AD395

Land to the north of Windsor Drive, South Hetton

County Durham

Archaeological Evaluation

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TABLE OF CONTENTS

APPENDICES

LIST OF FIGURES

LIST OF PLATES

EXECUTIVE SUMMARY

AD Archaeology Ltd. was commissioned by Gleeson Homes to carry out evaluation trenching in advance of a housing development on land to the north of Windsor Drive, South Hetton. No significant archaeological features were located in the trenches. In view of these negative results no further archaeological work would be appropriate at the site.

1 INTRODUCTION

1.1 The Project

1.1.1 The project consisted of archaeological evaluation trenching in advance of a proposed housing development on land to the north of Windsor Drive, South Hetton, County Durham. The site is centred on NGR NZ 3774 4568 and is 3.16ha in area. The site consists of a single pasture field, with lower flatter ground to the west rising to higher more undulating ground to the east. The land falls sharply to the north, the northern portion of the site forming the southern side of an incised east-west valley. An east-west stream lies in the base of this valley, immediately to the north of the site. This stream, which is now canalised, would previously been a more sinuous feature set in this wider east-west valley.

1.2 Geology

1.2.1 The underlying solid geology of the area comprises limestone and dolomite of the Zeichstein Group, overlain by Diamicton till (BGS, 2022).

2 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

2.1 Prehistoric Period

2.1.1 Whilst there are no known archaeological sites within the development area, there is evidence for significant activity dating to the Bronze Age within the wider area (NAA2013). A cluster of three large barrows is recorded 360m to the north-east of the site on an area of raised ground. East Murton Barrow A (HA1) measured 50m in diameter, and excavation recovered a secondary cremation accompanied by a flint knife and other objects. East Murton Barrow B (HA1) measuring 37.5m in diameter lies c. 70m to its west. The other barrow at Croup Hill measures 50m in diameter and contained a cremation burial near its centre accompanied by a flint knife, a scraper and some debitage. A circular cropmark possibly representing a prehistoric enclosure with a diameter over 180m was identified from aerial photographs to the immediate north-east of the barrows. Its proximity to the barrows suggests a possible association. Further barrows have also been identified in the wider local area at Batter Law 2.8km to the east of the site and to the north and east of Hetton-le-Hole.

2.1.2 Cropmarks delineating a double-ditched or palisaded hilltop enclosure (SM34586) were identified at Pig Hill, 1.5km to the south-west of the site. Further cropmarks within the interior may represent traces of settlement which may be of Bronze Age origin. Excavations identified a multiphase site with a number of boundary features and roundhouse gullies of Iron Age date. Further potential early enclosures have also been identified in the area. As more prehistoric settlement sites come to light there is an increasing awareness of the density of the prehistoric settlement pattern in the North-East, particularly in the Iron Age period.

2.2 Romano-British Period

2.2.1 There are no known Roman sites recorded within the area of site. However, it is worth noting (with reference to the enclosures sites above) that many of the local native settlements would have continued into the Romano-British period. Two-sections of cobbled road investigated at Murton Moor, 640m north-east of the site have been postulated as being of potential Roman in date.

2.3 Early-Medieval Period

2.3.1 The HER does not record any known features of early-medieval date on the development site.

2.4 Medieval Period

2.4.1 The closest place referenced by the Boldon Book of 1183 is Easington, 3.6km to the south-east of South Hetton which is of relatively recent origin being a colliery village. Arable and pastoral farming presumably extended across South Hetton with numerous ridge and furrow earthworks of possible medieval origin visible on aerial photographs of the area.

2.5 Post-Medieval and Modern Periods

2.5.1 The village of South Hetton was developed to house the South Hetton Colliery workforce. The sinking of the Colliery commenced in 1831, with output reaching its peak in 1930, and employing 1443 people. All components of the colliery, railways and waggon ways lay outside the eastern boundary of the site which is defined by a former railway embankment constructed in 1837 to carry a passenger railway.

2.5.2 The 1843 tithe plan of Murton provides the earliest cartographic record of the site showing it occupied by two fields. The field boundaries remained unchanged on the 1861 to 1939 OS maps. A now removed N-S boundary that formerly sub-divided the field became the new boundary between civil parishes of Haswell to the west and East Murton to the east sometime between the publication of the 1896 and 1920 OS editions. The boundary was removed sometime after 1945.

2.6 Previous Archaeological Work

2.6.1 A desk-based assessment (NAA 2013) and Geophysical Survey (GSB 2013) have been undertaken on the site of the proposed development. The geophysical survey did not identify any definite responses that can readily be interpreted as being of archaeological interest. A few rectilinear responses have been classified as having uncertain origins, while the majority are associated with modern disturbances, agricultural practices, old field boundaries, a modern pipe and an old

railway embankment (GSB 2013).

3 AIMS AND OBJECTIVES

3.1 The objective of the evaluation trenching was to establish the presence or absence of archaeological features on the site and to determine their nature, depth, importance and level of preservation.

4 METHODOLOGY

4.1 General Methodology

4.1.1 The evaluation was carried out in compliance with all the relevant codes of practice by suitably qualified and experienced staff.

4.2 Excavation and Recording

4.2.1 The evaluation trench strategy was agreed with Durham County Council Archaeology Section and was undertaken in accordance with an approved written scheme of investigation (Appendix 2).

5 RESULTS OF THE EVALUATION

5.1 Trench 1 (Fig. 2)

5.1.1 Trench 1, which was 40m by 1.8m in size, was oriented east-west and located in the south-western corner of the site. The natural subsoil (102) consisting of a yellow sandy clay was located at a depth of 0.40m BGL (116.39m AOD). It was overlain by a brown sandy clay ploughsoil (101), 0.10m in depth and a grey loam topsoil (100), 0.30m in depth.

5.2 Trench 2 (Fig. 2)

5.2.1 Trench 2, which was 40m by 1.8m in size, was oriented north-south and located in the western half of the site. The natural subsoil (202) consisting of a yellow sandy clay was located at a depth of 0.27m BGL (116.44m AOD) being overlain by a grey loam topsoil (200), 0.27m in depth. Two 0.50m wide east-west furrows, filled with a brown sandy clay ploughsoil (201) were located 11m apart.

5.3 Trench 3 (Fig. 2; Plate 1)

5.3.1 Trench 3, which was 40m by 1.8m in size, was oriented east-west and located in the western half of the site. The natural subsoil (302) consisting of a yellow sandy clay was located at a depth of 0.35m BGL (117.28m AOD). It was overlain by a brown sandy clay ploughsoil (301), 0.10m in depth and a grey loam topsoil (300) 0.25m in depth.

5.4 Trench 4 (Fig. 2; Plate 2)

5.4.1 Trench 4, which was 40m by 1.8m in size, was oriented NNW-SSE and located in the western half of the site. The natural subsoil (402) consisting of a yellow sandy clay containing sandstone fragments was located at a depth of 0.40m BGL (116.76m AOD). It was overlain by a brown sandy clay ploughsoil (401), 0.10m in depth and a grey loam topsoil (400) 0.30m in depth.

5.5 Trench 5 (Fig. 2)

5.5.1 Trench 5, which was 40m by 1.8m in size, was oriented NNW-SSE and located in the western half of the site. The natural subsoil (502) consisting of a yellow sandy clay containing sandstone fragments was located at a depth of 0.38m BGL (117.26m AOD). It was overlain by a brown sandy clay ploughsoil (501), 0.07m in depth and a grey loam topsoil (500) 0.31m in depth. A shallow 0.20m deep and 5m wide north-east/south-west hollow, filled with ploughsoil 501, was located in the south-eastern end of the trench. This hollow corresponds to geophysical anomaly 4, which was traced following a slightly meandering course through Trenches 5, 6 and 18. It is likely that this hollow represents the line of a former watercourse (see discussion section 6).

5.6 Trench 6 (Figs. 2-3; Plate 3)

5.6.1 Trench 6, which was 20m by 1.8m in size, was oriented north-west/south-east and located in the western half of the site. The natural subsoil (602) consisting of a yellow sandy clay containing sandstone fragments was located at a depth of 0.48m BGL (117.55m AOD). It was overlain by a brown sandy clay ploughsoil (601), 0.09m in depth and a grey loam topsoil (600) 0.39m in depth. A shallow 0.30m deep and 5-6m wide north-east/south-west hollow, filled with ploughsoil 601, was located in the centre of the trench. This hollow corresponds to geophysical anomaly 4, which was traced following a slightly meandering course through Trenches 5, 6 and 18. It is likely that this hollow represents the line of a former watercourse (see discussion section 6).

5.7 Trench 7 (Fig. 2; Plate 4)

5.7.1 Trench 7, which was 40m by 1.8m in size, was oriented north-south and located in the western half of the site. The natural subsoil (701) consisting of a yellow sandy clay containing sandstone fragments was located at a depth of 0.27m BGL (117.93m AOD) being overlain by a grey loam topsoil (700), 0.27m in depth.

5.8 Trench 8 (Figs. 2 & 4; Plates 5-6)

5.8.1 Trench 8, which was 40m by 1.8m in size, was oriented east-west and located towards the centre of the site. The natural subsoil (803) consisting of a yellow sandy clay containing sandstone fragments was located at a depth of 0.48m BGL (118.65m AOD). It was overlain by a brown sandy clay ploughsoil (801), 0.32m in depth and a grey loam topsoil (800) 0.16m in depth. Toward the western end of the trench was a post-medieval gully (802) representing a former field boundary depicted on Ordnance Survey plans between the first edition of 1861 and fourth edition map of 1939. The gully (802) consisted of a concave sided feature, 1.60m in width and 0.48m in depth, filled with ploughsoil 801.

5.9 Trench 9 (Fig. 2)

5.9.1 Trench 9, which was 40m by 1.8m in size, was oriented north-south and located in the eastern half of the site. The natural subsoil (901) consisting of a yellow sandy clay containing sandstone fragments was located at a depth of 0.26m BGL (119.05m AOD) being overlain by a grey loam topsoil (900), 0.26m in depth.

5.10 Trench 10 (Fig. 2; Plate 7)

5.10.1 Trench 10, which was 40m by 1.8m in size, was oriented north-east/south-west and located in the eastern half of the site. The natural subsoil (1001) consisting of a yellow sandy clay containing sandstone fragments was located at a depth of 0.26m BGL (119.67m AOD) being overlain by a grey loam topsoil (1000), 0.26m in

depth.

5.11 Trench 11 (Fig. 2)

5.11.1 Trench 11, which was 40m by 1.8m in size, was oriented north-west/south-east and located in the eastern half of the site. The natural subsoil (1101) consisting of yellow sandy clay containing sandstone fragments was located at a depth of 0.30m BGL (121.11m AOD) being overlain by a grey loam topsoil (1100), 0.30m in depth.

5.12 Trench 12 (Fig. 2)

5.12.1 Trench 12, which was 40m by 1.8m in size, was oriented east-west and located in the eastern half of the site. The natural subsoil (1201) consisting of a yellow sandy clay containing sandstone fragments was located at a depth of 0.29m BGL (120.87m AOD) being overlain by a grey loam topsoil (1200), 0.29m in depth.

5.13 Trench 13 (Fig. 2; Plate 8)

5.13.1 Trench 13, which was 40m by 1.8m in size, was oriented north-south and located in the eastern half of the site. The natural subsoil (1301) consisting of a yellow sandy clay containing sandstone fragments was located at a depth of 0.24m BGL (120.62m AOD) being overlain by a grey loam topsoil (1300), 0.24m in depth.

5.14 Trench 14 (Fig. 2)

5.14.1 Trench 14, which was 40m by 1.8m in size, was oriented NNW-SSE and located in the eastern half of the site. The natural subsoil (1402) consisting of a yellow sandy clay containing sandstone fragments was located at a depth of 0.42m BGL (121.14m AOD). It was overlain by a brown sandy clay ploughsoil (1401), 0.12m in depth and a grey loam topsoil (1400) 0.30m in depth.

5.15 Trench 15 (Fig. 2; Plate 9)

5.15.1 Trench 15, which was 40m by 1.8m in size, was oriented north-west/south-east and located in the eastern half of the site. The natural subsoil (1501) consisting of a yellow sandy clay containing sandstone fragments was located at a depth of 0.26m BGL (122.87m AOD) being overlain by a grey loam topsoil (1500), 0.26m in depth.

5.16 Trench 16 (Fig. 2)

5.16.1 Trench 16, which was 40m by 1.8m in size, was oriented north-south and located at the eastern end of the site. The natural subsoil (1601) consisting of a yellow sandy clay containing sandstone fragments was located at a depth of 0.30m BGL (123.19m AOD) being overlain by a grey loam topsoil (1600), 0.30m in depth.

5.17 Trench 17 (Fig. 2; Plate 10)

5.17.1 Trench 17, which was 20m by 1.8m in size, was oriented WNW-ESE and located in the eastern half of the site. The natural subsoil (1701) consisting of a yellow sandy clay containing sandstone fragments was located at a depth of 0.28m BGL (121.20m AOD) being overlain by a grey loam topsoil (1700), 0.28m in depth.

5.18 Trench 18 (Fig. 2)

5.18.1 Trench 18, which was 20m by 1.8m in size, was oriented north-west/south-east and located in the eastern half of the site. The natural subsoil (1802) consisting of yellow sandy clay containing sandstone fragments was located at a depth of 0.70m BGL (119.61m AOD). It was overlain by a brown sandy clay ploughsoil (1801), 0.50m in depth and a grey loam topsoil (1800), 0.20m in depth. A shallow 0.30m deep and 6m wide north-east/south-west hollow, filled with ploughsoil 1801, was located in the centre of the trench. This hollow corresponds to geophysical anomaly 4, which was traced following a slightly meandering course through Trenches 5, 6 and 18. It is likely that this hollow represents the line of a former watercourse (see discussion section 6).

5.19 Trench 19 (Fig. 2)

5.19.1 Trench 19, which was 20m by 1.8m in size, was oriented north-east/south-west and located in the eastern half of the site. The natural subsoil (1902) consisting of a yellow sandy clay containing sandstone fragments was located at a depth of 0.50m BGL (118.37m AOD). It was overlain by a brown sandy clay ploughsoil (1901), 0.25m in depth and a grey loam topsoil (1900) 0.25m in depth.

5.20 Trench 20 (Fig. 2)

5.20.1 Trench 20, which was 20m by 1.8m in size, was oriented east-west and located in the eastern half of the site. The natural subsoil (2001) consisting of a yellow sandy clay containing sandstone fragments was located at a depth of 0.23m BGL (118.20m AOD) and was overlain by a grey loam topsoil (2000) 0.23m in depth.

6 DISCUSSION

6.1 No significant archaeological features were located in the trenches. The only archaeological feature located was a post-medieval north-south gully in Trench 8 representing a former field boundary depicted on Ordnance Survey plans between the first edition of 1861 and fourth edition map of 1939. A shallow 0.20-0 30m deep and 5-6m wide north-east/south-west hollow, filled with ploughsoil, was traced through Trenches 5, 6 and 18. This hollow corresponds to geophysical anomaly 4, which was traced following a slightly meandering course through Trenches 5, 6 and 18. It is likely that this hollow represents the line of a former watercourse. A canalised stream ran east-west immediately to the north of the site boundary, the northern portion of the site occupying the southern side of an east-west valley. Prior to being canalised the stream would have followed a more sinuous and variable course. It is likely that the shallow hollow traced through trenches 5, 8 and 16 represents a water worn channel associated with an earlier iteration of the now canalised stream.

6.2 As no significant archaeological features were located in the trenches no further archaeological work would be appropriate at the site.

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APPENDIX 1: LIST OF CONTEXTS

Context	Depth	Description
100	0.30m	Trench 1 – Topsoil
101	0.10m	Trench 1 – Ploughsoil
102	-	Trench 1- Natural subsoil
200	0.27m	Trench 2- Topsoil
201	-	Trench 2- Ploughsoil
202	-	Trench 2- Natural subsoil
300	0.25m	Trench 3- Topsoil
301	0.10m	Trench 3- Ploughsoil
302	-	Trench 3- Natural subsoil
400	0.30m	Trench 4- Topsoil
401	0.10m	Trench 4- Ploughsoil
402	-	Trench 4- Natural subsoil
500	0.31m	Trench 5-Topsoil
501	0.07m	Trench 5-Ploughsoil
502	-	Trench 5-Natural subsoil
600	0.39m	Trench 6-Topsoil
601	0.09m	Trench 6-Ploughsoil
602	-	Trench 6-Natural subsoil
700	0.27m	Trench 7-Topsoil
701	-	Trench 7-Natural subsoil
800	0.16m	Trench 8-Topsoil
801	0.32m	Trench 8-Ploughsoil
802	0.48m	Trench 8- Gully
803	-	Trench 8- Natural subsoil
900	0.26m	Trench 9-Topsoil
901	-	Trench 9-Natural subsoil
1000	0.26m	Trench 10- Topsoil
1001	-	Trench 10-Natural subsoil
1100	0.30m	Trench 11-Topsoil
1101	-	Trench 11-Natural subsoil
1200	0.29m	Trench 12-Topsoil
1201	-	Trench 12-Natural subsoil
1300	0.24m	Trench 13-Topsoil
1301	-	Trench 13-Natural subsoil
1400	0.30m	Trench 14-Topsoil
1401	0.12m	Trench 14-Ploughsoil
1402	-	Trench 14-Natural subsoil
1500	0.26m	Trench 15-Topsoil

1501	-	Trench 15-Natural subsoil
1600	0.30m	Trench 16-Topsoil
1601	-	Trench 16-Natural subsoil
1700	0.28m	Trench 17-Topsoil
1701	-	Trench 17-Natural subsoil
1800	0.20m	Trench 18-Topsoil
1801	0.50m	Trench 18-Ploughsoil
1802	-	Trench 18-Natural subsoil
1900	0.25m	Trench 19-Topsoil
1901	0.25m	Trench 19-Ploughsoil
1902	-	Trench 19-Natural subsoil
2000	0.23m	Trench 20-Ploughsoil
2001	-	Trench 20-Natural subsoil

APPENDIX 2
WRITTEN SCHEME OF INVESTIGATION FOR ARCHAEOLOGICAL EVALUATION AT LAND AT WINDSOR DRIVE, SOUTH HETTON, COUNTY DURHAM

1 Introduction

1.1 This written scheme of investigation represents a methods statement for undertaking an archaeological evaluation in advance of a proposed housing development on land north of Windsor Drive, South Hetton, Co. Durham. The site is centred on NGR NZ 3774 4568 and is 3.16ha in area.
1.2 A desk-based assessment (NAA 2013) and Geophysical Survey (GSB 2013) has been undertaken on the site of the proposed development.

1.3 Policy relating to the assessment and mitigation of impacts to the heritage resource within the planning system is set out in the National Planning Policy Framework. The Framework identifies that the planning system should perform an environmental objective – to contribute to protecting and enhancing our natural, built and historic environment (NPPF 2018, para 8, page 5).

1.4 The Framework further clarifies that, in circumstances where heritage assets will be damaged or lost as a result of development. Local planning authorities should require developers to record and advance understanding of the significance of any heritage assets to be lost (wholly or in part) in a manner proportionate to their importance and the impact, and to make this evidence (and any archive generated) publicly accessible (NPPF 2018, para 199, page 56).

2 Archaeological and Historical Background

2.1 Prehistoric Period
2.1.1 Whilst there are no known sites within the development area, there is evidence for significant activity dating to the Bronze Age within the wider area (NAA2013). A cluster of three large barrows is recorded 360m to the north-east of the site on an area of raised ground. East Murton Barrow A (HA1) measured 50m in diameter, and excavation recovered a secondary cremation accompanied by a flint knife and other objects. East Murton Barrow B (HA1) measuring 37.5m in diameter lies c. 70m to its west. The other barrow at Croup Hill measures 50m in diameter and contained a cremation burial near its centre accompanied by a flint knife, a scraper and some debitage (ibid. 2013, 10). A circular cropmark possibly representing a prehistoric enclosure with a diameter over 180m was identified from aerial photographs to the immediate north-east of the barrows. Its proximity to the barrows suggests a possible association. Further barrows have also been identified in the wider local area at Batter Law 2.8km to the east of the site and to the north and east of Hetton-le-Hole.

2.1.2 Cropmarks delineating a double-ditched or palisaded hilltop enclosure

(SM34586) were identified at Pig Hill, 1.5km to the south-west. Further cropmarks within the interior may represent traces of settlement which may be of Bronze Age origin. Excavations identified a multiphase site with as number of boundary features and roundhouse gullies of Iron Age date (ibid. 2013, 11). Further potential early enclosures have also been identified in the area (ibid. 2013, 14). As more prehistoric settlement sites come to light there is an increasing awareness of the density of the prehistoric settlement pattern in the North-East, particularly in the Iron Age period.

2.2 Romano-British Period

2.2.1 There are no known Roman sites recorded within the area of site. However, it is worth noting (with reference to the enclosures sites above) that many of the local native settlements would have continued into the Romano-British period. Two-sections of cobbled road investigated at Murton Moor, 640m north-east of the site was postulated as potentially Roman in date (ibid. 2013, 11).

2.3 Early-Medieval Period

2.3.1 The HER does not record any known features of early-medieval date on the development site.

2.4 Medieval Period

2.4.1 The closest place referenced by the Boldon Book of 1183 is Easington, 3.6km to the south-east of South Hetton which is itself of relatively recent origin being a colliery village. Arable and pastoral farming presumably extended across South Hetton with numerous ridge and furrow earthworks of possible medieval origin is visible on aerial photographs of the area.

2.4.2 The ‘Salters Way’ a former salt trading route linking the salt pans of the Bishop of Durham’s on the Wear with the Vale of York lies 350m to the west of the site (ibid. 2013, 12).

2.5 Post-Medieval and Modern Periods

2.5.1 The village of South Hetton was developed to house the South Hetton Colliery workforce. The sinking of the Colliery commenced in 1831, with output reaching its peak in 1930, and employing 1443 people. All components of the colliery, railways and waggon ways lay outside the eastern boundary which is defined by a former railway embankment constructed in 1837 to carry a passenger railway (ibid. 2013, 12).

2.5.2 The 1843 tithe plan of Murton provides the earliest cartographic record of the site showing it occupied by two fields. The field boundaries remained unchanged on the 1861 to 1939 OS maps. The now removed N-S boundary that formerly sub-divided the field and detected by the geophysical survey (see below)

became the new boundary between civil parishes of Haswell to the west and East Murton to the east sometime between the publication of the 1896 and 1920 OS editions. The boundary was removed sometime after 1945 (ibid. 2013, 13).

2.6 Previous Archaeological Fieldwork

2.6 A geophysical survey (GSB 2013) was undertaken at the site. The survey did not identify any definite responses that can readily be interpreted as being of archaeological interest. A few rectilinear responses have been classified as having uncertain origins, while the majority are associated with modern disturbances, agricultural practices, old field boundaries, a modern pipe and an old railway embankment (GSB 2013, 1). One possible exception is a series of anomalies possibly from small rectilinear ditches at the northern edge of the site which in differing contexts could be of archaeological interest, but in this situation could simply be agricultural / drainage features (GSB 2013; see 1.1 & 2.1).

3 Aims and Recommended Course of Action

3.1 The aim of the archaeological evaluation is to establish the presence or absence of significant archaeological features and/or deposits. Should significant deposits and/or features be located the aim of the evaluation is to determine the nature, extent, date and state of preservation of the deposits in order to inform potential subsequent stages of mitigation.

3.2 'Shared Visions: The North-East Regional Research Framework for the Historic Environment' by David Petts with Christopher Gerrard, 2006 notes the importance of research questions as a vital element of development-led archaeological work. It sets out key research priorities for all periods of the past allowing commercial contractors to demonstrate how their fieldwork relates to wider regional and national priorities for the study of archaeology and the historic environment. The aim of NERRF is to ensure that all fieldwork is carried out in a secure research context and that commercial contractors ensure that their investigations ask the right questions.

3.3 Whilst there are no known archaeological features on the site, it lies in an area rich in prehistoric activity (refer 2.1). There is a growing awareness of the density of prehistoric settlement activity. In recent years development control-led archaeological investigation in the area has contributed significantly to our knowledge of the density of settlement and activity in this area during the prehistoric period (North East Regional Research Framework, Petts & Gerrard, 2006).

> Recent excavations have begun to challenge established models of prehistoric settlement morphology. It is therefore important for any evidence of prehistoric settlement to be studied in order to establish more firm chronologies. Also needed is the study of site function and the social role of settlements in the landscape (NERRF Research Priority Iii).
> Evidence of prehistoric burial activity would also be of importance (NERRF Research Priority NBiii).

Evidence of medieval agricultural activity on the site would be of lesser archaeological significance but would require some form of archaeological recording.

> There are still very few excavated sites from the medieval period and it is essential that all opportunities are taken to further our knowledge of medieval settlement and agriculture. (NERRF Research Priority MD ii).

3.4 A trenching strategy consisting of 20 trenches (15 x 40m by 1.8m in size, 5 x 20m length) has been designed to test for the presence/absence of archaeological feature, representing a 4% sample (1264 sqm) of the site (Fig.1). The trenches are also placed to investigate geophysical anomalies (GSB 2013).

3.5 During the course of the trenching it may become apparent that variation is required, dependent on the nature, extent and importance of archaeological remains uncovered. It also may become apparent during the course of the operation that some areas where trenches have been sited are inappropriate for potential archaeological activity (for instance lying entirely within the line of a furrow) or due to logistical or practical reasons. Trenches can only be moved with the approval of the DCC Archaeology Section.

3.6 Contingency will be allowed for the excavation of up to 1% area of the site. This would mean up to an additional 81sqm in area beyond that excavated in the initial trenches) if it becomes apparent during the evaluation that further investigation is required of any features or areas of archaeological interest encountered. If the full 1% contingency were required then the total sample of the site would be 5%. The implementing of contingency would require approval by DCC Archaeology Section and the client.

4 General Standards

4.1 All work will be carried out to the standards set by the DCC Archaeology Section as detailed in http://www.durham.gov.uk/media/22749/Standards-for-Archaeological-Work-in-County-Durham-and Darlington/pdf/StandardsForArchaeologicalWorkInCountyDurhamAndDarlington.pdf . All work will be carried out in compliance with the codes of practice of the Chartered Institute for Field Archaeologists CI*f*A (2019) and will follow the CI*f*A (2020a) Standard and Guidance for Archaeological Field Evaluation. All work will be in compliance with the Regional Statement of Good Practice (Yorkshire, The Humber and the North-East 2009).

5 Pre-Site Work Preparation

5.1 All staff will familiarise themselves with the archaeological background of the site, and the results of any previous work in the area, prior to the start of work on site. All staff will be briefed in the work required under the specification and the project aims and methodologies.

5.2 An environmental sampling strategy in accordance with the previous advice of the Historic England Science Advisor (see 8 below) will be followed.

6 Fieldwork

6.1 Each evaluation trench will be accurately survey and related to the National Grid, using a Total Station Theodolite or GPS system, and located on a map of the area at an appropriate scale.

6.2 Topsoil and unstratified modern material will be removed mechanically by a back-acting machine using a wide toothless ditching blade. This machine stripping will be carried out under continuous archaeological supervision

6.3 The topsoil or recent overburden will be removed in successive level spits down to the first significant archaeological horizon or the natural subsoil, whichever is encountered first.

6.4 All faces of the trenches that require examination or recording will be cleaned sufficiently to establish the presence or absence of archaeological remains, particularly the top of the first significant archaeological horizon or the natural subsoil. All subsequent deposits will be hand-excavated.

6.5 In the event that small discrete archaeological features are revealed including but not limited to postholes and pits, during machining or subsequent cleaning of the trench, the trench will be expanded either side of the feature by a machine bucket width as standard. If further additional trench expansion is required this should be carried out following discussions with the DCC Archaeology Section and the client.

6.6 The archaeology will be investigated sufficiently to establish its nature, extent and date, unless it is deemed of sufficient importance to require total preservation in situ. This will be achieved by excavation of the following samples of all exposed features.

- Minimum 50% of every discrete feature but potentially 100% (ie post-holes)
- Up to 50% of the area of linear/curvilinear features (e.g. ditches, gullies) with 100% of feature intersections and terminals will be examined

6.7 Within the constraints of the site, the excavations will be maintained in a manner that allows quick and easy inspection without any requirement for additional cleaning.

6.8 Deposits will be assessed for their potential for providing environmental or

dating evidence. Sampling will be in line with the strategy agreed with Historic England Science Advisor and the DCC Archaeology Section.

6.9 In the event of human burials being discovered, they will be left *in situ*, covered and protected and the coroners' office will be informed. If removal is essential, work will comply with the relevant Ministry of Justice regulations.

6.10 Appropriate procedures under the relevant legislation will be followed in the event of the discovery of artefacts covered by the provisions of the Treasure Act 1996.

6.11 The drawn record from the site will include a representative selection of long sections from the excavations that clearly allow the nature and depth and any significant changes in the deposits recorded to be demonstrated. If there is any uncertainty, advice will be sought from the DCC Archaeology Section as to which sections may be appropriate for inclusion within the site record.

6.12 During and after the excavation, all recovered artefacts will be stored in the appropriate materials and storage conditions to ensure minimal deterioration and loss of information (this will include controlled storage, correct packaging, and regular monitoring of conditions, immediate selection for conservation of vulnerable material. All finds work will be undertaken in line with the standards set out "A strategy for the Care and Investigation of Finds" (English Heritage 1995); "First Aid for Finds" (Wilkinson & Neal 2001); and "Packaging and Storage of Freshly Excavated Artefacts from Archaeological Sites"(UKIC 1993).

7 Archaeological Recording

7.1 A full and proper record (written, graphic and photographic as appropriate) will be made for all work, using pro forma record sheets and text descriptions appropriate to the work. Accurate scale plans and section drawings will be drawn at 1:50, 1:20 and 1:10 scales as appropriate.

7.2 The stratigraphy of all trenches will be recorded even where no archaeological deposits have been identified.

7.3 All archaeological deposits and features, the current ground level and base of each trench will be recorded with an above ordnance datum (AOD) level.

7.4 A photographic record of all archaeological features will be taken, both in detail and in a wider context.

7.5 Where stratified deposits are encountered, a 'Harris' matrix will be compiled

8 Environmental Sampling and Scientific Dating Strategy

8.1 This sampling strategy is intended to provide sufficient data to characterise the nature and informative potential of deposits and features identified during the works. Because this is the first stage of intrusive works and there is a possibility that a wide range of features may be encountered, this strategy is best set out as a series of principles.
These are:

- 30 litre samples will be taken from structural, occupational and industrial features, as well as pits and ditch fills. Other features should be sampled to help to characterise the deposits on the site. Priority should be given to processing samples from identifiable, dated features, or to those undated features which have potential for other forms of dating (e.g. radiocarbon dating).
- Bulk sample residues should be checked for the presence of industrial waste (e.g.slags, hammerscale) and small faunal remains (e.g. fishbones, small mammal/avian bones) as well as for plant material.
- The potential of buried soils and ditch fills to provide dated (using radio-carbon dating) pollen cores or Optically Stimulated Luminescence (OSL) dating of sediments should be considered, although this type of sampling will be undertaken in consultation with the Historic England's Regional Scientific Advisor.

8.2 In the event that hearths, kilns or ovens are identified, provision will be made to collect at least one archaeo-magnetic date to be calculated from each individual hearth surface (or in the case of domestic dwellings a minimum of one per building identifed). Where applicable, samples to be collected from the site and processed by a suitably trained specialist for dating purposes.
8.3 The selection of suitable deposits for sampling will be confirmed at site meetings with the DCC Archaeology Section. In principle palaeo-environmental samples will be taken from deposits which have clear stratigraphic relationships. Particular attention will be paid to the recovery of samples from any waterlogged samples that may be present.

9 Monitoring

9.1 The DCC Archaeology Section will be informed on the start date and timetable for the evaluation in advance of work commencing (ideally 2 weeks' notice but as a minimum 48 hours before commencement).

9.2 Reasonable access to the site will be afforded to the DCC Archaeology Sections or his/her nominee at all times, for the purposes of monitoring the archaeological evaluation.

9.3 Regular communication between the archaeological contractor, the DCC Archaeology Section and other interested parties will be maintained to ensure the project aims and objectives are achieved.

9.4 If appropriate, specialists will be contacted and allowed access to the site to help inform any detailed study / information retrieval depending upon the nature of the archaeological features being revealed.

- Pottery and ceramic building material (Rob Young; Alex Croom; Paul Bidwell; Andy Sage)
- Bone (Louisa Gidney)
- Flint (Rob Young)
- Metal work (David Dungworth)
- Industrial debris (David Dungworth)
- Environmental micro and macro fossils (Charlotte O'Brien ASDU)
- Residue analysis (ASDU)
- Radio carbon dating (ASDU/SUERRC)
- Any other analysis identified as necessary during the fieldwork or post excavation work

10 Post Excavation Work, Archive, and Report Preparation

10.1 Finds

10.1.1 All finds processing, conservation work and storage of finds will be carried out in compliance with the CI*f*A Guidelines for Finds Work (2014) and those set by UKIC.

10.1.2 The deposition and disposal of artefacts will be agreed with the legal owner and recipient museum prior to the work taking place. Where the landowner decides to retain artefacts, adequate provision will be made for recording them. Details of land ownership will be provided by the developer.

10.1.3 All retained artefacts will be cleaned and packaged in accordance with the requirements of the recipient museum.

10.2 Site Archive

10.2.1 The final location for the site archive is County Durham Archaeological Archives.
10.2.2 Archiving work will be carried out compliance with the CI*f*A Guidelines for Archiving (2020b).

10.2.3 Before fieldwork, contact will be made with the landowners and with the appropriate local museum to make the relevant arrangements. Details of land ownership will be provided by the developer.

10.3 Report

10.3.1 The HER requires one bound paper copy and one digital copy (in PDF/A

compliant format) of the report.

10.3.2 The report will include the following as a minimum:

Each page and paragraph will be numbered within the report and illustrations cross referenced within the text.
The report will include the following as a minimum:

- Planning Reference number

· OASIS reference numbers and an 8 figure grid reference
· The nature and extent of the proposed development and client information
· A location plan of the site at an appropriate scale of at least 1:10 000
· A location plan showing trench locations within the site. This will be at a recognisable planning scale, and located with reference to the national grid, to allow the results to be accurately plotted on the Historic Environment Record
· Plans and sections of main trench axes and excavated features located at a recognisable planning scale (1:10, 1:20, 1:50 or 1:100, as appropriate)
· Period based discussion of the known and potential archaeological sites within the proposed development area
· A summary statement of the results
· A table summarising the deposits, features, classes and numbers of artefacts encountered and spot dating of significant finds
· A description of the geology on the site
· Discussion of the physical impact of the proposed development on known and potential archaeological sites

10.3.3 Any variation to the above requirements will be approved by the planning authority prior to work being submitted

10.3.4 Post-Excavation Assessment Report

10.3.5 Should a significant archaeological site be located a post-excavation assessment report will include all the information necessary to make decisions about the future direction of the project in line with Historic England's Guidelines on the Management of Research Projects in the Historic Environment (Historic England 2015). The report will be submitted to the Durham DCC Archaeology Section for comment and approval prior to any further analysis or publication work commencing.

10.3.6 This document will be submitted within six months of the end of fieldwork unless previously agreed with all relevant parties.

10.3.7 The archaeological contractor will submit an updated specification for full analysis and publication in line with Historic England's Management of Research Projects in the Historic Environment. An appropriate level of publication will then be agreed with Durham DCC Archaeology Section and will be prepared in line with Historic England's Management of Research Projects in the Historic Environment. A short report of the work will be submitted to a local journal if appropriate.

10.4 OASIS

10.4.1 The overall aim of the OASIS project is to provide an online index to the mass of archaeological grey literature that has been produced as a result of the advent of large scale developer funded fieldwork.

10.4.2 The archaeological contractor will therefore complete the online OASIS form at http://ads.ahds.ac.uk/project/oasis/. A pdf copy of the report will be uploaded to Oasis within 3 months of its production.

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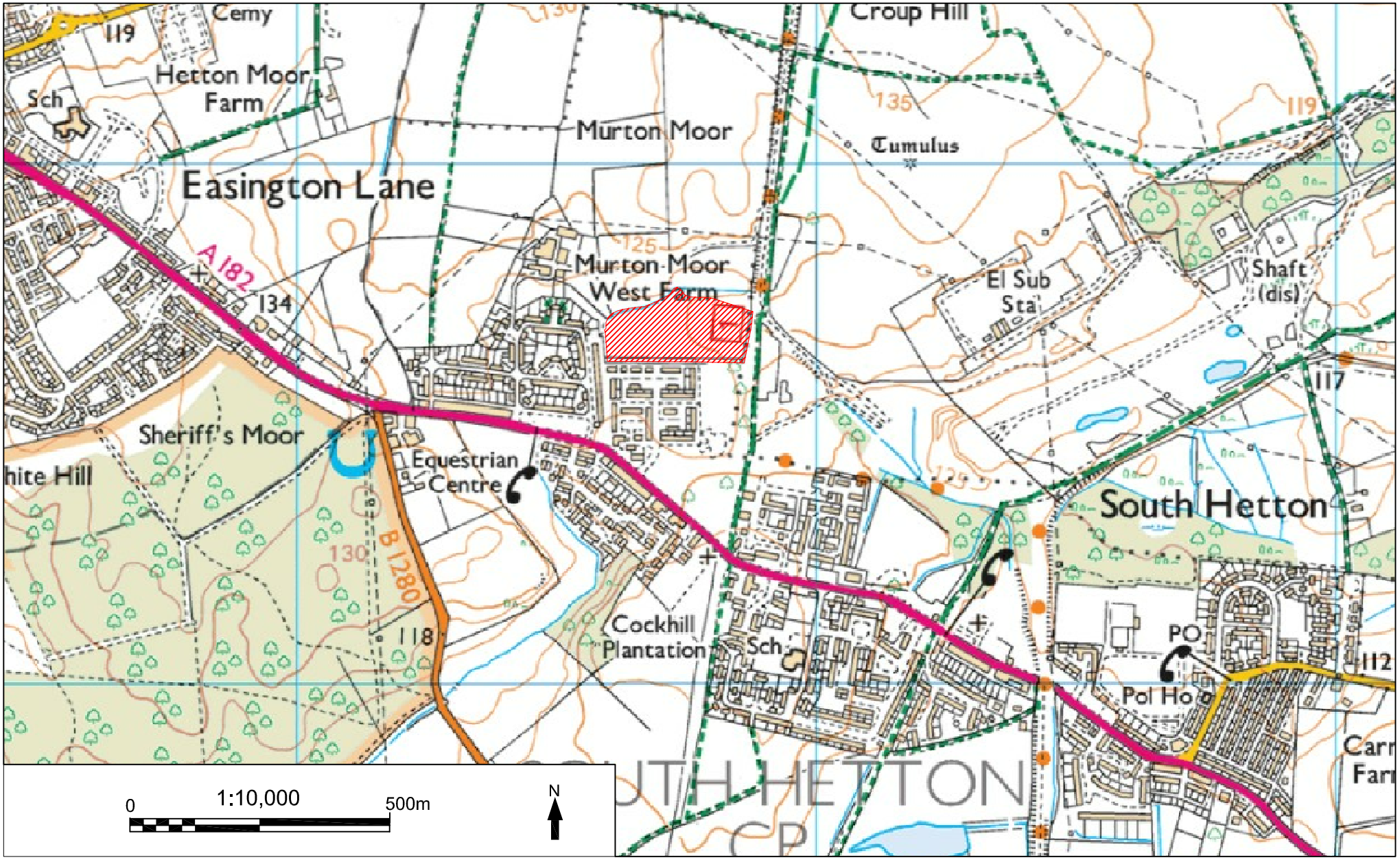

Figure 1: General location of site

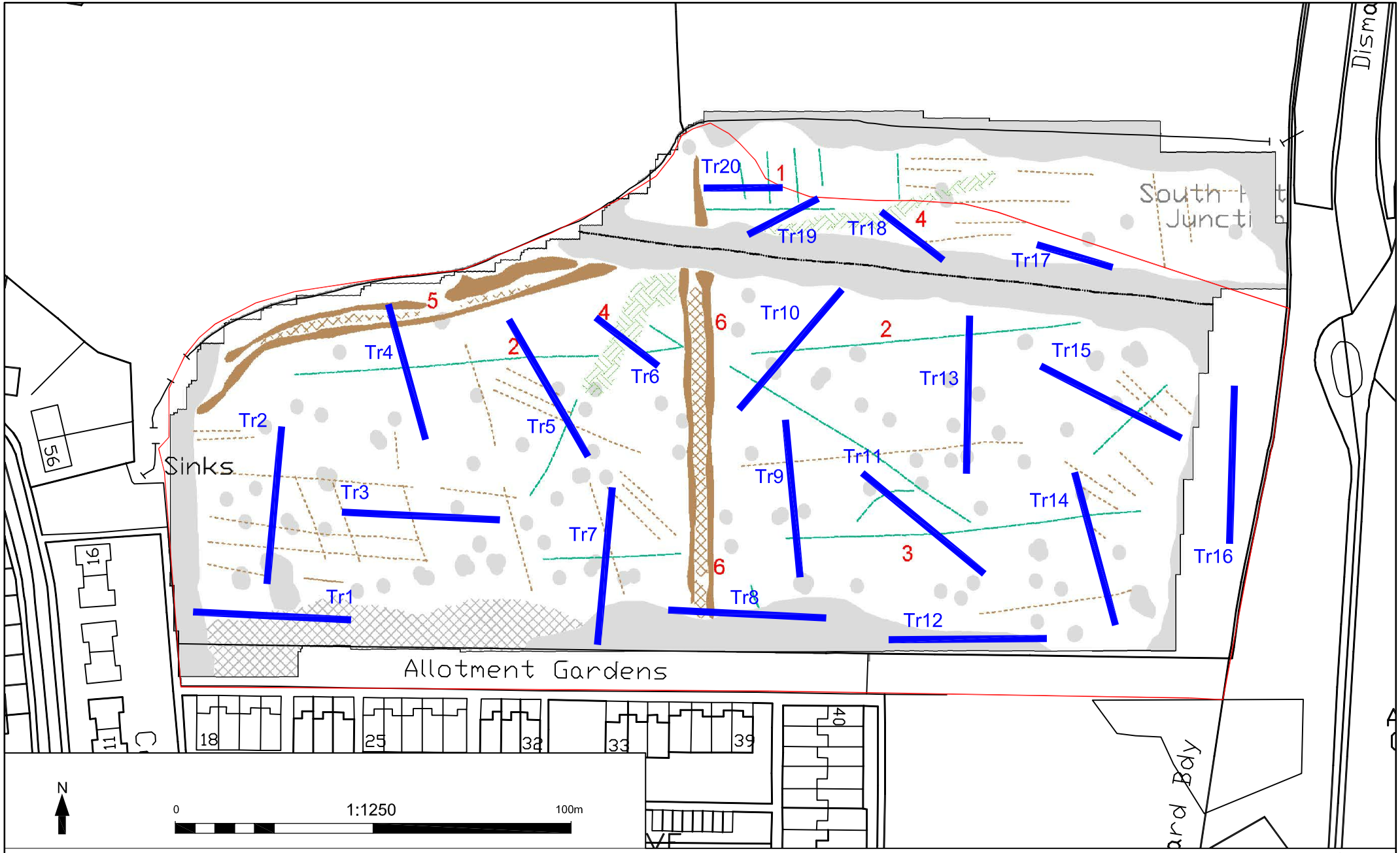

Figure 2: Trench plan location overlain on results of previous geophysical survey

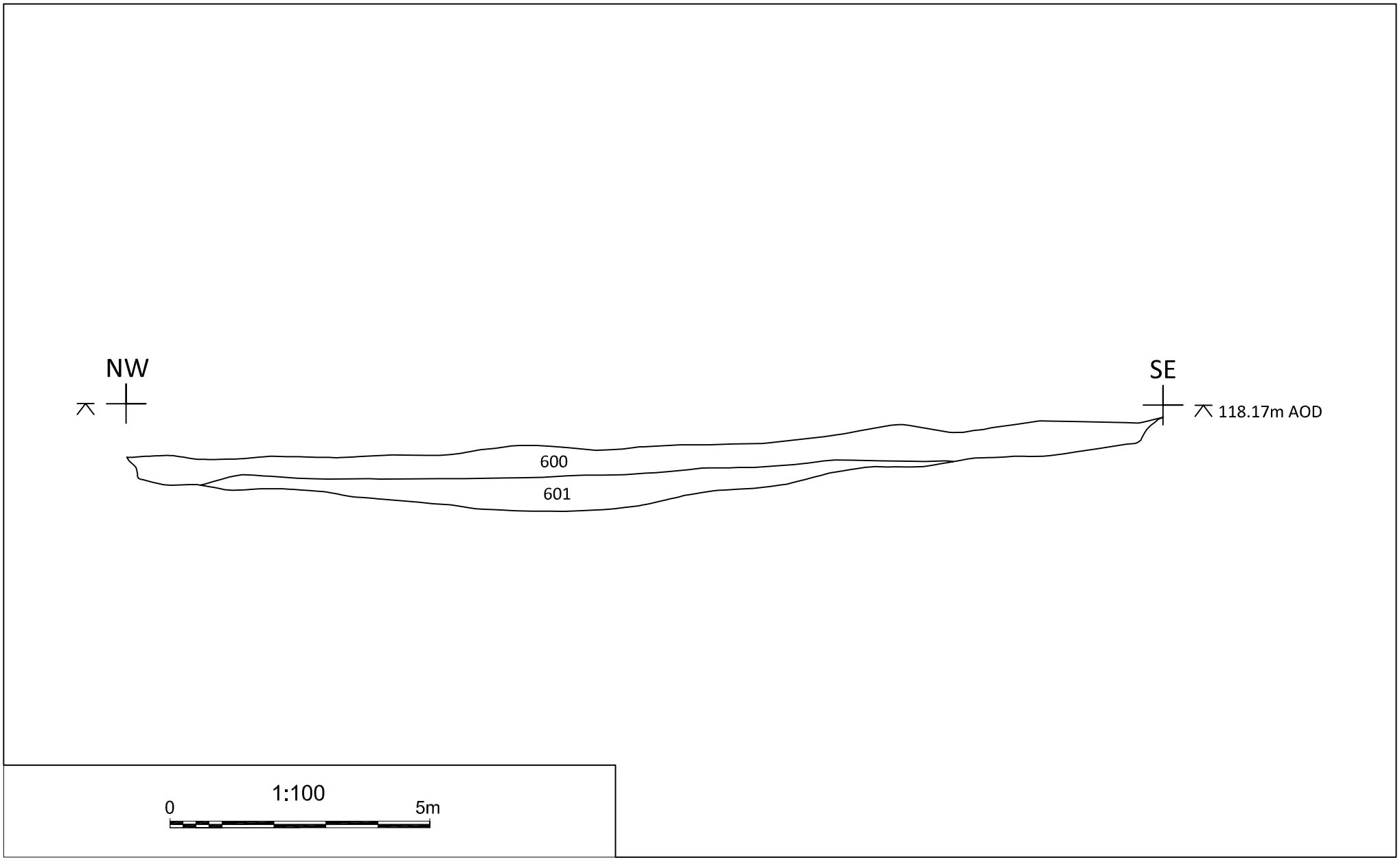

Figure 3: Trench 6 south-west facing section

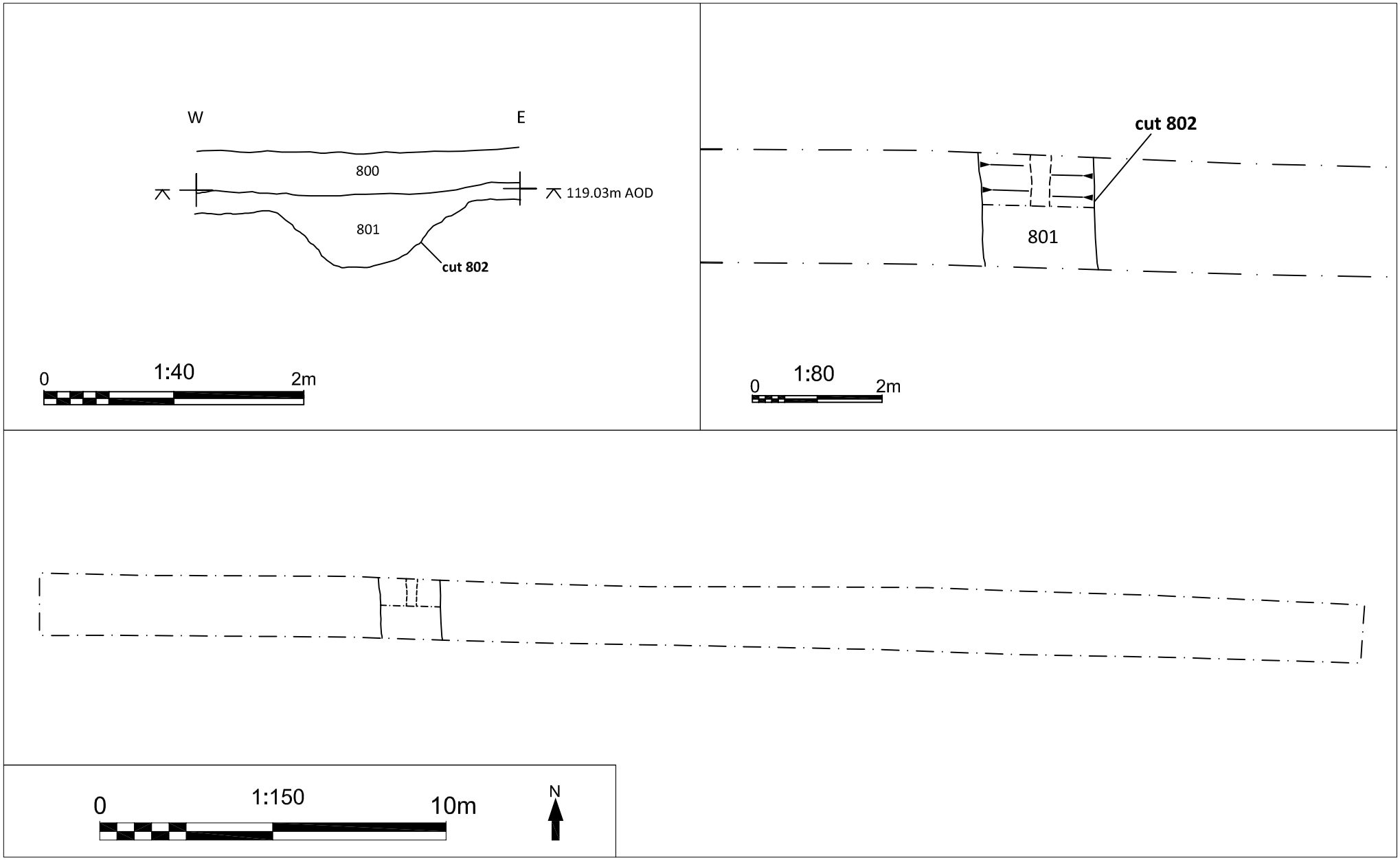

Figure 4: Trench 8

Plate 1 Trench 3 looking west

Plate 2 Trench 4 looking north

Plate 3 Trench 6 looking south-west

Plate 4 Trench 7 looking north

Plate 5 Trench 8 Gully 802 looking north-east

Plate 6 Trench 8 Gully 802 looking north

Plate 7 Trench 10 looking south-west

Plate 8 Trench 13 looking north

Plate 9 Trench 15 looking north-west

Plate 10 Trench 17 looking west