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**Midlothian Community Hospital,
Eskbank Road, Bonnyrigg, Midlothian:
Archaeological Desk-Based Assessment
and Evaluation.**

**Data Structure Report,
Report No. 1517.1**

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Illustrations (bound at rear)

Fig. 1 Trench location map

Fig. 2 Trench 38; Furrow **3809** with plough scores in the base

Fig. 3 Trench 42; Showing furrows **4203** and **4205** above and below the 1m scale

Fig. 4 Trench 29; Shallow furrow **2904** with arched tile clay-piped field drain inserted

Fig. 5 Trench 25; Stone filled field drain overlain by an arched tile clay-piped drain

1. INTRODUCTION

1.1 General

1.1.1 This report presents the results of an archaeological desk-based assessment and evaluation undertaken by CFA Archaeology Ltd (CFA) in June and July 2008 within the area of the proposed Midlothian Community Hospital on Eskbank Road, Bonnyrigg, Midlothian (centred on NGR NT 319 658, Fig 1 (inset)). The work was commissioned by Robertson Construction Lothians Ltd.

1.1.2 A Written Scheme of Investigation (WSI) and indicative trenching plan were produced by CFA based in part upon information supplied by Robertson Construction Lothians Ltd. The WSI was approved in advance by the Archaeology Officer for Midlothian Council.

1.2 Objectives

1.2.1 The objectives of the project were to establish the presence/absence, extent, condition, character, quality and date of any archaeological features or deposits within the proposed development area and to propose mitigation measures where needed.

1.3 Weather Conditions

1.3.1 The weather throughout the evaluation was dry.

2. WORKING METHODS

2.1 General

2.1.1 Work was conducted with regard to the Institute of Field Archaeologists' (IFA) *Standard and Guidance for an Archaeological Evaluation and Code of Conduct*.

2.2 Desk-Based Assessment

2.2.1 Historic map coverage for the area was examined together with other readily available cartographic information on pre-recent land use in the development area. The National Monuments Record of Scotland (NMRS), the Council Sites and Monuments Record (SMR) and bibliographic sources related to the area were consulted as appropriate.

2.3 Evaluation Strategy

2.3.1 The total site area is 70,000m². Once the area unavailable due to services constraints is taken away, an area of 59,578m² was available for evaluation. Forty-nine trial trenches (Fig. 1) were opened which examined 4410m², slightly over 7% of the site area.

2.3.2 Excavation constraints (Fig. 1) included overhead electricity cables and a buried gas main. In line with HSE guidelines, 'no dig' areas were set up around these. A detailed methodology relating to safe working practices and the constraints was outlined in a Methods Statement.

2.3.3 An indicative trenching plan was formulated so as to provide good overall coverage of the area. This was followed during the fieldwork with trenches being laid out with canes and a 50m tape measure.

2.3.4 The trenches were excavated by machine under direct archaeological supervision to remove topsoil and modern deposits down to subsoil or the first significant archaeological horizon, whichever was reached first.

2.3.5 Samples of all features of archaeological interest were hand excavated in order to establish their likely date, nature, extent and condition.

2.3.6 All hand excavation and on-site recording was carried out according to standard CFA procedures, principally by drawing, by 35mm and digital photography and by completing standard CFA record forms.

2.3.7 Trench locations were surveyed using industry standard electronic surveying equipment and the trenches were backfilled daily on completion of recording.

3. ARCHAEOLOGICAL RESULTS

3.1 Desk-Based Assessment

NMRS

- 3.1.1 The NMRS holds no details of any archaeological sites within the proposed development area.
- 3.1.2 The Scheduled Ancient Monument (SAM) Hardengreen enclosure (SAM no 6335) lies in the field to the south of the proposed development area. This SAM was identified from oblique aerial photography as cropmarks in the field comprising a circular enclosure with associated features and rig-and-furrow.
- 3.1.3 The field containing the proposed development area was bounded on the south-west by the line of Penicuik to Musselburgh Foot and Cycleway, which is the abandoned railway link (NMRS no. NT36NW 492) between the two towns.
- 3.1.4 Approximately 200m to the north of the proposed development area, on Bonnyrigg Road in Dalkeith, several Category C(S) listed buildings are present (51-53 Bonnyrigg Road, HBNUM 24327; 55-57 Bonnyrigg Road, HBNUM 24328; 71-73 Bonnyrigg Road, HBNUM 24329).
- 3.1.5 A railway bridge (NMRS no. NT36NW 553.04), which was part of the Edinburgh to Hawick Branch Railway, lies 200m to the east of the proposed development area. Just to the east of this lies the Category C(S) Listed Building Hardengreen House (HBNUM 45599).

Cartographic

- 3.1.6 Roy's map (1747) depicts the proposed development area as a field which is partially cultivated. Laurie's 1766 map shows the proposed development area as fully under cultivation and the surrounding area separated into fields.
- 3.1.7 The Ordnance Survey 1st Edition Map (1854) shows the proposed development area as an empty field, bounded at the south by the railway line.
- 3.1.8 Earlier maps, such as Blaeu (1654) and Adair (1682) do not show enough detail to be able to distinguish the proposed development site.

3.2 Evaluation - General

- 3.2.1 Appendix 1 contains a tabulated summary of trench dimensions and a brief summary of the features encountered. Context numbers appear in bold, and a full list of contexts can be found in Appendix 2. Other site records form Appendices 3-4. The finds are quantified in Appendix 5.
- 3.2.2 Known services included overhead power cables and a buried gas main, both of which run approximately from north-east to south-west through the site. In addition, a modern cut of unknown function was recorded in Trenches 36 and

37 (**3601** & **3701**) and this may contain unrecorded services. These known and potential services are shown on Fig. 1.

3.2.3 The site lies at around 70m OD and has a southerly aspect. In general, 0.3m of compact brown clay-silt topsoil overlies a shallow and localised brownish-yellow or buff compact clay-silt buried soil with a general depth of 0.1m. A very similar buff soil filled the linear furrow features, the horseshoe clay pipe drains and the quarried stone field drains. The more modern circular clay-piped field drains had mixed fills. The natural subsoil is poorly drained and consists of a very compact stony clay-silt with a variable stone content.

3.2.4 Frequent modern artefacts, principally ceramics and glass, occur in the topsoil which also contains a notable coal and ash content. Pre-modern artefacts were recovered only from a buried soil filling a natural gully in Trench 15. The finds are assessed in Section 3.3 below.

3.3 Evaluation (Fig 2, Plates 1-4)

3.3.1 Forty-nine trenches (Fig. 1, Appendix 1) were excavated within the development area. Within these, the archaeological remains consisted of truncated linear furrow features and field drains.

Rig and Furrow

3.3.2 Archaeological remains (Fig. 1 Appendix 1) consisting of parallel linear furrows were recorded in Trenches 10-13, 16-18, 22, 24-34, 36, 38-49. These are all interpreted as cuts for furrows, which are the negative elements of a rig and furrow agricultural system.

3.3.3 The alignment of these features was consistently at around north-west to south-east. The exception to this was in Trenches 46 and 49, where the local topography and therefore drainage dictated that an alignment of north-east to south-west was desirable. The profiles of the cuts were also fairly consistent, with gently sloping sides and flattish bases. Widths varied from less than 1m to more than 3m with 1-2m (eg Fig. 2) being most common. Their truncated nature is indicated by substantial gaps between individual furrows and the excavated sections showed a general depth of less than 0.1m. The interpretation of these cuts as furrows was supported by the appearance of plough scores in the base of one such cut (Trench 38, **3809**, Fig. 3). An exception to the profile norm was recorded in Trench 10 where a more 'U' shaped cut (**1001**) with a depth of 0.25m was recorded.

Field Drains

3.3.4 A multi-period system of field drains was recorded, the earliest of which was a cobble filled drain (**2501**) recorded in Trenches 2, 15, 21, 23, 25 and 26, which curved southwards towards a disused railway to the south. The cobble drain was overlain by a later horseshoe drain (**2503**, Fig. 4).

3.3.5 The most extensive drainage system comprised moulded arch profile, clay-piped drains of irregular width. These drains were aligned with the furrow features and

were often inserted into their fills (Fig. 5). On the same alignment, a series of drains forming a narrow 'V' shaped channel in the base were recorded.

- 3.3.6 More recent drains were also recorded. These cut across the alignments of the earlier drains, were deeper (up to 0.8m) and contained round machine-made clay pipes.

3.4 Finds, by Sue Anderson

- 3.4.1 Table 1 presents a summary quantification of finds collected during the evaluation. A full catalogue by context is included in Appendix 5. Artefacts were collected from six contexts in Trenches 15, 18, 21, 33 and 37.

Find type	No.	Wt (g)
pot	13	504
CBM	3	1758
glass	1	42
iron	1	940
slag	2	400
coal	1	34

Table 1. Finds summary.

Pottery

- 3.4.2 The earliest pottery from the site comprised two abraded sherds of post-medieval reduced ware (15th-18th c.) from **1502**, a buried soil in a shallow natural gully (**1501**). All other pottery was 18th-20th-century in date and included black and brown glazed redwares, refined factory-made whitewares, a stoneware bottle and unglazed plantpots.

Ceramic building material (CBM)

- 3.4.3 Two handmade red bricks were recovered. A half-brick from **1805** measured 116mm wide and 65mm thick and was probably of 18th/19th-century date. A grog-tempered half-brick from **2105** was smaller, 105 x 53mm, and may be earlier (17th-19th c.?). One other fragment of CBM, a piece of pantile, was also collected from this context.

Miscellaneous

- 3.4.4 All other finds were of recent date. A dark green bottle base fragment from **1504** was probably 18th/19th-century. A large triangular lump of iron, probably part of farm machinery, was a topsoil find in **3701**. Two pieces of non-ferrous slag containing pieces of burnt slate were collected from **2105**. A fragment of unburnt coal was recovered from **1805**.

4. CONCLUSIONS AND RECOMMENDATIONS

- 4.1 The desk-based assessment confirmed that no known cultural heritage sites exist within the proposed development area. No cartographic evidence was found showing anything other than field systems within the development area, however it was possible that earlier or prehistoric features would be present, possibly associated with the SAM enclosure which lay to the south.
- 4.2 Forty-nine trial trenches were excavated across the development site at Eskbank Road, Bonnyrigg.
- 4.3 In suggested chronological order, the results of the evaluation included:
- A stone filled field drain containing pantile, handmade brick, and non-ferrous slag, which suggest a possible 17th-19th century date for this feature.
 - Linear furrows represent the remains of rig and furrow agriculture, aligned mostly NW-SE and closely resembling Narrow Straight Rig (Dixon 1994) of the late eighteenth and nineteenth centuries.
 - A field drainage system comprising either arched profile clay pipes or quarried sandstone cobbles which were aligned with the furrow remains and were often inserted into the fills of the abandoned furrows. These are likely to date to the mid 19th century (Douglas & Oglethorpe 1993).
- 4.4 The quantity of modern artefacts, coal and ash in the topsoil may stem from the improvement of the field using ‘night soil’, or rubbish from the city that was transported to the outskirts and spread on the fields. Earlier enrichment of the ground may be suggested by the 15th-18th century ceramics in the buried soil in Trench 15.
- 4.5 As a result of this desk-based assessment and evaluation CFA recommend that no further work in mitigation is required, however, the responsibility for deciding whether further work is required lies solely with Midlothian Council.
- 4.6 The project archive, comprising all CFA record sheets, maps and reports will be deposited with the National Monuments Record of Scotland (NMRS) and copies of reports will be lodged with Midlothian Council.
- 4.7 A summary statement of the results of this evaluation will be submitted for publication in *Discovery and Excavation in Scotland 2008* (Draft as Appendix 6).

5. REFERENCES

Dixon, P 1994 'Field-systems, rig and other cultivation remains in Scotland: the field evidence' in Foster & Smout (eds).

Douglas, G and Oglethorpe, M 1993 *Brick, Tile and Fireclay Industries in Scotland*. RCAHMS, Edinburgh.

Cartographic

Blaeu, J & D. 1654. *Lothian and Linlithgo*. Amsterdam

Laurie, J. 1766. *A plan of Edinburgh and places adjacent*. Edinburgh

Ordnance Survey 1st Edition Map, 1854. *Haddingtonshire*. Scale 1:10,560. Sheet XIII

Roy, W 1747-1755 *Lowlands*

APPENDIX 1: Summary of Evaluation Trenches

Trench No.	Length (m)	Width (m)	Depth of Topsoil / Buried soil (m)	Comments
1	50	1.8	0.35 / 0.15	3 arch profile clay-piped field drains 1 other field drain
2	50	1.8	0.35 / 0.15	1 field clearance stone field drain = Tr 15, 21, 23, 25, 26 2 arch profile clay-piped field drains 1 other field drain
3	50	1.8	0.35 / 0.1	3 arch profile clay-piped field drains 1 other field drain
4	50	1.8	0.35-0.45 / 0.1	2 arch profile clay-piped field drains
5	50	1.8	0.35 / 0.15	4 arch profile clay-piped field drains 1 quarried stone/field clearance stone drain 1 other field drain
6	50	1.8	0.35 / 0.1	4 arch profile clay-piped field drains 5 quarried stone/field clearance stone drains
7	50	1.8	0.35 / 0.1	4 arch profile clay-piped field drains 3 quarried stone/field clearance stone drains
8	50	1.8	0.3 / 0.1	7 arch profile clay-piped field drains 1 other field drain 1 rectangular modern test-pit
9	50	1.8	0.3	1 arch profile clay-piped field drain
10	50	1.8	0.3	1 linear ditch, probable furrow 11 arch profile clay-piped field drains
11	50	1.8	0.3 / <0.1	1 linear ditch, probable furrow 8 arch profile clay-piped field drains 1 other field drain
12	50	1.8	0.35	4 linear ditches, probable furrows 7 arch profile clay-piped field drains
13	50	1.8	0.3 / 0.1	3 linear ditches, probable furrows 3 arch profile clay-piped field drains 2 other field drains
14	50	1.8	0.3 / <0.1	4 arch profile clay-piped field drains 3 quarried stone/field clearance stone drains 1 rectangular modern test-pit
15	50	1.8	0.3 / 0.3	1 field clearance stone field drain = Trench 21, 23, 25, 26 4 arch profile clay-piped field drains 1 other field drain
16	50	1.8	0.3	1 linear ditch, probable furrow 1 arch profile clay-piped field drain 2 other field drains
17	50	1.8	0.35	2 linear ditches, probable furrows 10 arch profile clay-piped field drains
18	50	1.8	0.3 / 0.15	1 linear ditch, probable furrow 3 arch profile clay-piped field drains 1 field clearance stone field drain
19	50	1.8	0.35 / 0.2	7 arch profile clay-piped field drains 1 quarried stone/field clearance stone drain
20	50	1.8	0.3 / 0.1	9 arch profile clay-piped field drains 1 other field drain 1 rectangular modern test-pit
21	50	1.8	0.3 / 0.1	2 arch profile clay-piped field drains 3 other field drains 1 field clearance stone field drain = Tr2, 23, 25, 26
22	50	1.8	0.3 / 0.15	2 linear ditches, probable furrows 3 arch profile clay-piped field drains 3 quarried stone/field clearance stone drains
23	50	1.8	0.3 / 0.15-0.3	2 arch profile clay-piped field drains 3 quarried stone/field clearance stone drains

Trench No.	Length (m)	Width (m)	Depth of Topsoil / Buried soil (m)	Comments
				1 field clearance stone field drain = Tr2, 21, 25, 26
24	50	1.8	0.3 / 0.1	2 linear ditches, probable furrows 6 arch profile clay-piped field drain 5 other field drains 1 field clearance stone field drain = Tr2, 21, 23
25	50	1.8	0.35 / 0.2	1 linear ditch, probable furrow 1 arch profile clay-piped field drain 6 quarried stone/field clearance stone drains 1 field clearance stone field drain = Tr2, 21, 23, 26
26	50	1.8	0.3 / 0.1	2 linear ditches, probable furrows 7 arch profile clay-piped field drain 1 quarried stone/field clearance stone drain 1 field clearance stone field drain = Tr2, 21, 23
27	50	1.8	0.3 / 0.3	1 linear ditch, probable furrow 3 arch profile clay-piped field drain 3 other field drains
28	50	1.8	0.35	2 linear ditches, probable furrows 3 arch profile clay-piped field drain 4 other field drains 1 field clearance stone field drain = Tr2, 21, 23
29	50	1.8	0.3 / 0.1	2 linear ditches, all probable furrows 3 arch profile clay-piped field drains 2 quarried stone/field clearance stone drains 1 other field drain
30	50	1.8	0.3 / 0.1	1 linear ditch, probable furrow 3 arch profile clay-piped field drains 1 other field drain 1 narrow linear ditch
31	50	1.8	0.3 / <0.1	2 linear ditches, probable furrows 2 arch profile clay-piped field drains 1 modern test-pit 1 narrow linear ditch
32	50	1.8	0.3 / <0.1	1 linear ditch, probable furrow 3 arch profile clay-piped field drains
33	50	1.8	0.3	3 linear ditches, probable furrows 4 arch profile clay-piped field drains 2 other field drains 1 narrow linear ditch
34	50	1.8	0.3 / <0.1	5 linear ditches, probable furrows 8 arch profile clay-piped field drains
35	50	1.8	0.3 / 0.15	2 arch profile clay-piped field drains 2 other field drains
36	50	1.8	0.3 / 0.1	1 modern (?service) cut = Trench 37 2 linear ditches, probable furrows 5 arch profile clay-piped field drains 1 other field drain
37	50	1.8	0.3	1 modern (?service) cut = Trench 36 5 arch profile clay-piped field drains
38	50	1.8	0.3 / <0.05	7 linear ditches, probable furrows 5 arch profile clay-piped field drains 3 other field drains
39	50	1.8	0.3 / 0.1	1 possible linear ditch, probable furrow 1 arch profile clay-piped field drain 1 other field drain
40	50	1.8	0.3 / 0.15	3 linear ditches, probable furrows 3 arch profile clay-piped field drains 2 other field drains
41	50	1.8	0.3 / 0.1	1 linear ditch, probable furrow

Trench No.	Length (m)	Width (m)	Depth of Topsoil / Buried soil (m)	Comments
				1 arch profile clay-piped field drain 2 other field drains
42	50	1.8	0.3 / <0.05	6 linear ditches, probable furrows 3 arch profile clay-piped field drains 1 other field drain
43	50	1.8	0.3 / <0.05	1 linear ditch, probable furrow 1 other field drain
44	50	1.8	0.3 / <0.05	3 linear ditches, probable furrows 6 arch profile clay-piped field drains
45	50	1.8	0.3 / 0.1	3 linear ditches, probable furrows 4 arch profile clay-piped field drains 2 other field drains
46	50	1.8	0.3 / 0.1	5 linear ditches on two different alignments, all probable furrows 4 arch profile clay-piped field drains 1 other field drain
47	50	1.8	0.3 / <0.05	4 linear ditches, probable furrows 5 arch profile clay-piped field drains
48	50	1.8	0.3 / 0.1	6 linear ditches, probable furrows 7 arch profile clay-piped field drains
49	50	1.8	0.3 / 0.15	3 linear ditches on two different alignments, all probable furrows 6 arch profile clay-piped field drains 1 other field drain

APPENDIX 2: Context Register

Abbreviations

CPFD	Clay-pipe field drain
FCFD	Field clearance stone field drain
QSFD	Quarried stone field drain

Context no.	Fill of	Trench	Description
1001		10	Linear cut for possible furrow
1002	1001	10	Brownish-yellow or buff compact clay-silt with few or no stones. Occasional artefacts but frequent coal and ash fragments and black silty lumps
1101		11	Linear cut for possible furrow
1102	1101	11	As 1002
1201		12	Linear cut for furrow
1202	1201	12	As 1002
1203		12	As 1201
1204	1203	12	As 1002
1205		12	As 1201
1206	1205	12	As 1002
1207		12	As 1201
1208	1207	12	As 1002
1301		13	Linear cut for furrow
1302	1301	13	As 1002
1303		13	Linear cut for furrow
1304	1303	13	As 1002
1305		13	Linear cut for furrow
1306	1305	13	As 1002
1501		15	Prob. natural channel but given an initial cut number.
1502	1501	15	As 1002. Buried soil in 1501
1503		15	Linear cut for FCFD
1504	1503	15	Coal flecked buff clay-silt & horseshoe shaped CPFD
1505		15	Linear cut for FCFD
1506	1505	15	FC cobbles, occasional bricks, pantile, pottery, slate
1507	1501	15	Basal fill? Re-dep. subsoil
1508	1501	15	Grey/creamy orange silt under 1502
1601		16	Linear cut for possible furrow. Shallow unlike 1701
1602	1601	16	As 1002
1701		17	Linear ditch cut. Possible furrow.
1702	1701	17	As 1002
1703	1701	17	Grey sterile clay. Basal fill.
1704		17	Linear cut for CPFD parallel to 1201
1705	1704	17	Mixed fill. Re-deposited subsoil and buff silt as 1002
1801		18	Possible linear furrow cut adjacent to CPFD. Cut by FCFD
1802	1801	18	As 1002
1803		18	Cut for CPFD. Cuts 1801
1804	1803	18	As 1002 but slightly darker
1805	1806	18	Field clearance cobbles with occasional bricks and broken pantile/drain tiles
1806		18	Cut for drain. Appears to cut 1803
2101		21	As 1501
2102	2101	21	As 1002
2103			Not allocated
2104		21	Cut for field clearance field drain. Same as 1505
2105	2104	21	As 1506
2201		22	Linear cut for furrow?
2202	2201	22	As 1002
2203		22	Linear cut for furrow? Cut by CPFD. Same alignment
2204	2203	22	As 1002

Context no.	Fill of	Trench	Description
2501		25	= 1505 & 2104. Cut for FD. Curves through field? Cut by horseshoe shaped CPF
2502	2501	25	FC Cobbles. No clear structure or channel in base
2503		25	Linear cut cuts 1501
2504	2503	25	Arched CPF + fills of cut 2503
2601		26	Linear cut for furrow
2602	2601	26	As 1002
2603		26	Linear cut for FD. Parallel to 2601
2604	2603	26	Arched CPF + fills of 2603
2605		26	As 2601
2606	2605	26	As 1002
2901		29	Linear cut for FD. Parallel to and cuts 2904
2902	2901	29	As 2604
2903	2904	29	As 1002 but more black flecks + greyer
2904		29	Linear cut for furrow. Cut by 2901
2905	2906	29	As 1002
2908		29	As 2904. Not cut by FD
3001		30	Linear cut for furrow
3002	3001	30	As 1002
3101		31	Linear cut for furrow. Cut by CPF
3102	3101	31	As 1002
3103		31	Linear cut CPF. Cuts 3101
3104	3103	31	Arched CPF + fills of 3103, slightly darker + more coal then 3102
3105		31	Linear cut for furrow
3106	3105	31	As 1002
3201		32	Linear cut for furrow. Cut by CPF.
3202	3201	32	
3301		33	Linear cut for furrow. Cut by CPF
3302	3301	33	As 1002
3303		33	Linear cut for furrow. Cut by ditch 3305
3304	3303	33	As 1002
3305		33	Linear cut for ditch
3306	3305	33	Grey-yellow clay slit. Many coal frags
3307		33	Linear cut for furrow
3308	3307	33	As 1002
3401		34	Linear cut for furrow. Cut by CPF 3405
3402	3401	34	As 1002
3403		34	Linear for furrow. Cut by CPF
3404	3403	34	As 1002
3405		34	Linear cut for arched CPF
3406	3405	34	As 1002 slightly darker
3407		34	As 3403
3408	3407	34	As 1002
3409		34	Linear cut for furrow
3410	3409	34	As 1002
3411		34	As 3409
3412	3411	34	As 1002
3601		36	Linear cut – modern but unknown function
3602	3601	36	Re-deposited reddish boulder clay
3603	3601	36	Grey brown clay – silt + coal topsoil but less mixed
3604		36	Linear cut for furrow
3605	3604	36	As 1002
3606		36	Linear cut for furrow
3607	3606	36	As 1002
3608		36	Linear cut for furrow
3609	3608	36	As 1002
3701		37	As 3601
3707	3701	37	As 3602

Context no.	Fill of	Trench	Description
3801		38	Linear cut for furrow. Cut by CPFD
3802	3801	38	As 1002
3803		38	Linear cut for furrow
3804	3803	38	As 1002
3805		38	Linear cut for furrow
3806	3805	38	As 1002
3807		38	As 3801
3808	3807	38	As 1002
3809		38	As 3801
3810	3809	38	As 1002
3811		38	AS 3801
3812	3811	38	As 1002
3901		39	Probable linear cut for furrow. Cut by CPFD
3902	3901	39	As 1002
4001		40	Linear cut for furrow. Cut by CPFD
4002	4001	40	AS 1002
4003		40	As 4001
4004	4003	40	As 1002
4005		40	As 4001
4006	4005	40	As 1002
4101			Linear cut for furrow
4102	4101		As 1002
4201		42	Linear cut for furrow
4202	4201	42	As 1002
4203		42	Linear cut for furrow. Cut by CPFD
4204	4203	42	As 1002
4205		42	Linear cut for furrow
4206	4205	42	As 1002
4207		42	Linear cut for furrow
4208	4207	42	AS 1002
4209		42	Linear cut for furrow. Cut by CPFD
4210	4209	42	As 1002
4211		42	Linear cut for furrow
4212	4211	42	As 1002
4301		43	Linear cut for furrow
4302	4301	43	As 1002
4401		44	Linear cut for furrow
4402	4401	44	As 1002
4403		44	As 4401, cut by CPFD
4404	4403	44	As 1002
4405		44	As 4401, cut by CPFD
4406	4405	44	As 1002
4501		45	Linear cut for furrow
4502	4501	45	As 1002
4503		45	Linear cut for furrow. Cut by FD
4504	4503	45	As 1002
4505		45	Linear cut for furrow. Cut by FD
4506	4505	45	As 1002
4601		46	Linear cut NE-SW for furrow
4602	4601	46	As 1002
4603		46	Linear cut for furrow NW-SE
4604	4603	46	As 1002
4605		46	Linear cut for furrow NE-SW
4606	4605	46	As 1002
4607		46	Linear cut for furrow NE-SW. Cut by CPFD
4608	4607	46	AS 1002
4609		46	Linear cut for furrow
4610	4609	46	As 1002
4701		47	Linear cut for furrow. Cut by CPFD

Context no.	Fill of	Trench	Description
4702	4701	47	As 1002
4703		47	As 4701
4704	4703	47	As 1002
4705		47	Linear cut for furrow
4706	4705	47	As 1002
4707		47	As 4701
4708	4707	47	As 1002
4801		48	Linear cut for furrow. Cut by CPF
4802	4801		As 1002
4803			Linear cut for furrow
4804	4803		As 1002
4805			Linear cut for furrow. Cut by CPF
4806	4805		As 1002
4807			Linear cut for furrow
4808	4807		As 1002
4809	4810		As 1002
4810			Linear cut for furrow
4811			Linear cut for furrow
4812	4811		As 1002
4901			'T' shaped cut where NE-SW and NW-SE furrows meet. Cut by CPF
4902			As 1002
4903			Linear cut for furrow
4904			As 1002

APPENDIX 3: Photographic Register

Film 1

Shot	Digital	Description	Condition	From
	1-5	Pre-ex panorama from access gate		W → S → E
1-2	6	Trench 1, general view	Sunny	NW
3-4	7	Trench 1, FD visible in base of trench	Sunny	SE
5-6	8	Trench 1, SW facing soil section	Overcast	SW
7-8	9	Trench 2, general view	Sunny	NW
9-10	10	Trench 2, large FCFD WNW-ESE in NW end of trench	Overcast	ESE
11-12	11	Trench 3, general view	Sunny	NW
13-14	12	Trench 4, general view	Bright	SE
15-16	13	Trench 6, general view	Sunny	E
17-18	14	Trench 5, QSFD/FCFD at ENE and showing almost invisible cut through buried soil	Sunny	SSE
19-20	15	Trench 7, general view	Sunny/shade	S
21-22	16	Trench 5, general view	Bright/shade	ENE
23-24	17	Trench 8, CPF exposed by subsoil 'plucking' in the trench	Overcast	SE
25-26	18	Trench 8, general view	Overcast	SW
27-28	19	Trench 8, soil profile at SW end	Overcast	SE
29-30	20	Trench 9, general view	Overcast	NW
31-32	21	Trench 9, stone hole, section	Overcast	NE
33-34	22	Trench 10, general view	Overcast	ENE
35-36	23-24	Trench 10, furrow/ditch 1001, section	Overcast	ESE

Film 2

Shot	Digital	Description	Condition	From
1-2	25	Trench 11, general view	Overcast	S
3-4	26	Trench 11, furrow 1101-2 + FD along side	Overcast	SSE
5-6	27	Trench 12, general view	Overcast	W
7-8	28	Trench 13, general view	Bright	N
9-10	29	Trench 14, general view	Overcast	SSE
11-12	30	Trench 14, soil profile at NNW end	Overcast	ENE
13-14	31	Trench 15, sondage section into cut 1501	Overcast	N
15-16	32-33	Trench 15, general view	Overcast	S
17-18	34-35	Trench 15, view of cut 1501	Overcast	N
19-20	36	Trench 16, general view	Bright	NW
21-22	37	Trench 17, general view	Bright	N
23-24	38	Trench 17, R + F pre-ex	Bright	N
25		Oops!		
26-27	39	Trench 17, R + F section (FD too!)	Overcast	SE
28-29	40	Trench 18, general view	Bright	SSE
30-31	41	Trench 18, drain connection excavation	Overcast	SW
32-33	42	As 30-31	Overcast	SSE

Film 3

Shot	Digital	Description	Condition	From
1-2	43	Trench 19, general view		ESE
3-4	44-45	Trench 19, QSFD/FCFD slot showing angled based stones	Bright	NNE
5-6	46	Trench 20, general view	Overcast	SW
7-8	47	Trench 21, general view	Overcast	NNW
9-12	48-9	Trench 21 WSW facing section through poss feature recorded in Tr. 15. Could be natural	Overcast	WSW
13-14	50	Trench 22, general view	Bright	NW
15-16	51	Trench 22, sondage A, section	Overcast	SW
17-18	52	Trench 22, sondage B, section	Overcast	SW
19-20	53	Trench 23, general view	Overcast	ENE
21-24	54-55	Trench 23, sondage at WSW end showing natural layers	Overcast	SSE
25-26	56	Trench 25, general view	Overcast	N
27-28	57-58	Trench 25, FCFD section	Overcast	E
29-30	59-60	Trench 25, FCFD section cut back to show CFPD (arch-file) overlying it. No sign of a repair so presumably FCFD is earlier than CFPD	Overcast + Bright	E
31-32	61	Trench 26, general view	Overcast	NNE
33-34	62	Trench 26, poss R + F (2601-2) section	Overcast	SE
35-36	63	Trench 24, general view	Overcast	SW

Film 4

Shot	Digital	Description	Condition	From
1-2	64	Trench 27, general view	Sunny	N
3-4	65-66	Trench 27, FCFD cutting horseshoe shaped CFPD	Sunny	E
5-6	67	Trench 28 general view	Bright	N
7-8	68	Trench 29 R + F in centre of trench 2901-6	Sunny	E
9-10	69	Trench general view	Bright/Sun ny	ESE
11-12	70-71	Trench 29, R + F 2904 with FD 2901 on right: section	Sunny	SE
13-14	72	Trench 30, general view	Sunny	NNW
15-16	73	Trench 32, general view	Sunny	SSE
17-19	74	Trench 31, general view	Sunny	SE
20-21	75	Trench 31, R + F 3101-2 in mid trench. Very badly truncated + difficult to see	Bright/ Sunny	ESE

22-23	76-77	Trench 31, R + F 3101-2 + CPF D 3103-4 section	Sunny	S & SE
24-25	78	Trench 34, general view	Overcast	SW
26-27	79	Trench 34, traces of furrow 3403-4 along side CPF D < 0.05m deep	Overcast	NNE
28-29	80	Trench 34, traces of furrow 3401-2 along side CPF D 3405-6 with section	Overcast	NW
30-31	81	Trench 34, close – up plan view of section showing CPF D 3406, broken and fitted over adjacent file	Overcast	SW
32-33	82	Trench 33, general view	Bright	SSE
34-35	83	Trench 33, R + F 3303-4 and ?ditch 3305-6	Bright	SE
36-37	84-85	Trench 33, ditch 3305-6 section	Bright	WSW

Film 5

Shot	Digital	Description	Condition	From
1-2	86	Trench 35, general view (E of pylons)	Overcast	SE
3-4	87	Trench 36, general view	Overcast	SSW
5-6	88-89	Trench 36, general view		NNE
7-8	90	Trench 36, R + F 3604-5, section	Bright	NW
9-10	91	Trench 37, general view	Bright	SSE
11-12	92	Trench 38, general view	Bright	N
13-14	93	Trench 38, 3x R + F 38	Bright	S
15-16	94	Trench 38, plough scores in base of furrow 3809. Note CPF D lower left parallel with assumed furrow & plough scores	Bright/Sun	SSE
17-18	95	Trench 40, general view	Bright	ESE
19-20	96	Trench 39, general view	Bright	NW
21-22	97	Trench 39, soil section mid trench	Overcast	SW
	98-100	General site views from footbridge over A7 on 27/06/08	Bright	SE
23-24	101	Trench 41, general view	Overcast	SSE
25-26	102	Trench 42, general view	Overcast	SSE
27-28	103	Trench 42, R + F 4203, 4205, pre-ex	Overcast	SE
29-30	104	Trench 42, R + F 4205-6, section	Bright	SE
31-32	105	Trench 43, general view	Overcast	SE/E SE
33-34	106	Trench 44, general view	Overcast	N
35-36	107	Trench 45, general view	Overcast	S

Film 6

Shot	Digital	Description	Condition	From
1-2	108-9	Trench 46, general view	Bright	SSE
3-4	110-11	Trench 46, furrow 4601-2, section	Bright	SW
5-6	112	Trench 47, general view	Bright	SSE
7-8	113	Trench 48, general view	Bright	NNE
9-10	114	Trench 49, general view	Bright	NNE

APPENDIX 4: Drawings Register

Drawing No.	Description	Scale
1	Trench 1 plan	1:200
2	Trench 2 plan	1:200
3	Trench 3 plan	1:200
4	Trench 4 plan	1:200
5	Trench 5 plan	1:50
6	Trench 5 QSFD section	1:10
7	Trench 10 plan	1:40
8	Trench 6 plan	1:200
9	Trench 7 plan	1:200
10	Trench 8 plan	1:200
11	Trench 9 plan	1:100
12	Trench 10 plan	1:200
13	Trench 11 plan	1:100
14	Trench 12 plan	1:100
15	Trench 13 plan	1:100
16	Trench 15 plan	1:40
17	Trench 15 section through deep soil profile	1:10
18	Trench 14 plan	1:100
19	Trench 16 plan	1:100
20	Trench 17 plan	1:100
21	Trench 17 ditch/R+F 1701-5	1:10
22	Trench 18 plan	1:200
23	Trench 19 plan	1:200
24	Trench 20 plan	1:200
25	Trench 21 plan	1:100
26	Trench 21 soil section	1:20
27	Trench 22 plan	1:100
28	Trench 23 plan	1:200
29	Trench 25 FCFD overlain by arch-tile CPF	1:10
30	Trench 25 plan	1:100
31	Trench 26 plan	1:100
32	Trench 26 furrow + CPF section 2601-4	1:10
33	Trench 24 plan	1:100
34	Trench 27 plan	1:100
35	Trench 28 plan	1:100
36	Trench 29 plan	1:50
37	Trench 29 furrow 2904 cut by arch-tile CPF 2901	1:10
38	Trench 30 plan	1:100
39	Trench 32 plan	1:100
40	Trench 31 plan	1:100
41	Trench 31 furrow 3401 cut by CPF 3405	1:10
42	Not used	
43	Trench 34 plan	1:100
44	Trench 34 furrow 3401 cut by CPF 3405	1:10
45	Trench 33 plan	1:100
46	Trench 33 ditch 3305-6 section	1:10
47	Trench 35 plan	1:100
48	Trench 37 plan	1:100
49	Trench 38 plan	1:100
50	Trench 36 plan	1:50
51	Trench 36 furrow 3604-5 section	1:10
52	Trench 40 plan	1:100
53	Trench 39 plan	1:100
54	Trench 41 plan	1:100
55	Trench 42 plan	1:100
56	Trench 42 furrow 4205-6	1:10

57	Trench 43 plan	1:100
58	Trench 44 plan	1:100
59	Trench 45 plan	1:100
60	Trench 46 plan	1:100
61	Trench 46 furrow	1:10
62	Trench 47 plan	1:100
63	Trench 48 plan	1:100
64	Trench 49 plan	1:100

APPENDIX 5: Finds Quantification:

Tr.	Context	Find type	No.	Wt (g)	Notes	Date
15	1502	pot	2	23	post-med reduced	15th-18th c.
	1504	pot	1	13	fine buff ware with brown glaze	19th-20th c.
		glass	1	42	bottle base	18th/19th c.
18	1805	pot	6	361	blackwares including large storage vessel base and teapot spout	18th/19th c.
			1	1	refined whiteware rim	19th/20th c.
		CBM	1	607	red brick, 116 x 65mm	18th/19th c.
		coal	1	34	unburnt	pmed
21	2105	pot	1	27	plant pot	19th-20th c.
		CBM	1	186	panicle	pmed
			1	965	red brick, grog tempered, 105 x 53mm	17th-19th c.
		slag	2	400	not ferrous?	pmed
33	3306	pot	1	5	refined whiteware	19th/20th c.
			1	74	brown stoneware bottle	19th/20th c.
37	3701	iron	1	940	triangular piece, 30mm thick, 115mm long to apex	pmed/modern

APPENDIX 6: Discovery and Excavation in Scotland Entry

LOCAL AUTHORITY:	Midlothian
PROJECT TITLE/SITE NAME:	Midlothian Community Hospital, Eskbank Road, Bonnyrigg, Midlothian
PROJECT CODE:	ROMI
PARISH:	Lasswade
NAME OF CONTRIBUTOR:	Ian Suddaby
NAME OF ORGANISATION:	CFA Archaeology Ltd
TYPE(S) OF PROJECT:	Desk-based assessment and Evaluation
NMRS NO(S):	None
SITE/MONUMENT TYPE(S):	Rig and Furrow
SIGNIFICANT FINDS:	None
NGR (2 letters, 8 or 10 figures)	NT 3190 6580
START DATE (this season)	June 2008
END DATE (this season)	July 2008
PREVIOUS WORK (incl. <i>DES</i> ref.)	None
MAIN (NARRATIVE) DESCRIPTION: (May include information from other fields)	CFA Archaeology Ltd carried out a desk-based-assessment and evaluation (c.2450m ²) of the proposed Midlothian Community Hospital site on the edge of Bonnyrigg. The desk-based assessment showed that no known cultural heritage sites existed within the proposed development area. The evaluation work revealed truncated rig and furrow cultivation remains aligned mostly NW-SE. No other features or deposits of archaeological interest were identified.
PROPOSED FUTURE WORK:	N/A
CAPTION(S) FOR ILLUSTRS:	None
SPONSOR OR FUNDING BODY:	Robertson Construction Lothians Ltd
ADDRESS OF MAIN CONTRIBUTOR:	Old Engine House, Eskmills Business Park, Musselburgh, EH21 7PQ
EMAIL ADDRESS:	isuddaby@cfa-archaeology.co.uk
ARCHIVE LOCATION (intended/deposited)	NMRS/Midlothian SMR

Key:

Overhead electricity lines

High pressure gas mains

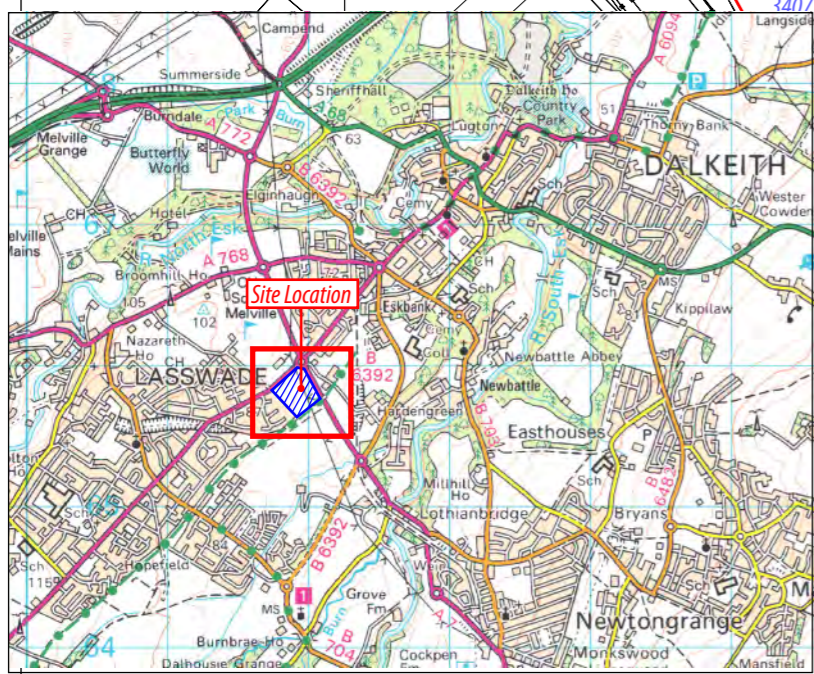
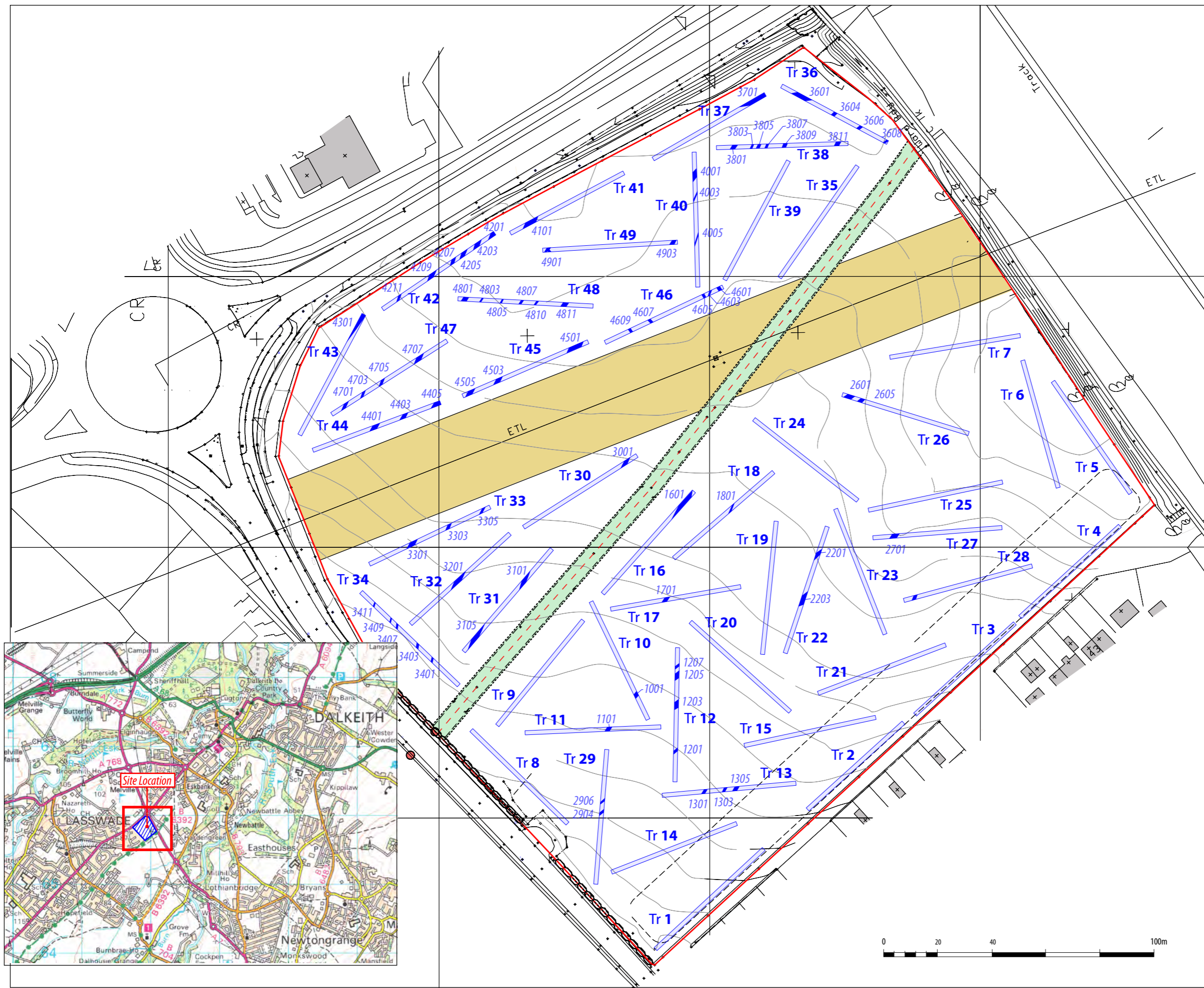


Fig. No: 1 Revision: A

Title: Trench Location Plan

Project: Midlothian Community Hospital, Eskbank Road, Bonnyrigg

Scale:

Client: Robertson Construction Lothians Ltd

Drawn by: LW Page No:





Fig 2 - Trench 38; Furrow 3809 with plough scores in the base



Fig 3 - Trench 42; Showing furrows 4203 and 4205 above and below the 1m scale

Key:

Fig. No: **2, 3** Revision: **A** Client: **Robertson Construction Lothians Ltd**

Title:

Project: **Midlothian Community Hospital,
Eskbank Road, Bonnyrigg**

Scale:



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Page No:



Fig 4 - Trench 29; Shallow furrow 2904 with arched tile clay-piped field drain inserted



Fig 5 - Trench 25; Stone filled field drain overlain by an arched tile clay-piped drain

Key:

Scale:

Fig. No:	4, 5	Revision:	A	Client:	Robertson Construction Lothians Ltd
Title:					
Project:	Midlothian Community Hospital, Eskbank Road, Bonnyrigg				



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