

Report



Archaeological Watching Brief Report: Swindon to Stratton 132kV Cable Scheme

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Contents

- 1 Executive Summary 1**
- 2 Acknowledgements 2**
- 3 Introduction 3**
 - 3.1 *Project Background*3
 - 3.2 *The Site, Location and Geology*3
- 4 Objectives 4**
 - 4.1 *Aims and Scope*.....4
- 5 Copyright 4**
- 6 Archaeological and Historical Context 4**
 - 6.1 *Introduction*4
- 7 Methodology 5**
 - 7.1 *Introduction*5
 - 7.2 *Artefacts, Human Remains, Treasure and Environmental Sampling*5
 - 7.3 *Post-Excavation Analysis*5
 - 7.4 *Archives and Deposition*5
 - 7.5 *ADAS Project Team*.....6
- 8 Results 6**
- 9 Discussion and Conclusions 8**
- 10 References 9**
 - 10.1 *Online Resources*9

Appendices

Appendix A: Context Descriptions

Appendix B: The Finds

Appendix C: Oasis Report Form

Figures

Figure 1: Location Plan

Figure 2: Archaeological features in Area C

Figure 3: Archaeological features in Areas D and E.

Plates

Plate 1: View of the Launch/Receptor Pit at Stratton Wood.

Plate 2: View of Launch/Receptor pit location at the Kingsdown Road, looking north

Plate 3: View of ditches 303 and 305 in Area C looking north-west.

Plate 4: View of ditch section 403 in Area D, looking north-east.

Plate 5: Representative section shot of cable duct trench at western end of Area D.

Plate 6: Representative shot of cable duct trench in Area E, looking north-east.

1 Executive Summary

In September 2014 ADAS UK Ltd carried out an archaeological watching brief for SSE Power Distribution during groundworks associated with the development of a new 132kV cable between Swindon substation and Stratton substation, Wiltshire. The objective of the watching brief was to identify and record all archaeological remains exposed during the development.

No features or deposits of archaeological interest were observed during the groundworks, and no artefactual material pre-dating the modern period was recovered.

2 Acknowledgements

This archaeological watching brief was commissioned by SSE Power Distribution Ltd., and thanks are due in this regard. The report and supporting illustrations were prepared by Diarmuid O Seaneachain, and checked by John Lord.

3 Introduction

3.1 Project Background

- 3.1.1 In September 2014 ADAS UK Ltd carried out an archaeological watching brief for SSE Power Distribution along five sections of a new 132kV cable development between Swindon and Stratton, Wilshire (**Figure 1**). The objective of the watching brief was to identify and record all archaeological remains exposed during the development.
- 3.1.2 The development works were carried out within the permitted development rights of SSE Power Distribution and therefore were not subject to a planning application. However, an ADAS constraints report commissioned by SSE Power Distribution identified five sections of the cable route (the Route) which were considered to have the potential to contain undisturbed archaeological remains (ADAS 2013).
- 3.1.3 The watching brief was carried out in accordance with a detailed Written Scheme of Investigation (WSI) produced by ADAS (2014) and approved by the Local Planning Authority acting on the advice of Ms Clare King. The fieldwork followed the *Standard and Guidance for an archaeological watching brief* (CIfA 2014), *the Management of Archaeological Projects 2* (English Heritage 1991), *the Management of Research Projects in the Historic Environment (MORPHE): Project Manager's Guide* (EH 2006).
- 3.1.4 In carrying out this work SSE Power Distribution complied with their obligations to the historic environment, as outlined in Section 38 and Schedule 9 of the Electricity Act 1989.

3.2 The Site, Location and Geology

- 3.2.1 Archaeological monitoring was undertaken along five separate sections of the development route between Swindon substation in the west and Stratton substation in the east (**Figure 1**). Area A consisted of the directional drill launch/receptor pit and cable duct trench within Stratton Wood to the south-west of Stratton substation (centred on SU16793, 88315). Area B was the location of the directional drill launch/receptor pit at site along the B4141 Kingsdown Road (centred on SU16793, 88315). Area C was a section of cable route dug through common land south of and parallel to the B4587 Akers Way between Darby Close and Cheney Manor Road (from SU13900, 86709 to SU 13900, 86708). Area D represents a section of cable route dug through common land to the south-west of the B4587 Akers Way from the public car park located to the River Ray (from SU12960, 87019 to SU12960, 87019). Area E represents the short section from the River Ray to Swindon Substation (from SU12960 87019 to SU12960, 87019).

3.2.2 The underlying geology along areas C, D and E of the Route is recorded as Sandstone, Siltstone and Mudstone of the Hazelbury Bryan Formation and the Kingston Formation (BGS 2015). The underlying geology along area A and B is recorded as limestone of the Stanford Formation. No superficial deposits are recorded in these areas (BGS 2015).

4 Objectives

4.1 Aims and Scope

4.1.1 The aims of this watching brief were:

- To identify and record any archaeological remains which may exist within five sections identified by the WSI, and which may be impacted upon by the groundworks;
- To assess the implications of any archaeological remains encountered for wider research questions outlined by the WSI;
- To preserve by record any archaeological features or deposits that may be disturbed or destroyed during the course of the groundworks;
- To make available the results of the watching brief by way of archive deposition with an appropriate curating body.

5 Copyright

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6 Archaeological and Historical Context

6.1 Introduction

6.1.1 A Route feasibility assessment was prepared by ADAS UK (ADAS 2013), which included an archaeological constraints report. The key findings of this report are summarised as follows.

6.1.2 The archaeological potential of Area A derives from its proximity to Ermine Street Roman road from *Durocornovium* to *Corinium* (HER No. SU18NE301). Rectilinear features which have been interpreted by the HER as a possible small settlement (HER No. SU18NE614) have been identified in close proximity to Area A, close to the line of Ermine Street.

Archaeological interest in Area B derives from the fact that medieval pottery (HER No. SU18NE456) has been recovered from the immediate vicinity. Area C is located on relatively undeveloped common land adjacent to the River Ray. It is also situated relatively close proximity to Rodbourne Cheney, a settlement with medieval origins (HER No. SU18NW450) and the Grade II* Listed St Mary's Church (HER No. SU18NW400). A flint flake of possible Neolithic date and was found during an archaeological trial trenching evaluation to the north of Area D in 2003 (HER No. SU18NW101) and a Romano-British coin (HER No. SU18NE323) was also recovered during construction work at this general location. A walkover survey carried out as part of the feasibility assessment also earthworks representing probable ditches of uncertain date in Area D and ridge and furrow in Area E.

- 6.1.3 The earliest available mapping consulted was the 1816 Ordnance Survey drawing of the area. This showed that the majority of the western portion of the Route was across fields, with the eastern portion being within the roadway which linked Stanton with Moredon. The Route is shown as crossing the historic core of Rodbourne Cheney. This landscape arrangement continued until the 1930s, when OS maps from 1938-41 depict the growing urbanisation of the area (NLS 2015).

7 Methodology

7.1 Introduction

- 7.1.1 The fieldwork followed the methodology set out within the WSI (ADAS 2014). An archaeologist was present during intrusive groundworks carried out in each of the five sections.
- 7.1.2 Where archaeological deposits were encountered written, graphic and photographic records were compiled in accordance with the Chartered Institute for Archaeologists *Standard and Guidance: Archaeological watching brief 2014*.

7.2 Artefacts, Human Remains, Treasure and Environmental Sampling

- 7.2.1 No significant artefacts or human remains were encountered during the watching brief. Due to the absence of significant archaeological deposits identified during archaeological monitoring, no environmental sampling was undertaken.

7.3 Post-Excavation Analysis

- 7.3.1 No significant archaeological artefacts or deposits were encountered during the watching brief, and therefore no post-excavation analysis was required.

7.4 Archives and Deposition

- 7.4.1 The archive and artefacts from the monitoring are currently held by ADAS at their offices in Milton Park. Since the artefacts recovered from the monitoring are considered to be of negligible

archaeological significance, they will not be retained for deposition with the local museum. A summary of information from this project, set out within Appendix C, will be entered onto the OASIS database of archaeological projects in Britain.

7.5 ADAS Project Team

7.5.1 Fieldwork was undertaken by Diarmuid O Seaneachain and John Lord. The report was written by Diarmuid O Seaneachain. The illustrations were prepared by Diarmuid O Seaneachain. The archive was compiled and prepared for deposition by Diarmuid O Seaneachain. The project was managed for ADAS by John Lord.

8 Results

8.1.1 This section provides an overview of the monitoring results; detailed summaries of the recorded contexts and finds are to be found in Appendices A and B respectively.

Area A

8.1.1 In Area A the topsoil horizon 100 was reduced to a depth of approximately 0.2m across the easement area (**Plate 1**). This overlay a an orange brown subsoil 0.3m thick which in turn sealed the natural substrate of green-brown clay or green clay with frequent small angular limestone cobbles and pebbles. Two modern services were observed in the cable duct trench near Stratton substation.

Area B

8.1.1 In Area B the topsoil horizon 200 was reduced to a depth of 0.15m across the whole of the easement area to reveal a modern made-ground horizon 201. The made-ground horizon was removed to reveal modern concrete and service pipes 201 underlying the whole of the launch pit area (**Plate 2**). No artefacts or deposits of archaeological significance were identified in this area.

Area C

8.1.1 In Area C the topsoil horizon 300 was removed within the easement area (**Figure 2**). In the western end of Area C the topsoil was approximately 0.25-0.3m thick and generally overlay a subsoil horizon 301 which in turn sealed the natural yellow sandy clay substrate 302. In two locations in Area C spreads of 19th century or 20th-century bricks scattered amongst patches of charcoal-rich silty clay were observed 308 and 309. These did not appear to form part of any structure or associated with any discernible cut feature and so were interpreted as probable dumped deposits used to level the ground at these locations. These deposits overlay subsoil horizon 301 and were sealed by the topsoil horizon 300.

- 8.1.2 In the cable duct trench two parallel ditches, 303 and 305 were observed cutting the subsoil horizon 301 (**Plate 3**). Ditch 303 contained a single fill, 304. Ditch 305 contained a single fill, 306. Part of a 19th or 20th-century iron plough shear and three sherds of 19th or early 20th century ceramic pottery were recovered from 306. A modern concrete pipe was also observed cutting the subsoil at the eastern end of Area C.
- 8.1.3 Towards the eastern end of Area C the natural blue clay substrate was exposed when the topsoil and subsoil were removed to a depth of approximately 0.15m-0.2m below present ground level.

Area D

- 8.1.1 In Area D the topsoil horizon 400 was reduced to a depth of approximately 0.25m below present ground level across the width of the easement (**Figure 3**). The topsoil generally sealed the subsoil horizon 401 in this area, except at the easternmost end where a lens of made ground 414 containing brick fragments and charcoal in an orange-brown clay matrix was observed between the topsoil and subsoil horizons.
- 8.1.2 In Area D the subsoil was cut by ditches 403, 407 and 409. Ditch 403 was 1.3m in width but only 0.1m in depth below the reduced ground level. It contained a single fill, 404 which comprised of abundant small cobbles and charcoal inclusions in a silty matrix (**Plate 4**). Ditch 407 was approximately 1.8m in width in plan and in the cable duct trench was approximately 0.1m below the reduced ground level. It contained a single fill, 408 which comprised of dark grey silty clay and roots. Ditch 409 was visible as an earthwork feature prior to the start of groundworks and measured approximately 1.5m in maximum width. In section in the cable duct trench it was found to be approximately 0.1m below the reduced ground level. It also contained a single fill, 410, which comprised of dark grey silty clay.
- 8.1.3 Two modern land drains and a modern concrete pipe were also observed in plan across the easement and in section in the cable duct trench in Area D. The subsoil horizon 401 was generally found to be 0.3m thick across Area D and sealed the natural substrate 402. The natural substrate generally consisted of firm yellow sandy clay (**Plate 4**) except towards the River Ray where it gives way to white sand overlaying firm yellow clay.

Area E

- 8.1.1 In Area E the topsoil horizon 500 was reduced to a depth of approximately 0.25m below present ground level (**Figure 3**). This sealed the subsoil horizon 501 in Area E. A cable duct trench measuring up to 2m in maximum width was excavated through the subsoil 501 and the natural substrate 502 through the eastern part of this area closest to the River Ray (**Plate 5**).

The cable duct trench measured 0.7m in width through the rest of the area. The cable duct trench was excavated to a maximum depth of 1.4m below the reduced ground level.

- 8.1.2 A series of parallel ridge and furrow earthworks, orientated NNE/SSW were observed across Area E prior to the start of groundworks (505, 507, 509 and 511). These ridge and furrows were also observed in section in the cable duct trench through this area. All of the furrows were observed in section cutting the subsoil horizon 501. The maximum depth of each furrow was approximately 0.1m to 0.15m below the reduced ground level in Area E. A post-medieval or modern red clay land drain was also observed at the base of each furrow. At the western end of Area E a modern high voltage cable 513 crossed the easement near Swindon substation.

9 Discussion and Conclusions

- 9.1.1 No features or artefacts of archaeological significance were observed during monitoring in Area A. Monitoring confirmed that any deposits which may have contained archaeological material in Area B had previously been removed/destroyed during the construction of buried water or sewage services trenches at this location.
- 9.1.2 In Area C ditches 303 and 305 both form part of a post-medieval field boundary visible on the First Edition Ordnance Survey map of the Area. The two spreads of loose bricks and other modern material observed in this area most likely represent dumped deposits of material used to level or firm up the ground close to the River Ray. In Area D all three ditches identified were clearly visible as earthwork features prior to excavation, and appear to have been created as a result of 19th or 20th century landscaping/drainage improvement works in this common land based on historic mapping and modern satellite imaging analysis. In Area E the ridge and furrow earthworks can be interpreted as the remnants of sustained arable agriculture in this field from the medieval period to the 19th century.

10 References

ADAS 2013 *Swindon Substation to Stratton Substation 132kV Archaeological Constraints Report*. Unpublished Client Report.

ADAS 2014 *Specification for Archaeological Monitoring Swindon substation to Stratton substation 132kV Cable Undergrounding*.

CIfA 2014 *Standard and Guidance: Archaeological Watching Brief*.

English Heritage 1991 *The Management of Archaeological Projects 2*.

English Heritage 2006 *The Management of Research Projects in the Historic Environment (MORPHE): Project Manager's Guide*.

10.1 Online Resources

(BGS 2015) British Geological Survey Geology of Britain Viewer. Available at: <http://www.bgs.ac.uk/discoveringGeology/geologyOfBritain/viewer.html> [accessed February 2015].

(NLS 2015) National Library of Scotland Ordnance Survey Maps-Six-inch England and Wales 1842-1952. Available at: <http://maps.nls.uk/os/6inch-england-and-wales/> [accessed February 2015].

Appendix A: Context Descriptions

Area A

No.	Type	Description	Length (m)	Width (m)	Depth (m)	Spot-date
100	Layer	Topsoil			0.2	
101	Layer	Subsoil orange-brown silty clay			0.3	
102	Layer	Natural substrate: green-brown clay/green clay with frequent small angular limestone cobbles and pebbles			N/A	

Area B

No.	Type	Description	Length (m)	Width (m)	Depth (m)	Spot-date
200	Layer	Topsoil			0.15	
202	Layer	Made ground			0.1	C20th
203	Layer	Modern concrete/services			>0.6	C20th

Area C

No.	Type	Description	Length (m)	Width (m)	Depth (m)	Spot-date
300	Layer	Topsoil			0.25	
301	Layer	Subsoil			0.3	
303	Cut	Cut of N/S ditch		1.8	0.55	
304	Fill	Single fill of 303, dark grey-brown silty clay with occasional grit and small pebbles.		1.8	0.55	
305	Cut	Cut of N/S orientated Ditch		2	0.6	

306	Fill	Single fill of 305, dark grey-brown silty clay with occasional grit and small pebbles. Contains roots of trees/hedges			0.6	C19-C20th
307	Layer	Natural substrate: firm yellow brown sandy clay and/or blue clay			N/A	
308	Deposit	Deposit of red bricks, charcoal and CBM in clay matrix	c.2	c.3	0.3	Modern
309	Deposit	Deposit of red bricks, charcoal and CBM in a clay matrix	c.4	c.4	0.1	Modern
310	Feature	Modern Concrete Pipe			0.7	Modern

Area D

No.	Type	Description	Length (m)	Width (m)	Depth (m)	Spot-date
400	Layer	Topsoil			0.25	
401	Layer	Subsoil			0.4	
402	Layer	Natural substrate: firm yellow sandy clay overlying blue clay or were white sand overlying firm yellow clay.			N/A	
403	Cut	Cut of modern ditch aligned NNW/SSE		1.3	0.1	Modern
404	Fill	Single fill of ditch 403. Contains frequent angular stones and pebbles in a charcoal sandy-silt matrix. Reddish-brown at the sides.		1.3	0.1	Modern
405	Cut	Cut of modern field drain aligned NW/SE		0.2		Modern
406	Fill	Single fill of 405. Clean loose small gravels in a clayey matrix		0.2		Modern
407	Cut	Cut of modern ditch aligned N/S		1.8	0.1	Modern
408	Fill	Single fill of 407. Dark grey silty clay and roots		1.8	0.1	Modern
409	Cut	Cut of modern ditch aligned NNW/SSE		1.5	0.1	Modern
410	Fill	Single fill of 409. Dark grey silty clay		1.5	0.1	Modern

411	Feature	Modern concrete pipe aligned N/S		0.7		Modern
412	Cut	Cut of modern field drain aligned NE/SW		0.25		Modern
413	Fill	Single fill of 412. Redeposited yellow sandy clay natural.			0.4	Modern
414	Deposit	Layer of made ground at eastern end of Area D. overlies subsoil. Contains brick fragments, stones, charcoal and other ceramic building material in an orange-brown clay matrix	c.10 E-W	c. 7 N-S	0.4	Modern

Area E

No.	Type	Description	Length (m)	Width (m)	Depth (m)	Spot-date
500	Layer	Topsoil			0.25	
501	Layer	Subsoil			0.15	
502	Layer	Natural Substrate: firm yellow sandy clay			>0.35	
503	Cut	Cut of NNE/SSE Furrow				
504	Fill	Single fill of 503. Contain land drain				
505	Cut	Cut of NNE/SSE Furrow		2.2	0.15	
506	Fill	Single fill of 505. Contain land drain		2.2	0.15	
507	Cut	Cut of NNE/SSE Furrow		2.2	0.15	
508	Fill	Single fill of 507. Contain land drain		2.2	0.15	
509	Cut	Cut of NNE/SSE Furrow		2.2	0.15	
510	Fill	Single fill of 509. Contain land drain		2.2	0.15	
511	Cut	Cut of NNE/SSE Furrow		2.2	0.15	
512	Fill	Single fill of 511. Contain land drain		2.2	0.15	
513	Cut	Cut of modern high voltage buried cable		N/A	N/A	Modern

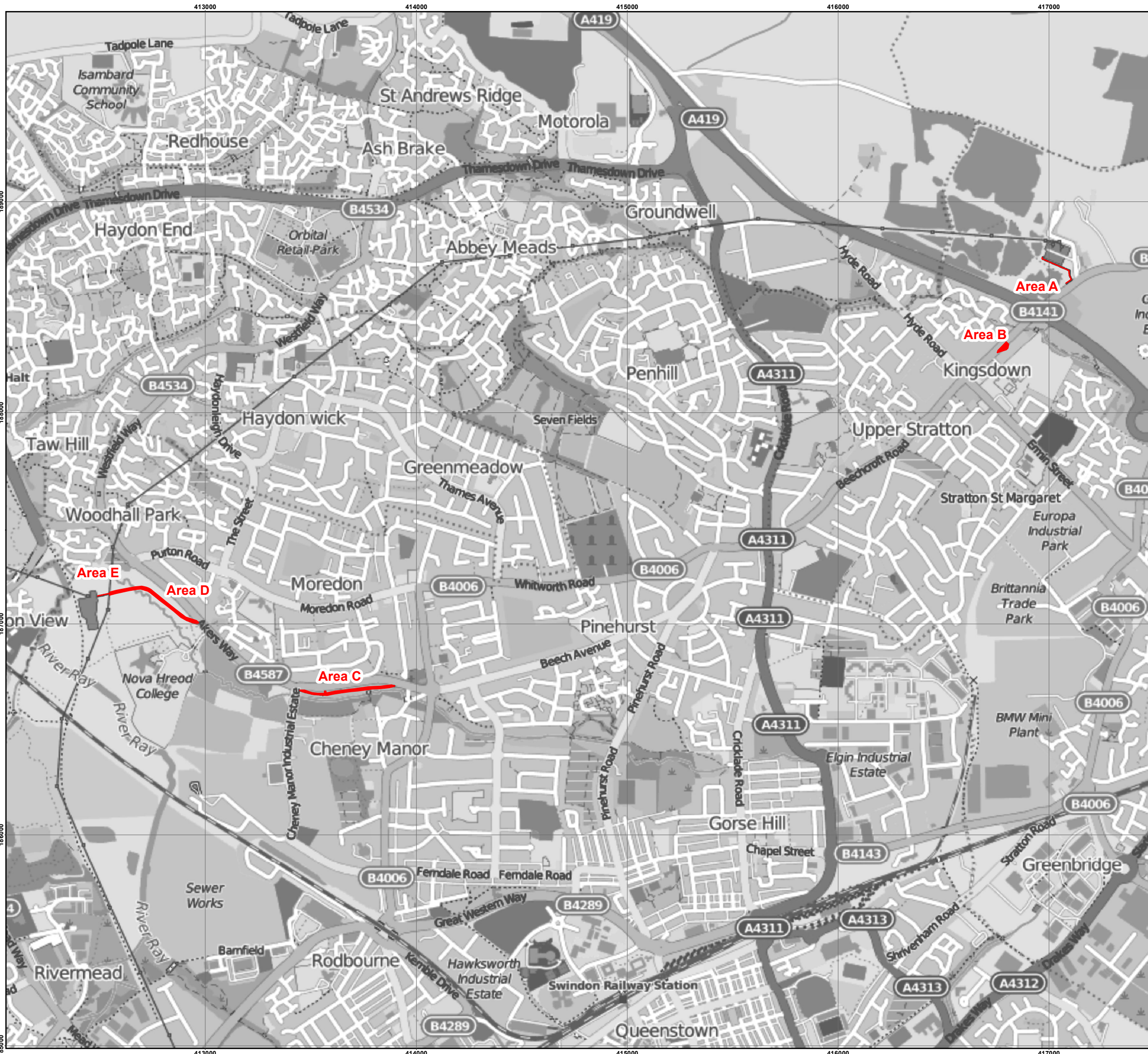
Appendix B: The Finds

A fragment of a 19th or 20th century iron plough shear and three pieces of glazed stoneware of 19th or early 20th century date were recovered from 306, the fill of ditch 305 in Area C. In view of the recent origin of these artefacts, they were not retained.

Appendix C: Oasis Report Form

Project Details	
Project Name	Swindon to Stratton 132kv Cable Scheme
Short description (250 words maximum)	<p>In September 2014 ADAS UK Ltd carried out an archaeological watching brief for SSE Power Distribution during groundworks associated with the development of a new 132kV cable between Swindon Substation and Stratton substation, Wiltshire. The objective of the watching brief was to record all archaeological remains exposed during the development.</p> <p>No features or deposits of archaeological interest were observed during the groundworks, and no artefactual material pre-dating the modern period was recovered.</p>
Project Dates	
Project type (e.g. desk-based, field evaluation etc.)	ADAS 2013 <i>Swindon Substation to Stratton Substation 132kV Archaeological Constraints Report</i> . Unpublished Client Report.
Previous work (reference to organisation or SMR numbers etc.)	N/A
Future Work	Unknown
PROJECT LOCATION	
Site Location	Swindon and Stratton, Wiltshire.
Study area (M2/ha)	Route length monitored approximately 1,180m (Areas A-E).
Site co-ordinates (8 Fig Grid Reference)	From SU26793, 88315 to SU12960, 87019
PROJECT CREATORS	
Name of organisation	ADAS UK Ltd
Project Brief originator	ADAS UK Ltd
Project Design (WSI) originator	ADAS UK Ltd
Project Manager	John Lord
Project Supervisor	Diarmuid O Seaneachain

MONUMENT TYPE	None	
SIGNIFICANT FINDS	None	
PROJECT ARCHIVES	Intended final location of archive (museum/Accession no.) Swindon Museum and Art Gallery	Content (e.g. pottery, animal bone etc)
Physical		N/A
Paper		Trench Sheets, Context Sheets, Photo register, drawing register, permatrace drawing
Digital		Digital photographs
BIBLIOGRAPHY		
ADAS 2015 Swindon to Stratton 132kV Cable Scheme Archaeological Watching Brief Report. Unpublished Client Report.		



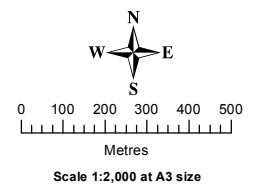
Swindon to Stratton 132kV Cable Scheme

Figure 1: Location Plan

 Monitoring Areas

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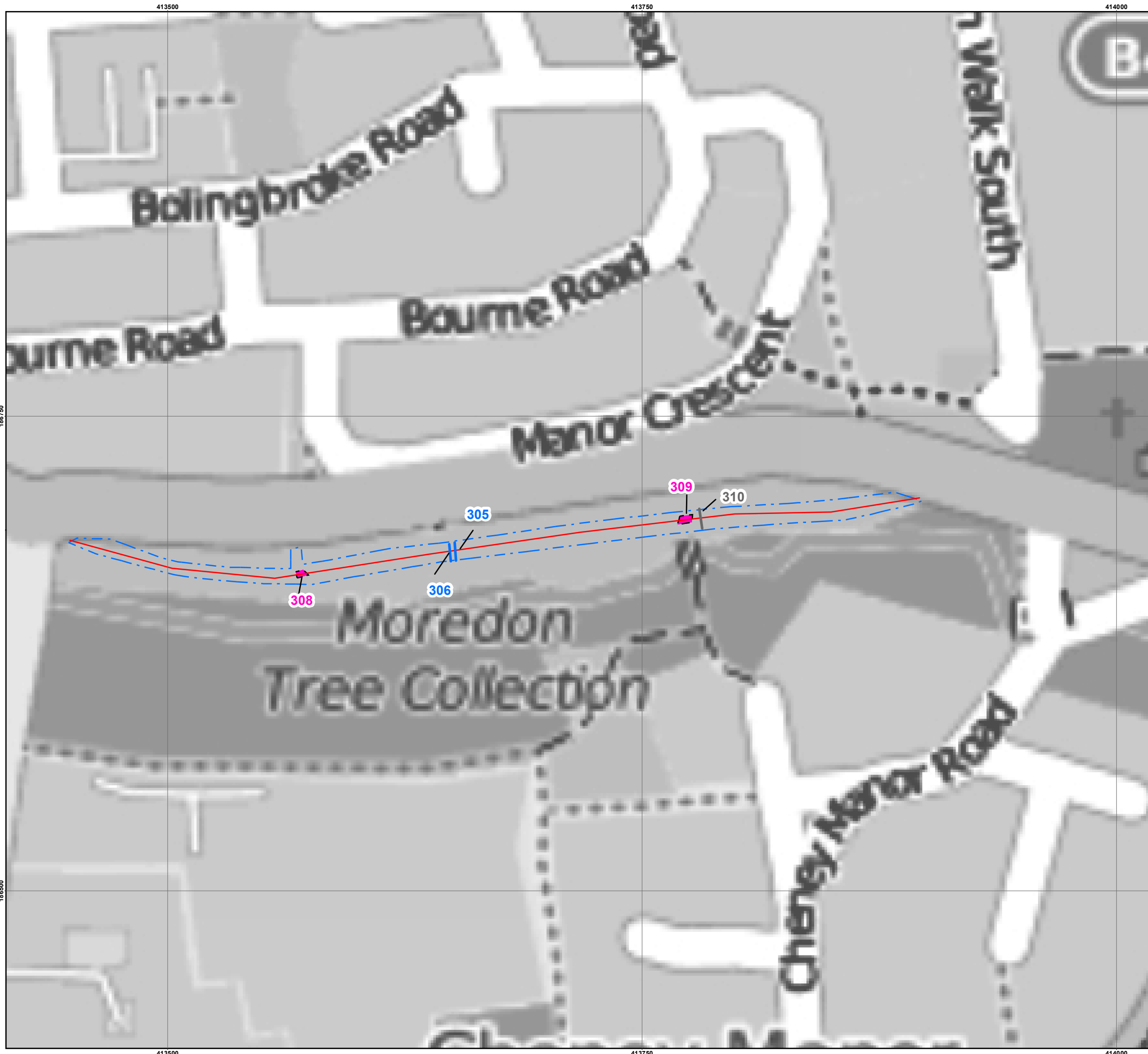
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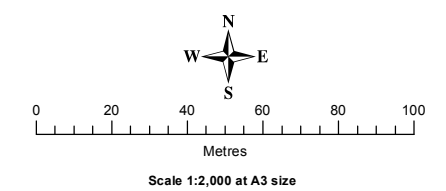


Swindon to Stratton 132kV
 Cable Scheme

**Figure 2: Archaeological Features
 in Area C**

- Limit of Easement
- Cable Duct Trench
- Ditch
- Deposit
- Modern Service








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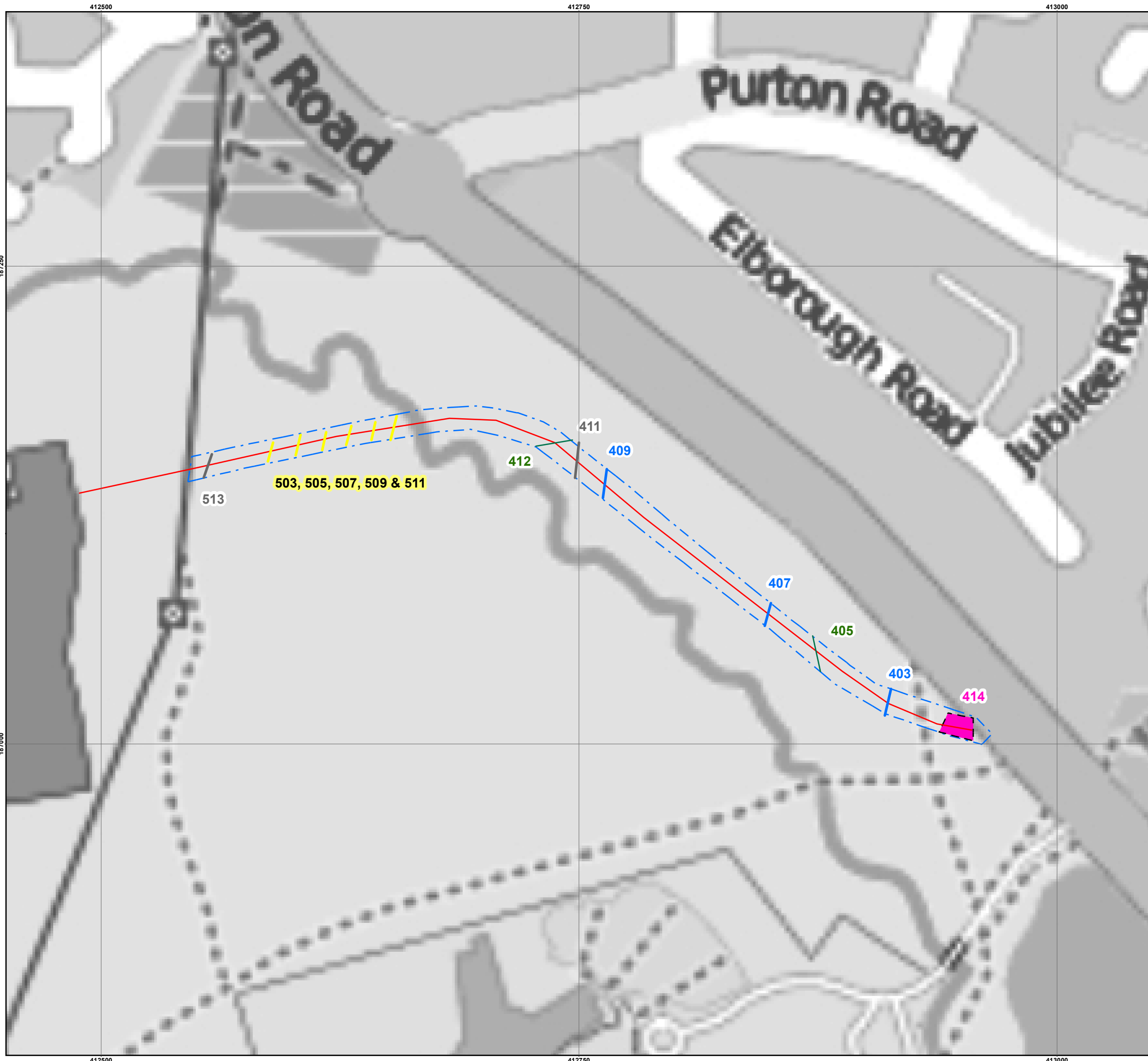


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Swindon to Stratton 132kV
Cable Scheme

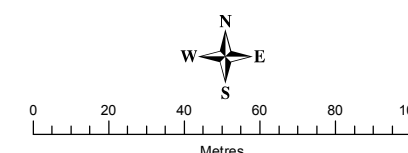
**Figure 2: Archaeological Features
in Areas D and E**

-  Limit of Easement
-  Cable Duct Trench
-  Ditch
-  Deposit
-  Modern Service
-  Land drain
-  Furrows



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Plates



Plate 1: View of the Launch/Receptor Pit at Stratton Wood.



Plate 2: View of Launch/Receptor pit location at the Kingsdown Road, looking north.



Plate 3: View of ditches 303 and 305 in Area C looking north-west.



Plate 4: View of ditch section 403 in Area D, looking north-east



Plate 5: Representative section shot of cable duct trench at western end of Area D.



Plate 6: Representative shot of cable duct trench in Area E, looking north-east.