

Plot 1, Ardoran



Archaeological Fieldwork Report on Controlled Topsoil Strip



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Report on Controlled Topsoil Strip

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Summary

A controlled topsoil strip under archaeological observation was undertaken in advance of construction of a house on land at Ardoran, Lerags, Argyll, in response to a planning condition. The site is shown as the township of Uppar Ardoran on the 1st Edition OS 1:10560 map. A rapid earthwork survey was undertaken and topsoil stripping for the house and driveway was monitored. No further fieldwork is recommended.

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Acknowledgements

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Location

The site lies about 6km south of Oban, at about 44m above sea level. It is centred (approximately) at Ordnance Survey National Grid Reference NM 854 251.

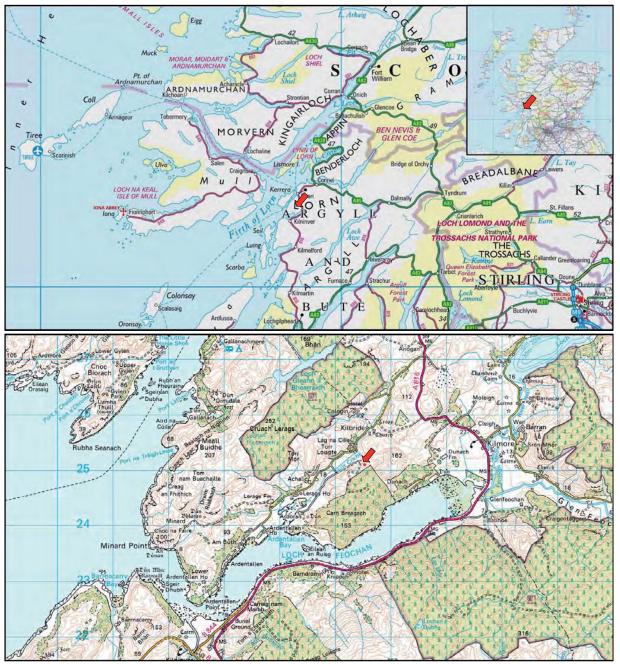


Figure 1 Site location

Introduction

A programme of archaeological work was undertaken in March 2010 by Highland Archaeology Services Ltd in response to a planning requirement at Ardoran, Lerags, Argyll, where it is proposed to build a house. The purpose of this programme, which consisted of archaeological mitigation and recording in line with the Scottish Government's current planning policies and advice, was to identify and record the nature and extent of any archaeological features revealed or affected by the intended development.

Archaeology and policy background

Archaeological fieldwork was requested in this case because there is considered to be potential for finds or features of interest to be discovered during site works. The proposed new house lies on the site of Upper Ardoran, shown on the 1st edition OS 1:10560 map (see Figure 3 below). The house site itself encroaches on a sub-circular enclosure. To the immediate west the map also shows an inhabited building whose ruinous footings still survive.

The planning and policy framework includes the Argyll and Bute Council's *Structure Plan*¹, and the Scottish Government's *Scottish Planning Policy SPP 23: Planning and the Historic Environment* (2008)². The fundamental principles underpinning the above policies are set out in *Passed to the Future: Historic Scotland's Policy for the Sustainable Management of the Historic Environment* (2002)³ and the *Burra Charter* (Australia ICOMOS 1999).⁴

Method

Photographs were taken of the site before excavations started. Relevant and accessible archaeological / historical records, maps and aerial photographs were also checked.

The entire footprint of the proposed house, driveway and parking / turning area, linking to the existing access, was subject to topsoil stripping under direct archaeological supervision. A flat-bladed ditching bucket was used on the rear arm of a tracked excavator to strip topsoil and other overburden down to the underlying, archaeologically sterile subsoil. This surface was then inspected by the archaeologist for signs of in situ archaeology, and selected areas cleaned by hand to clarify any possible features. Three features were then examined and two of these were sectioned. The locations of all photographs taken were plotted on a site plan.

¹ Argyll and Bute Strusture Plan 2002: Developing Our Future See in particular policies Strat DC8 and Strat DC9 (http://www.argyll-bute.gov.uk/content/planning/developmentpolicy/structureplan)

http://www.scotland.gov.uk/Publications/2008/10/28135841/0

³ www.historic-scotland.gov.uk/pasttofuture.pdf

⁴ http://www.icomos.org/australia/burra.html

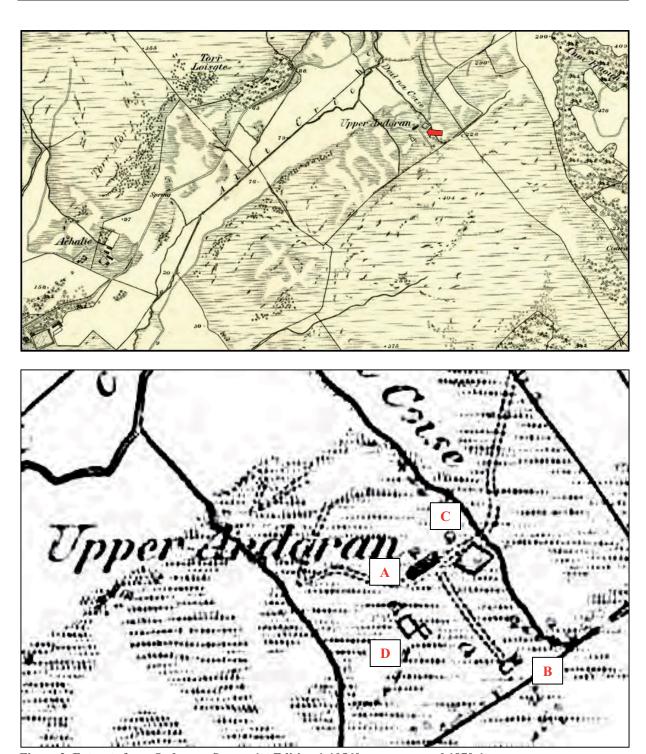


Figure 2 Extracts from Ordnance Survey 1st Edition 1:10560 map, surveyed 1870-1.

Argyllshire, Sheet CX, published 1875. Courtesy of National Library of Scotland. Not to scale. Above: general view of site in context; below: detail showing approximate locations of buildings identified on site.



Plate 1 View across site from N, showing Building A in foreground.



Plate 2 Building A from NE

Results

Site Survey

The DGPS survey can be found at the end of this report (Figure 6). The site was found to consist of rocky outcrops with areas of former cultivation and settlement between. A roofed building and several other structures are shown on the 1st edition Ordnance Survey 1:10560 map (surveyed 1870-1; see Fig 3 above). A trackway is shown providing access to the site from the north, and running south-east from the roofed building to a second, partly roofed building. Evidence of this track was seen on the ground, but this was curved, not straight as shown on the map. A straight line would have been impossible in practice as it would cut across one of these outcrops.

Table 1 Features identified during survey

Feature	OS Location	External Dimensions	Comments
	(Centred: E, N)	(approx)	
Building A	185515, 725111	6.2 x 10.6m	Dressed stone walls c.
			0.75m wide, c. 0.7m
			high
Building B	185560,725045	6.4 x 17.4m	Visible as ill-defined,
			grass-covered banks 0.3
			– 0.4m high, spread 3 –
			4.5m. Rubble collapse
			internally.
Building C	185530,725125	7.5 x 14.2m	Visible as ill-defined,
			grass-covered banks 0.3
			– 0.4m high, spread 3 –
			4.5m. No doorway
			visible in sides
Building D	185516,725067	17.6 x 11m but hard to	Visible as ill-defined,
		define. Possible	grass-covered banks 0.3
		additional element to	- 0.4m high, spread
		W: 8 x 7m	c.4m. No clear
	105512 505111		doorway.
Enclosure (E of Bdg A)	185542, 725111	20m x 18m	Visible as grass-covered
			bank $0.3 - 0.5$ m high
	105500 505050	15 10	spread 3 – 5m
Enclosure (N of Bdg D)	185502,725072	c.15m x 13m	Visible as grass-covered
			bank with some stone
			rubble visible, c. 0.3 –
			0.5m high spread 3 –
			5m

Of the northern (roofed) building (Building A) only the footings were found to survive in 2010 (see plates 1 and 2 above). It had been substantially built of large, dressed local stone, with a single, central doorway facing south. This is typical of 19th c. estate construction and it seems likely to have been for a shepherd. It appears to stand on the site of an earlier, longer house on the same alignment, although the evidence is obscured by rubble spreads. If this interpretation is correct it may be that the enclosure lying to its east (see Fig 6) represents the remains of a sheep-pen.



Plate 3 Building B from W

The southern building of the two (Building B) appears as mostly unroofed in 1870-1, apart from the eastern end. It is tempting to see this roof as a kennel for sheepdogs but there is no evidence to prove this. Only footings survive of this building, which is of rough, undressed field stone. The central doorway faces north. There may be the remains of an enclosure – perhaps a kailyard – attached to the south.

The grass-covered footings of a third rectangular building (Building C) lie at right angles to, and E of Building A. This is not shown on the 1870-1 map; the entrances are also unclear. It may be a barn associated with Building A's predecessor. The construction details were obscured by vegetation but it seems likelt to have been timber framed with turf infill on a rough base of undressed fieldstone.

A fourth, completely unroofed, building with attached yard (Building D) is shown due south of Building A on the 1st Edition map. It sits on a rocky knoll. This appears to be an earlier building altogether and seen only as grass covered footings. Despite rubble heaps, the quantity of stone seemed small for a stone-built cottage so again, this may have been timber framed with an infill, at least partly of turf.

These buildings are located around a central area of former arable land (see survey - Fig 3 - located at the end of this report), and seem to offer evidence of a former fermtoun, replaced by an estate shepherd in Building A in the 19^{th} c. This is consistent with the description in the 1^{st} and 2^{nd} Statistical Accounts⁵ in the 1790s and 1830s of the raising of rents and depopulation in the parish, followed by Agricultural Improvement. There appear to be further possible footings of buildings and dykes, but the natural lie of

⁵ <u>http://stat-acc-scot.edina.ac.uk/link/1791-99/Argyle/Kilmore%20and%20Kilbride/; http://stat-acc-scot.edina.ac.uk/link/1834-45/Argyle/Kilmore%20and%20Kilbride/</u>

the land here is very uneven with hollows and rock outcrops so more detailed survey would be required to clarify this⁶.



Plate 4 Building C, looking N



Plate 5 Building D (in foreground) View from SW

 $^{^6}$ The settlement is shown on Roy's map (1747-1755) as 'Easter Ardowran', which would support the identification of a possible earlier structure underlying Building A. *Martin O'Hare, pers. comm.*



Plate 6 Enclosure before excavation, from W

Plate 7 Enclosure bank, roughly sectioned to show make-up

Topsoil Strip

The observed excavation of the topsoil removed between 60cm and 90cm of stony, but cultivated, topsoil onto natural periglacial moraines consisting of mixed boulder clay, sands and gravels. The existing access track was extended to the house site and in this area the machine encountered bedrock in the form of frost-shattered shale. The depth of soil was greatest in the S of the site which seemed to be an area of former cultivation. There has also been considerable slippage of soil from the rock outcrops.

The excavation for the house site impinged on the enclosure previously noted, which was visible as a low grass-covered bank. It stood between 0.3-0.5m high and 2-3m wide. In this area excavation was undertaken with great care. It was immediately clear that this bank overlay



up to 0.7m of topsoil, and consisted of loose rubble with no built structure.

It was interpreted as the base for a peat dyke that has since disappeared. Two sherds of abraded 20^{th} c. pottery and a broken beer bottle of similar date were noted in the make-up, but these were unstratified and not retained. There was no evidence of earlier finds. The enclosure was probably a sheep pen associated with House A.

Table 2 Features recorded within topsoil strip area

No.	OS Location (Centred: E,	Dimensions (approx)	Characteristics	Interpretation
	N)			
F1	185535,725103		sub-rectangular pit	Probable tree bole. No dating evidence
F2	185537,725102		V-shaped ditch	Simple spade cut drain for wet area. No dating evidence
F3	185528,725098		Linear feature (irregular)	Natural watercourse or drain extension. No dating evidence

Directly below this bank, two features were noted in the surface of the natural subsoil. A further possible feature was investigated

Feature 1 was a sub-rectangular pit visible in the corner of the excavation trench. Its full northern extent was not revealed but the feature as revealed was cleaned and a section was then cut across it, taking out the southern half (Section5) It immediately became apparent that this was a shallow and irregular feature. Although it could represent the base of a rough pit cut through the topsoil, perhaps a cess pit or similar (there were no finds) it appears to be a tree-root hole from a shallow-rooted species.

Feature 2 was the base of a spade-cut, V-shaped ditch, clearly cut to drain a wet hollow. Again, no dating evidence was available. A section was removed (Sections 1 and 2) and the two ends also removed to provide Sections 3 and 4.

Feature 3 was elongated and very irregular in shape. It was investigated and appeared to represent a natural watercourse, though it might represent a very roughly-cut extension of feature 2.

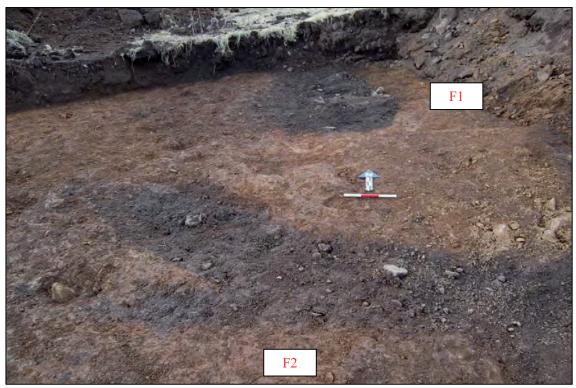


Plate 8 Features 1 and 2, from S



Plate 9 Section through Feature 1 - view N



Plate 10 Box section through Feature 2 – view SW

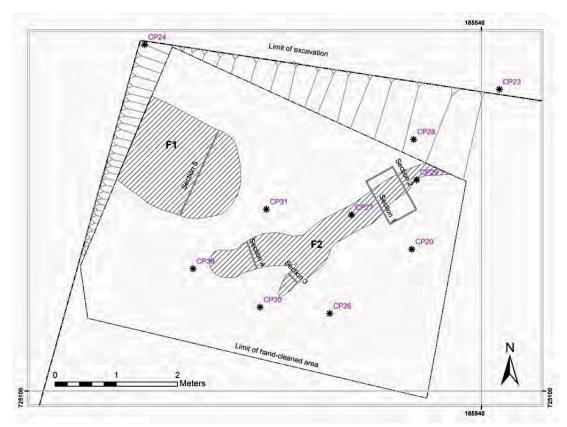


Figure 3 Features 1 and 2, within cleaned area in NW corner of house site (including camera points)



Plate 11 Feature 3, from S

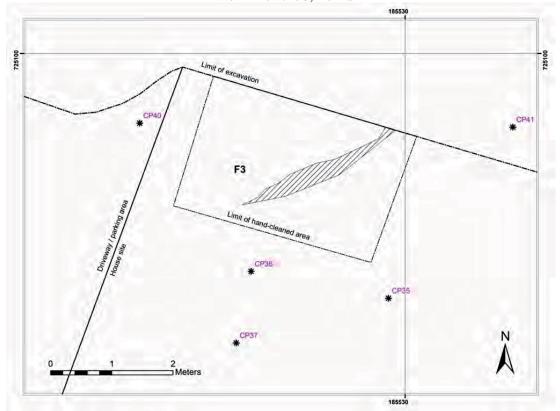


Figure 4 Feature 3



Plate 12 Driveway stripping in progress - bedrock close to surface.

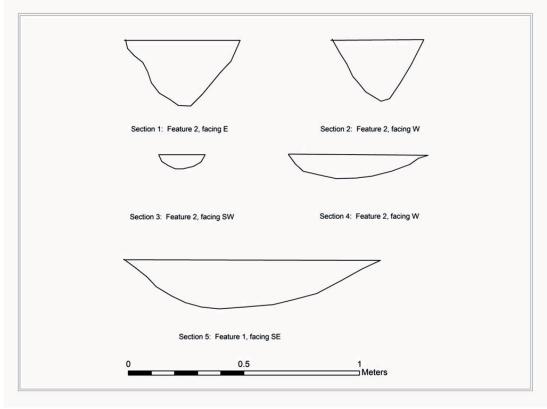


Figure 5 Section drawings

Once the house site itself had been stripped, an extension of the trench was made for a driveway and parking area linking to the existing modern access road. This uncovered frost-shattered bedrock over almost the entire area.

Conclusions and Recommendations

The development was found to occupy the site of a former hamlet or fermtoun. Four buildings were noted around the edge of a central area of arable. This appeared to have been succeeded by an estate cottage, perhaps for a shepherd, in the mid 19th c.

However, an enclosure bank cut by the footprint of the new house was found to be of late date and the only features noted cut into the subsoil appeared to be of minimal cultural significance.

There are no recommendations for follow-up work in this case.

Photographs

Photo Number	Camera Point	Direction (facing)	Location	Taken by	Date
DSC_0037	CP1	NW	View across site pre- excavation. Yellow tape indicates plot boundary	JW	09/03/2010
DSC_0038	CP1	NNW	View across site pre- excavation. Yellow tape indicates plot boundary	JW	09/03/2010
DSC 0039	CP1	N	View across site pre- excavation. Yellow tape indicates plot boundary	JW	09/03/2010
DSC_0040	CP1	NNE	View across site pre- excavation. Yellow tape indicates plot boundary	JW	09/03/2010
DSC 0041	CP1	NE	View across site pre- excavation. Yellow tape indicates plot boundary	JW	09/03/2010
DSC 0042	CP1	ENE	View across site pre- excavation. Yellow tape indicates plot boundary	JW	09/03/2010
DSC 0043	CP1	E	View across site pre- excavation. Yellow tape indicates plot boundary	JW	09/03/2010
DSC 0044	CP2	NW	View across site pre- excavation. Yellow tape indicates plot boundary	JW	09/03/2010
DSC 0045	CP2	W	View across site pre- excavation. Yellow tape indicates plot boundary	JW	09/03/2010
DSC_0046	CP2	SW	View across site pre- excavation. Yellow tape indicates plot boundary	JW	09/03/2010
DSC_0047	CP3	NW	View across site pre- excavation. Yellow tape indicates plot boundary	JW	09/03/2010
DSC_0048	CP3	W	View across site pre- excavation. Yellow tape indicates plot boundary	JW	09/03/2010
DSC_0049	CP3	SW	View across site pre- excavation. Yellow tape indicates plot boundary	JW	09/03/2010
DSC_0050	CP4	NW	View across site pre- excavation. Yellow tape indicates plot boundary	JW	09/03/2010

Photo Number	Camera Point	Direction (facing)	Location	Taken by	Date
DSC_0051	CP5	NNW	View across site pre- excavation. Yellow tape indicates plot boundary	JW	09/03/2010
DSC_0052	CP5	NNE	View across site pre- excavation. Yellow tape indicates plot boundary	JW	09/03/2010
DSC_0053	CP5	NE	View across site pre- excavation. Yellow tape indicates plot boundary	JW	09/03/2010
DSC 0054	CP5	ENE	Excavation starting. Yellow tape indicates plot boundary; marker line = excavation area	JW	09/03/2010
DSC 0055	CP5	E	Excavation starting. Yellow tape indicates plot boundary; marker line = excavation area	JW	09/03/2010
DSC_0056	CP6	ESE	Excavation starting - view across site	JW	09/03/2010
DSC_0057	CP6	E	Excavation starting - view across site	JW	09/03/2010
DSC_0058	CP6	SSE	Excavation starting - view across site	JW	09/03/2010
DSC_0059	CP7	SE	Excavation starting - view across site	JW	09/03/2010
DSC_0060	CP7	NE	Excavation starting - view across site	JW	09/03/2010
DSC_0061	CP7	NNE	Building C	JW	09/03/2010
DSC_0062	CP7	N NANA/	Building C	JW	09/03/2010
DSC_0063 DSC_0064	CP7	NNW NW	Building C Building C	JW	09/03/2010
DSC_0004	CP7	WNW	Building A	JW	09/03/2010
DSC_0066	CP7	W	Building A	JW	09/03/2010
DSC_0067	CP8	SW	View across site pre- excavation	JW	09/03/2010
DSC_0068	CP8	N	View from site pre- excavation	JW	09/03/2010
DSC_0069	CP9	NW	View across site pre- excavation	JW	09/03/2010
DSC_0070	CP10	SE	Former gatepost	JW	09/03/2010
DSC_0071	CP10	NW	View across site pre- excavation	JW	09/03/2010
DSC_0072	CP11	WSW	Building A	JW	09/03/2010
DSC_0073	CP11	NNW	Building A	JW	09/03/2010
DSC_0074	CP12	WSW	Building A	JW	09/03/2010
DSC_0075	CP12	SSE	Building A	JW	09/03/2010

Photo Number	Camera Point	Direction (facing)	Location	Taken by	Date
DSC_0076	CP13	ENE	Building A	JW	09/03/2010
DSC 0077	CP13	SSE	Building A	JW	09/03/2010
DSC 0078	CP14	ENE	Building A	JW	09/03/2010
DSC 0079	CP14	N	Building A	JW	09/03/2010
DSC 0080	CP15	ENE	Building A	JW	09/03/2010
DSC 0081	CP16	NNW	Building A	JW	09/03/2010
DSC 0082	CP17	WSW	Building A	JW	09/03/2010
DSC 0083	CP18	SSE	Building A	JW	09/03/2010
DSC 0084	CP7	SE	Enclosure before excavation	JW	09/03/2010
DSC 0085	CP7	ENE	Enclosure before excavation	JW	09/03/2010
DSC 0086	CP19	W	Enclosure before excavation	JW	09/03/2010
DSC 0087	CP19	NW	Enclosure before excavation	JW	09/03/2010
DSC 0088	CP20	E	Cutting through enclosure bank	JW	09/03/2010
DSC_0089	CP20	W	Cutting through enclosure bank	JW	09/03/2010
DSC_0090	CP20	NNE	Cutting through enclosure bank	JW	09/03/2010
DSC_0091	CP21	W	Excavation in progress	JW	09/03/2010
DSC_0092	CP22	NW	Cleaned area A showing features 1 and 2	JW	09/03/2010
DSC 0093	CP23	SSW	Cleaned area A showing features 1 and 2	JW	09/03/2010
DSC 0094	CP24	SE	Cleaned area A showing features 1 and 2	JW	09/03/2010
DSC 0095	CP25	NE	Cleaned area A showing features 1 and 2	JW	09/03/2010
DSC 0096	CP26	NW	Cleaned area A showing features 1 and 2	JW	09/03/2010
DSC 0097	CP20	NW	Cleaned area A showing features 1 and 2	JW	09/03/2010
DSC 0098	CP27	NE	Section 1 through F2	JW	09/03/2010
DSC_0099	CP20	NW	Excavated Section through F2	JW	09/03/2010
DSC 0100	CP20	NW	Section 2 through F2	JW	09/03/2010
DSC_0101	CP29	SW	Excavated Section through F2	JW	09/03/2010
DSC 0102	CP39	ENE	Section 4 through F2	JW	09/03/2010
DSC 0103	CP39	ENE	Section 4 through F2	JW	09/03/2010
DSC 0104	CP30	NE	Sections 3,4 through F2	JW	09/03/2010
DSC_0105	CP30	NE	Section 3 through F2 - zoom	JW	09/03/2010
DSC 0106	CP31	WNW	Section 5 through F1	JW	09/03/2010
DSC 0107	CP31	WNW	Section 5 through F1	JW	09/03/2010
DSC 0108	CP32	N	Driveway - bedrock visible	JW	10/03/2010
DSC 0109	CP33	WNW	Driveway - bedrock visible	JW	10/03/2010
DSC 0110	CP33	WNW	Driveway - bedrock visible	JW	10/03/2010
DSC 0111	CP34	NE	Driveway - bedrock visible	JW	10/03/2010
DSC_0112	CP34	N	Driveway - bedrock visible	JW	10/03/2010

DSC 0113 CP34 NW	Photo Number	Camera Point	Direction (facing)	Location	Taken by	Date
DSC 0114 CP35 NNW	DSC_0113	CP34	NW	Driveway - bedrock visible	JW	10/03/2010
DSC 0115 CP36	DSC_0114	CP35	NNW		JW	10/03/2010
DSC_0116 CP37 NNE features 1 and 2 JW 10/03/2010 DSC_0117 CP38 SSW Feature 3 JW 10/03/2010 DSC_0118 CP38 SSW Feature 3 JW 10/03/2010 DSC_0119 CP40 ESE Feature 3 JW 10/03/2010 DSC_0120 CP40 SE General view across trench JW 10/03/2010 DSC_0121 CP40 ENE General view across trench JW 10/03/2010 DSC_0122 CP40 E General view across trench JW 10/03/2010 DSC_0123 CP40 SE General view across trench JW 10/03/2010 DSC_0124 CP40 SS General view across trench JW 10/03/2010 DSC_0125 CP40 SS General view across trench JW 10/03/2010 DSC_0126 CP41 SE General view across trench JW 10/03/2010 DSC_0127 CP41 E General view across trench	DSC_0115	CP36	NNW	•	JW	10/03/2010
DSC 0117 CP38 SSW	DSC_0116	CP37	NNE		JW	10/03/2010
DSC_0118 CP38 SSW Feature 3 JW 10/03/2010 DSC_0119 CP40 ESE Feature 3 JW 10/03/2010 DSC_0120 CP40 SE General view across trench JW 10/03/2010 DSC_0121 CP40 ENE General view across trench JW 10/03/2010 DSC_0122 CP40 SE General view across trench JW 10/03/2010 DSC_0123 CP40 SE General view across trench JW 10/03/2010 DSC_0124 CP40 SSE General view across trench JW 10/03/2010 DSC_0125 CP40 S General view across trench JW 10/03/2010 DSC_0126 CP41 SE General view across trench JW 10/03/2010 DSC_0128 CP41 E General view across trench JW 10/03/2010 DSC_0130 CP41 NNE General view across trench JW 10/03/2010 DSC_0131 CP24 SSE General view acr	DSC_0117	CP38	SSW	Feature 3	JW	10/03/2010
DSC 0119 CP40 ESE Feature 3 JW 10/03/2010 DSC 0120 CP40 SE General view across trench JW 10/03/2010 DSC 0121 CP40 ENE General view across trench JW 10/03/2010 DSC 0122 CP40 E General view across trench JW 10/03/2010 DSC 0123 CP40 SE General view across trench JW 10/03/2010 DSC 0124 CP40 SSE General view across trench JW 10/03/2010 DSC 0125 CP40 S General view across trench JW 10/03/2010 DSC 0126 CP41 SSE General view across trench JW 10/03/2010 DSC 0127 CP41 SE General view across trench JW 10/03/2010 DSC 0128 CP41 E NE General view across trench JW 10/03/2010 DSC 0130 CP41 NNE General view across trench JW 10/03/2010 DSC 0131 CP24 SSE General view across trench JW 10/03/2010 DSC 0133 CP24 SW General view across tr	DSC_0118	CP38	SSW		JW	10/03/2010
DSC_0121 CP40 ENE General view across trench JW 10/03/2010 DSC_0122 CP40 E General view across trench JW 10/03/2010 DSC_0123 CP40 SE General view across trench JW 10/03/2010 DSC_0124 CP40 SSE General view across trench JW 10/03/2010 DSC_0125 CP40 S General view across trench JW 10/03/2010 DSC_0126 CP41 SSE General view across trench JW 10/03/2010 DSC_0127 CP41 SE General view across trench JW 10/03/2010 DSC_0128 CP41 E General view across trench JW 10/03/2010 DSC_0130 CP41 ENE Features 1 and 2 10/03/2010 DSC_0131 CP24 SSE General view across trench JW 10/03/2010 DSC_0132 CP24 S General view across trench JW 10/03/2010 DSC_0132 CP24 SW General view ac	_	<u> </u>		Feature 3		
DSC_0122 CP40 E General view across trench JW 10/03/2010 DSC_0123 CP40 SE General view across trench JW 10/03/2010 DSC_0124 CP40 SSE General view across trench JW 10/03/2010 DSC_0126 CP40 S General view across trench JW 10/03/2010 DSC_0126 CP41 SSE General view across trench JW 10/03/2010 DSC_0126 CP41 SE General view across trench JW 10/03/2010 DSC_0127 CP41 E General view across trench JW 10/03/2010 DSC_0128 CP41 E General view across trench JW 10/03/2010 DSC_0130 CP41 NNE General view across trench JW 10/03/2010 DSC_0131 CP24 SSE General view across trench JW 10/03/2010 DSC_0132 CP24 SSW General view across trench JW 10/03/2010 DSC_0133 CP24 SW <td>_</td> <td></td> <td></td> <td></td> <td></td> <td></td>	_					
DSC_0123 CP40 SE General view across trench JW 10/03/2010 DSC_0124 CP40 SSE General view across trench JW 10/03/2010 DSC_0125 CP40 S General view across trench JW 10/03/2010 DSC_0126 CP41 SSE General view across trench JW 10/03/2010 DSC_0127 CP41 SE General view across trench JW 10/03/2010 DSC_0128 CP41 E General view across trench JW 10/03/2010 DSC_0129 CP41 ENE Features 1 and 2 JW 10/03/2010 DSC_0130 CP41 NNE General view across trench JW 10/03/2010 DSC_0131 CP24 SSE General view across trench JW 10/03/2010 DSC_0132 CP24 SSW General view across trench JW 10/03/2010 DSC_0133 CP24 SW General view across trench JW 10/03/2010 DSC_0134 CP24 SW		1				
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DSC 0125 CP40 S General view across trench JW 10/03/2010				General view across trench		-
DSC_0126 CP41 SSE General view across trench JW 10/03/2010 DSC_0127 CP41 SE General view across trench JW 10/03/2010 DSC_0128 CP41 E General view across trench JW 10/03/2010 DSC_0129 CP41 ENE General view across trench JW 10/03/2010 DSC_0130 CP41 NNE General view across trench JW 10/03/2010 DSC_0131 CP24 SSE General view across trench JW 10/03/2010 DSC_0132 CP24 S General view across trench JW 10/03/2010 DSC_0133 CP24 SW General view across trench JW 10/03/2010 DSC_0134 CP24 SW General view across trench JW 10/03/2010 DSC_0135 CP7 SSE General view across trench JW 10/03/2010 DSC_0136 CP7 SSW General view across trench JW 10/03/2010 DSC_0137 CP42 SW </td <td>_</td> <td><u> </u></td> <td></td> <td>General view across trench</td> <td></td> <td></td>	_	<u> </u>		General view across trench		
DSC_0127 CP41 SE General view across trench JW 10/03/2010 DSC_0128 CP41 E General view across trench JW 10/03/2010 DSC_0129 CP41 ENE General view across trench Features 1 and 2 JW 10/03/2010 DSC_0130 CP41 NNE General view across trench JW 10/03/2010 DSC_0131 CP24 SSE General view across trench JW 10/03/2010 DSC_0132 CP24 S General view across trench JW 10/03/2010 DSC_0133 CP24 SW General view across trench JW 10/03/2010 DSC_0134 CP24 SW General view across trench JW 10/03/2010 DSC_0135 CP7 SSE General view across trench JW 10/03/2010 DSC_0136 CP7 SSW General view across trench JW 10/03/2010 DSC_0138 CP42 SW General view across trench JW 10/03/2010 DSC_0140 CP42		<u> </u>	_	General view across trench		
DSC 0128 CP41 E General view across trench JW 10/03/2010	_			General view across trench		10/03/2010
DSC 0129 CP41 ENE		<u> </u>		General view across trench		10/03/2010
DSC_0129 CP41 ENE Features 1 and 2 JW 10/03/2010 DSC_0130 CP41 NNE General view across trench JW 10/03/2010 DSC_0131 CP24 SSE General view across trench JW 10/03/2010 DSC_0132 CP24 S General view across trench JW 10/03/2010 DSC_0133 CP24 SW General view across trench JW 10/03/2010 DSC_0134 CP24 SW General view across trench JW 10/03/2010 DSC_0135 CP7 SSE General view across trench JW 10/03/2010 DSC_0136 CP7 SSW General view across trench JW 10/03/2010 DSC_0137 CP42 SW General view across trench JW 10/03/2010 DSC_0138 CP42 SW General view across trench JW 10/03/2010 DSC_0140 CP42 SW General view across trench JW 10/03/2010 DSC_0144 CP21 NW	DSC_0128	CP41	E	General view across trench	JW	10/03/2010
DSC_0131 CP24 SSE General view across trench JW 10/03/2010 DSC_0132 CP24 S General view across trench JW 10/03/2010 DSC_0133 CP24 SSW General view across trench JW 10/03/2010 DSC_0134 CP24 SW General view across trench JW 10/03/2010 DSC_0135 CP7 SSE General view across trench JW 10/03/2010 DSC_0136 CP7 SSW General view across trench JW 10/03/2010 DSC_0137 CP42 SSW General view across trench JW 10/03/2010 DSC_0138 CP42 SW General view across trench JW 10/03/2010 DSC_0139 CP42 SW General view across trench JW 10/03/2010 DSC_0140 CP42 SW General view across trench JW 10/03/2010 DSC_0141 CP21 NW General view across trench JW 10/03/2010 DSC_0144 CP21 N <td>DSC_0129</td> <td>CP41</td> <td>ENE</td> <td></td> <td>JW</td> <td>10/03/2010</td>	DSC_0129	CP41	ENE		JW	10/03/2010
DSC 0132 CP24 S General view across trench JW 10/03/2010 DSC 0133 CP24 SSW General view across trench JW 10/03/2010 DSC 0134 CP24 SW General view across trench JW 10/03/2010 DSC 0135 CP7 SSE General view across trench JW 10/03/2010 DSC 0136 CP7 SSW General view across trench JW 10/03/2010 DSC 0137 CP42 SSW General view across trench JW 10/03/2010 DSC 0138 CP42 SW General view across trench JW 10/03/2010 DSC 0139 CP42 SW General view across trench JW 10/03/2010 DSC 0140 CP42 SW General view across trench JW 10/03/2010 DSC 0141 CP21 W General view across trench JW 10/03/2010 DSC 0143 CP21 N General view across trench JW 10/03/2010 DSC 0146 CP43 WNW <td>DSC_0130</td> <td>CP41</td> <td>NNE</td> <td>General view across trench</td> <td>JW</td> <td>10/03/2010</td>	DSC_0130	CP41	NNE	General view across trench	JW	10/03/2010
DSC 0133 CP24 SSW General view across trench JW 10/03/2010 DSC 0134 CP24 SW General view across trench JW 10/03/2010 DSC 0135 CP7 SSE General view across trench JW 10/03/2010 DSC 0136 CP7 SSW General view across trench JW 10/03/2010 DSC 0137 CP42 SSW General view across trench JW 10/03/2010 DSC 0138 CP42 SW General view across trench JW 10/03/2010 DSC 0139 CP42 SW General view across trench JW 10/03/2010 DSC 0140 CP42 SW General view across trench JW 10/03/2010 DSC 0141 CP21 W General view across trench JW 10/03/2010 DSC 0142 CP21 N General view across trench JW 10/03/2010 DSC 0144 CP21 N General view across trench JW 10/03/2010 DSC 0146 CP43 WNW <td>DSC_0131</td> <td>CP24</td> <td>SSE</td> <td>General view across trench</td> <td>JW</td> <td>10/03/2010</td>	DSC_0131	CP24	SSE	General view across trench	JW	10/03/2010
DSC_0134 CP24 SW General view across trench JW 10/03/2010 DSC_0135 CP7 SSE General view across trench JW 10/03/2010 DSC_0136 CP7 SSW General view across trench JW 10/03/2010 DSC_0137 CP42 SSW General view across trench JW 10/03/2010 DSC_0138 CP42 SW General view across trench JW 10/03/2010 DSC_0139 CP42 SW General view across trench JW 10/03/2010 DSC_0140 CP42 SW General view across trench JW 10/03/2010 DSC_0141 CP21 W General view across trench - drivew across trench JW 10/03/2010 DSC_0142 CP21 N General view across trench JW 10/03/2010 DSC_0143 CP21 N General view across trench JW 10/03/2010 DSC_0144 CP21 N General view across trench - drivew across trench - d	DSC_0132	CP24	S	General view across trench	JW	10/03/2010
DSC_0135 CP7 SSE General view across trench JW 10/03/2010 DSC_0136 CP7 SSW General view across trench JW 10/03/2010 DSC_0137 CP42 SSW General view across trench JW 10/03/2010 DSC_0138 CP42 SW General view across trench JW 10/03/2010 DSC_0139 CP42 SW General view across trench JW 10/03/2010 DSC_0140 CP42 SW General view across trench JW 10/03/2010 DSC_0141 CP21 W General view across trench - driveway under excavation JW 10/03/2010 DSC_0142 CP21 N General view across trench JW 10/03/2010 DSC_0143 CP21 N General view across trench JW 10/03/2010 DSC_0144 CP21 N General view across trench - driveway under excavation JW 10/03/2010 DSC_0145 CP43 WNW driveway under excavation JW 10/03/2010 D	DSC_0133	CP24	SSW	General view across trench	JW	10/03/2010
DSC_0136 CP7 SSW General view across trench JW 10/03/2010 DSC_0137 CP42 SSW General view across trench JW 10/03/2010 DSC_0138 CP42 SW General view across trench JW 10/03/2010 DSC_0139 CP42 SW General view across trench JW 10/03/2010 DSC_0140 CP42 SW General view across trench JW 10/03/2010 DSC_0140 CP42 SW General view across trench JW 10/03/2010 DSC_0141 CP21 W General view across trench - driveway under excavation JW 10/03/2010 DSC_0142 CP21 N General view across trench JW 10/03/2010 DSC_0143 CP21 N General view across trench JW 10/03/2010 DSC_0144 CP21 N General view across trench - driveway under excavation JW 10/03/2010 DSC_0146 CP43 WNW MWW driveway under excavation JW 10/03/2010	DSC_0134	CP24	SW	General view across trench	JW	10/03/2010
DSC_0137 CP42 SSW General view across trench JW 10/03/2010 DSC_0138 CP42 SW General view across trench JW 10/03/2010 DSC_0139 CP42 SW General view across trench JW 10/03/2010 DSC_0140 CP42 SW General view across trench JW 10/03/2010 DSC_0140 CP42 SW General view across trench JW 10/03/2010 DSC_0141 CP21 W General view across trench - drivew across trench JW 10/03/2010 DSC_0142 CP21 N General view across trench JW 10/03/2010 DSC_0143 CP21 N General view across trench JW 10/03/2010 DSC_0144 CP21 N General view across trench - driveway under excavation JW 10/03/2010 DSC_0145 CP43 WNW Miveway under excavation JW 10/03/2010 DSC_0147 Deleted JW 10/03/2010 DSC_0148 Deleted JW <	DSC_0135	CP7	SSE	General view across trench	JW	10/03/2010
DSC_0138 CP42 SW General view across trench JW 10/03/2010 DSC_0139 CP42 SW General view across trench JW 10/03/2010 DSC_0140 CP42 SW General view across trench JW 10/03/2010 DSC_0140 CP21 W General view across trench - driveway under excavation JW 10/03/2010 DSC_0142 CP21 NW General view across trench JW 10/03/2010 DSC_0143 CP21 N General view across trench JW 10/03/2010 DSC_0144 CP21 N General view across trench - driveway under excavation JW 10/03/2010 DSC_0145 CP43 WNW General view across trench - driveway under excavation JW 10/03/2010 DSC_0147 Deleted JW 10/03/2010 DSC_0148 Deleted JW 10/03/2010	DSC_0136	CP7	SSW	General view across trench	JW	10/03/2010
DSC_0139 CP42 SW General view across trench JW 10/03/2010 DSC_0140 CP42 SW General view across trench JW 10/03/2010 DSC_0141 CP21 W General view across trench - driveway under excavation JW 10/03/2010 DSC_0142 CP21 NW General view across trench JW 10/03/2010 DSC_0143 CP21 N General view across trench JW 10/03/2010 DSC_0144 CP21 N General view across trench JW 10/03/2010 DSC_0145 CP43 NW General view across trench - driveway under excavation JW 10/03/2010 DSC_0146 CP43 WNW MWNW JW 10/03/2010 DSC_0147 Deleted JW 10/03/2010 DSC_0148 Deleted JW 10/03/2010	DSC_0137	CP42	SSW	General view across trench	JW	10/03/2010
DSC_0140 CP42 SW General view across trench JW 10/03/2010 DSC_0141 CP21 W General view across trench - driveway under excavation JW 10/03/2010 DSC_0142 CP21 NW General view across trench JW 10/03/2010 DSC_0143 CP21 N General view across trench JW 10/03/2010 DSC_0144 CP21 N General view across trench JW 10/03/2010 DSC_0145 CP43 NW General view across trench - driveway under excavation JW 10/03/2010 DSC_0146 CP43 WNW MWW JW 10/03/2010 DSC_0147 Deleted JW 10/03/2010 DSC_0148 Deleted JW 10/03/2010	DSC_0138	CP42	SW	General view across trench	JW	10/03/2010
DSC_0141 CP21 W General view across trench - driveway under excavation JW 10/03/2010 DSC_0142 CP21 NW General view across trench JW 10/03/2010 DSC_0143 CP21 N General view across trench JW 10/03/2010 DSC_0144 CP21 N General view across trench JW 10/03/2010 DSC_0145 CP43 NW General view across trench - driveway under excavation JW 10/03/2010 DSC_0146 CP43 WNW MWW JW 10/03/2010 DSC_0147 Deleted JW 10/03/2010 DSC_0148 Deleted JW 10/03/2010	DSC_0139	CP42	SW	General view across trench	JW	10/03/2010
DSC_0141 CP21 W driveway under excavation JW 10/03/2010 DSC_0142 CP21 NW General view across trench JW 10/03/2010 DSC_0143 CP21 N General view across trench JW 10/03/2010 DSC_0144 CP21 N General view across trench JW 10/03/2010 DSC_0145 CP43 NW driveway under excavation JW 10/03/2010 DSC_0146 CP43 WNW driveway under excavation JW 10/03/2010 DSC_0147 Deleted JW 10/03/2010 DSC_0148 Deleted JW 10/03/2010	DSC_0140	CP42	SW	General view across trench	JW	10/03/2010
DSC_0143 CP21 N General view across trench JW 10/03/2010 DSC_0144 CP21 N General view across trench JW 10/03/2010 DSC_0145 CP43 NW General view across trench - driveway under excavation JW 10/03/2010 DSC_0146 CP43 WNW MWW JW 10/03/2010 DSC_0147 Deleted JW 10/03/2010 DSC_0148 Deleted JW 10/03/2010	DSC_0141	CP21	W		JW	10/03/2010
DSC_0144 CP21 N General view across trench JW 10/03/2010 DSC_0145 CP43 NW General view across trench - driveway under excavation JW 10/03/2010 DSC_0146 CP43 WNW General view across trench - driveway under excavation JW 10/03/2010 DSC_0147 Deleted JW 10/03/2010 DSC_0148 Deleted JW 10/03/2010	DSC 0142	CP21	NW	1	JW	10/03/2010
DSC_0144 CP21 N General view across trench JW 10/03/2010 DSC_0145 CP43 NW General view across trench - driveway under excavation JW 10/03/2010 DSC_0146 CP43 WNW General view across trench - driveway under excavation JW 10/03/2010 DSC_0147 Deleted JW 10/03/2010 DSC_0148 Deleted JW 10/03/2010	DSC 0143	CP21	N	General view across trench	JW	
DSC_0145 CP43 NW General view across trench - driveway under excavation JW 10/03/2010 DSC_0146 CP43 WNW General view across trench - driveway under excavation JW 10/03/2010 DSC_0147 Deleted JW 10/03/2010 DSC_0148 Deleted JW 10/03/2010		1		i	JW	
DSC_0146 CP43 WNW General view across trench - driveway under excavation JW 10/03/2010 DSC_0147 Deleted JW 10/03/2010 DSC_0148 Deleted JW 10/03/2010			NW	General view across trench -	JW	
DSC_0147 Deleted JW 10/03/2010 DSC_0148 Deleted JW 10/03/2010	_			General view across trench -	JW	
DSC_0148 Deleted JW 10/03/2010		01 40	AAIAAA	1	I\A/	
	_					
	DSC_0146	CP44	ENE	Rock outcrop	JW	10/03/2010

Photo Number	Camera Point	Direction (facing)	Location	Taken by	Date
DSC_0150	CP45	S	Rock outcrop	JW	10/03/2010
DSC_0151	CP43	E	View along trench edge	JW	10/03/2010
DSC_0152	CP43	NE	General view across trench	JW	10/03/2010
DSC_0153	CP43	NNE	General view across trench	JW	10/03/2010
DSC_0154	CP43	N	General view across trench	JW	10/03/2010
DSC_0155	CP43	NW	General view across trench	JW	10/03/2010
DSC_0156	CP43	E	View along trench edge	JW	10/03/2010
DSC_0157	CP43	NE	General view across trench	JW	10/03/2010
DSC_0158	CP43	N	General view across trench	JW	10/03/2010
DSC_0159	CP43	N	General view across trench	JW	10/03/2010
DSC_0160	CP46	N	General view across site, including Building D	JW	10/03/2010
DSC_0161	CP46	NNE	General view across site, including Building D	JW	10/03/2010
DSC_0162	CP46	NE	General view across site	JW	10/03/2010
DSC_0163	CP46	ENE	General view across site	JW	10/03/2010
DSC_0164	CP46	E	General view across site	JW	10/03/2010
DSC_0165	CP46	ESE	General view across site	JW	10/03/2010
DSC_0166	CP46	SE	General view across site	JW	10/03/2010
DSC_0167	CP47	NW	General view across trench as excavated	JW	10/03/2010
DSC_0168	CP48	NE	Building B	JW	10/03/2010
DSC_0169	CP6	SE	General view across trench as excavated; Building A		
DSC_0170	CP49	SE	Building C	JW	10/03/2010
DSC_0171	CP1	N	General view across site; enclosure attached to Building D in foreground	JW	10/03/2010
DSC_0172	CP1	N	General view across site; wall of enclosure attached to Building D on left	JW	10/03/2010
DSC_0173	CP1	NE	General view across site; excavation of driveway being completed	JW	10/03/2010
DSC_0174	CP1	Е	General view across site	JW	10/03/2010
DSC_0175	CP5	W	General view across site; excavation of driveway being completed	JW	10/03/2010
DSC 0176	CP5	NW	General view across trench as excavated	JW	10/03/2010
DSC_0177	CP5	NNW	General view across trench as excavated	JW	10/03/2010
DSC_0178	CP5	NNE	General view across trench as excavated	JW	10/03/2010
DSC_0179	CP5	NE	General view across trench as excavated	JW	10/03/2010

Photo Number	Camera Point	Direction (facing)	Location	Taken by	Date
DSC_0180	CP5	ENE	General view across trench as excavated	JW	10/03/2010
DSC_0181	CP5	E	General view across trench as excavated	JW	10/03/2010
DSC_0182	CP5	E	General view across trench as excavated	JW	10/03/2010
DSC_0183	CP5	NE	General view across trench as excavated	JW	10/03/2010
DSC_0184	CP5	NNE	General view across trench as excavated	JW	10/03/2010
DSC_0185	CP5	N	General view across trench as excavated	JW	10/03/2010
DSC_0186	CP5	NNW	General view across trench as excavated	JW	10/03/2010
DSC_0187	CP5	NW	General view across site; excavation of driveway being completed	JW	10/03/2010
DSC_0188	CP50	E	General view across site; excavation of driveway being completed	JW	10/03/2010
DSC_0189	CP50	ENE	General view across site; excavation of driveway being completed	JW	10/03/2010
DSC_0190	CP50	NE	General view across site; excavation of driveway being completed	JW	10/03/2010
DSC_0191	CP50	NNE	General view across site; excavation of driveway being completed	JW	10/03/2010
DSC_0192	CP50	N	General view across site; excavation of driveway being completed	JW	10/03/2010
DSC_0193	CP50	N	General view across site; excavation of driveway being completed	JW	10/03/2010
DSC_0194	CP50	N	General view across site; bedrock exposed in driveway	JW	10/03/2010

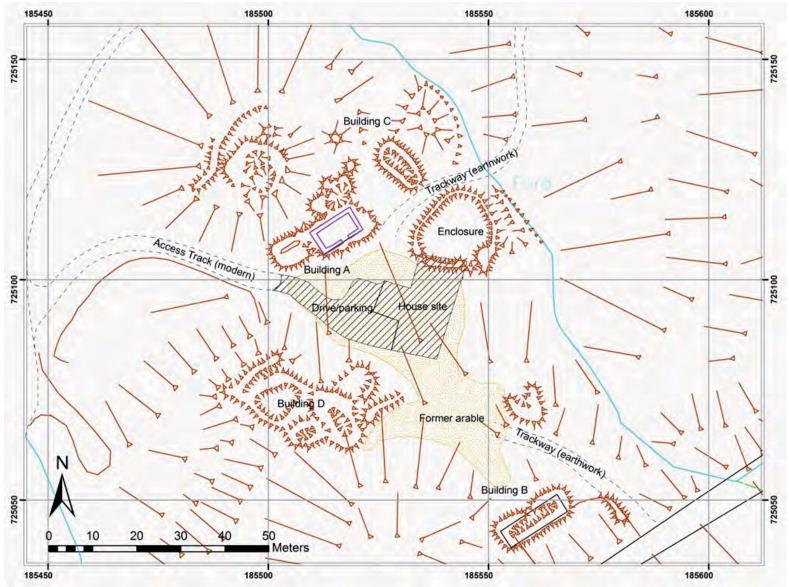


Figure 6 DGPS survey – former township

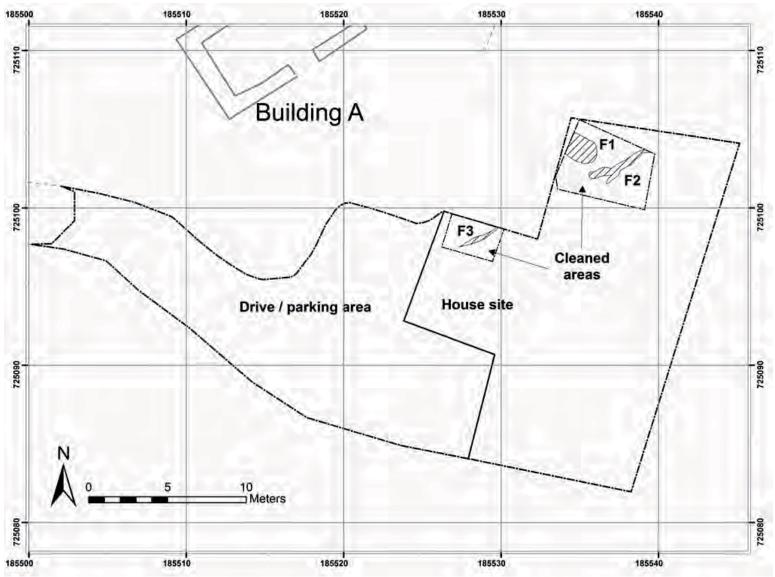


Figure 7 Excavated areas

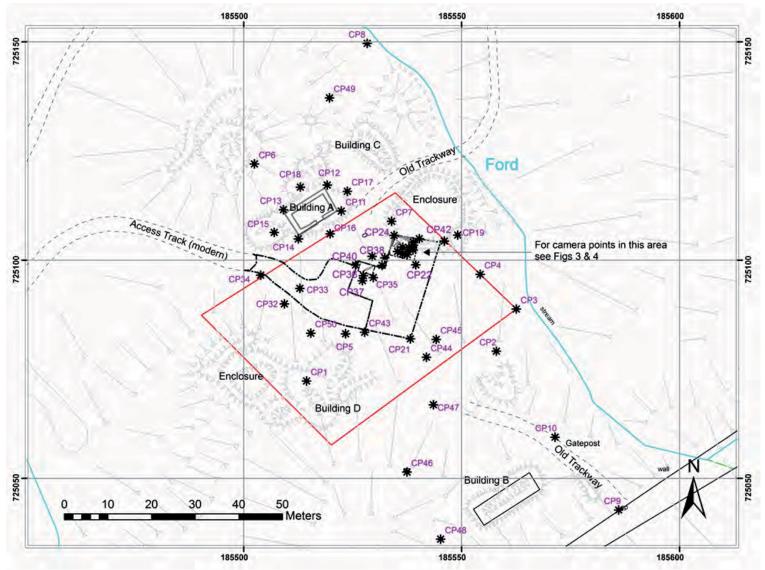


Figure 8 Camera points