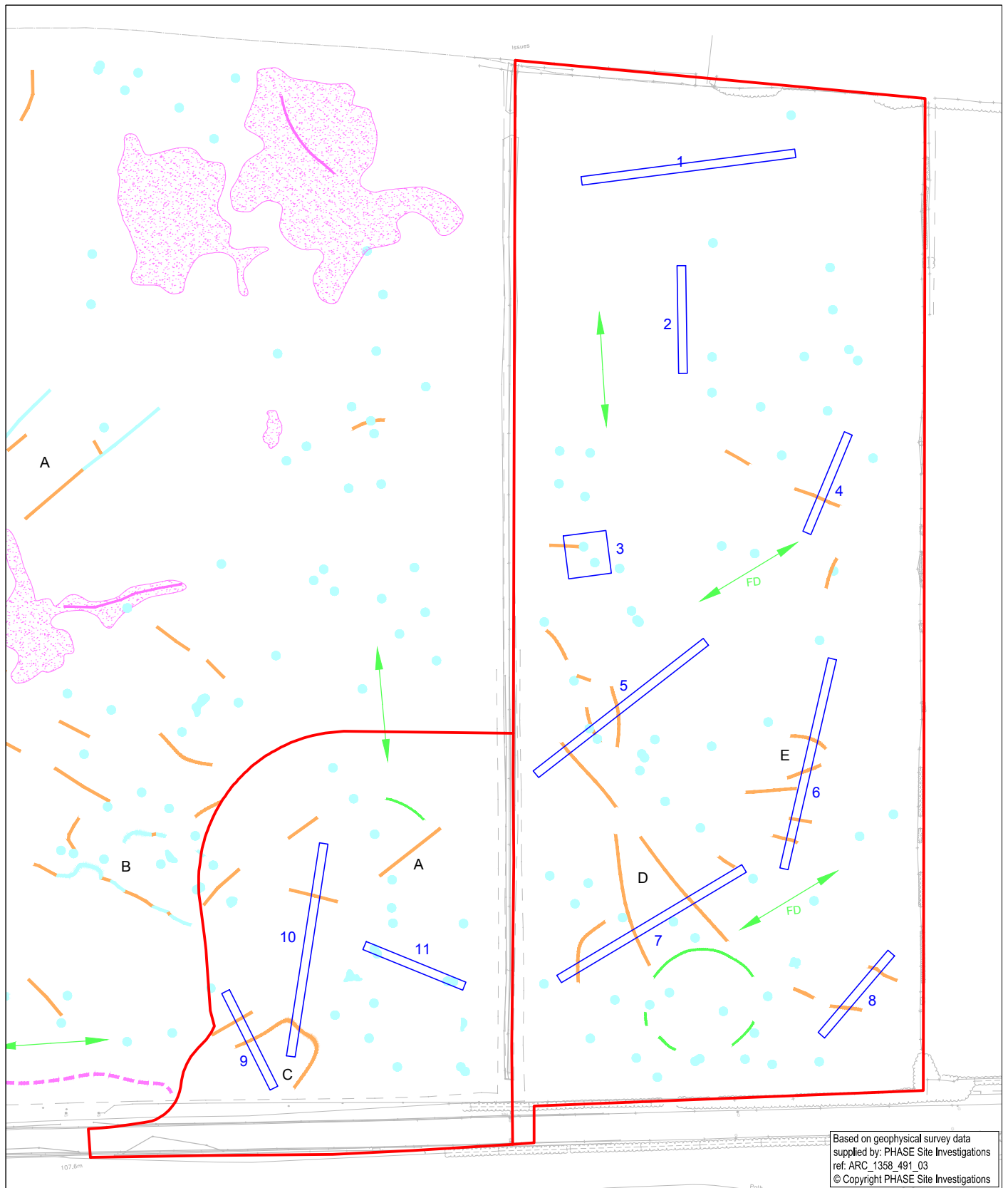
8.0 ARCHIVE DEPOSITION

- 8.1 The archive from the archaeological investigations, including paperwork, drawings, photographs, and digital data, is to be deposited with the Archaeological Data Service and will also be held internally by NAA.

REFERENCES

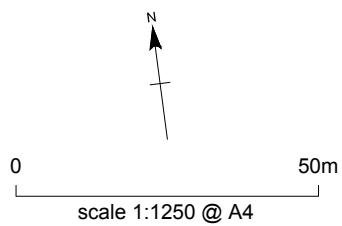
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Based on geophysical survey data
 supplied by: PHASE Site Investigations
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- KEY**
- modern linear magnetic feature
 - interference from modern magnetic feature
 - agricultural features
 - possible sub-surface feature
 - probable natural feature / variations
 - possible geological, pedological or archaeological feature
 - A** anomalies discussed in text
 - trial trenches



Land at Middridge Road, Newton Aycliffe: geophysical interpretation showing trial trench locations

Figure 2