

# CFA Archaeology Ltd

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**Airdrie to Bathgate Railway and  
Linked Improvements.  
Armadaale Station Access Road,  
West Lothian**

**Archaeological Evaluation  
Report No. 1820**

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## **1. INTRODUCTION**

### **1.1 General**

- 1.1.1 This report presents the results of an archaeological evaluation undertaken by CFA Archaeology Ltd (CFA) from the 1<sup>st</sup> to the 2<sup>nd</sup> of September 2010 in advance of construction work commencing along the route of an access road to the new Armadale Railway Station, West Lothian (NGR centred: NS 93976 67347, Fig. 1). The work was commissioned by Carillion Construction Ltd.
- 1.1.2 This development has received Royal Assent to allow it to be constructed. The development is covered by a Code of Construction Practice which requires Network Rail to consult with the relevant Local Authorities (West Lothian Council and North Lanarkshire Council) to agree a suitable programme of archaeological mitigation
- 1.1.3 The agreed archaeological mitigation for the Armadale Station access road route had been to undertake an archaeological watching brief during groundbreaking works (Phase 1 mitigation). A change in methodology was agreed with the Council Archaeological Advisor (WoSAS) and an evaluation by trial trenching was to be conducted in the first instance. A Project Design (Addendum 3) was produced by CFA on behalf of Carillion Construction Ltd dated to August 30<sup>th</sup> 2010, to fulfil the requirements of WoSAS for the new programme of works.
- 1.1.4 The trenching was intended to evaluate the footprint of the route of the access road to the north of the new Armadale station (Fig. 1). Trenches were specifically to be targeted upon the potential location of the Bathville Brick and Tile Works, shown on the Ordnance Survey 1<sup>st</sup> Edition 6" to 1 mile map. Remaining trenches would be distributed evenly throughout the area to provide good coverage.
- 1.1.5 A portion of the area to be evaluated had already been subject to archaeological watching brief in the western part of the site (Fig. 1). This identified no remains of the Brick and Tile Works or any other features of archaeological interest.

### **1.2 Objectives**

- 1.2.1 The objectives of the programme of archaeological works were to determine the presence or absence, location, extent, date, character, condition, significance and quality of any surviving archaeological remains liable to be threatened by the proposed development and to propose mitigation measures where necessary. Specifically, the work was to target the potential location of the Bathville Brick and Tile Works.

## **2. WORKING METHODS**

- 2.1 CFA Archaeology Ltd follows the Institute for Archaeologists' Code of Conduct, Standards and Guidance for Archaeological Evaluations
- 2.2 A 10% evaluation was to be undertaken amounting to 885m<sup>2</sup> of the total 8850m<sup>2</sup> area of the access road footprint.
- 2.3 The trenches were excavated by a back-acting mechanical excavator using a smooth bladed ditching bucket under direct archaeological supervision to remove topsoil and modern deposits down to natural or the first significant archaeological horizon, whichever was reached first. Any further excavation required to fulfil the objectives of the evaluation were carried out by hand.
- 2.4 The stratification of all excavated areas was recorded, whether or not significant archaeological deposits were identified.
- 2.5 All excavation and on-site recording was carried out according to standard CFA procedures, principally by drawing, by photography and by completing standard CFA record forms.
- 2.6 The trenches were surveyed in using industry standard surveying equipment and were backfilled at the end of the evaluation on completion of recording.

## **3. ARCHAEOLOGICAL RESULTS**

### **3.1 General**

- 3.1.1 The following text contains information only on the trenches that contained features. A brief summary of all the trenches excavated is contained in Appendix 1. Numbers in bold and parentheses refer to context numbers, a full list of which is available in Appendix 2.
- 3.1.2 Part of the footprint of the access road had previously been stripped under a watching brief and additional constraints including overhead services reduced the area available for evaluation. Twelve trenches were excavated across the access road footprint amounting to 690m<sup>2</sup> which was more than 10% of the available area.
- 3.1.3 No significant archaeological features were identified, nor were any remains of the brick and tile works located. The remains of Rig and Furrow cultivation were revealed in the southern part of the site in the area for a new roundabout (Fig. 1). Natural was reached in all trenches.
- 3.1.4 In trenches 1-9 deposits of made ground (Figs 2 & 3) were present over natural. These deposits were not present in the remaining trenches

## 3.2 Trial Trenching

### *Trench 10*

- 3.2.2 Two furrows (**022, 024**, Fig 1) were identified cut into the natural subsoil. These were aligned ESE-WNW and were spaced c. 5-6m apart and were c. 1.9m wide. A section was excavated through **022** showing it to have steep sloping sides with a slightly concave base of depth 0.18m. They were filled with a light grey brown silt clay containing flecks of re-deposited natural subsoil (**023, 025**).

### *Trench 11*

- 3.2.3 Five furrows were identified in this trench (**026, 028, 030, 032, 034**, Figs. 1 & 4), two of which were the continuation of those found in Tr. 10. They followed the same alignment as those in Tr. 10 and were spaced at a similar distance apart, ranging from 1.3 to 1.9m in width. A section was excavated across **026** showing it to have gradually sloping sides and a slightly concave base of depth 0.12m (Fig. 5). The furrows were filled with the same material as in Tr. 10 (**027, 029, 031, 033, 035**), although **033** consisted of a bluish brown silt clay.

### *Trench 12*

- 3.2.4 One furrow was identified in this trench (**036**, Fig. 1). It was on the same alignment as those found in Tr. 11 and was 1.5m in width. It was filled with **037**, a mid bluish brown silty clay.

#### 4. CONCLUSIONS

- 4.1 An archaeological evaluation by trial trenching was carried out along the corridor of an access road to the newly constructed Armadale Station. Twelve trenches were excavated across the road corridor amounting to 690m<sup>2</sup>. No features of archaeological significance were identified during the evaluation.
- 4.2 A number of trenches were targeted in proximity to the potential location of a 19<sup>th</sup> century Brick and Tile Works shown the Ordnance Survey 1<sup>st</sup> Edition 6" to 1 mile map. No remains of the works were identified and deposits across this area of the site largely consisted of mixed made ground of shale, cinders, blaes, crushed mortar and stone, onto a dark clayey subsoil which overlay the natural clay subsoil. The earlier watching brief that also covered the area where the remains of the brick and tile works might have been expected identified no trace of the works.
- 4.4 The remains of rig-and-furrow cultivation were identified in Trenches 10, 11 and 12.
- 4.5 Based on the results of the evaluation WoSAS provided verbal confirmation that the construction of the access road to the east of Station Road could continue without any further archaeological mitigation.
- 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 the WoSAS Sites and Monuments Record. A Discovery and Excavation in Scotland entry and OASIS Scotland Entry will be completed for the entire project including the watching brief.

## APPENDIX 1: Trench Summary Table

Trench No.	Field/site	Dimensions (m)	Total Area (m <sup>2</sup> )	Topsoil depth (m)	Description
1	Access road	30 x 2	60	0.1-0.37	Aligned NE-SW. Made ground and subsoil <b>003-006</b> over natural. Natural subsoil is grey-orange gleyed sandy clays to mid orange clay. No archaeology.
2	Access road	30 x 2	60	0.1-turfline only	Aligned NE-SW. Made ground <b>007</b> over natural. Natural subsoil is grey-orange gleyed sandy clays to mid orange clay. Modern water pipe in SSW end of trench. No archaeology.
3	Access road	35 x 2	70	0.1 turfline only	Aligned NNE-SSW. Made ground and brick dump <b>008-009</b> over natural. Natural subsoil is grey-orange gleyed sandy clays to mid orange clay. No archaeology .
4	Access road	15 x 2	30	0.1-turfline only	Aligned NE-SW. Made ground <b>011</b> over natural. Natural subsoil is grey-orange gleyed sandy clays to mid orange clay. No archaeology.
5	Access road	30 x 2	60	0.1-turfline only	Aligned ESE-WNW. Made ground and subsoil <b>012-013</b> over natural. Natural subsoil is grey-orange gleyed sandy clays to mid orange clay. No archaeology.
6	Access road	30 x 2	60	0.15-turfline only	Aligned ESE-WNW. Made ground and subsoil <b>014-015</b> over natural. Natural subsoil is brownish orange sandy clay. No archaeology.
7	Access road	30 x 2	60	0.1-turfline only	Aligned ESE-WNW. Made ground and subsoil <b>016-017</b> over natural. Natural subsoil is brownish orange sandy clay. No archaeology.
8	Access road	20 x 2	40	0.1-turfline only	Aligned NE-SW. Made ground and subsoil 018-019 over natural. Natural subsoil is mid grey and yellow sandy clay. No archaeology.
9	Access road	20 x 2	40	0.1-turfline only	Aligned NE-SW. Made ground and subsoil <b>020-021</b> over natural. Natural subsoil is mid grey and yellow sandy clay. No archaeology.
10	Round about	30 x 2	60	0.3-0.4	Aligned NNW-SSE. Remains of 2 furrows <b>022-025</b> sealed by topsoil. Natural subsoil is mid grey orange sandy clay
11	Round about	50 x 2	100	0.2-0.4	Aligned WSW-ENE. Remains of 5 furrows <b>026-035</b> sealed by topsoil. Natural subsoil is mid grey orange sandy clay.
12	Round about	25 x 2	50	0.2-0.3	Aligned WSW-ENE. Remains of 1 furrow <b>036-037</b> sealed by topsoil. Natural subsoil is mid grey orange sandy clay.

## APPENDIX 2: Context Register

Context No.	Trench	Description
001	All	Topsoil: mid grey brown clay silt with <1% small sub angular stones. 0.1-0.4m deep
002	All	Natural Subsoil: mid grey-orange gleyed clay sands to mid orange or grey boulder clays.
003	1	Made ground under 001: mid-dark grey shale, white cinder, quarried sandstone, fired brick, blaes and crushed stone/mortar. 0.52m deep
004	1	Made ground under 003: mid orange brown sandy clay with crushed fired brick inclusions. 0.18m deep
005	1	Subsoil under 004 & 006: mid-dark brown grey fine homogeneous silt clay with rootlets. 0.2m deep
006	1	Made ground/Subsoil under 004: mid orange grey brown sandy clay with flecks of re-deposited natural. 0.25-0.3m deep
007	2	Made ground under 001: mid-dark grey shale, white cinder, quarried sandstone, fired brick, blaes and crushed stone/mortar. 0.2-0.5m deep
008	3	Made ground under 001: mid-dark grey shale, white cinder, quarried sandstone, fired brick, blaes and crushed stone/mortar. 0.2-0.45m deep
009	3	Fired brick dump under turf and 008: crushed fired brick and chunks of brick. Aligned NE-SW c.1.45m x 1m x 0.34m deep
010	3	Made ground/Subsoil under 008: mid orange grey brown sandy clay with flecks of re-deposited natural. 0.3m deep
011	4	Made ground under 001: mid-dark grey shale, white cinder, quarried sandstone, fired brick, blaes and crushed stone/mortar. 0.3-0.5m deep
012	5	Made ground under 001: mid-dark grey shale, white cinder, quarried sandstone, fired brick, blaes and crushed stone/mortar. 0.45m deep
013	5	Made ground/Subsoil under 012: mid orange grey brown sandy clay with flecks of re-deposited natural. 0.18-0.25m deep
014	6	Made ground under 001: mid-dark grey shale, white cinder, quarried sandstone, fired brick, blaes and crushed stone/mortar. 0.4-0.8m deep
015	6	Subsoil under 014: mid-dark brown grey fine homogeneous silt clay with rootlets. 0.15m deep
016	7	Made ground under 001: mid-dark grey shale, white cinder, quarried sandstone, fired brick, blaes and crushed stone/mortar. 0.54-0.55m deep
017	7	Subsoil under 016: mid-dark brown grey fine homogeneous silt clay with rootlets. 0.2m deep
018	8	Made ground under 001: mid-dark grey shale, white cinder, quarried sandstone, fired brick, blaes and crushed stone/mortar. 0.48m deep
019	8	Subsoil under 018: mid-dark brown grey fine homogeneous silt clay with rootlets. 0.23m deep
020	9	Made ground under 001: mid brownish grey silt clay matrix with mid-dark grey shale, white cinder, quarried sandstone, fired brick, blaes and crushed stone/mortar 0.44m deep
021	9	Subsoil under 019: mid-dark brown grey fine homogeneous silt clay with rootlets. 0.27m deep
022	10	Cut of furrow: aligned ESE-WNW, steeply sloping sides with a slightly concave base. 1.8m wide x 0.18m deep
023	10	Fill of furrow 022: light grey brown silt clay with flecks of re-deposited natural and coal and 1% small sub-rounded stone inclusions. 0.18m deep
024	10	Cut of furrow: aligned ESE-WNW. 1.8m wide
025	10	Fill of furrow 024: light grey brown silt clay with flecks of re-deposited natural and coal and 1% small sub-rounded stone inclusions.
026	11	Cut of furrow: aligned ESE-WNW, gradually sloping sides with a slightly concave base. 1.5m wide x 0.12m deep
027	11	Fill of furrow 026: light grey brown silt clay with flecks of re-deposited

		natural and coal and 1% small sub-rounded stone inclusions. 0.12m deep
028	11	Cut of furrow: aligned ESE-WNW. 1.9m wide
029	11	Fill of furrow 028: light grey brown silt clay with flecks of re-deposited natural and coal and 1% small sub-rounded stone inclusions.
030	11	Cut of furrow: aligned ESE-WNW. 1.3m wide
031	11	Fill of furrow 030: light grey brown silt clay with flecks of re-deposited natural and coal and 1% small sub-rounded stone inclusions.
032	11	Cut of furrow: aligned ESE-WNW. 1.5m wide
033	11	Fill of furrow 032: mid bluish brown silt clay
034	11	Cut of furrow, unexcavated: aligned ESE-WNW. 1.5m wide
035	11	Fill of furrow 034: light grey brown silt clay with flecks of re-deposited natural and coal and 1% small sub-rounded stone inclusions.
036	12	Cut of furrow: aligned ESE-WNW. 1.3m wide
037	12	Fill of furrow 036: mid bluish brown silt clay

### APPENDIX 3: Photographic Register

#### *Colour Slide Film 1*

Shot	Description	Taken From	Conditions
1	Registration shot	n/a	n/a
2-4	General pre-ex shots of access road field	NNW	Bright
5-6	Post-ex shot of Tr. 1	SW	Dull
7-8	NW facing section of Tr. 1, SW end of trench	NW	Dull
9-10	Post-ex shot of Tr. 2	SSW	Dull
11-12	Post-ex shot of Tr. 3	W	Dull
13-14	NW facing section through brick dump 009	NW	Dull
15-16	Post-ex shot of brick dump 009	SW	Dull
17-18	Post-ex shot of Tr. 4	SW	Dull
19-20	Post-ex shot of Tr. 5	WNW	Dull

#### *Colour Slide Film 2*

Shot	Description	Taken From	Conditions
2-3	Post-ex shot of Tr. 6	WNW	Sunny
4-5	Post-ex shot of Tr. 7	WNW	Sunny
6-7	Post-ex shot of Tr. 8	NW	Sunny
8-9	SW facing section of Tr. 8	SW	Sunny
10-11	Post-ex shot of Tr. 9	SE	Sunny
12-13	S facing section of Tr. 3	S	Sunny
14-15	WNW facing section of furrow 022 in Tr. 10	WNW	Bright
16-17	Post-ex shot of Tr. 10	NNW	Sunny
18-19	ESE facing section of furrow 026 in Tr. 11	ESE	Sunny
20-21	Post-ex shot of Tr. 11	NE	Sunny
22-23	Post-ex shot of Tr. 12	ENE	Sunny

#### *Digital*

Shot	Description	Taken From	Conditions
1	Registration shot	n/a	n/a
2-4	General pre-ex shots of access road field	NNW	Bright
5	Post-ex shot of Tr. 1	SW	Dull
6	NW facing section of Tr. 1, SW end of trench	NW	Dull
7	Post-ex shot of Tr. 2	SSW	Dull
8	Post-ex shot of Tr. 3	W	Dull
9	NW facing section through brick dump 009	NW	Dull
10	Post-ex shot of brick dump 009	SW	Dull
11	Post-ex shot of Tr. 4	SW	Dull
12	Post-ex shot of Tr. 5	WNW	Dull
13	Post-ex shot of Tr. 6	WNW	Sunny
14	Post-ex shot of Tr. 7	WNW	Sunny
15	Post-ex shot of Tr. 8	NW	Sunny
16	SW facing section of Tr. 8	SW	Sunny
17	Post-ex shot of Tr. 9	SE	Sunny
18	S facing section of Tr. 3	S	Sunny
19-22	General pre-ex shots of site in area of roundabout	E-NW	O/C
23	WNW facing section of furrow 022 in Tr. 10	WNW	Bright
24	Post-ex shot of Tr. 10	NNW	Sunny
25	ESE facing section of furrow 026 in Tr. 11	ESE	Sunny
26	Post-ex shot of Tr. 11	NE	Sunny

**APPENDIX 4: Drawings Register**

<b>Drawing No.</b>	<b>Sheet No.</b>	<b>Description</b>	<b>Section/Plan</b>	<b>Scale</b>
1	Daybook	SE Facing 1m section of Tr.1, SW end of trench	S	1:10
2	Daybook	Plan of Tr. 3 showing location of brick dump 009	P	1:50
3	Daybook	S facing 1m section of Tr. 3, E end of trench	S	1:10
4	Daybook	Plan of Tr.10	P	1:100
5	Daybook	WNW facing section of furrow 022 in Tr. 10	S	1:10
6	Daybook	Plan of Tr. 11	P	1:100
7	Daybook	ESE facing section of furrow 026 in Tr. 12	S	1:10
8	Daybook	Plan of Tr. 12	P	1:100
9	Daybook	S facing section of Tr. 3 showing dump 009	S	1:10



Key:

- development area
- line of proposed new road
- evaluation trenches
- area of previous watching brief
- bufferzone of overhead services
- topsoil and stone bunds
- water pipe to farm

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Fig. No: **1**      Revision: **A**

Title:  
**Site location and location of evaluation trenches**

Project:  
**Airdrie to Bathgate Railway and linked improvement**

Scale:  
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Fig. 2 NW facing section of Tr.1, SW end of trench



Fig. 3 Shot of brick dump 009 in Tr. 3 from SW

Key:

Scale:

Fig. No:	2-3	Revision:	Client:	Carrillion Construction Ltd
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Fig. 4 post ex shot of Tr. 11 from NE



Fig. 5 ESE facing section of Furrow 026 from ESE

Key:

Scale:

Fig. No:	4-5	Revision:		Client:	Carrillion Construction Ltd
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