

GUARD ARCHAEOLOGY



**Fleming Road, Houston
Data Structure Report
Project 4096**

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Fleming Road, Houston

Data Structure Report

On behalf of: Stewart Milne Homes

NGR: NS 40184 67052

Project Number: 4096

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Approved by:



Date:

24/03/2015

*This document has been prepared in accordance
with GUARD Archaeology Limited standard operating procedures.*

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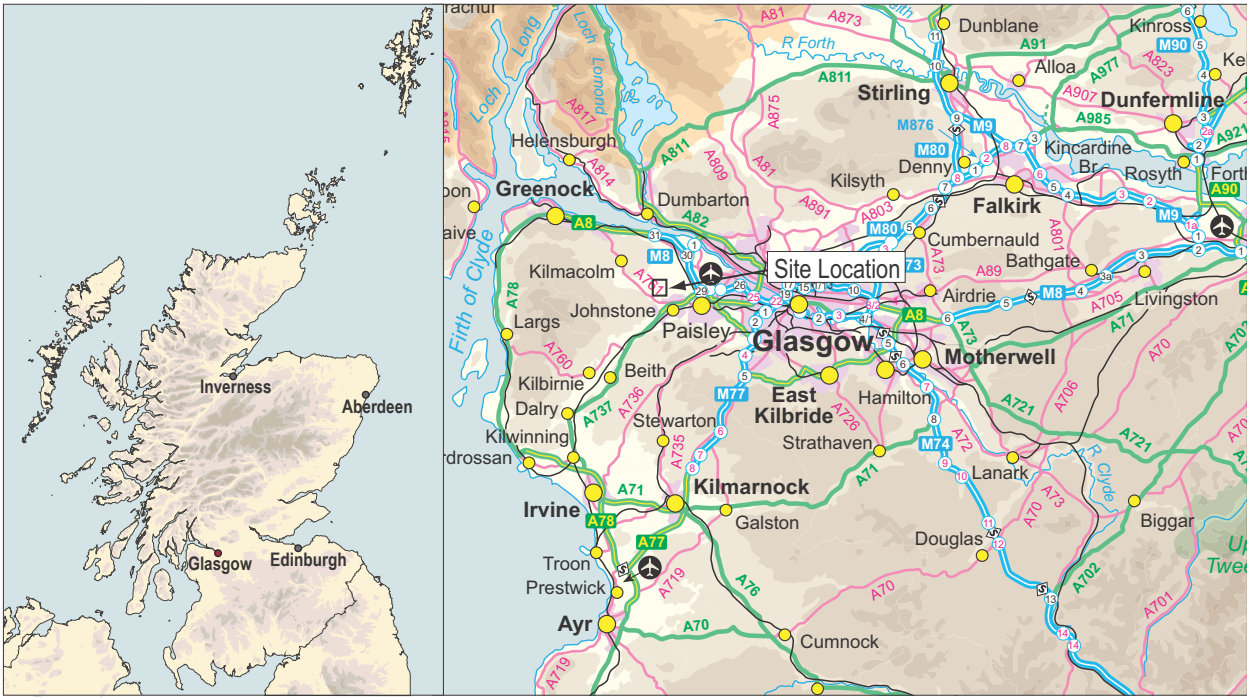
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KEY






-  trench locations
-  site boundary
-  flood plain
-  telecom buffer
-  telegraph pole

Figure 1:
Site location.



Executive Summary

- 1.1 An 8% archaeological evaluation was carried out on behalf of Stewart Milne Homes over an area of 22,662 m² due to be developed for new housing. The evaluation took place between 16th - 18th March 2015 and a total of 25 trenches were excavated across the area, away from the floodplain of the burn that dissects the development area. One feature of potential interest was revealed within trench 12, a possible small rectangular structure or hard standing, and a small area was subsequently expanded around this in order that the extent could be fully established and recorded.

Introduction

- 2.1 This report sets out the results of the archaeological evaluation undertaken by GUARD Archaeology Limited, on behalf of Stewart Milne Homes over two fields located to the west of Houston, Renfrewshire. The evaluation revealed one feature of potential interest, which may relate to the Bleach Works present to the west of the site on the OS six-inch 1st edition map (1863).

Site Location, Topography and Geology

- 3.1 The proposed development location lies to the west of Houston (NS 40184 67052 centred). The development area covers approximately 22,662 m², although the presence of BT cables across the site reduced the trenchable area to around 20,197 m². The site sits between 35 m and 40 m AOD, sloping downwards from the north-west and south towards the central area of the Houston Burn tributary and floodplain.
- 3.2 The tributary burn runs west/east across the centre of the site forming the central field boundary here, while the Houston burn flows along the north and north-east extent (Figure 1). Fleming Road bounds the site to the south and west, while the housing on Burnlea Crescent abuts the site to the east. The land is currently used as pasture.
- 3.3 The underlying bedrock is mostly Strathgryfe Lava Member Plagioclasemacrophyric Basaltic-rock, although this varies at the south of the site where the solid geology is Kilbarchan Lava Member Olivinemacrophyric Basaltic-rock. Superficial deposits across the site were Alluvium clay, silt, sand and gravels (British Geological Survey, Geology of Britain Viewer).

Archaeological Background

- 4.1 There are no known upstanding archaeological or historical sites present within the proposed development area. However, Houston Bleach Works was present to the west of the site in the 1860s (OS six-inch 1st edition map, 1863) and elements of it appear also to have been present within the south field of the development area at that time. The general picture for the surrounding area is one of few known archaeological features, however the north and south mounds (Canmore site nos: NS46NW 8 and NS46NW 9) - a pair of scheduled burial cairns - are located within half a kilometre of the development area.

Aims and Objectives

- 5.1 The aim of the archaeological evaluation was to identify:
- the presence or absence of as yet unknown archaeological features within the proposed development area;
 - to ensure that any surviving archaeological remains, encountered during the evaluation, were recorded to an appropriate level.
- 5.2 The objectives were therefore to:
- Conduct an 8% (1814 m²) archaeological evaluation of the 22662 m² area of the proposed

development out with the flood plain areas of the development to establish the presence or absence of any archaeological remains and their character, date and extent if surviving;

- Submit a report to data structure level for approval to WoSAS, on completion of the archaeological fieldwork, which includes an outline of the scope of any further excavation works should any significant archaeology be encountered.

5.3 The scope of the archaeological works will establish:

- that if the archaeological evaluation encounters no significant archaeological remains, no further archaeological fieldwork will be required for this development.

Methodology

The methodology employed during the evaluation was as follows:

- 6.1 A series of 25 evaluation trenches (Figure 1) (varying in size from 20 to 50 m in length and measuring 2 m wide) were excavated using a back-acting machine under constant supervision of a GUARD Archaeologist.
- 6.2 The topsoil or overburden at each trench location was removed in spits to the first archaeological horizon or, where none was found, to the natural subsoil. Any archaeological features encountered were cleaned by hand by the on-site Archaeologist to determine their character and extent.
- 6.3 A full record of excavated features was made using a single context recording system using pro forma sheets, drawings and photographs. All potential archaeological features were photographed and recorded at an appropriate scale. All trench locations were accurately surveyed using a sub-metre GPS and located within the National Grid.
- 6.4 A representative section of each trench was recorded denoting depth of topsoil, any stratigraphy present and the nature of the soil. This information was logged in the day book together with a sketch drawn to scale and a photographic record of deposits.
- 6.5 Encountering potentially significant archaeological remains within any of the trenches acted as a trigger to expanded the area of stripping so that the full extent of the archaeological features could be defined.
- 6.6 On completion of the recording of the evaluation trenches, the backfilling was undertaken by a back-acting machine.

Results

- 7.1 A total of 25 trenches were excavated as part of the evaluation totalling 1,636 m² (just over 8% of the trenchable area), with some slight variances on the original trench plan taking into account the overhead services present. The results of these are set out in Appendix 1. Topsoil across the area was a dark brown-grey silty loam with frequent pebbles and small roots, measuring between 0.19 m to 0.33 m in depth. Subsoil was mostly mid brown orange silty gravels, with some variance over the rising ground to the north-west where beige sandy silts were present, and upslope to the south where light-mid pinkish beige grey silty clay and gravels were present. A mid brown silty intermediate hillwash or possible former plough soil was present towards the upslope area of the south field, recorded in Trenches 16-22. This was between 0.19 m and 0.29 m in depth. The ground was wet around the floodplain areas and towards the break of slope in the south field, with subsoil here saturated.
- 7.2 During the course of the evaluation one feature of potential archaeological significance was encountered. This was within Trench 12, and an area was subsequently expanded around the feature here to fully reveal the extent. Topsoil in Trench 12 was a loose dark brown grey silt

measuring 0.3 m in depth and subsoil was a mid brown orange silty gravel with frequent stone inclusions.

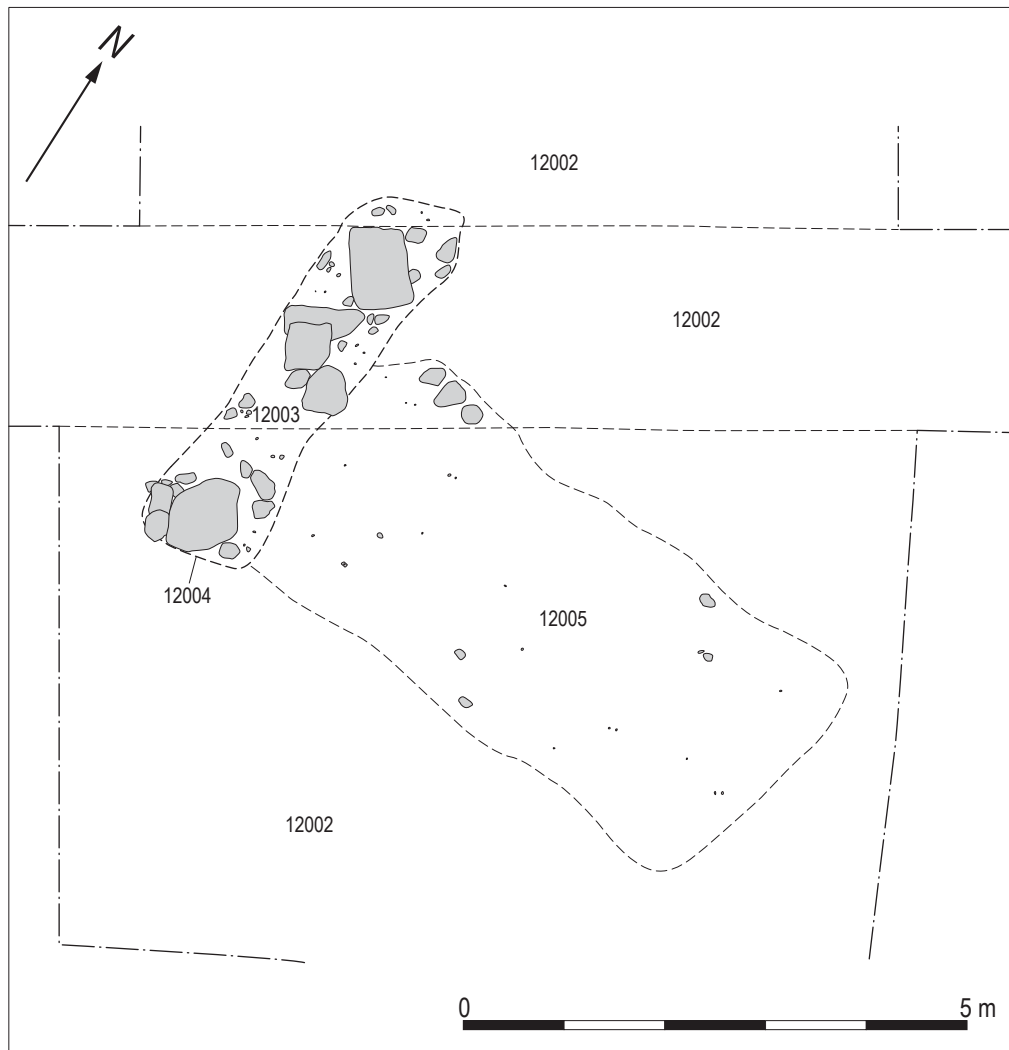


Figure 2: Rectangular deposit 12005, with abutting linear feature 12003/12004.

7.3 The feature comprised a sub-rectangular-shaped deposit of dark grey and white loose crushed industrial waste and ashy shale material (12005), measuring 2.9 m in width by 5.9 m in length and 40 – 60 mm in depth. This was orientated ENE/WSW and abutted linear feature 12004 at the WNW extent (Figure 2; Plate 1). This comprised a mid brown silty deposit (12003) containing large rubble-like stones and some occasional small brick fragments; a single complete brick was retained as sf 1, but no stamps were visible. The stones were mostly sub-angular measuring around 0.35 m by 0.2 m by 0.15 m, but several were larger with one large example appearing to be faced and measuring 0.6 m by 0.37 m by 0.22 m. They were irregularly arranged, with no evident coursing or bonding material. This deposit was within NNW/SSE orientated shallow irregular cut 12004, measuring 3.9 m in length by 0.75 m in width, and around 60 mm in depth.



Plate 1: Rectangular deposit 12005, with linear feature 12003/12004 at the WNW extent.

7.4 It seems likely that deposit 12005 may represent a former levelling or support layer for a small structure or else a hard standing area. Linear feature 12003/12004 may potentially represent

the dug out foundation of a corresponding wall, although is only present on one side of the deposit, and may originally have been formed of re-deposited demolition debris given what appears to be the presence of a variety of building materials of various sizes.

- 7.5 The only other deposit of note was within Trench 20, where a thin patchy deposit of similar mixed crushed ashy industrial material was noted, however here it was irregular and only sporadically present for an area of around 3.5 m, reaching a maximum depth of 40 mm.

Discussion

- 8.1 The feature identified in Trench 12 appears to correspond with a small rectangular feature present on both the OS six-inch 1st edition map (1863) and the OS 25 inch to the mile 1st edition map (1863). These show a series of linear features represented over the west side of the south field which appear to represent an adjacent area to the main Houston Bleach Works, which were present to the west of the site on the area of what is now the Strathgryffe Tennis, Squash and Fitness Club. However the 25 inch edition has the features present here marked as a 'ruin' although they appear to be an industrial area of some kind.

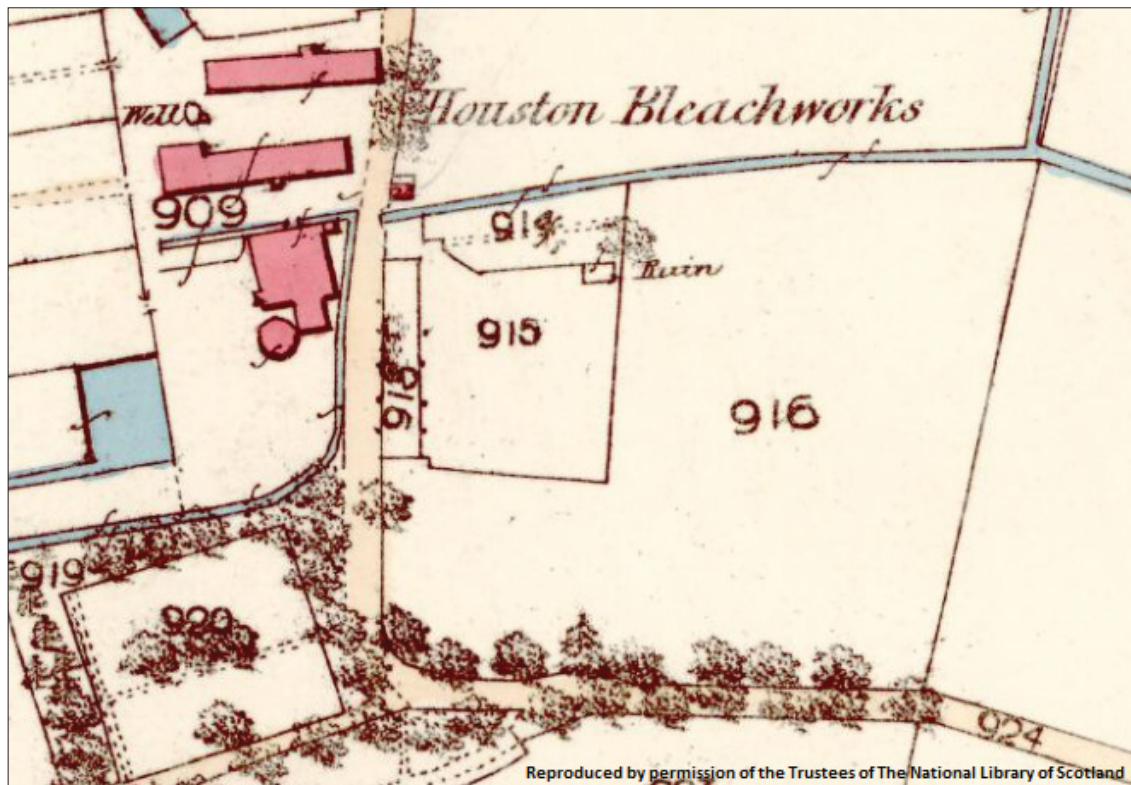


Plate 2: Extract from OS Renfrew Sheet VII.11, 25 inch to the mile 1st edition, 1863, showing the small rectangular 'ruin'.

- 8.2 Enclosed areas to the north and west are shown, with the small rectangular feature present adjacent to this northern area (Plate 2). It is not clear from the map what this represents; the rectangular feature doesn't appear to be a substantial roofed structure as it is not hatched or coloured as per the convention for other buildings, although this could be explained by the structure falling into disuse if this was the case. This could correspond well with the relatively insubstantial nature of the remains in Trench 12, likely representing the site of a former small structure, perhaps partially walled, or else an area of hard standing. The patchy presence of a similar further deposit in Trench 20 is likely also a result of the activity in this area of the site, although was not substantial enough to represent a structure or even an evident basal or support layer. The features are certainly post-industrial in date and even if not directly in use by the bleach works at the time of the OS survey in 1857 as the 25 inch edition would suggest, aren't likely to have predated by long. They may represent an earlier extension of the bleach works, or else an unrelated and possibly short lived area of industrial or even agricultural activity of another kind.

- 8.3 The 1863 OS six-inch and 25 inch 1st edition maps are the only editions to show these features across the western areas of the south field. The subsequent 1897 editions no longer depict anything as located within the development site, and the bleach works are also no longer represented by this point. This means that the features within Trench 12, if corresponding to those depicted, were likely in use prior to the 1857 when the first edition survey was conducted, but had fallen out of use and were subsequently cleared by 1895 when revisions were made for the second editions.

Recommendations

- 9.1 The evaluation work revealed one feature of archaeological significance, likely relating to former use of the site around the first half of the 19th century for industrial or agricultural purposes as depicted on the first edition OS maps. This feature has now been fully recorded and no further work is likely to be required in relation to this.
- 9.2 Given this and the lack of any other archaeologically sensitive remains encountered within the development area it is unlikely that any further work will be required in relation to the development works.
- 9.3 GUARD Archaeology Limited would stress that these recommendations are intended for guidance only. While the recommended mitigation strategy was developed following consultation with Paul Robbins of West of Scotland Archaeology Service, final decisions on the nature and extent of any future archaeological work rest with the planning authority.

Acknowledgements

- 10.1 GUARD Archaeology would like to thank Stewart Milne Homes for their assistance. Plant and drivers were supplied by Brown Plant Hire. Technical support was from Aileen Maule and Jen Cochrane. A survey of trench locations was conducted by Fiona Jackson. The illustrations were produced by Fiona Jackson. The report was desk top published by Gillian McSwan. The project was managed for GUARD Archaeology Limited by John Atkinson.

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Section 2: Appendices



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Appendices

Appendix A: Sources Consulted

Online Resources

British Geological Survey, Geology of Britain Viewer; <http://mapapps.bgs.ac.uk/geologyofbritain/home.html>, last accessed 19th March 2015

Royal Commission on the Ancient and Historical Monuments of Scotland, Canmore database; <http://canmore.rcahms.gov.uk/>, last accessed 19th March 2015

Cartographic Sources

Ordnance Survey, 1863, Renfrewshire Sheet VII, Six-inch 1st edition, 1863

Ordnance Survey, 1863, Renfrew Sheet VII.11, 25 inch to the mile 1st edition

Ordnance Survey, 1897, Renfrewshire Sheet VII.SE, Six-inch 2nd and later editions

Ordnance Survey, 1897, Renfrewshire Sheet 007.11, 25 inch to the mile, 2nd and later editions

Appendix B: Trench Details

Tr No	Length (m)	Width (m)	Depth (m)	Topsoil/Overburden	Intermediate Deposit	Subsoil	Details
1	25	2	0.36	Loose dark grey brown silt with frequent stones and roots. 0.29 m in depth.	-	Very compact light beige orange sandy gravel with frequent sub-angular stones	Topsoil quite rubbly/rooty – located on mound near stream/trees/field entrance. NE-SW rubble drain.
2	50	2	0.27	Loose dark grey brown silty loam with small pebbles and roots. 0.2 m in depth.	-	Very compact mid beige grey silty sand with some small stones and larger boulders up to 0.35 m by 0.3 m.	Located NE/SW over mound.
3	50	2	0.28	Loose dark grey brown silty loam with small pebbles and roots. 0.28 m in depth.	-	Very compact mid brown orange silty gravel with small stones and larger sub-angular stones up to 0.2 m by 0.3 m.	NW/SE drain, E/W soak-away.
4A	20	2	0.34	Loose dark grey brown silty loam with small pebbles and roots. 0.27 m in depth.	-	Very compact mid brown orange pink silty gravel with frequent stones.	E/W soak-away, E/W field drain.
4B	30	2	0.35	Loose dark brown grey silty loam with frequent pebbles and small roots. 0.27m in depth.	-	Very compact mid beige orange brown silty gravel with frequent stones up to 0.2 m by 0.35 m.	E/W rubble drain, NW/SE iron pipe.
5A	50	2	0.34	Loose dark grey brown silty loam with frequent pebbles and small roots. 0.27 m in depth.	-	Very compact mid brown orange silty gravel with frequent stones	NW/SE drains
5B	30	2	0.32	Loose dark brown grey silty loam with frequent stones and roots, 0.28m in depth.	-	Very compact mid brown orange silty gravel with frequent stones.	NW/SE orientated field drains.

Tr No	Length (m)	Width (m)	Depth (m)	Topsoil/Overburden	Intermediate Deposit	Subsoil	Details
6	50	2	0.35	Loose dark brown grey silty loam with frequent pebbles, small roots, 0.27 m in depth.	-	Very compact light/mid brown pink orange silty gravel with frequent small stones.	NE/SW orientated field drain.
7	25	2	0.3	Loose dark grey brown silty loam with frequent small pebbles, roots, 0.25 m in depth.	-	Very compact mid brown orange silty gravel with frequent stones.	-
8	25	2	0.28	Loose dark brown grey silty loam with frequent pebbles, roots, 0.24 m in depth.	-	Very compact mid orange brown silty gravel with frequent stones.	-
9	25	2	0.25	Loose dark grey brown silt with frequent pebbles, small roots, 0.19 m in depth.	-	Very compact mid brown orange silty gravel with frequent stones.	NW-SE field drain. ENE-WSW soak-away. Ground root disturbed towards river bank and trees at NE.
10	50	2	0.33	Loose dark grey brown silty loam with frequent pebbles and small roots, 0.25 m in depth.	-	Very compact brown orange silty gravel with frequent stones up to 0.15 m by 0.2 m.	Soak-away at NE extent, as Tr11/12
11	25	2	0.32	Loose dark brown grey silty loam with frequent small pebbles, roots, 0.28 m in depth.	-	Very compact mid brown orange silty gravel with frequent stones.	Soak away at NW extent, as Tr 10/12.
12	25	2	0.45	Loose dark brown grey silt with frequent small stones and roots, 0.3 m in depth.	-	Very compact mid brown orange silty gravel with frequent stones.	Soak away at NE, as Tr 10/11. Modern machine dug pit towards SW, possible test pit. See also features 12003-12005, possible structural remains.
13	25	2	0.39	Loose dark brown grey silty loam with frequent small stones, roots, 0.32 m in depth.	-	Very compact mid orange brown silty gravel with frequent stones.	
14	35	2	0.4	Loose dark brown grey silty loam with frequent small stones, roots, 0.33m in depth.	-	Very compact mid brown-light beige brown silty clay and gravel with frequent stones.	Very wet at NE, within floodplain here.
15	20	2	0.35	Loose dark grey brown silty loam with frequent small stone sand roots, 0.3 m in depth.	-	Very compact mid brown orange silty clay gravel with frequent stones.	-
16	45	2	0.6	Loose dark brown grey silty loam with frequent pebbles, small roots, 0.28 m in depth.	Moderately compact mid reddish brown silt with occasional small stones, 0.29 m in depth. Possible plough soil or hillwash deposit.	Very compact light/mid grey orange beige silty clay and gravel with frequent stones.	E/W rubble drain. Subsoil waterlogged towards base of slope.
17	40	2	0.3	Loose dark brown grey silty loam with frequent small stones and roots, 0.24 m in depth	-	Very compact mid beige brown orange silty clay and gravel	-

Tr No	Length (m)	Width (m)	Depth (m)	Topsoil/Overburden	Intermediate Deposit	Subsoil	Details
18	50	2	0.62	Loose dark brown grey silty loam with frequent pebbles and small roots, 0.24 m in depth.	Moderately compact mid brown silt with occasional small stones, 0.28m in depth. Plough soil/hillwash deposit.	Very compact mid pinkish orange brown silty gravel with frequent sub-angular stones, especially upslope.	E/W rubble drain. Rocky outcrop investigated towards SE extent, revealed to be natural.
19	50	2	0.36	Loose dark brown grey silty loam with frequent pebbles, small roots, up to 0.29m in depth.	Moderately compact mid brown silt with occasional stones, 0.19 m in depth. Plough soil/hillwash deposit, at upslope SE extent.	Very compact light beige orange silty clay with frequent small stones.	E/W rubble drains NE/SW soak-away as TR 10/11/12.
20	25	2	0.36	Loose dark brown grey silt with frequent small stones/roots, 0.28m in depth.	-	Very compact light/mid pinkish beige brown sandy silty gravel with frequent irregular stones.	A thin concentrated deposit of crushed industrial waste/ashy shale material present for c3.5 m, 0.04 m in depth. Sporadic, not discernible as a surface. Also E/W rubble drains.
21	25	2	0.5	Loose dark brown grey silty loam with frequent small stones and roots, 0.26 m in depth.	Moderately compact mid brown silt with occasional small pebbles, 0.19 m in depth. Plough soil/hillwash deposit, at upslope SW extent.	Very compact mid beige brown orange silty clay and gravel with frequent stones.	E/W and NW/SE rubble drains.
22	20	2	0.48	Loose dark grey brown silty loam with frequent pebbles and small roots, 0.22 m in depth.	Moderately compact mid brown silt with occasional small stones, 0.18 m in depth. Plough soil/hillwash deposit.	Very compact mid brown grey silty gravel with frequent stones.	ENE/WSW rubble drains. Very wet at NW in boggy area.
23	20	2	0.32	Loose dark brown grey silty loam with frequent small stones, roots, 0.27 m in depth.	-	Very compact mid brown orange silty gravel with frequent stones.	-

Appendix C: List of Contexts

Context No.	Area	Feature Type	Description	Interpretation
12001	T12	Topsoil	Loose dark brown grey silt with frequent small stones and roots. 0.3 m in depth.	Topsoil
12002	T12	Subsoil	Very compact mid brown orange silty gravel with frequent stones.	Subsoil
12003	T12	Fill	Loose mid brown silt and stones. Stones are mostly angular up to 0.35 m x 0.2 m x 0.15 m, with 3-4 larger examples, one of which looks faced and measures 0.6 m x 0.37 m x 0.22 m. Also some mixed rubble material including some brick fragments. Deposit measures 3.2 m length by 0.75 m width. No coursing/bonding of stones. Irregularly arranged.	Possible dug out foundational material, mix of rubble and stone, may be serving some kind of drainage function or else may be dug out foundations for a small stretch of dry stone walling.
12004	T12	Cut	Shallow irregular linear cut, measuring 3.9 m length by 0.75 width, contains mixed rubble and stone deposit 12003. Around 60mm in depth. Orientated NNW/SSE, abuts post industrial crushed deposit 12005.	Possibly representing a corresponding wall cut to 12005 although quite shallow. Likely 19th century in date.
12005	T12	Deposit	Loose friable mixed dark grey and ashy white crushed industrial waste and shale material, with 3x larger stones to the north, up to 0.25 m x 0.15 m x 0.15m. Deposit measures 5.9m length by 2.9 m width and is uneven, 40mm – 60mm in depth.	Rectangular shaped crushed gritty material, likely forming a levelling or support layer for a small structure or possible hard standing. Abuts linear feature 12003/12004 to the west.

Appendix D: List of Drawings

Drawing No.	Area	Sheet No.	Subject	Scale
1	T12	1	Plan of linear feature 12004 and deposit 12005	1:20
2	T12	2	Extended plan of 12003-12005 when fully revealed	1:20

Appendix E: List of Finds

Find No.	Area	Context No.	No. of Pieces	Material	Description
1	T12	-	-	CBM	Brick, no stamp visible.

Appendix F: List of Digital Images

Frame	Area	Context No.	Subject	Taken from
1	-	-	ID shot	-
2	-	-	General of N field	NW
3	-	-	General of N field	E
4	-	-	General of N field	NE
5	Tr2	-	SE facing section	SE
6	Tr2	-	General post ex	SW
7	Tr3	-	NW facing section	NW
8	Tr3	-	Soak-away	SW
9	Tr3	-	SE facing section at soak-away	SE
10	Tr3	-	General post ex	SW
11	Tr6	-	NE facing section	NE
12	Tr6	-	General post ex	NW
13	Tr7	-	SE facing section	SE
14	Tr7	-	General post ex	NW
15	Tr8	-	NE facing section	NE
16	Tr8	-	General post ex	NW
17	Tr4A	-	General post ex	NE
18	Tr4A	-	NW facing section	NW
19	Tr4A	-	Possible furrow/soak-away	SW
20	Tr4B	-	SE facing section	SE
21	Tr4B	-	General post ex	SW
22	-	-	General of N field	NW
23	-	-	General of trenches 6,7,8	NE
24	-	-	General of trenches 2,3	SE
25	Tr5A	-	NW facing section	NW
26	Tr5A	-	General post ex	NE
27	Tr5A	-	SE facing section	SE
28	Tr5B	-	NW facing section	NW
29	Tr5B	-	General post ex	SW
30	Tr1	-	General post ex	SW
31	Tr1	-	NW facing section	NW
32	Tr1	-	General of rubble drain	SW
33	-	-	Pre-existing tracks through stream	N
34	-	-	Ford at burn	W
35	-	-	General of S field	NE
36	-	-	General of S field	N
37	-	-	General of S field	N
38	-	-	General of backfilled trenches 4,5,6	SW
39	-	-	General of backfilled trenches 3,4,6	SE
40	-	-	General of backfilled trenches 4,5	S
41	Tr9	-	NW facing section	NW
42	Tr9	-	General post ex	SW
43	Tr20	-	NW facing section	NW

Frame	Area	Context No.	Subject	Taken from
44	Tr20	-	General post ex	NE
45	Tr10	-	NE facing section	NE
46	Tr10	-	General post ex	SE
47	Tr12	-	General post ex	SW
48	Tr11	-	Soak-away	E
49	Tr11	-	Soak-away	NW
50	Tr11	-	General post ex	NW
51	Tr11	-	NE facing section	NE
52	Tr21	-	NW facing section	NW
53	Tr21	-	General of rubble drains	SW
54	Tr21	-	General post ex	NE
55	Tr19	-	Rubble drain	NW
56	Tr19	-	NE facing section	NE
57	Tr19	-	General post ex	SE
58	Tr18	-	Rubble drain	NW
59	Tr18	-	General post ex	SE
60	Tr17	-	NW facing section	NW
61	Tr17	-	General post ex	NE
62	Tr20	-	NW facing section at crushed deposit	NW
63	Tr18	-	Rocky outcrop investigated	N
64	Tr18	-	Rocky outcrop investigated	NNE
65	Tr18	-	Rocky outcrop investigated	SE
66	Tr18	-	Rocky outcrop investigated	NW
67	Tr18	-	NE facing section	NE
68	Tr12	12003-12005	Linear feature and deposit	S
69	Tr12	12003-12005	Linear feature and deposit	E
70	Tr12	12003-12005	Linear feature and deposit	N
71	Tr12	12003-12005	Linear feature and deposit	N
72	Tr12	12003-12005	Linear feature and deposit	NW
73	Tr12	12003-12005	Linear feature and deposit	N
74	Tr12	-	Modern test pit	SE
75	Tr12	-	Modern test pit	E
76	Tr12	-	Modern test pit	W
77	Tr12	-	NW facing section	NW
78	-	-	General of backfilled trenches	N
79	-	-	General of backfilled trenches	SE
80	-	-	General of backfilled trenches	NE
81	Tr16	-	General post ex	NW
82	Tr16	-	NE facing section	NE
83	Tr16	-	General post ex	SE
84	Tr14	-	General post ex	SE
85	Tr14	-	General post ex	NW
86	Tr14	-	SW facing section	SW
87	Tr13	-	General post ex	SE
88	Tr13	-	General post ex	NW
89	Tr13	-	SW facing section	SW
90	Tr15	-	General post ex	SW
91	Tr15	-	SE facing section	SE
92	Tr22	-	General post ex	SE
93	Tr22	-	SW facing section	SW
94	Tr22	-	General post ex	NW
95	Tr23	-	General post ex	NW
96	Tr23	-	SW facing section	SW
97	Tr12	12003-12005	General of features	W
98	Tr12	12003-12005	General of features	NW

Frame	Area	Context No.	Subject	Taken from
99	Tr12	12003-12005	General of features	E
100	Tr12	12003-12005	General of features	SE
101	Tr12	12003-12005	Detail 12003/12004	N
102	Tr12	12003-12005	Detail 12005	SE
103	Tr12	12003-12005	Detail 12005	N
104	Tr12	12003-12005	General of features	NE
105	-	-	General of backfilled area	SW
106	-	-	General of backfilled area	S
107	-	-	General of backfilled area	S

Appendix G: Discovery and Excavation in Scotland Entry

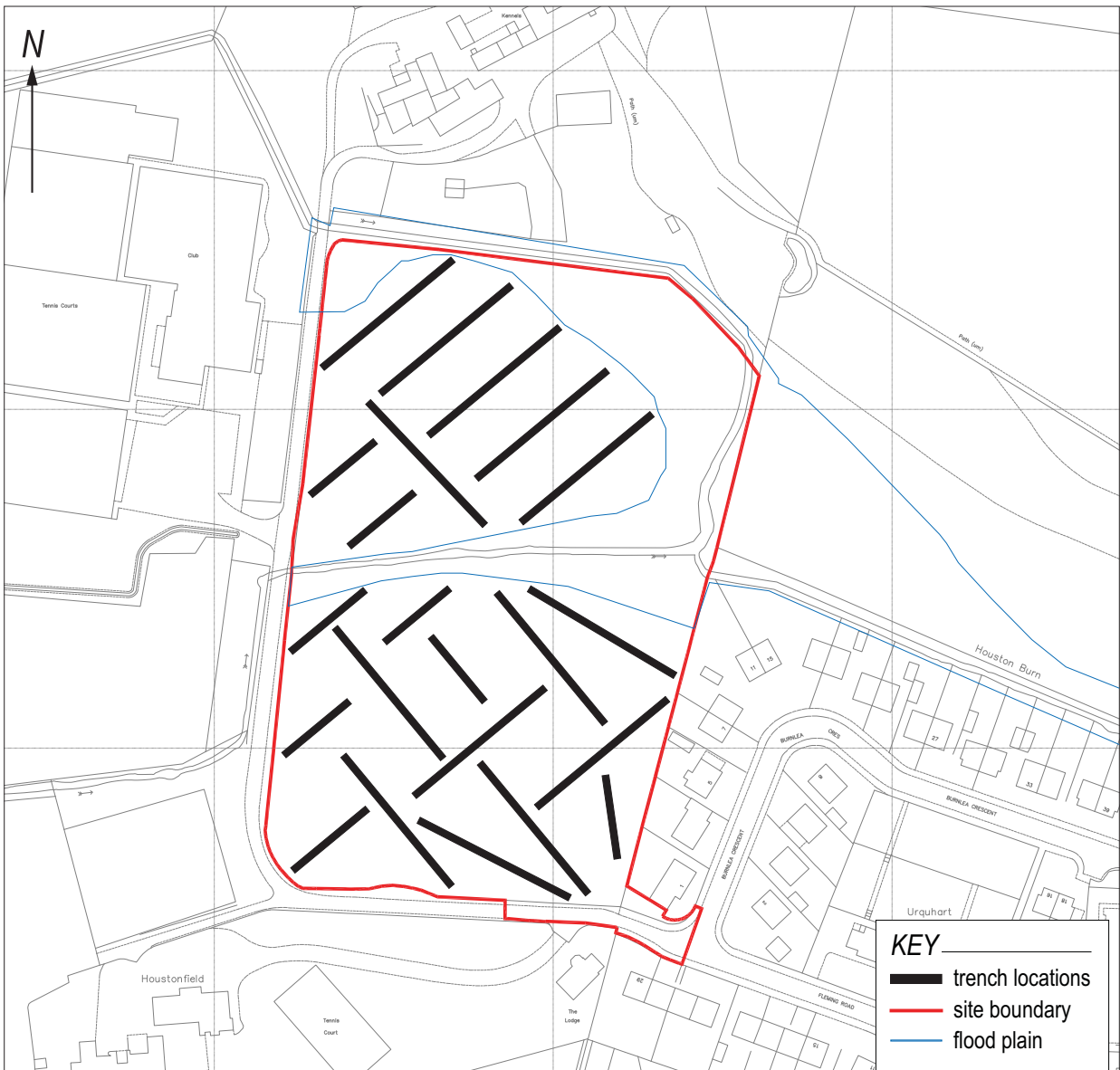
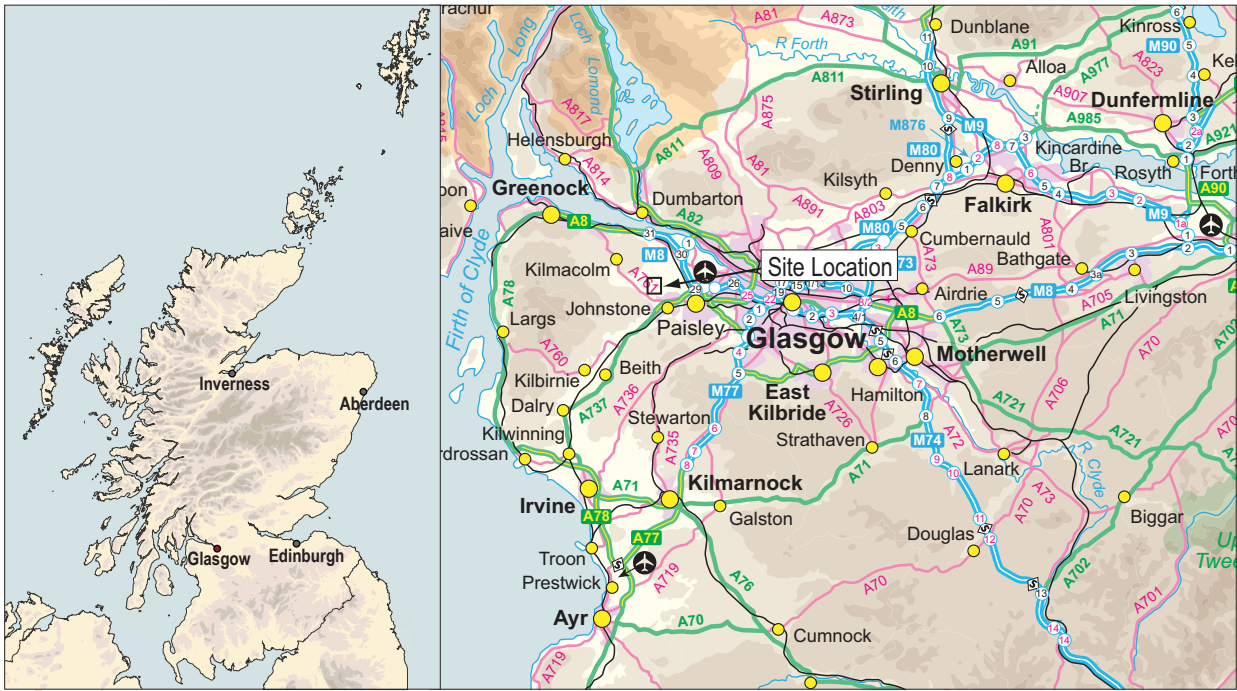
LOCAL AUTHORITY:	Renfrewshire, West of Scotland Archaeology Service
PROJECT TITLE/SITE NAME:	Fleming Road, Houston
PROJECT CODE:	4096
PARISH:	Lochwinnoch
NAME OF CONTRIBUTOR(S):	Beth Spence
NAME OF ORGANISATION:	Guard Archaeology Ltd
TYPE(S) OF PROJECT:	Archaeological Evaluation
NMRS NO(S):	--
SITE/MONUMENT TYPE(S):	Small structure or hard standing, likely 19 th century industrial
SIGNIFICANT FINDS:	--
NGR (2 letters, 6 figures)	NS 40184 67052
START DATE (this season)	16 th March 2015
END DATE (this season)	18 th March 2015
PREVIOUS WORK (incl. DES ref.)	--
MAIN (NARRATIVE) DESCRIPTION: (May include information from other fields)	An 8% archaeological evaluation was carried out on behalf of Stewart Milne Homes over an area of 22,662 m ² which is due to be developed into housing. The evaluation took place between 16 th - 18 th March 2015 and a total of 25 trenches were excavated across the area, outwith the floodplain of the burn which dissects the area. One feature of potential interest was revealed within trench 12, a possible small rectangular structure or hard standing, and a small area was subsequently expanded around this in order that the extent could be fully established and recorded. Subsequent map regression dated this to the mid 19 th century, likely industrial or agricultural in nature and possible related to the adjacent Houston Bleach Works.
PROPOSED FUTURE WORK:	--
SPONSOR OR FUNDING BODY:	Stewart Milne Homes
CAPTION(S) FOR ILLUSTRS:	--
ADDRESS OF MAIN CONTRIBUTOR:	Guard Archaeology Ltd, 52 Elderpark Workspace, 100 Elderpark Street, Glasgow, G51 3TR
EMAIL ADDRESS:	Beth.spence@guard-archaeology.co.uk
ARCHIVE LOCATION (intended/deposited)	NMRS intended OASIS ref. guardarc1-206843

Appendix H: Written Scheme of Investigation

FLEMING ROAD, HOUSTON

ARCHAEOLOGICAL WRITTEN SCHEME OF INVESTIGATION

PROJECT 4096



KEY	
	trench locations
	site boundary
	flood plain

Figure 1:
Site location.



Executive Summary

- 1.1 This Written Scheme of Investigation (WSI) forms the archaeological method statement for the evaluation of the area proposed for the erection of residential housing comprising 32 houses and associated works to the north-east of Fleming Road, Houston, Renfrewshire (Figure 1) (Planning reference 15/0049/PP). This document will require to be approved by the West of Scotland Archaeology Service (WoSAS) prior to the commencement of archaeological fieldwork.

Introduction

- 2.1 This Written Scheme of Investigation (WSI) sets out the methodology for the archaeological mitigation works required in support of the erection of residential housing comprising 32 houses and associated works to the north-east of Fleming Road, Houston, Renfrewshire in accordance with the relevant archaeology condition specified by WoSAS (Planning reference 15/0049/PP). An 8% archaeological evaluation will be undertaken to establish the presence, extent and nature of any significant archaeological remains. Should significant remains be identified and it is not possible to preserve them *in situ* a further requirement for archaeological works to ensure their preservation through record is likely to be required.
- 2.2 This WSI outlines the programme of archaeological works that may be needed to mitigate the effects of the proposed development. It details the methodology to be employed in implementing the Stage 1 archaeological works. The mitigation methodology to be employed during Stage 2 excavation and Stage 3 post excavation analysis and publication, will be specified in *addenda* to this document. These *addenda*, if required, will be submitted for the approval of WoSAS, prior to the commencement of any archaeological work. All phases of work will be funded by the developer as required by the Planning Authority.

Site Location

- 3.1 The site is located to 120 m to the north-east of Houstonfield, Fleming Road, Houston, Renfrewshire (NGR: 4010 6704). The site is currently greenfield and used for pasture, undulating between 35 m and 40 m OD. It is bordered by Fleming Road along the south and west sides and by the Houston Burn along the north and east sides of the development area. A tributary of the Houston Burn runs through the centre of the site.

Archaeological Background

- 4.1 There are no known upstanding archaeological or historical sites present within the proposed development area. However, Houston Bleach Works was present to the west of the site in the 1860s (OS first edition plan) and elements of it appear also to have been present within the south field of the development area that that time. The general picture for the surrounding area is one of few known archaeological features, however the north and south mounds (Canmore site nos: NS46NW 8 and NS46NW 9) - a pair of schedule burial cairns - are located within half a kilometre of the development area and may support the presence of further prehistoric remains being encountered within the development area.

Aims, Objectives and Scope

- 5.1 The aim of the archaeological evaluation is to identify:
- the presence or absence of as yet unknown archaeological features within the proposed development area;
 - to ensure that any surviving archaeological remains, encountered during the evaluation, are recorded to an appropriate level.

5.2 The objectives are therefore to:

- Conduct an 8% (1814 m²) archaeological evaluation of the 22662 m² area of the proposed development out with the flood plain areas of the development to establish the presence or absence of any archaeological remains and their character, date and extent if surviving;
- Submit a report to data structure level for approval to WoSAS, on completion of the archaeological fieldwork, which includes an outline of the scope of any further excavation works should any significant archaeology be encountered.

5.3 The scope of the archaeological works will establish:

- that if the archaeological evaluation encounters no significant archaeological remains, no further archaeological fieldwork will be required for this development.

Fieldwork Methodology

Archaeological Evaluation

- 6.1 A series of 21 evaluation trenches (Figure 1) (varying in size from 25 to 50 m in length and measuring 2 m wide) will be excavated using a back-acting machine under constant supervision of a GUARD Archaeologist.
- 6.5 The topsoil or overburden at each trench location will be removed in spits to the first archaeological horizon or, where none was found, to the natural subsoil. Any archaeological features encountered will be cleaned by hand by the on-site Archaeologist to determine their character and extent.
- 6.6 Any significant archaeological features encountered will be dealt with by the on-site Archaeologist. Should negative-cut features be encountered, a representative sample will be 25-50% excavated in order to determine their significance, date and function. A full record of excavated features will be made using a single context recording system using pro forma sheets, drawings and photographs. All archaeological features will be photographed and recorded at an appropriate scale. Sections will be drawn at 1:10, and plans at 1:20. All test pits will be accurately surveyed using a sub-metre GPS and located within the National Grid.
- 6.7 All archaeological finds will be dealt with by the on-site Archaeologist. Finds and animal bone will be collected as bulk samples by context. Significant small finds will be three dimensionally located prior to collection. All finds will be processed to MAP2 type standards and subject to appropriate specialist assessment. If necessary, conservation of finds will be appraised to allow for specialist study.
- 6.8 All excavated feature fills and horizons will be sampled as appropriate, using bulk soil samples, for palaeo-environmental evidence.
- 6.9 A representative section will be recorded denoting depth of topsoil, any stratigraphy present and the nature of the soil. This information will be logged in the day book together with a sketch drawn to scale and a photographic record of deposits.
- 6.10 Should human remains be revealed by the excavation, the local police, the client and WoSAS will be informed immediately. Any human remains will be accurately recorded, but left *in situ*, pending the agreement of the police, the client and WoSAS on an appropriate mitigation strategy.
- 6.11 Should significant archaeological remains be encountered within any of the trenches proposed, the area of investigation may be expanded, in consultation with the client and WoSAS, with the aim of defining the full extent of the archaeological features.
- 6.12 WoSAS will be the final judge of significance regarding any findings and may well insist on full excavation for any features to be destroyed by the proposals.
- 6.12 Should significant archaeological remains be encountered by the evaluation, requiring more than the 8% evaluation outlined above, the remains will be largely left *in situ* pending the agreement of the client and WoSAS on a WSI addenda for an appropriate scope of excavation (Stage 2) and Post-excavation design including scope of finds analysis, conservation & publication (Stage 3).

- 6.13 On completion of the recording of the evaluation trenches, the backfilling will be undertaken by a back-acting machine. No specialist backfilling is proposed.

Report Preparation and Contents

- 7.1 A report detailing the results of the archaeological fieldwork will be submitted to the client within two weeks of completion of fieldwork and, subject to client approval, then submitted to WoSAS. The report will take the form of a Data Structure Report and will contain an analysis of the results of the evaluation. The report will include a full descriptive text that will characterise the date and extent of any archaeological deposits. It will also include plans at an appropriate scale showing the area subjected to ground-breaking works, evaluation trenches, archaeological features and archiving lists of all finds, samples, field drawings and photographs.
- 7.2 If appropriate, the report will also include an addendum to this WSI for further archaeological fieldwork, should significant archaeology have been encountered.
- 7.3 The report will include the following:
- executive summary;
 - a site location plan to at least 1:10,000 scale with at least an 8 figure central grid reference;
 - OASIS reference number; unique site code;
 - Planning application number;
 - contractor's details including date work carried out;
 - nature and extent of the proposed development, including developer/client details;
 - description of the site history, location and geology;
 - a site plan to a suitable scale and tied into the national grid so that features can be correctly orientated;
 - discussion of the results of field work;
 - context & feature descriptions;
 - features, number and class of artefacts, spot dating & scientific dating of significant finds presented in tabular format;
 - plans and section drawings of the features drawn at a suitable scale;
 - initial assessment of relevant finds/samples if appropriate;
 - recommendations regarding the need for, and scope of, any further archaeological work such as excavation (Stage 2) and Post-excavation finds analysis, conservation & publication (Stage 3);
 - bibliography.
- 7.4 At least two copies of the report will be prepared for the client and a further one including a digital PDF copy sent to WoSAS.
- 7.5 WoSAS state that any DSR is to be submitted within 4 weeks of fieldwork completion, any PERD within 3 months of agreement to the DSR and any final publication within a year of agreement to the PERD.
- 7.6 The report will be presented in an ordered state and contained within a protective cover/sleeve or bound in some fashion. The report will be page numbered and supplemented with section numbering for ease of reference.

Copyright

- 8.1 Unless otherwise agreed copyright for any report resulting from the archaeological work undertaken as part of the project will be deemed the intellectual property of GUARD Archaeology Ltd.

Publication

- 9.1 A summary of the project results will be submitted to *Discovery and Excavation in Scotland*. In the event of minor archaeological remains being encountered during the archaeological fieldwork, it is proposed that a comprehensive report submitted to *Discovery and Excavation in Scotland*, will form the final publication of the site. A copy of this will be included in the Data Structure Report.

Archive

- 10.1 The archive for the project, including a copy of the report, will be submitted to the National Monuments Records for Scotland within three months of completion of all relevant work.
- 10.2 The online OASIS form at <http://ads.ahds.ac.uk/project/oasis/> will be completed within 3 months of completion of the work. Once the Data Structure Report has become a public document by submission to or incorporation into the SMR, WoSAS will validate the OASIS form thus placing the information into the public domain on the OASIS website.

Finds Disposal

- 11.1 The arrangement for the final disposal of any finds made in connection with the archaeological work, will be deposited in keeping with Scottish legal requirements as set out in the Treasure Trove Code of Practice published by the Scottish Government in December 2008. The laws relating to Treasure Trove and *Bona Vacantia* in Scotland apply to all finds where the original owner cannot be identified. This includes all material recovered during archaeological fieldwork. Accordingly, all assemblages recovered from archaeological fieldwork are claimed automatically by the Crown and must be reported to the Scottish Archaeological Finds Allocation Panel through its secretariat, the Treasure Trove Unit. In the event of the discovery of small finds, a filled-out copy of the form "Declaration of an Archaeological Assemblage from Fieldwork" and two copies of the pertinent Data Structure Report will be submitted to the Panel at the conclusion of the fieldwork. The Panel will then be responsible for recommending to the Queen's and Lord Treasurer's Remembrancer which museum should be allocated the finds. All artefacts will be temporarily stored by GUARD until a decision has been made by the panel.

Personnel and Liaison

- 12.1 The GUARD team will comprise the following qualified and experienced GUARD archaeologists:
- Project Manager: John Atkinson
 - Project Director (on-site Archaeologists): TBC
 - Finds and Environmental Support and Conservation: Aileen Maule
 - Illustrator: Gillian McSwan
- 12.2 The GUARD Project Manager, will be the point of contact for the archaeological works. A full CV for individuals concerned can be made available on request.

Monitoring

- 13.1 The proposed start date for the archaeological fieldwork will be confirmed on approval of this WSI. WoSAS will be informed of the site mobile phone number prior to the start date so that monitoring visits can be arranged. It is estimated that the evaluation will take up to two days to complete, including backfilling, with minimal findings.

Health & Safety and Insurance

- 14.1 GUARD Archaeology Ltd adheres to the guidelines and standards prescribed for archaeological fieldwork set down in the Institute for Archaeologists approved Health and Safety in Field

Archaeology document, prepared under the aegis of the Standing Conference of Archaeological Unit Managers (SCAUM). It is standard GUARD policy, prior to any fieldwork project commencing, to conduct a risk assessment and to prepare a project safety plan, the prescriptions of which will be strictly followed for the duration of all archaeological fieldwork. Copies of the resultant project safety plan and of GUARD's Fieldwork Safety Policy Statement may be viewed upon request.

- 14.2 GUARD Archaeology Ltd also possesses all necessary insurance cover, proofs of which may be supplied upon request.

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