



BL02_219: Groundworks over Allt an Lair to E of Lair bridge, view S.

Archaeological Watching Brief
A93 / B951 Lair Junction Improvement
Glenshee
PERTH AND KINROSS
BL02

Alder Archaeology Ltd
55 SOUTH METHVEN STREET
PERTH PH1 5NX
Tel: 01738 622393
Fax: 01738 631626
Director@AlderArchaeology.co.uk

**ARCHAEOLOGICAL WATCHING BRIEF
A93 / B951 LAIR JUNCTION
IMPROVEMENT
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Author Ray Cachart
Illustrator Chris Fyles MA
Editor David Bowler BA(Hons), M Phil, FSA Scot, MifA

ABSTRACT

Alder Archaeology was commissioned by I & H Brown Ltd to undertake an archaeological watching brief (site code BL02) on ground works for the construction of a new bridge and new road realignments for Perth and Kinross Council at the A93/B951 Lair Junction, Glen Shee, Perth and Kinross. A Written Scheme of Investigation was supplied by Alder Archaeology. The settlement of Lair appears on Timothy Pont's map (late 16th century), and on Stobie's 1783 map and subsequent maps. Major Caulfeild's military road passes through Glenshee, and was constructed by 1759. A part of the military road converges with the A93 at the southern tie-in with the new road. There are many prehistoric and early historic sites on higher ground to the W of the A93, but these are outwith the development area, and were not affected. It was considered that other similar unknown sites could have been revealed in the course of the road works, but no further such sites were discovered.

The watching brief took place at various times between 1 July 2013 and 14 August 2014 and was centred on the new bridge construction located at NO 14223 63276. The watching brief recorded natural spreads of stone and other natural deposits as well as some archaeological features such as a stone drain on the northern part of the site to take runoff from the old military road into the field on the opposite side of the road. Some modern finds, pottery and a horseshoe were recovered during the monitoring. Of particular interest was the cutting into the embankment of the old military road on the W side of the A93 at the southern tie-in of the new road where a 19th-century boot was recovered and the construction of the military road embankment was recorded.

1 Background

1.1 Introduction

I & H Brown Ltd commissioned Alder Archaeology to undertake an archaeological watching brief on the site of Lair Junction A93/B951 new bridge and road alignments, centred on the new bridge at NO 14223 63276. The proposed development comprised the construction of a new bridge and the realignment of the A93 and B951 for Perth and Kinross Council. Previously a desk-based assessment and walkover survey had been carried out by Derek Hall in December 2012.

The work (BL02) was undertaken between 1 July 2013 and 14 August 2014. Weather conditions on site during this time were mainly good although there were occasional days of heavy rain. The requirement was to monitor all of the ground-breaking works required for the new bridge and road alignments. Special attention was paid to the excavation into the embankment of the old military road for a new field gate entrance off the A93 at the S end of the development.

The work was designed to satisfy the archaeological condition on development application reference 13/0016/FLL.

1.2 Aims and Objectives

The main aim of this watching brief was to establish and record the presence/absence, date, character and quality of any archaeological remains surviving within the development area. The results of this investigation will be used to enhance the historic environment record, and to guide mitigation strategies for any future developments in the area, especially impinging on remains of the military road.

1.3 Reporting

The present document has been prepared as the final report on this watching brief. Copies will be sent to the client, The Royal Commission on the Ancient and Historical Monuments of Scotland and Perth and Kinross Historic Environment Record.

1.4 Planning and Curatorial Issues

This watching brief is the final part of a programme of archaeological work designed to satisfy the outstanding archaeological condition on the planning consent for this development.

1.5 Acknowledgements

Alder wishes to thank David Barr of I & H Brown Ltd and David Strachan and Sarah Malone of Perth and Kinross Heritage Trust for their assistance and guidance throughout this project. The watching brief was funded by I & H Brown Ltd.

2 Details of Work

2.1 The Site (Illus 1 and 2)

The site comprises the A93/B951 junction and the bridge over the Allt an Lair just to the S of the junction, which lies directly to the W of the confluence of the Allt an Lair

with the Shee Water. The junction suffered from blind bends and steep gradients on the approach roads and an unstable bridge. The improvements comprised the construction of a new bridge just to the E of the unstable bridge and the realignment (slightly to the E) of the A93 approaches. The B913 was also realigned to join the A93 just to the NE of the original junction.

2.2 Archaeological Potential

The Lair Junction Improvement Scheme was the subject of an Environmental Statement (January 2013) prepared by Capita Symonds Ltd for Perth and Kinross Council. This included an archaeological desk-based assessment and walkover survey by Derek Hall (December 2012).

There are no statutory designated sites in the development area, but there are a number of undesignated sites.

The settlement of Lair appears on Timothy Pont's map (late 16th century), and on Stobie's map of 1783 and subsequent maps. Major Caulfeild's military road passes through Glenshee, and was constructed by 1759. This is partly followed by the A93, but in places diverges, becoming visible as a grassy track with upstanding earthworks. At the S end of the development area, a short surviving section of the military road to the W of the A93 coincides with the area where the new alignment of the A93 rejoined the existing alignment. However, the new alignment diverged to the E, and it appeared that the surviving military road would remain largely undisturbed. In the event a field gate was inserted at the S end of the development area which required monitoring of the removal of part of the E embankment of the military road.

At the N end of the development area, the military road is well-preserved, and runs to the W of the existing A93 and its new alignment. This was not disturbed by the road realignment.

The remains of two small settlements, the fermtoun of Easter Lair and the farmstead of Wester Lair, lie close to the development area and are visible as ruins and earthworks. These settlements were not affected by the development.

A small stone cross, a memorial to Miss Van Norden, an American heiress who died after her carriage overturned on Lair Brae in August 1906, lay on the E side of the A93 directly N of the junction. The cross was removed for safe-keeping, and reinstated near its original position when the works were complete.

There were various undulations to the N of the B951 between Lair Junction and the Cray Bridge. These were considered to be possibly natural, in effect part of the ancient flood plain of Shee Water. However, they could have been upcast connected with road construction or some other human activity. The undulations were directly affected by the straightening of the B951 where it approached the Lair Junction. The watching brief on the topsoiling at this location, however, revealed only natural glacial deposits.

There are many prehistoric and early historic sites on higher ground to the W of the A93, but these are outwith the development area, and were not affected. It was considered that other similar unknown sites could have been revealed in the course of the road works, but no further such sites were discovered.

2.3 Archaeological Method

All topsoiling for the new road sections was monitored, which included the work on the S arm of the new road down to the new bridge over the Allt an Lair; the N arm of the new road from the new bridge and A93/B951 junction to the northern tie-in with the A93, and eastwards from the new junction to the new road tie-in with the B951. The topsoiling for a site compound measuring 23m x 123m on the E side of the A93 on the S side of the development was also monitored.

Monitoring did not continue below the top of natural deposits except for one machine dug test pit. An excessively steep slope down to the Allt an Lair from the S was not monitored in its entirety as it was considered that no substantial activity would have taken place on such a steep slope.

Topsoiling was carried out under archaeological supervision and any archaeological features or finds revealed were located with measuring tapes and a hand-held GPS, cleaned, recorded and photographed with a Nikon D 50 digital camera.

2.4 Results of Investigations (Illus 3)

2.4.1 General Watching Brief

See Illus 2 for context locations and context register for further context details.

General turf and topsoil over the site comprised sheep-grazed turf with a topsoil of sandy silt loam having an average thickness of 0.10-0.15m. Subsoil (02) was mainly light orange sand merging with heavier sands and gravels to a depth of 0.25m.



BL02_159: General groundworks over Allt an Lair, view N.

The monitoring for the site compound revealed two spreads of stone (03) and (04), which were considered to be natural accumulations, most likely caused by glacial

action. A modern conduit (05) was recorded running beneath the A93 at the S end of the compound which had deposited black silt into the compound field.

Spreads of stone, some boulders and gravels (07) and (08) were recorded on high ground to the S of the compound area. These were considered to be the result of glacial activity and not archaeological. An area of thick peat was encountered in a former water channel in a dip in the terrain to the S of stone spreads (07) and (08). Thick peat was also encountered towards the bottom of the slope and bank on the S side of the Allt an Lair. Nothing of archaeological interest was found within the peat.

A channel (09) to capture silt from the development groundworks and prevent it from contaminating the burn was excavated on the S bank of the Allt an Lair. The channel followed the contour of the burn bank and then branched into four channels southwards into a flat area or field centred on NO 14270 63285 to the E of the new bridge location. The field was bounded by a steep natural slope on the S side and the Allt an Lair on the N side. Nothing of archaeological significance was found in the excavations for the silt channels. In this field, boulders (10) had been set in a line 30m in length orientated E-W close to the S side of the field. The boulders were large glacial erratics which appear to have been moved to clear the field, possibly for cultivation although no direct evidence for cultivation was found.



BL02_189: Row of field clearance boulders (10), in field on S side of Allt an Lair, view W.

Topsoiling on the N side of the A951 revealed two conjoined sherds of 18th- or 19th-century pottery and a nail in the topsoil (01) in the field close to the road at NO 14310 63265. These finds may be associated with activity to do with livestock management in the fields. Close to the pottery a modern borehole (12) was found, the top of which had

been backfilled with clay. The borehole was considered to part of the geotechnical work for the construction of the new road.

A spread of stone (13) measuring approximately 4m x 2m was recorded in the field opposite a gate on N side of B951. These stones were considered to be redeposited natural stones dumped to form an area of hard standing. Also on the N edge of the B951 a discarded metal sign was found within the top soil warning traction engines of the dangerous bends in the road.



BL02_244: Context 14, metal sign warning traction engines of unsuitable bends.

On the E side of the A93 on the N part of the site a geotechnical test pit (16) backfilled with clean sand (17) was recorded. To the N of the test pit, close to the northern tie-in, a horseshoe (15) was recovered from the top soil; this was considered to be of 19th-century date and probably came from horse traffic using the A93.



BL02_242: General working on the N side of the B951 and Allt an Lair, view W.

Also on the E side of the A93, at the N end of the site, on the N side of a gate into the field, a spread of dark silty loam (18) was found. This was identified as having been deposited as a result of run-off from the A93 into the field. Partly buried below the silty loam, on its S side, was a line of large cobbles (20) two layers deep which formed a drain, extending into the field from the E edge of A93. The drain was on the N side of a rough track into the field. The two layers of cobbles were set into a cut 0.50-0.60m wide and 0.30m deep (21). The drain was to take runoff from the road into the field, channelling water washing down the slope of the old military road which could be seen heading N up the slope on the W side of A93 opposite the field gate. The drain was most likely contemporary with the old military road. No finds were recovered from the cobbles and silt. A modern metal conduit (19), also trying to solve the same run-off problem, ran below the A93 and entered the field approximately 22m to the N of the cobble drain.



BL02_282: Cobble drain (20), view W.

The trench for a new drain crossing the A93 at the S tie-in for the new road was monitored. It was thought that the drainage trench could reveal evidence of an earlier road surface pre dating the modern A93. The cut was 0.70m deep and 0.50m wide and revealed that the tarmac road surface (22) was 0.28m thick over a compacted stone bottoming deposit (23) which was 0.22m thick. The bottoming deposit overlay natural sandy clay. There was no evidence of any earlier road surfaces.

2.4.2 *Field Entrance (Illus 3 and 4)*

The final phase of archaeological work at Lair junction was the formation of a field entrance located at NO 14156 63120 on the W side of the new road, at the southern tie-in with the A93. The field entrance is located at the point where the old and new roads together diverge from the 18th-century Military Road, which here survives as an upstanding bank on the W side of the new road, with the 18th-century carriageway further to the W, cut into the rising slope of the hillside and heading northwards towards Lair Bridge.

In order to form the gated and paved entranceway into the field, it was necessary to cut a track, about 5m wide, westward from the new road. This work began on 11 December 2013 under archaeological supervision. An area measuring approximately 5m N-S and 2m E-W was topsoiled for the new field entrance. Archaeological remains were encountered at the southern side of the reduced area, adjacent to the E side of the embankment of the Old Military Road. The remains comprised a roughly rounded cut (40) containing a fill of brown sandy clay (31) with the remains of a post-medieval hob-nail leather shoe or boot on its surface. This feature appeared to be associated with the

Old Military Road's bank. The feature and shoe were recorded and left *in situ*. The leather was covered back up with soil to assist short-term preservation. After consultation with PKHT it was decided to remove the boot and undertake a watching brief on the remainder of the excavation through the embankment of the old military road to form the metalled surface of the gate entrance.



BL02_366: A boot or shoe found on E side of old military road embankment.

Further work was undertaken on 4 April 2014 to remove the boot and to clean and plan the exposed area. Further heavy cleaning of the ground revealed the presence of four pits cut into the yellow brown silty clay subsoil (34). These pits appear to have formed parts of a shallow ditch with a V-shaped profile on the E side of the embankment of the old military road.

The southernmost pit (cut 40 and fill 31) contained the boot. The pit measured 1.60m x 1m and had an uneven base. It was 0.08-0.15m in depth, subcircular and filled with brown sandy clay and silt (31). Apart from the boot, bottle fragments, some modern pottery sherds and a corroded metal staple were found within fill (31). The S end of this pit extended into the S baulk of the excavated area.

Pit cut (39) (fill (38) lay on the N side of pit cut (40). The pit was rounded at the N end and tapered towards the S end. It measured 1.20m N-S, 0.60m across the N end and 0.20m across the S end. Excavation at the N end showed that it had a V-shaped profile. No finds were recovered from the fill.

Subcircular pit cut (37) lay on the N side of pit cut (39). The pit had a diameter of 0.80m and excavation of the N part revealed a steep V-profile 0.19cm deep aligned N-S. No finds were recovered from the fill.

Pit cut (35) was the northernmost pit in the line; it was subcircular in shape with a diameter of 1m. Excavation revealed the cut to be 0.08-0.15m deep with an uneven base. The tip of a modern wooden stake was found in the N part of the pit.

It was considered that the four pits represented excavation for a ditch on the W side of the A93 and the modern inclusions would tend to suggest the ditch was associated with the modern A93 rather than the older military road.

Further work on the field gate entrance took place on 14 August 2014 when the embankment on the E side of the old military road was cut through to complete the groundworks for the new field entrance. The turf-covered embankment was 1.60m wide and 0.40m high. The W side of the embankment was flat ground which formed the carriageway of the old military road. A 6m-long section of the embankment was removed which also cut into the edge of the old carriageway where it interfaced with the embankment.



BL02_370: Old military road embankment (42) with previously reduced area on the E side, view N.

The embankment was made up of a deposit of homogeneous orange brown silt or silty clay (42), interpreted as redeposited subsoil. Within the deposit were inclusions of small to large field stones (43) intermittently and loosely set centrally within the bank; these stones did not form a comprehensive core for the embankment but seem to have been placed rather randomly as the road was being constructed. The base of the cut revealed subsoil virtually the same as (43) but about 0.02m below this subsoil was a natural deposit of very light orange silt, seen in a small sondage.



BL02_419: North-facing section of old military road embankment, view S

On the W side of the embankment, the edge of the carriageway had been cut and revealed a deposit (45) of dark grey, loose, silty loam, 0.30m thick, with a moderate amount of stone inclusions. This deposit did not conform to what may have been expected of a road carriageway as there was no metalling; it can only be assumed that the metalling had been stripped out, probably for reuse when the A93 was constructed. This would have made sense since this section of the old road is adjacent to the later realignment.

On the E side of the embankment it could be seen that the embankment had been partially cut away (cut 50). The redeposited fill in the cut, grey silty loam (49), contained modern material such as plastic cord. This cutting may have occurred as part of the construction of the A93 which superseded the old military road.

3 Conclusions

The monitoring of the topsoiling groundworks for the Lair Junction improvements recorded many spreads of natural stone and boulders as well as other natural deposits such as peat.

Archaeological evidence was found that related to the old military road in the form of a contemporary cobble drain to take water washing off the road into an adjacent field. Further evidence relating to the construction of the old military road was found at the southern tie-in of the new road when part of the old road embankment was removed. Also relating to the road system, but at a later date, was a metal sign warning traction engines of dangerous road conditions. The small cross in remembrance of Miss Van Norden is testimony to just how dangerous the steep gradients and tight bends in the road over Lair Brae actually were in past times.

4 Recommendations

The watching brief was finished on 14 August 2014, when the last of the groundworks for the field entrance on the S side of the site were completed, and there is now no further need for the watching brief. However, should any further groundworks be required that would impinge upon the old military road that lies adjacent to the A93, then there would be a requirement for archaeological mitigation. The final decision with regard to further work ultimately rests with Perth and Kinross Heritage Trust.

5 Bibliography

Alder Archaeology *A93/B951 Lair Junction Improvement Archaeological Watching Brief Written Scheme of Investigation* June 2013

Capita Symonds *Lair Bridge A93/951 Road Realignment and Junction Improvements* January 2013

Derek Hall *Rapid Walkover Survey and Desk Based Assessment Lair Bridge, Glenshee, Perth and Kinross* December 2012

Appendix 1 Context Register

No:	Description
01	General topsoil and turf sandy silt loam, sheep grazed turf, 0.10-0.15m thick, over most of the site, state of turf suggest there has been no cultivation on the site.
02	Subsoil mainly light orange silty sand merging with heavier sandy gravels, some areas with accumulations of stone, pebbles to small boulders, some lenses of sand, glacial terrain, test pit shows subsoil to depth of at least 0.25m
03	In soil stripping for S part of compound, abundant cobble sized stones just below topsoil approx area 12 X 6m and aligned NE-SW set over subsoil, considered to be a natural accumulation of stones most likely from glacial action,
04	Deposit, cobble sized stones below topsoil, in northern third of compound area, extending N-S in dark brown silty loam, upon inspection considered to be a natural accumulation within a paleo channel.
05	Modern conduit water pipe, conducting water below road into compound field at N end of compound, located 4.5m to S of N compound fence line, water flow creating black silty deposit, (silting) on surface
06	Wall, drystone, of field boulders on N side of Allt an Lair S side of B951 partly forming a revetting wall between the burn flood bank and the road 0.75m high and 0.50m wide, follows course of road with post and wire fence on the inside (S side) breached at the location of the new bridge crossing where large bags of sand were temporarily placed.
07	Spread of natural stone large cobble sized stones on ridge of high ground on the S side of the site between Allt an Lair and compound at NO142187 63191 and NO 14179 63189 also numerous small boulder sized erratics between topsoil and subsoil
08	Spread of natural gravel on top of ridge on the S side of the site between Allt an Lair and compound at NO14174 63213 to NO14175 63190
09	Trench for silt barrier on S side of the Allt an Lair 0.50m wide , follows contour of burn c 1.50m from S edge of crest of burn bank; mid section on main track is in wet peat, sand at E end and W end is sand and stony clay; E end channel branches into flat area centred on NO 14270 63258, bottoming onto sand
10	Boulders, line 30m long and 3m wide appears to be field clearance for a small flat area between steeply sloping ground to the S and the Allt an Lair: at NO 14278 63240 to NO14250 63237
11	Bridge, original bridge at Lair Junction , original stone arch forming core of bridge, 4.50m wide 1.75m high, stonework recently sealed; later extended by 2.40 on each side with steel beams and stone abutments, total width 9.20m; at time of visit the bridge was supported with acrow props
12	Blue grey clay, modern clay plug in recent borehole 0.42 X 0.33m and to a depth of at least 0.60m at first seemed to be significant but upon further investigation was deemed to be part of geotechnical works for new road works NO 14281 63278
13	Stony area in field opposite gate on N side of B951; accumulation of fieldstones of various sizes forming hard standing in field at gate site, dumped and natural stones, area approximately 4 X 2m at NO 14250 63290

14	Cast iron road sign, somewhat corroded, measuring 0.63 X 0.32m and 0.003m thick; 'NOTICE Drivers of Traction Engines are Warned that the Bends on this Road are Unsuitable for Some Traffic' located at NO 14330 63261, just below topsoil, approx 1.3 M of fence line on N side of B951
15	Find, horseshoe in topsoil located approximately at NO 14248 63447, Horseshoe. Toe area worn. Calkins absent, length 117mm, breadth 115mm, thickness 7.4mm most probably 19 th C
16	Cut for modern test pit 2.20 X 0.65m not bottomed but at least 0.60m deep, backfilled with sand (17), located at NO 14244 63416
17	Clean sand backfilling into modern test pit cut (16)
18	Dark silty loam, deposit created by runoff from road, two layers of cobbles covered by this deposit on its S side, runoff has created erosion at edge of A93
19	Metal conduit running below A93 N of ctx 18, modern drain to carry excess water from W side of road to field on E side of road in field at NO 14249 63409
20	Line of large cobbles forming drain two layers deep, running into field from E edge of A93, to take runoff from the road into the field, field drain 0.50-0.60m wide extending 16.30m into field as measured from field gate edge, aligned NE-SW; to channel water washing down the slope of old military road on W side of A93, no finds
21	Cut for cobbles 20, steep sides flat bottom 0.50-0.60m wide and 0.30m deep, cut into subsoil and natural, aligned NE-SW
22	Tarmac surface of A93, 0.28m thick over type one bottoming deposit, observed in trench, 0.70m deep excavated across the road for drain
23	Compacted stones 0.22m thick below tarmac 22, overlying natural sandy clay bottoming for tarmac, no earlier road metalling at this location
24-29	Not used
	Old military road formation of new field gate entrance
30	Orange brown clayey subsoil below topsoil
31	Brown sandy clay and silt containig a leather shoe or boot at south end of excavated area for new field entrance, in cut 40
32	Deposit, orange band of silt along the W bulk of excavated area, forms banking for old military road, see ctx (42).
33	Fill, brown grey silt moderately compact in cut (35) of small pit
34	Yellow brown subsoil on E side of excavated area cut by pits (35), (37), (39) and (40)
35	Cut, 1.60 X 1m uneven base 0.08-0.15m deep sub circular, filled with (33)
36	Fill of cut (37) brown grey silt, 0.19m thick
37	Cut, 0.80 X 0.74m 0.19m deep contains fill (36)
38	Fill of cut (39) brown grey silt, 0.14m thick

39	Cut 1.20 X 0.60m and 0.14m deep, narrows towards S end, V profile, filled with (39)
40	Cut, 1.30 X 2m extends into S baulk, fill 31, boot found in this fill
41	Deposit, mottled grey clay silt, natural in base of cut (40)
42	Deposit, mid orange brown silt or silty sand forming embankment c 1.60m wide and c 0.20m high above ground on either side, loose large field stone (43)contined in bank
43	Stone within bank deposit (42) medium to large roughly in line with banking, c 0.15m below turf; typical measurements of stones 0.30m x 0.28m x 0.12m and 0.43m x 0.23m x 0.11m; the stones do not form a structure such as wall or drain and appear to be randomly placed in embankment deposit when embankment was formed at the time of the construction of old military road
44	Deposit, modern disturbance at E edge of embankment, probably caused when A93 constructed
45	Turf and topsoil over embankment, c 0.10m thick, cropped by sheep
46	Dark grey silty loam possibly remains of old road surface on W side of embankment (42), 0.30m thick (old road metalling most likely stripped out and reused on the later phase of raod)
47	Void for large stone 0.20 X 0.28m 0.05m in depth, part of stones of (43)
48	Void for large stone 0.15 X 0.13, 0.10m deep, part of stones of (43)
49	Grey silty loam, fill, finds of modern plastic (string) earlier disturbance at E edge of embankment
50	Cut for fill (49) sloping , cuts away part of original embankment
51	Light orange silt, natural deposit below embankment silt of (42)
52	Turf and soil, modern accumulation against fence line, maximum 0.30m thick over (045)

Appendix 2 Photographic Register

<i>Image No</i>	<i>Description</i>	<i>View</i>
	01 July 2013	
001-2	Allt an Lair crossed by failing A93 road bridge.	W
003	A93 road bridge, and view towards Perth.	S
004	Road junction, and A93 N to Braemar	N
005-6	A93 N towards junction. New bridge over Shee Water on R, far distant.	N
007	A93 at lay-by S of works area. Military road diverges slightly to W.	N
008	A93 at lay-by S of works area. Military road diverges slightly to W. New road alignment marked out to E. Glacial landscape.	N
009	A93 at lay-by S of works area. New road alignment marked out to E. Glacial landscape.	NNE

010	A93 at lay-by S of works area. Military road diverges slightly to W.	S
011-2	A93, lay-by S of works area. Cast iron service cover, and emergent surface pipe.	N
013	A93 approaching junction. New road line marked out to E, where men standing	N
014	View from work area down Glen Shee. Shee Water in glacial landscape, sand and gravel banks with rabbit burrows.	SE
015	A93 approaching junction, hidden in hollow on R.	N
016	A93 approaching junction and bridge over Allt an Lair. New road line marked out beyond parked vehicles.	N
017	Footpath to Kirkmichael W from junction.	W
018	A93 at junction. New bridge over Shee Water visible to R, behind telegraph pole.	N
019-20	View from bridge down Allt an Lair. New crossing marked out.	E
021	Road signs at junction.	W
022	Junction with blind bend to N.	N
023	View from junction down B951	E
024-6	View from B951 up to junction. Glacial landscape.	W
027	View from B951 up to junction. Glacial landscape. New line of B951 marked out to R.	W
028	New line of B951 marked out	W
029-30	New bridge over Shee Water at Cray	NE
031	Shee Water from new bridge.	S
032	Shee Water from new bridge.	N
033-4	New bridge and gates to Cray estate.	E
035	View from new bridge back to junction.	WSW
036-7	Allt an Lair with A93 road bridge and junction.	W
038	View from A93 down new line of B951 to Shee Water.	E
039	A93 N from junction.	N
040-1	A93 S, with junction hidden in hollow. New line marked out.	S
042-5	A93 N from junction. Military Road ahead, with sheep in centre. A93 diverges to R.	N

046	Cairngorm National Park sign beside Military Road.	NW
047-8	A93 with junction hidden in hollow on R. New road line converging on L. Glacial terraces.	S
049	A93 at point of convergence with new line. Military Road parallel on R.	S
050	A93 with junction hidden in hollow	S
051	Detail of Military Road.	N
052	Detail of Cairngorm National Park sign beside Military Road.	N
053-4	Detail of Military Road.	N
055	Detail of place names N of junction.	N
	02-03 July 2013	
057-059	Ground strip of site compound area SE area	W-N
060-061	Compound strip ctx02, natural deposit	NW
062	Compound strip, mid part	N
063-065	Compound strip, W side	NE
066-068	Compound strip, mid part	NW, N
069-070	Compound strip, mid part, stony layer ctx 03	NW
071-072	Compound strip, w edge, mid part	N-NW
073	Compound strip, SW corner	W
074	Compound strip. W edge	N
075-076	Compound strip. W edge, detail	N
077	Compound strip, W edge	N
078	Compound, tipping hard core onto stripped area	SW
079	Compound, ctx02 sub soil below topsoil in E facing section at W edge	W
080	Compound strip, general of SW area	SW
081	Compound strip. General of W edge in N part	N
082	Compound strip, stony area ctx 04	N
083	Compound strip, general, N area	N
084	Compound strip, detail of ctx 04	NE

085-086	Open field drain in N part of compound area, ctx 05	W, NW
087-088	Compound strip. N area of compound	NW
	04 July 2013	
089-090	Wall ctx 06, detail on S side of B951 approaching junction	W
091	B951 with ctx 06 on S side, looking E	E
092-094	Wall ctx 06 detail	E, W and S
095-098	General wall ctx 06 from N side of B951	S, SW, SW, NE
099	Wall ctx 06 detail	E
100-103	Allt an Lair and wall ctx 06	N-NE
104-108	Allt an Lair and wall ctx 06 from high ground on S side of B951 panning NE	N-NE
109	Confluence of Shee Water and Allt an Lair , with caravan in centre	NE
110-111	Shee water from high ground to the W	E
112	Ground between compound and viewpoint, eroded hill with bird nests in foreground	SW
113	Compound under construction, close-up	SW
114-115	Large deep test pit being excavated on N side of compound	SE, SW
116-119	Detail of natural glacial deposits in large test pit, mid N edge of compound	SE,SW, N and N
	08-10 July 2014	
120	Construction of site compound	SW
121-122	Consolidation of Allt an Lair, N side edge at proposed bridge location	NE
123	Topsoil stripping on N side of Allt an Lair at junction area	NW
124	Consolidation of Allt an Lair, N side edge at proposed bridge location	W
125	Detail of wall ctx 06 where it has been breached for groundworks	E
126-128	Consolidation of Allt an Lair, N side edge at proposed bridge location	E
129	Topsoiling E side of Junction on N side	NW
130	Topsoiling E side of A93 N of compound	N
131-132	Topsoiling on steep slope on S side of Allt an Lair	SW

133-134	Topsoiling on sloping ground N of compound area	SE
135-137	Dip in ground on N side of compound area, to be topsoiled, showing Shee Water in background	SE
138	Peat deposit within dip in ground	NW
139-142	Ground reduction at edge of B951 on N side of Allt an Lair	W
143	Topsoil stripping at edge of B951 on N side of Allt an Lair E of existing bridge	E
144	Existing bridge over Allt an Lair	W
145	Ground reduction at edge of B951 on N side of Allt an Lair E of existing bridge	E
146	Junction and Allt an Lair at existing bridge, ground reduction on N side	N
147	Groundworks on N side of Allt an Lair by existing bridge	NE
148-149	Peat deposits in dip in ground on course of new road between site compound and new bridge site	E
150-151	Ctx 07 natural stone deposit on top of high ground on route to new bridge site	W
152-153	Ctx 07 natural stone deposit on top of high ground on route to new bridge site	N
154	Stony deposit ctx 08 on natural slope on route to new bridge site	S
155-156	Stony deposit ctx 08 on natural slope on route to new bridge site	S
157-158	General showing peat deposit and stripped area on route to new bridge site	S
159-161	General overlooking existing bridge and groundworks on N side of Allt an Lair	N
162-163	Topsoiling and removal of peat and glacial gravel deposits on route to new bridge site	SE
164-165	Excavating trench to catch silt on S side of Allt an Lair	E
166-167	Levelling existing B951 at new bridge site	W
168-170	W facing section of wall ctx 06 by site of new bridge	E
171	Excavating trench to catch silt on S side of Allt an Lair, existing bridge in background	W
172	Excavation of B951 metalling for new road at new bridge site	W
173-175	S facing section of deposits after removal of former road surface	N-NW
176-178	Levelling of peat and glacial deposits N of compound area on route to new bridge site	SE

179-180	General of levelling at new bridge site	N
181	Machine at top of slope removing topsoil	SE
182	Large glacial boulders on sloping ground on route to new bridge site	S
183	Machines working at new bridge site on either side of B951	S
184-185	Peat deposits, excavation for silt channel, ctx 09, channels 0.25- 0.40m deep on S side of Allt an Lair	SE
186	Deposits, excavation for silt channel on S side of Allt an Lair	E
187-188	Large stone on S side of Allt an Lair, ctx 10	E
189-190	Large stone on S side of Allt an Lair, ctx 10	W
191-192	E face of existing bridge at Lair Junction	W
193	Top soil stripping on slope down to Allt an Lair	NE
194	General of work on new bridge site from top of slope down to Allt an Lair	N
195	Top soil stripping on slope down to Allt an Lair	SW
196-198	Unloading new 35 ton excavator at bridge site	NE
199	Top soiling on slope down to Allt an Lair	NE
200	Excavation for silt channel on E side of existing bridge	E
201-202	Existing bridge interior stonework	NW
203-207	Top soiling on slope down to Allt an Lair	NE
	11-12 July 2013	
208-211	Interior of existing bridge propped, showing stonework of original arch ctx 11	E
212-214	Interior of existing bridge propped, showing stonework of original arch ctx 11	W
215-216	Detail of existing bridge interior showing stonework of original arch ctx 11	SW
217	Road on N side of Lair bridge, slope down to bridge	S
218-220	N side of new bridge site machines working	N
221	Machine starting to top soil on N side of B951 at E end of bridge works site	W
222	Mound of spoil on N side of B951 at E end of bridge works site	SE
223-224	Machine topsoiling on N side of B951 at E side of new bridge works site, on sloping ground	E

225	Machine topsoiling on N side of B951 at E side of new bridge works site on flat terrace	SW
226-228	Machine topsoiling on N side of B951 at E side of new bridge works site	E
229-230	Clay plug in borehole ctx 12	W
231-235	Machine topsoiling N side of B951 ctx 13	NW
236-237	Excavated clay plug ctx 12 in borehole	N
238	Location of ctx 12 on N side of B951	S
239-240	Topsoiling on N side of B951	SE
241-242	Topsoiling on N side of B951	N
243-244	Cast iron road sign found in topsoiling , warning of bends on road	W
245-247	Topsoiling on N side of B951	NW
	19 July 2013	
248	Area to be topsoiled at N end of site on E side of A93 looking S towards existing bridge	S
249-250	Start of topsoiling on E side of A93 at N end of site	S
251	Topsoiling progressing S towards existing bridge	S
252	Ctx 16 modern test pit 2.20 X 0.65 and 0.60m deep not bottomed, filled with sand	E
253	Ctx 16 general	W
254	General topsoiling with ctx 16 in foreground	S
255	General view of topsoiling on N part of site	NW
256-257	General location of ctx 18	W
258	General view of topsoiling on N part of site	NE
258-259	Ctx 19 modern drain at W edge of site	NW
260	Work progressing for new bridge build and road	S
261-265	Works on embankment on W side of A93 S of existing bridge	S
266	Works on embankment on W side of A93 S of existing bridge	N
267-268	Works on embankment on W side of A93 S of existing bridge	SW and NW
269-271	Works on embankment on W side of A93 S of existing bridge	E

272	General topsoiling on N part of site E side of A93	N
273-282	Stone field drain ctx 20 general and detailed	E
283	General topsoiling on N part of site E side of A93	S, SE and E
	22 July 2013	
284-287	Silt traps excavated on the S side of Allt an Lair by B951	NE, E, SE
288-290	N end of site, topsoiling progressing S towards existing bridge	NE,N, N
291-292	Silt traps on S side of Allt an Lair by B951	SE
293-295	Works at new bridge showing realignment of approach road	SE
296-297	Works on embankment on W side of A93 S of existing bridge	N
298-299	General overview from high ground SW of site on W side of A93, S of existing bridge	NE
300-301	Works on embankment on W side of A93 S of existing bridge	SW, NW
	01 August 2013	
302-303	Preparing for A93 road crossing	NW
304-307	Cutting through tarmac on W side of A93	N
308-310	Tarmac over compacted stones over natural deposits	N
311-312	BT cable in road crossing trench	SE
313-314	Bridge site under construction	N
315-316	Silt traps on E side of new bridge construction S side of Allt an Lair	NE
317	Line of new approach road on S side of new bridge	SW
318	Inspecting BT cable in road crossing trench	NW
	11 December 2013 archaeology on old military road	
319-322	Remains of boot or shoe	Various
323-324	Embankment of old road partially removed	N
325-327	Embankment of old road partially removed	NE
328-333	Detail of S end of excavated area, location of boot	S
334-335	Embankment prior to excavation	SE and E
336-339	Boot showing at base of excavated area	SE, N, N,

		S
340-341	Boot showing at base of excavated area	S, E
342	Excavated area	Various
	03 April 2014 archaeological recovery of boot by old military road	
343-344	Area cleaned for excavation of boot	SE
345-346	Detail of area cleaned, ctx 033	SE
347-348	Ctx 031	SE
349-350	Ctx 035	NE
351-352	Ctx 037	S
353-354	Ctx 039	S
355-357	Ctx 031	SW
358-359	Ctx 031, sole of boot in-situ	SW
360-363	Sole of boot in-situ no ctx number on board	SW
364-366	Sole of boot in-situ no ctx number on board	NE
367-369	N facing section ctx 040	SW
	14 August 2014 machine excavation for new field gate entrance, location of boot on E side of old military road	
370-371	General views of area to be machine excavated for new gate entrance, with embankment of old road on E side	N
372	General views of area to be machine excavated for new gate entrance	S
373	General view	NE
374-375	General view of area previously recorded when boot was recovered ctx 034	N
376-377	General view of area previously recorded when boot was recovered ctx 034	S
378-380	General view of area previously recorded when boot was recovered ctx 034	W, W, NW
381-382	Start of machine excavation of embankment	N
383-384	Start of machine excavation	N
385	Machine excavation showing stone in the embankment	NE
386-389	Detail of stones within deposit forming the embankment, ctx 043, in section	N
390-391	Part of embankment with no stones in deposit	N

392	Continuing excavation of embankment	SE
393-396	Detail of stones within deposit forming the embankment, ctx 043, in section	S
397	Continuing excavation of embankment on S side of site	SE
398-399	Continuing excavation of embankment on S side of site, revealing further stones in embankment, ctx 43	SE
400	Continuing excavation of embankment on S side of site, revealing further stones in embankment, ct 043	N
401-402	Continuing excavation of embankment on S side of site, revealing further stones in embankment, ctx 034	NE
403	Continuing excavation of embankment on S side of site	SE
404-405	Continuing excavation of embankment on N side of site	N
406	General of site from high ground on SW side of site	NE
407	General of site from high ground on SW side of site	SE
408-409	Continued excavation of site on E side	N
410-411	Continued excavation of site on S and E side	SE
412-419	Cleaned N facing section for recording, general and detailed shots	SE

Appendix 3 Drawing Register

<i>Permatrace Sheet No.</i>	<i>Description</i>	<i>Scale</i>
1	General notes for 2-3 July 2013; section 01 part of compound baulk	1:20
2	General notes for 4-10 July 2013	
3	General notes for 10-12 July 2013	
4	General notes for 19 July and 01 Aug 2013, section 02 of road crossing trench ctx 22 and 23	1:20
5	Notes on permatrace overlaying site plan showing some finds locations and areas topsoiled; plan 01 , 9 July, 12 July, 19 July	1:1500
6	Ground reduction for new field gateway plan 02 ; 11Dec 2013	1:20
7	Ground reduction for new field gateway area scraped for archaeological; plan 03 recording ctx 33-41; section 03 , N facing ctx 31, 40 and 41; 4 April 2014	1:20
8	Plan 04 for new field gateway area showing extent of area of ground reduction with embankment; section 04 , S facing of embankment ctx 042, 044 and 045; 14 Aug 2014	1:20

9	Section 05, N facing of embankment ctx 45-52; 14 Aug 2014	1:20
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Appendix 4 Finds Register

<i>Context</i>	<i>Material Type</i>	<i>Details</i>
01	Pottery	2 conjoining rim sherds and 1 base sherd from red earthenware basin, glazed yellow/brown
01	Fe	1 nail, rectangular cross-section, oval/rectangular head. length 102mm, head breadth 10.2mm
15	Fe	Horseshoe. Toe area worn. Calkins absent. Modern (19th/20thc?) length 117mm, breadth 115mm, thickness 7.4mm
031	Pottery	2 conjoining rim/neck sherds, stoneware jar. 19th/20th c
031 (D)	Glass	Moulded brown bottle sherds, including rim, neck, shoulder, body and base. 19th/20th c
031 (E)	Fe	Staple length 54mm
031 (B)	Fe	?staple length 43.6mm
031 (C)	Leather and Fe	Fragments of 19th/20th c leather (left) boot consisting of sole, heel, latchet, part of quarters. Fe stiffener inserted between layers of heel. 5 rows hobnails in outer sole; 3 rows nails arranged centrally, 2 rows along either side of sole. Left latchet has 6 punched eyelet holes, separate latchet fragment has 1 eyelet hole length (complete) 280mm width of heel 85mm length of heel 75mm
033 (A)	Wood	Stake tip length 63mm, diameter 52mm

Appendix 5 Discovery & Excavation in Scotland Entry

LOCAL AUTHORITY:	Perth and Kinross Council
PROJECT TITLE/SITE NAME:	Archaeological Watching Brief, A93/B951 Lair Junction Improvement, Glenshee, Perth and Kinross
PROJECT CODE:	BL02
PARISH:	Kirkmichael
NAME OF CONTRIBUTOR(S):	Ray Cachart
NAME OF ORGANISATION:	Alder Archaeology Ltd
TYPE(S) OF PROJECT:	Watching Brief
RCAHMS NO(S):	NO16SW 159
SITE/MONUMENT TYPE(S):	Historic Military Road
SIGNIFICANT FINDS:	Embankment of historic military road, 19th-century shoe, 19th-century horseshoe
NGR (2 letters, 8 or 10 figures)	Site centred on NO 14223 63276.
START DATE	1 July 2013
END DATE	14 August 2014
PREVIOUS WORK (incl. <i>DES</i> ref.)	None at this location
MAIN (NARRATIVE) DESCRIPTION: (May include information from other fields)	<p>Alder Archaeology carried out an archaeological watching brief on ground works for the construction of a new bridge and new road realignments at the A93/B951 Lair Junction, Glen Shee, Perth and Kinross. The settlement of Lair appears on Timothy Pont's map (late 16th century), and on Stobie's 1783 map and subsequent maps. Major Caulfeild's military road passes through Glenshee, and was constructed by 1759. A part of the military road converges with the A93 at the southern tie-in with the new road. There are many prehistoric and early historic sites on higher ground to the W of the A93, but these are outwith the development area, and were not affected.</p> <p>The watching brief took place at various times between 1 July 2013 and 14 August 2014 and was centred on the new bridge construction located at NO 14223 63276. The monitoring recorded natural spreads of stone and other natural deposits as well as some archaeological features such as a stone drain on the northern part of the site to take runoff from the old military road into a field. Some modern finds, pottery and a horseshoe were recovered. Of particular interest was the cutting into the embankment of the old military road on the W side of the A93 at the southern end of the site where a 19th-century boot was recovered and the construction of the old military road embankment was recorded.</p>
PROPOSED FUTURE WORK:	None

SPONSOR OR FUNDING BODY:	I and H Brown Ltd
CAPTIONS FOR ILLUSTRS	
ADDRESS OF MAIN CONTRIBUTOR:	Alder Archaeology Ltd, 55 South Methven Street, Perth PH1 5NX
ARCHIVE LOCATION (intended)	RCAHMS (intended)
EMAIL ADDRESS:	director@alderarchaeology.co.uk

Appendix 6 Standard Terms of Reference for all Fieldwork

6.1 Recording Methodology

Alder Archaeology employs a Single Context Recording System that allows full cross-referencing of stratigraphy, finds and environmental samples, as well as site-wide phasing. All features will be planned at scale 1:20, and sections drawn at scale 1:10. Sections and profiles will be drawn and all features will be photographed with metric scale included. Environmental samples will be taken from archaeologically significant contexts, if the analysis of these samples would aid significantly in the interpretation of any features identified.

6.2 Human Remains

If human remains are encountered they will be left in situ and the local police will be informed. If removal is required this will take place in compliance with Historic Scotland's Policy Paper *The Treatment of Human Remains in Archaeology*.

6.3 Products and Reporting

A Data Structure Report will normally be prepared within a period agreed within the Written Scheme of Investigation/ Project Design, after the completion of the fieldwork. This forms the basic level of reporting. Further reporting may be required on the basis of discoveries made during excavations.

A copy of the report and the project archive will be deposited in the NMRS. Further copies will be sent to the client, LAAO and others, as appropriate.

6.4 Artefacts

Finds of objects will be subject to the Scots Laws of Treasure Trove and *Bona Vacantia*. We will report such finds, if recovered, with supporting documentation to the Secretariat of the Treasure Trove Panel for disposal to the appropriate museum.

6.5 Discovery and Excavation in Scotland

A brief summary of the results will be submitted to *Discovery and Excavation in Scotland*.

6.6 General Conditions and Health and Safety

We adhere to the Code of Conduct of the Institute for Archaeologists.

Alder Archaeology Ltd has public liability insurance of £2,000,000. Details of this can be provided on request.

We operate a strict health and safety policy and conform to the Health and Safety at Work Act. We undertakes Risk Assessments on all fieldwork carried out.

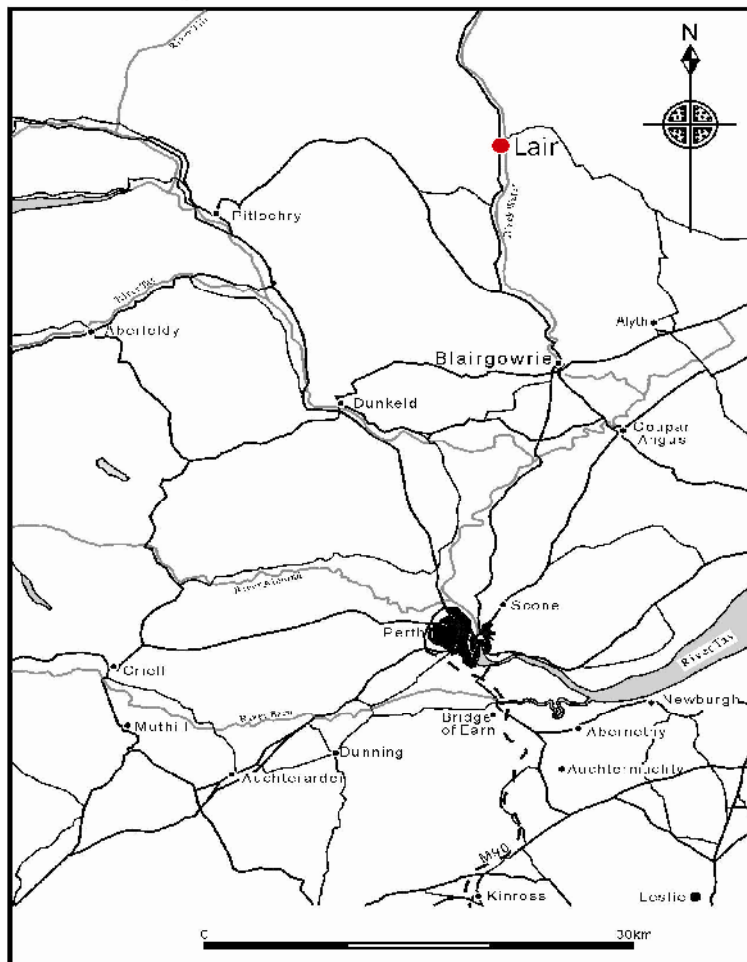
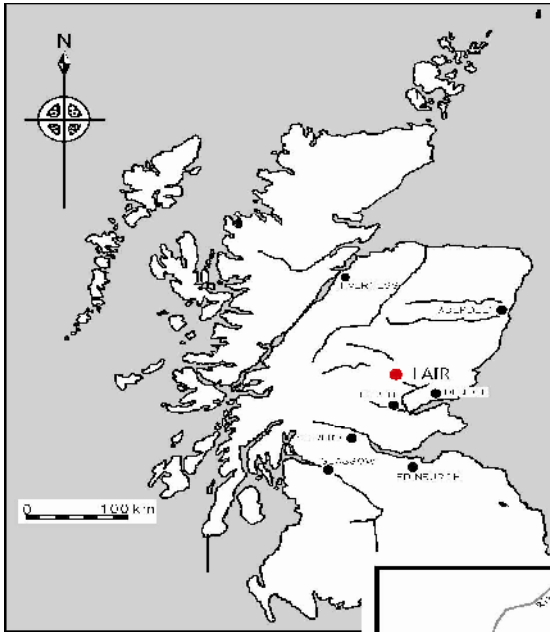
Alder Archaeology representatives will at all times wear protective footwear, high visibility clothing and other appropriate clothing. Hard hats will be worn if there is active plant on site or at all times if the site is deemed a hard hat area.

If lightly contaminated deposits are uncovered disposable boiler suits and gloves will be worn. A source of clean water will be made available for staff to clean hands with. If the health risk posed by site contamination is felt to be too high all further archaeological work will stop in that area.

Appendix 7 Illustrations

Illus 1

Watching Brief at Lair Junction, Perth & Kinross Site Location

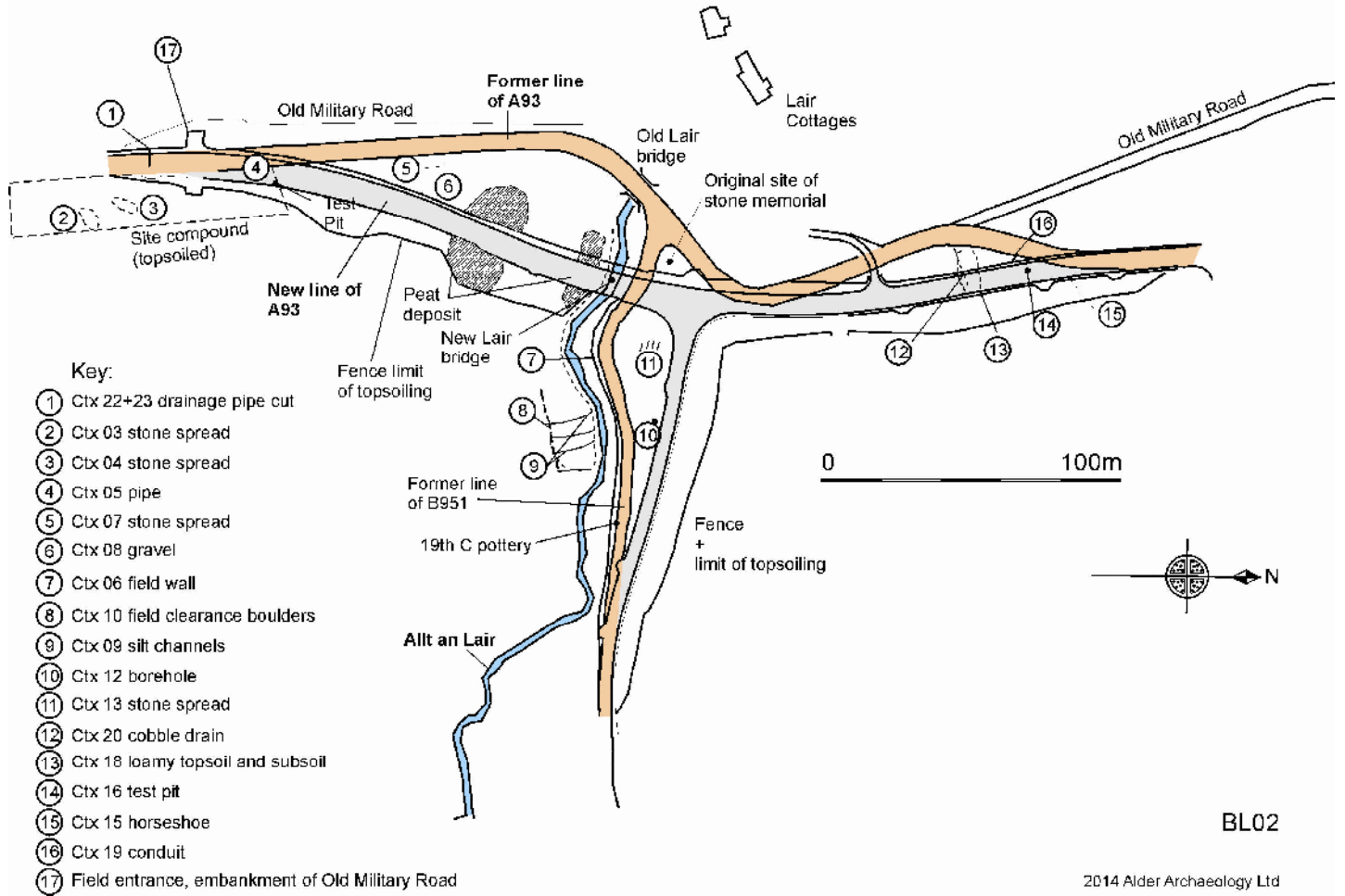


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BL02

Illus2

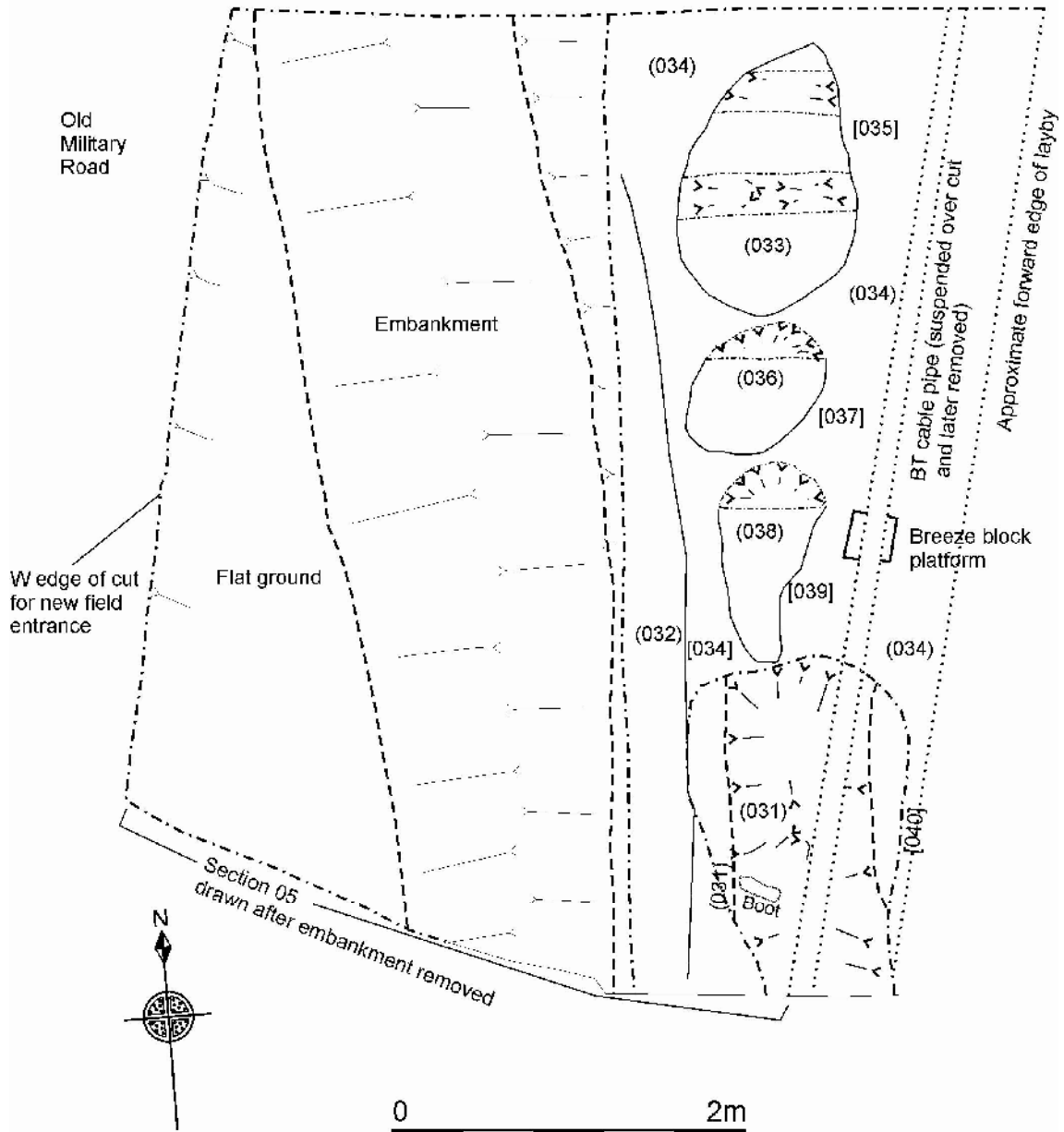
Watching Brief Archaeological and Natural Features



BL02

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Illus3 Plan of features on E side of Old Military Road embankment

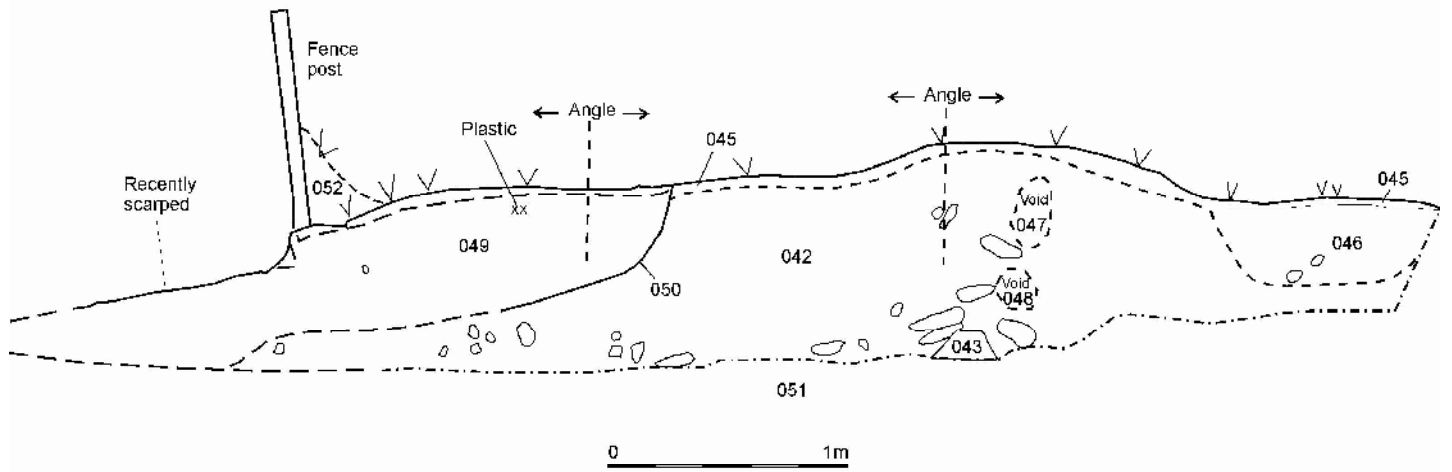


BL02

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Illus4

Section 05, North-facing section, South side of ground reduction
for new field entrance through old road embankment



BL02

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