

# Redhouse West, Blackburn, West Lothian: Archaeological Evaluation Data Structure Report

AOC Project 22835

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ARCHAEOLOGY

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# Redhouse West, Blackburn, West Lothian: Archaeological Evaluation Data Structure Report

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**AOC Project No:** 22835

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This document has been prepared in accordance with AOC standard operating procedures.

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## Abstract

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This report presents the results of an archaeological evaluation undertaken as part of pre-planning works for a proposed development at Redhouse West, Blackburn, West Lothian.

The evaluation required an 8% trenching sample of the available development area. A total of 23 trenches of varying lengths and alignments were excavated encountering N-S aligned agricultural furrows and associated rubble drains.

Two trenches were placed across an open ditch in the southern edge of the development area that was formerly a mill lade powering the Hopefield Mills to the east. The trenches revealed that any stone that may have lined the channel had been robbed out. Furthermore, as the lade was blocked off from the river to the west and left to silt up, all that remained of it was the ditch with turf and stone banks on either side.

Throughout the majority of the site no significant archaeological features or artefacts were encountered. As the former mill lade has been robbed of stone and the ditch and banks recorded at either end of the development area, no further works are considered necessary within these areas. Where the development impacts the edge of the former mill buildings, further archaeological works may be required.

# 1 INTRODUCTION

## 1.1 Background

1.1.1 AOC Archaeology Group was commissioned by Lovell Partnership Ltd. to undertake an archaeological evaluation prior to a planning application for a proposed development at Redhouse West, Blackburn, West Lothian. The evaluation was undertaken in order to satisfy the requirements of the local planning authority, West Lothian Council who are advised on archaeological matters by the West of Scotland Archaeology Service (WoSAS). The works were conducted according to the terms of a *Written Scheme of Investigation* (AOC 2014) approved on behalf of West Lothian Council by WoSAS and in accordance with the principles set out in *Scottish Planning Policy* (Scottish Government 2014) and *PAN 2/2011 Planning & Archaeology* (Scottish Government 2011).

## 1.2 Location

1.2.1 The site (centred on NGR NS 992 653) is situated within a field to the N of a bend in the River Almond, opposite the residential estates of Happy Valley Road, Blackburn (Figure 1). The site is bounded by an unnamed road to Wester Breich to the E, the back of houses on Rattray Gardens to the N and NW, and open fields to the W and SW.

## 1.3 Archaeological Background

1.3.1 A previous SUAT Method Statement revealed a single site of archaeological interest within the site boundary. This is a Mill with associated lade first recorded on Roy's Military Survey (1747-1755) and abandoned by the early 20<sup>th</sup> century. The mill was recorded throughout its life as a paper mill, corn and flour mill and 'leather board'. By 1916 the mill was derelict and it has been demolished and cleared. The former mill lade has been infilled but survives as a linear depression with a bank on its southern side. Stone blocking of a small outlet to the River Almond and some stone revetment survive. A garden area to the rear of the mill existed on two terraces, the lower one formerly occupied by a building. An old field boundary consisting of a bank and ditch underlie a strip of mature woodland at the north-west of the site.

# 2 OBJECTIVES

2.1 The objectives of the archaeological evaluation were:

- i) to determine and assess the character, extent, condition, quality, date and significance of any buried archaeological remains within the proposed development area;
- ii) to advise and implement an appropriate form of mitigation, such as excavation, post-excavation analyses and publication given the infeasibility of preserving the archaeological material *in situ*, should significant archaeological remains be encountered.

# 3 METHODOLOGY

3.1 The evaluation comprised machine trenching of an 8% sample of the 2.8 hectare development area, which was subsequently reduced to 2.25 hectares due to the presence of storm drains along the W and S edges of the site. Therefore 920 m of linear trench was completed using a 22 tonne tracked excavator with a 2.2 m wide ditching bucket. Excavation was undertaken in shallow units/spits until the first significant archaeological horizon. All machine excavation was supervised by an experienced field archaeologist and according to AOC Archaeology Group's standard operating procedures, and as per the methodology within the *Written Scheme of Investigation* (AOC 2014).

## 4 RESULTS

- 4.1 The archaeological evaluation was undertaken on the 7<sup>th</sup> to the 9<sup>th</sup> October 2014. Overall weather conditions were good allowing for good archaeological visibility throughout the evaluation. In total, 23 trenches were excavated, varying in alignment and length (Figure 2).
- 4.2 The topsoil throughout the site was a consistent mid greyish brown sandy clay loam with occasional small stones and frequent coal fleck inclusions. The underlying geology throughout the majority of the site was a mottled orange and pink sandy clay with abundant stone inclusions.
- 4.3 The shallow remains of agricultural furrows measuring 1.2 m to 2.1 m wide were revealed, aligned N-S, in every trench to the N of the mill lade and river terrace slope (Plate 1). The majority of these furrows contained rubble drains running through their centre, with other rubble drains on different alignments also present. Two features were recorded within Trench 3, ditch [301] and pit [303], which were interpreted as modern: ditch [301] truncated the furrows in Trenches 13 & 14, and pit [303] contained 19<sup>th</sup> to 20<sup>th</sup> century white ceramic (Plate 2 & 3).
- 4.4 In the southern edge of the site, the development is due to impact on the mill lade. As the lade is still visible on the ground, trenches were placed at either end of where it will be impacted, with two more placed to the N and S, to identify related features. Trench 9 to the S of the lade revealed that this area had been disturbed with the dark grey topsoil immediately overlying, and mixed throughout, the very stony subsoil. Trench 10 was positioned between the lade (to the N) and the river terrace slope and contained no archaeological features.
- 4.5 The section of the lade [1105] that exists within the development area measured 27 m long by 6.8 m wide and was investigated at its E and W ends within the development area (Plate 4; Figure 2&3). Both trenches encountered a prominent turf and stone bank [1101] to the N that was 1.2 m wide and 0.2 m above the current ground surface (Plate 5). Another less prominent turf and stone bank [1104] existed on the S edge of the lade measuring 0.6 m wide and 0.1 m high. The cut for the lade ditch [1102] was 3.4 m wide at its base and was cut into the subsoil by 0.2 m, giving a channel depth of 0.54 m (Plate 6; Figure 3).
- 4.6 Given the near vertical sides of the cut [1102] it is likely that it would have been lined with stone to create the lade channel. However, no stonework was revealed in either trench, with the only large hewn stone seen within the ditch fill [1103]. This consisted of 0.2 m of dark grey silty clay deposited by natural silting of the ditch during and after its use. All of the lade features are currently covered by up to 0.12 m of turf or reeds.

## 5 CONCLUSION AND RECOMMENDATIONS

- 5.1 From the trenches excavated within the development area, it has been demonstrated that the majority of the area is archaeologically sterile with no significant archaeological features or artefacts revealed throughout the evaluation to the N of the mill lade. The lade itself appears to have been robbed of the stone lining that formed the channel and all that is left is the turf and stone banks on either side of an open and silted ditch.
- 5.2 After consultation with WoSAS, no further archaeological works are deemed necessary with regards to the mill lade as it has been recorded at both ends of where it will be impacted upon by the development. Furthermore, the remainder of the lade to the east and west will be left in situ, out with the development area.

- 5.3 With regards to the rest of the development area, further archaeological works may be necessary where the development impacts upon the edge of the former mill buildings. The scope of further works will have to be approved by WoSAS on behalf of West Lothian Council.

## **6 REFERENCES**

AOC Archaeology 2014, *Redhouse West, Blackburn, West Lothian Archaeological Evaluation Written Scheme of Investigation* Unpublished AOC project design

Scottish Government 2014 *Scottish Planning Policy 2014*

Scottish Government 2011 *Planning And Archaeology 2/2011*





Plate 1 - View of T13 showing furrows



Plate 2 - View of modern ditch [301]



Plate 3 - S-facing section through pit [303]



Plate 4 - General view of T11 through mill lade



Plate 5 - W-facing section of turf and stone bank [1101]



Plate 6 - View of mill lade cut [1102]

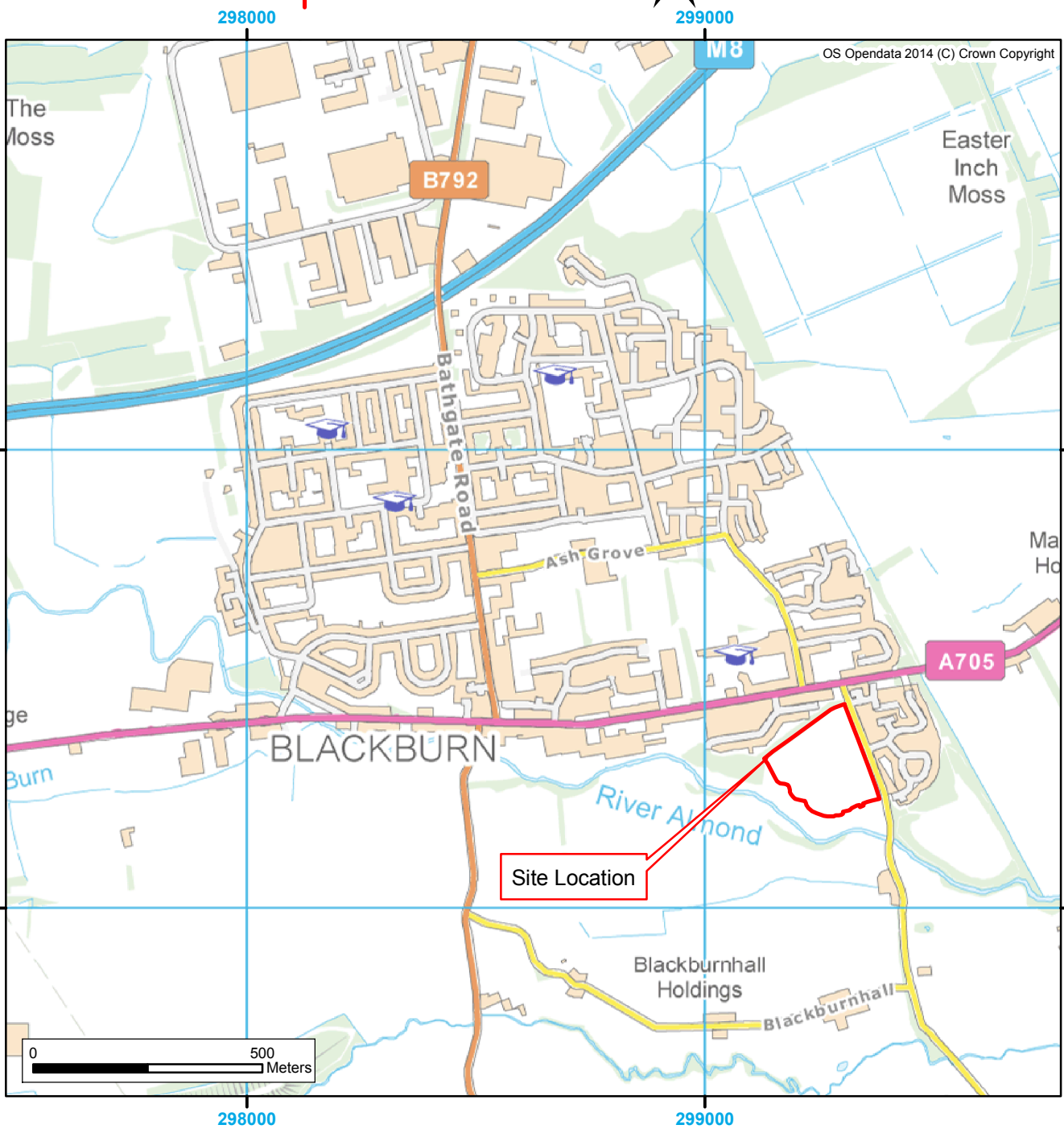
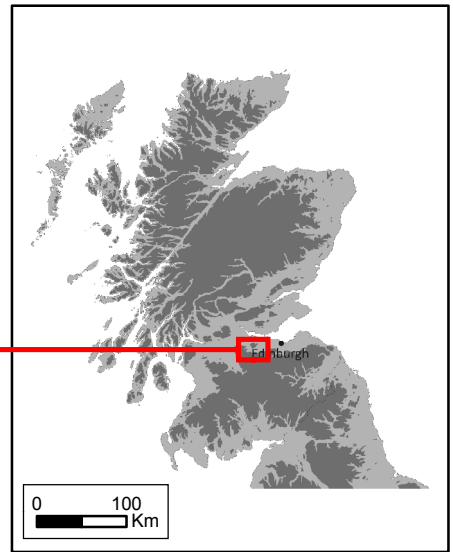
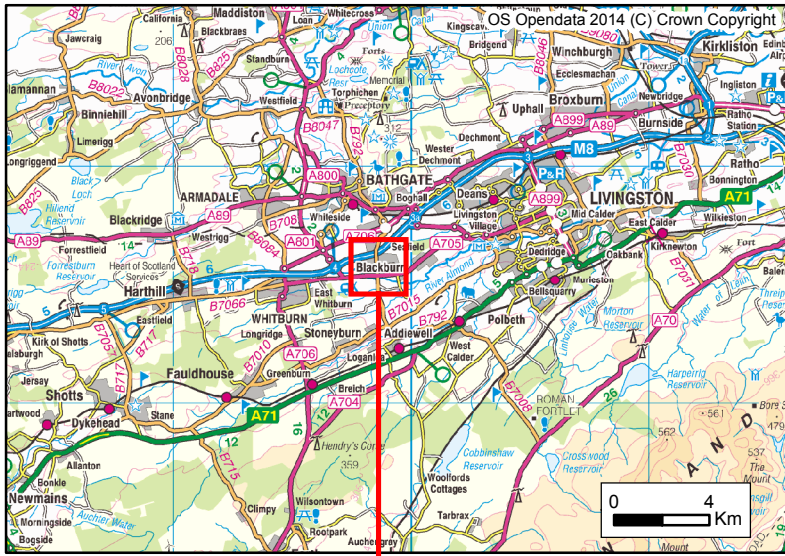


Figure 1: Site Location Plan

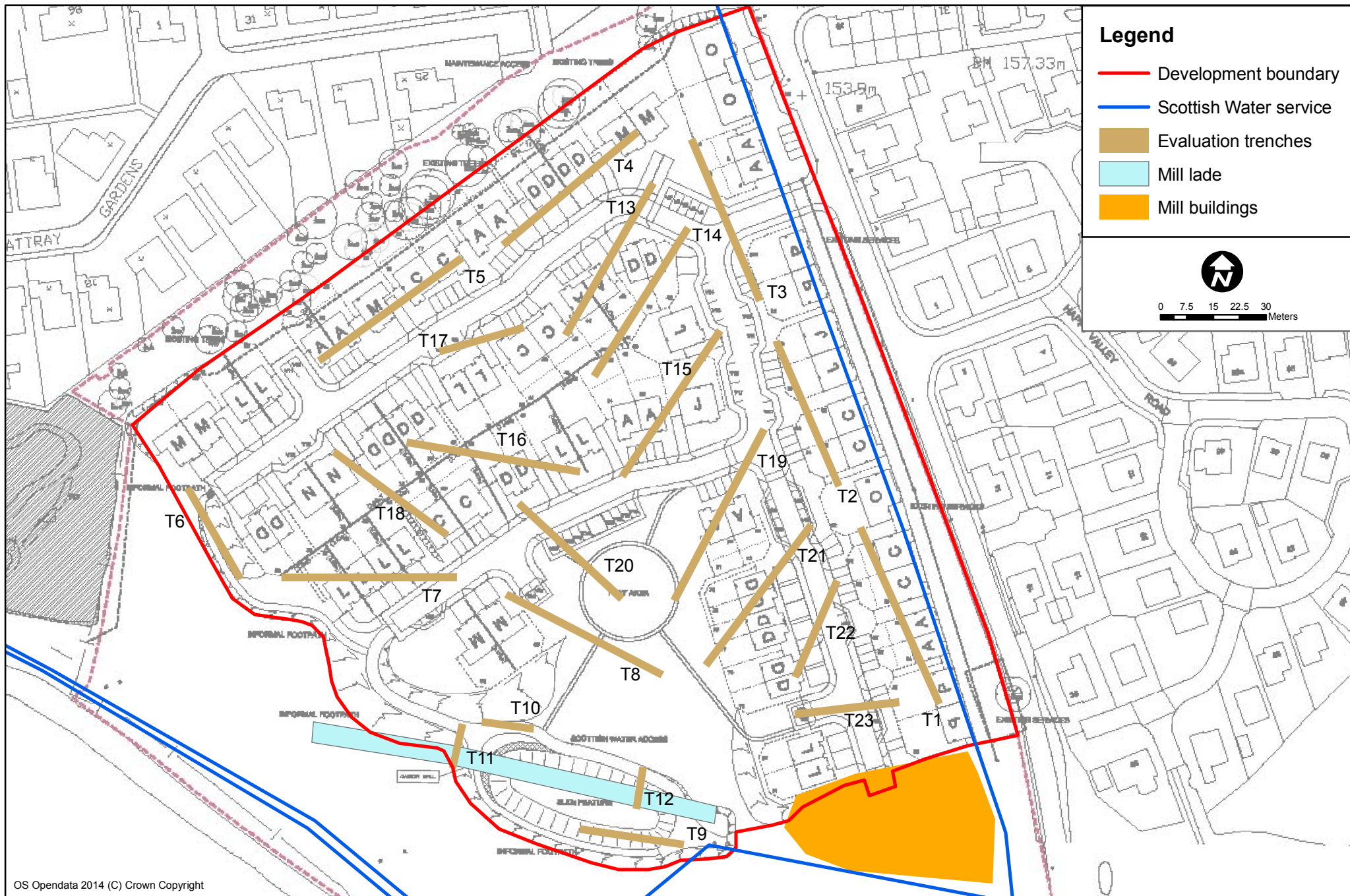
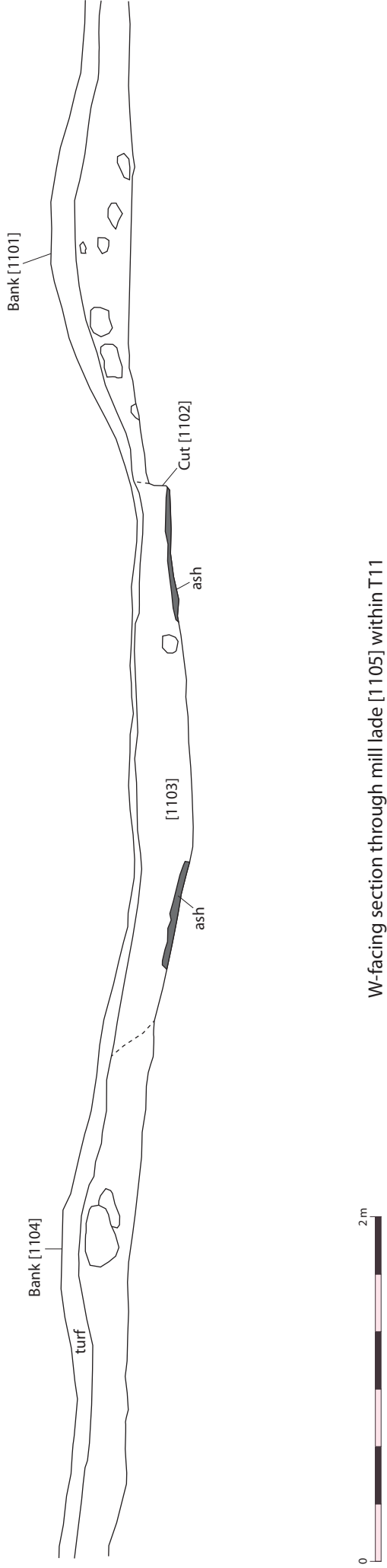
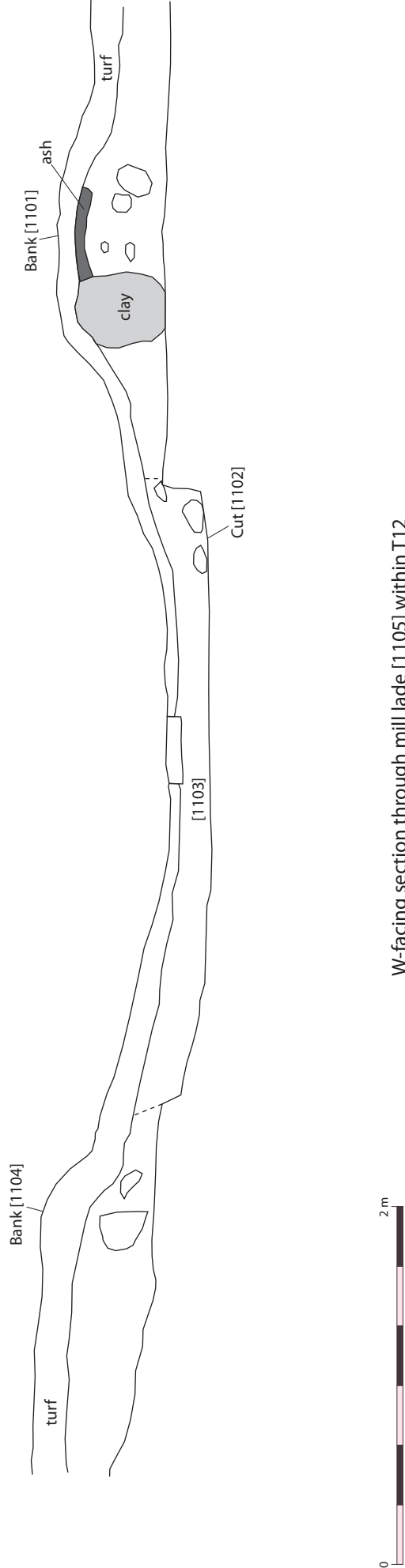


Figure 2 - Evaluation trench location plan



W-facing section through mill lade [1105] within T11



W-facing section through mill lade [1105] within T12

Figure 3 - Sections through Mill lade [1105]

# **Redhouse West, Blackburn, West Lothian: Archaeological Evaluation Data Structure Report**

## **Section 2: Appendices**

## APPENDIX 1: Trench Descriptions

### Trench 1

|                              |   |
|------------------------------|---|
| <i>Dimensions</i>            | 55 m by 2.2 m   |
| <i>Total Area</i>            | 121 m <sup>2</sup>  |
| <i>Excavated Orientation</i> | S to N  |
| <i>Soil Make-up</i>          | Topsoil – mid greyish brown sandy clay loam with occasional small stone and frequent coal fleck inclusions – max depth 0.32 m |
| <i>Depth of Excavation</i>   | 0.32 m  |
| <i>Significant Features</i>  | None  |
| <i>Other Features</i>        | Furrow at 17.6 m to 27.6 m and 37 m to 41.7 m aligned NNE-SSW   |
| <i>Natural Subsoil</i>       | Mottled orange, yellow and pink sandy clay with abundant small stone and occasional medium to large stone inclusions          |
| <i>Finds</i>                 | None  |

### Trench 2

|                              |  |
|------------------------------|--|
| <i>Dimensions</i>            | 45 m by 2.2 m  |
| <i>Total Area</i>            | 99 m <sup>2</sup>  |
| <i>Excavated Orientation</i> | S to N   |
| <i>Soil Make-up</i>          | Topsoil – mid greyish brown sandy clay loam with occasional small stone and frequent coal fleck inclusions – max depth 0.4 m |
| <i>Depth of Excavation</i>   | 0.4 m  |
| <i>Significant Features</i>  | None   |
| <i>Other Features</i>        | Rubble drain at 0 m to 20 m; and 39 m to end aligned N-S; Rubble drain at 25 .2 m aligned E-W                                |
| <i>Natural Subsoil</i>       | Mottled orange, yellow and pink sandy clay with abundant small stone and occasional medium to large stone inclusions         |
| <i>Finds</i>                 | None   |

### Trench 3

|                              |   |
|------------------------------|---|
| <i>Dimensions</i>            | 50 m by 2.2 m   |
| <i>Total Area</i>            | 110 m <sup>2</sup>  |
| <i>Excavated Orientation</i> | S to N  |
| <i>Soil Make-up</i>          | Topsoil – mid greyish brown sandy clay loam with occasional small stone and frequent coal fleck inclusions – max depth 0.36 m   |
| <i>Depth of Excavation</i>   | 0.36 m  |
| <i>Significant Features</i>  | None  |
| <i>Other Features</i>        | Modern ditch [301] at 10.15 to 11.21 m aligned NW-SE and 0.43 m wide. Cuts furrows in trenches 13 and 14. Pit [303] measuring 1.03 m by 0.88 m by 0.24 m with fill [304] containing post med plough soil. Furrow at 11.5 m to 18.5 m; 32.2 m to 38.2 m with drain at 36.1 m to 42.8 m aligned NW-SE |
| <i>Natural Subsoil</i>       | Mottled orange, yellow and pink sandy clay with abundant small stone and occasional medium to large stone inclusions  |
| <i>Finds</i>                 | None  |

### Trench 4

|                              |   |
|------------------------------|---|
| <i>Dimensions</i>            | 50 m by 2.2 m   |
| <i>Total Area</i>            | 110 m <sup>2</sup>  |
| <i>Excavated Orientation</i> | NE to SW  |
| <i>Soil Make-up</i>          | Topsoil – mid greyish brown sandy clay loam with occasional small stone and frequent coal fleck inclusions – max depth 0.36 m |
| <i>Depth of Excavation</i>   | 0.36 m  |
| <i>Significant Features</i>  | None  |



|                        |  |
|------------------------|--|
| <i>Other Features</i>  | Furrows at 3.6 m; 9 m; 19.2 m; 29.1 m; 35.3 m aligned NNW-SSE. Rubble drains at 4.9 m; 9.7 m; 42 m aligned NW-SE. Rubble drains at 15.7 m to 17.8 m; 23.1 m to 24.6 m; 35.1 m to 36.6 m aligned N-S. |
| <i>Natural Subsoil</i> | Mottled orange, yellow and pink sandy clay with abundant small stone and occasional medium to large stone inclusions   |
| <i>Finds</i>           | None   |

#### **Trench 5**

|                              |   |
|------------------------------|---|
| <i>Dimensions</i>            | 50 m by 2.2 m   |
| <i>Total Area</i>            | 110 m <sup>2</sup>  |
| <i>Excavated Orientation</i> | NE to SW  |
| <i>Soil Make-up</i>          | Topsoil – mid greyish brown sandy clay loam with occasional small stone and frequent coal fleck inclusions – max depth 0.35 m |
| <i>Depth of Excavation</i>   | 0.35 m  |
| <i>Significant Features</i>  | None  |
| <i>Other Features</i>        | Rubble drains at 11.2 m; 22.8 m; 35.6 m; 41.1 m aligned NW-SE. Rubble drains at 4.3 m to 5.5 m; 14.4 m to 15.6 m aligned N-S. |
| <i>Natural Subsoil</i>       | Mottled orange, yellow and pink sandy clay with abundant small stone and occasional medium to large stone inclusions          |
| <i>Finds</i>                 | None  |

#### **Trench 6**

|                              |   |
|------------------------------|---|
| <i>Dimensions</i>            | 30 m by 2.2 m   |
| <i>Total Area</i>            | 66 m <sup>2</sup>   |
| <i>Excavated Orientation</i> | SSE to NNW  |
| <i>Soil Make-up</i>          | Topsoil – mid greyish brown sandy clay loam with occasional small stone and frequent coal fleck inclusions – max depth 0.31 m             |
| <i>Depth of Excavation</i>   | 0.31 m  |
| <i>Significant Features</i>  | None  |
| <i>Other Features</i>        | Furrows at 18.1 m to 21.7 m aligned N-S. Rubble drains at 0.8 m to 4.3 m aligned N-S and rubble drains at 16.5 m to 19.3 m aligned NW-SE. |
| <i>Natural Subsoil</i>       | Mottled orange, yellow and pink sandy clay with abundant small stone and occasional medium to large stone inclusions                      |
| <i>Finds</i>                 | None  |

#### **Trench 7**

|                              |  |
|------------------------------|--|
| <i>Dimensions</i>            | 50 m by 2.2 m  |
| <i>Total Area</i>            | 110 m <sup>2</sup>   |
| <i>Excavated Orientation</i> | W to E   |
| <i>Soil Make-up</i>          | Topsoil – mid greyish brown sandy clay loam with occasional small stone and frequent coal fleck inclusions – max depth 0.31 m  |
| <i>Depth of Excavation</i>   | 0.31 m   |
| <i>Significant Features</i>  | None   |
| <i>Other Features</i>        | Furrows at 15.3 m; 21.3 m; 27.6 m; 33.7 m aligned N-S. Rubble drains at 17 m; 25.9 m; 34.8 m; 40.1 m; 45.8 m aligned N-S and rubble drain at 36.7 m to 39.6 m aligned NW-SE. |
| <i>Natural Subsoil</i>       | Mottled orange, yellow and pink sandy clay with abundant small stone and occasional medium to large stone inclusions   |
| <i>Finds</i>                 | None   |

#### **Trench 8**

|                              |                    |
|------------------------------|--------------------|
| <i>Dimensions</i>            | 50 m by 2.2 m      |
| <i>Total Area</i>            | 110 m <sup>2</sup> |
| <i>Excavated Orientation</i> | WNW to ESE         |

|                             |  |
|-----------------------------|--|
| <i>Soil Make-up</i>         | Topsoil – mid greyish brown sandy clay loam with occasional small stone and frequent coal fleck inclusions – max depth 0.35 m            |
| <i>Depth of Excavation</i>  | 0.35 m   |
| <i>Significant Features</i> | None   |
| <i>Other Features</i>       | Furrows at 7.2 m to 8.9 m; 37.7 m to 39.4m aligned N-S. Rubble drains at 6.5 m to 7.5 m; 16.9 m to 18.1 m; 27.8 m to 29.3 m aligned N-S. |
| <i>Natural Subsoil</i>      | Mottled orange, yellow and pink sandy clay with abundant small stone and occasional medium to large stone inclusions                     |
| <i>Finds</i>                | None   |

#### **Trench 9**

|                              |   |
|------------------------------|---|
| <i>Dimensions</i>            | 30 m by 2.2 m   |
| <i>Total Area</i>            | 66 m <sup>2</sup>   |
| <i>Excavated Orientation</i> | E to W  |
| <i>Soil Make-up</i>          | Topsoil – mid greyish brown sandy clay loam with occasional small stone and frequent coal fleck inclusions – max depth 0.33 m |
| <i>Depth of Excavation</i>   | 0.33 m  |
| <i>Significant Features</i>  | None  |
| <i>Other Features</i>        | None  |
| <i>Natural Subsoil</i>       | Orange clayey sand and large stone inclusions   |
| <i>Finds</i>                 | None  |

#### **Trench 10**

|                              |  |
|------------------------------|--|
| <i>Dimensions</i>            | 15 m by 2.2 m  |
| <i>Total Area</i>            | 33 m <sup>2</sup>  |
| <i>Excavated Orientation</i> | W to E   |
| <i>Soil Make-up</i>          | Topsoil – mid greyish brown sandy clay loam with occasional small stone and frequent coal fleck inclusions – max depth 0.3 m; Colluvium – pale grey silty clay with small rounded stone inclusions – max depth 0.3 m |
| <i>Depth of Excavation</i>   | 0.6 m  |
| <i>Significant Features</i>  | None   |
| <i>Other Features</i>        | None   |
| <i>Natural Subsoil</i>       | Orange clay until 3 m then a pale grey clay  |
| <i>Finds</i>                 | None   |

#### **Trench 11**

|                              |   |
|------------------------------|---|
| <i>Dimensions</i>            | 13 m by 2.2 m   |
| <i>Total Area</i>            | 28.6 m <sup>2</sup>   |
| <i>Excavated Orientation</i> | N to S  |
| <i>Soil Make-up</i>          | Topsoil – mid greyish brown sandy clay loam with occasional small stone and frequent coal fleck inclusions – max depth 0.36 m |
| <i>Depth of Excavation</i>   | 0.36 m  |
| <i>Significant Features</i>  | Turf and stone bank [1101], cut for ditch [1102], fill of ditch [1103], turf and stone bank [1104], mill lade [1105].         |
| <i>Other Features</i>        | None  |
| <i>Natural Subsoil</i>       | Mottled orange, yellow and pink sandy clay with abundant small stone and occasional medium to large stone inclusions          |
| <i>Finds</i>                 | None  |

#### **Trench 12**

|                              |                     |
|------------------------------|---------------------|
| <i>Dimensions</i>            | 12 m by 2.2 m       |
| <i>Total Area</i>            | 26.4 m <sup>2</sup> |
| <i>Excavated Orientation</i> | N to S              |

|                             |   |
|-----------------------------|---|
| <i>Soil Make-up</i>         | Topsoil – mid greyish brown sandy clay loam with occasional small stone and frequent coal fleck inclusions – max depth 0.36 m |
| <i>Depth of Excavation</i>  | 0.36 m  |
| <i>Significant Features</i> | Turf and stone bank [1101], cut for ditch [1102], fill of ditch [1103], turf and stone bank [1104], mill lade [1105].         |
| <i>Other Features</i>       | None  |
| <i>Natural Subsoil</i>      | Mottled orange, yellow and pink sandy clay with abundant small stone and occasional medium to large stone inclusions          |
| <i>Finds</i>                | None  |

**Trench 13**

|                              |  |
|------------------------------|--|
| <i>Dimensions</i>            | 50 m by 2.2 m  |
| <i>Total Area</i>            | 110 m <sup>2</sup>   |
| <i>Excavated Orientation</i> | NE to SW   |
| <i>Soil Make-up</i>          | Topsoil – mid greyish brown sandy clay loam with occasional small stone and frequent coal fleck inclusions – max depth 0.35 m  |
| <i>Depth of Excavation</i>   | 0.35 m   |
| <i>Significant Features</i>  | None   |
| <i>Other Features</i>        | Ditch [301] at 25.4 m to 27.4 m. Furrows at 3.1 m; 8.7 m; 13.2 m; 18.5 m; 24.4 m aligned SE-NW and furrows at 30 m to 30.6 m; 37.4 m to 38 m; 44 m to 45.1 m aligned N-S. Rubble drains at 4.1 m aligned SE-NW and rubble drain at 39 m to 41 m aligned N-S. |
| <i>Natural Subsoil</i>       | Mottled orange, yellow and pink sandy clay with abundant small stone and occasional medium to large stone inclusions until 29 m then orange clayey sand and gravel.  |
| <i>Finds</i>                 | None   |

**Trench 14**

|                              |   |
|------------------------------|---|
| <i>Dimensions</i>            | 50 m by 2.2 m   |
| <i>Total Area</i>            | 110 m <sup>2</sup>  |
| <i>Excavated Orientation</i> | NE to SW  |
| <i>Soil Make-up</i>          | Topsoil – mid greyish brown sandy clay loam with occasional small stone and frequent coal fleck inclusions – max depth 0.34 m   |
| <i>Depth of Excavation</i>   | 0.34 m  |
| <i>Significant Features</i>  | None  |
| <i>Other Features</i>        | Ditch [301] at 9.5 m to 10 m. Furrows at 5.8 m; 10.8 m; 16.2 m; 28.2 m aligned NW-SE and furrow at 21.7 m to 22.6 m; 35.2 m to 35.6 m aligned N-S. Rubble drains at 38.7 m to 39.5 m aligned N-S. |
| <i>Natural Subsoil</i>       | Mottled orange, yellow and pink sandy clay with abundant small stone and occasional medium to large stone inclusions  |
| <i>Finds</i>                 | None  |

**Trench 15**

|                              |   |
|------------------------------|---|
| <i>Dimensions</i>            | 50 m by 2.2 m   |
| <i>Total Area</i>            | 110 m <sup>2</sup>  |
| <i>Excavated Orientation</i> | NE to SW  |
| <i>Soil Make-up</i>          | Topsoil – mid greyish brown sandy clay loam with occasional small stone and frequent coal fleck inclusions – max depth 0.35 m   |
| <i>Depth of Excavation</i>   | 0.35 m  |
| <i>Significant Features</i>  | None  |
| <i>Other Features</i>        | Furrows at 6.6 m to 7.4 m; 13 m to 14 m; 25.5 m to 26.5 m; 32.6 m to 33.9 m aligned N-S. Rubble drains at 8.3 m to 9.3 m; 14 m to 14.9 m; 26.9 m to 27.4 m; 39.5 m to 40.9 m aligned N-S. |
| <i>Natural Subsoil</i>       | Mottled orange, yellow and pink sandy clay with abundant small stone and occasional medium to large stone inclusions until 21.7 m then orange clayey sand and gravel until 25.7           |

m then mottled orange, yellow and pink sandy clay with abundant small stone and occasional medium to large stone inclusions  
*Finds* None

**Trench 16**

*Dimensions* 50 m by 2.2 m  
*Total Area* 110 m<sup>2</sup>  
*Excavated Orientation* E to W  
*Soil Make-up* Topsoil – mid greyish brown sandy clay loam with occasional small stone and frequent coal fleck inclusions – max depth 0.4 m  
*Depth of Excavation* 0.4 m  
*Significant Features* None  
*Other Features* Modern ditch (similar to [301] at 41.1 m to 46 m aligned E-W. Furrows at 14.7 m to 15.4 m; 21.3 m to 22.1 m; 27.9 m to 29.1 m; 40.8 m to 41.8 m; 46.7 m to 47.5 m aligned NNW-SSE. Rubble drains at 7.8 m aligned N-S and rubble drains at 17.3 m to 17.7 m; 21.9 m to 22.6 m aligned NNW-SSE and rubble drain at 28 m to 30.4 m aligned SE-NW.  
*Natural Subsoil* Mottled orange, yellow and pink sandy clay with abundant small stone and occasional medium to large stone inclusions  
*Finds* None

**Trench 17**

*Dimensions* 25 m by 2.2 m  
*Total Area* 55 m<sup>2</sup>  
*Excavated Orientation* ESE to WNW  
*Soil Make-up* Topsoil – mid greyish brown sandy clay loam with occasional small stone and frequent coal fleck inclusions – max depth 0.31 m  
*Depth of Excavation* 0.31 m  
*Significant Features* None  
*Other Features* Furrows at 0 m to 1.2 m aligned N-S. Rubble drains at 15 m to 17.4 m aligned NNW-SSE.  
*Natural Subsoil* Mottled orange, yellow and pink sandy clay with abundant small stone and occasional medium to large stone inclusions  
*Finds* None

**Trench 18**

*Dimensions* 40 m by 2.2 m  
*Total Area* 88 m<sup>2</sup>  
*Excavated Orientation* NW to SE  
*Soil Make-up* Topsoil – mid greyish brown sandy clay loam with occasional small stone and frequent coal fleck inclusions – max depth 0.35 m  
*Depth of Excavation* 0.35 m  
*Significant Features* None  
*Other Features* Furrows at 0 m to 2.2 m; 7.6 m to 10 m; 15.8 m to 17.7 m; 24 m to 26.8 m aligned N-S. Rubble drain at 8.7 m to 10.3 m aligned N-S and rubble drain at 21.5 m to 22.5 m aligned ENE-WSW.  
*Natural Subsoil* Mottled orange, yellow and pink sandy clay with abundant small stone and occasional medium to large stone inclusions  
*Finds* None

**Trench 19**

*Dimensions* 55 m by 2.2 m  
*Total Area* 121 m<sup>2</sup>  
*Excavated Orientation* NE to SW  
*Soil Make-up* Topsoil – mid greyish brown sandy clay loam with occasional small stone and frequent coal fleck inclusions – max depth 0.37 m

|                             |  |
|-----------------------------|--|
| <i>Depth of Excavation</i>  | 0.37 m   |
| <i>Significant Features</i> | None   |
| <i>Other Features</i>       | Furrows at 3.7 m to 4.8 m; 9.8 m to 11.5 m; 17.1 m to 18.4 m; 25 m to 26.8 m; 34.1 m to 36.5 m aligned N-S.          |
| <i>Natural Subsoil</i>      | Mottled orange, yellow and pink sandy clay with abundant small stone and occasional medium to large stone inclusions |
| <i>Finds</i>                | None   |

**Trench 20**

|                              |   |
|------------------------------|---|
| <i>Dimensions</i>            | 40 m by 2.2 m   |
| <i>Total Area</i>            | 88 m <sup>2</sup>   |
| <i>Excavated Orientation</i> | SE to NW  |
| <i>Soil Make-up</i>          | Topsoil – mid greyish brown sandy clay loam with occasional small stone and frequent coal fleck inclusions – max depth 0.34 m             |
| <i>Depth of Excavation</i>   | 0.34 m  |
| <i>Significant Features</i>  | None  |
| <i>Other Features</i>        | Furrows at 16.2 m to 20 m; 27.4 m to 30.5 m aligned N-S. Rubble drains at 11 m to 12.9 m; 19.5 m to 21.9 m; 24.7 m to 26.8 m aligned N-S. |
| <i>Natural Subsoil</i>       | Mottled orange, yellow and pink sandy clay with abundant small stone and occasional medium to large stone inclusions                      |
| <i>Finds</i>                 | None  |

**Trench 21**

|                              |   |
|------------------------------|---|
| <i>Dimensions</i>            | 50 m by 2.2 m   |
| <i>Total Area</i>            | 110 m <sup>2</sup>  |
| <i>Excavated Orientation</i> | SW to NE  |
| <i>Soil Make-up</i>          | Topsoil – mid greyish brown sandy clay loam with occasional small stone and frequent coal fleck inclusions – max depth 0.37 m |
| <i>Depth of Excavation</i>   | 0.37 m  |
| <i>Significant Features</i>  | None  |
| <i>Other Features</i>        | Furrows at 1.2 m to 2.9 m; 16.9 m to 18.6 m; 34.6 m to 36.4 m aligned N-S. Rubble drains at 22.7 m to 26.8 m aligned E-W.     |
| <i>Natural Subsoil</i>       | Mottled orange, yellow and pink sandy clay with abundant small stone and occasional medium to large stone inclusions          |
| <i>Finds</i>                 | None  |

**Trench 22**

|                              |   |
|------------------------------|---|
| <i>Dimensions</i>            | 30 m by 2.2 m   |
| <i>Total Area</i>            | 66 m <sup>2</sup>   |
| <i>Excavated Orientation</i> | NE to SW  |
| <i>Soil Make-up</i>          | Topsoil – mid greyish brown sandy clay loam with occasional small stone and frequent coal fleck inclusions – max depth 0.34 m |
| <i>Depth of Excavation</i>   | 0.34 m  |
| <i>Significant Features</i>  | None  |
| <i>Other Features</i>        | Furrows at 1.9 m to 5 m; 12 m to 14.7 m; 21.6 m to 26.5 m aligned N-S.  |
| <i>Natural Subsoil</i>       | Mottled orange, yellow and pink sandy clay with abundant small stone and occasional medium to large stone inclusions          |
| <i>Finds</i>                 | None  |

**Trench 23**

|                              |                   |
|------------------------------|-------------------|
| <i>Dimensions</i>            | 30 m by 2.2 m     |
| <i>Total Area</i>            | 66 m <sup>2</sup> |
| <i>Excavated Orientation</i> | W to E            |

|                             |   |
|-----------------------------|---|
| <i>Soil Make-up</i>         | Topsoil – mid greyish brown sandy clay loam with occasional small stone and frequent coal fleck inclusions – max depth 0.43 m |
| <i>Depth of Excavation</i>  | 0.43 m  |
| <i>Significant Features</i> | None  |
| <i>Other Features</i>       | Furrows at 1.7 m; 7.8 m; 12.8 m aligned N-S.  |
| <i>Natural Subsoil</i>      | Mottled orange, yellow and pink sandy clay with abundant small stone and occasional medium to large stone inclusions          |
| <i>Finds</i>                | None  |

## APPENDIX 2: Context Register

| Context No. | Area | Description and Interpretation  |
|-------------|------|---|
| 301         | T3   | Linear cut with steep sides and a flat/concave base aligned NW-SE measuring 0.43 m wide by 0.07 m deep. Also seen in trenches 13 and 14 cutting furrows.<br><b>Modern ditch</b>   |
| 302         | T3   | Dark grey silty clay with abundant roots throughout and occasional small stone inclusions. 0.43 m by 0.07 m<br><b>Fill of ditch [301]</b>   |
| 303         | T3   | Circular cut with steep sides, moderate to the N and a flat base. Measures 1.03 m by 0.88 m by 0.24 m. Filled by deposit [304]<br><b>Probable stone hole removed for agricultural reasons</b>   |
| 304         | T3   | Mid greyish brown silty clay with occasional small stone inclusions and coal fleck inclusions, with some coal lumps. Measures 1.03 m by 0.88 m by 0.24 m. Two fragments of white ceramic within fill.<br><b>Fill of [303]</b>   |
| 1101        | T11  | Deposit of medium and large stones within a mid greyish brown sandy loam (topsoil) forming a linear bank along the S edge of mill lade [1105]. Measures 0.2 m above current topsoil layer and is 1.2 m wide. Lenses of ash in places. Recorded in T11 and T12.<br><b>Turf and stone bank (S)</b>  |
| 1102        | T11  | Linear cut with steep to vertical sides and a flat base aligned and sloping very gently from west to east. Measures 3.4 m wide at its base by 0.2 m into the natural subsoil. Filled by deposit [1103].<br><b>Cut for lade ditch</b>  |
| 1103        | T11  | Dark grey silty clay with occasional large stone and rubble inclusions measuring 3.4 m wide by 0.22 m thick. One large hewn and squared sandstone block noted within the fill.<br><b>Fill of ditch [1102]</b>   |
| 1104        | T11  | Deposit of medium and large stones within a mid greyish brown sandy loam (topsoil) forming a linear bank along the N edge of mill lade [1105]. Measures 0.1 m above current topsoil layer and is 0.6 m wide. Lenses of ash in places. Recorded in T11 and T12.<br><b>Turf and stone bank [1104]</b>   |
| 1105        | T11  | Linear ditch aligned E-W with turf and stone banks to the N and S of the ditch. Feature is open and visible on the ground throughout most of its length within the development area, but has been backfilled closer to the mill. The lade appears to have had the stone lining removed from the edges of the channel since it has been out of use and has now silted up. Consists of features [1101] to [1104].<br><b>Mill lade</b> |

## APPENDIX 3: Photographic Record

Digital Photographs

| Frame | Description                 | From | Date    |
|-------|-----------------------------|------|---------|
| 1-3   | View of site from SE corner | Var  | 7/10/14 |
| 4     | T1 Post ex                  | S    | 7/10/14 |
| 5     | T2 Post ex                  | S    | 7/10/14 |

|       |   |     |         |
|-------|---|-----|---------|
| 6     | T4 Post ex                                    | SW  | 7/10/14 |
| 7-10  | View of site from highest point               | Var | 7/10/14 |
| 11    | T5 Post ex                                    | SW  | 7/10/14 |
| 12    | T6 Post ex                                    | NNW | 7/10/14 |
| 13    | T7 Post ex                                    | E   | 7/10/14 |
| 14    | View along lade                               | E   | 7/10/14 |
| 15    | T8 Post ex                                    | ESE | 7/10/14 |
| 16    | T9 Post ex                                    | W   | 7/10/14 |
| 17    | T10 Post ex                                   | W   | 7/10/14 |
| 18    | T12 Post ex                                   | S   | 7/10/14 |
| 19    | Bank to N of lade                             | SW  | 7/10/14 |
| 20    | Bank to N of lade                             | W   | 7/10/14 |
| 21    | Lade ditch                                    | SW  | 7/10/14 |
| 22    | View of lade ditch channel (w-facing section) | SW  | 7/10/14 |
| 23    | View of lade ditch channel (w-facing section) | NW  | 7/10/14 |
| 24    | Post ex T11 showing lade                      | SW  | 8/10/14 |
| 25-26 | Turf and stone bank [1101]                    | W   | 8/10/14 |
| 27    | Lade cut [1102]                               | W   | 8/10/14 |
| 28-29 | Base of lade ditch                            | W   | 8/10/14 |
| 30    | N edge of lade                                | W   | 8/10/14 |
| 31    | General view of lade                          | NW  | 8/10/14 |
| 32    | General view of lade                          | NW  | 8/10/14 |
| 33    | General view of ditch [301]                   | S   | 8/10/14 |
| 34    | General view of ditch [301]                   | SE  | 8/10/14 |
| 35    | NW-facing section of ditch [301]              | NW  | 8/10/14 |
| 36    | View of [301] terminating                     | SW  | 8/10/14 |
| 37    | T13 Post-ex                                   | SW  | 8/10/14 |
| 38    | T14 Post-ex                                   | SW  | 8/10/14 |
| 39    | T15 Post-ex                                   | SW  | 8/10/14 |
| 40    | T16 Post-ex                                   | E   | 8/10/14 |
| 41    | T17 Post-ex                                   | WNW | 8/10/14 |
| 42    | T18 Post-ex                                   | SE  | 8/10/14 |
| 43    | S-facing section of pit [303]                 | S   | 8/10/14 |
| 44    | General view of pit [303]                     | E   | 8/10/14 |
| 45    | Post-ex view of pit [303]                     | E   | 8/10/14 |
| 46    | T19 Post-ex                                   | SW  | 9/10/14 |
| 47    | T20 Post-ex                                   | NW  | 9/10/14 |
| 48    | T21 Post-ex                                   | NE  | 9/10/14 |
| 49    | T22 Post-ex                                   | SW  | 9/10/14 |
| 50    | T23 Post-ex                                   | E   | 9/10/14 |

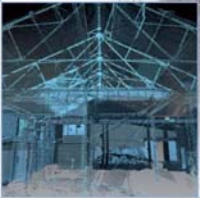
## APPENDIX 4: Drawing Register

| Drawing No. | Area | Details                              | Scale |
|-------------|------|--------------------------------------|-------|
| 1           | T12  | W-facing section through lade [1105] | 1:20  |
| 2           | T11  | W-facing section through lade [1105] | 1:20  |
| 3           | T3   | Plan of Trench 3                     | 1:50  |
| 4           | T3   | NW-facing section of ditch [301]     | 1:10  |
| 5           | T3   | S-facing section of pit [303]        | 1:50  |



**APPENDIX 5: 'Discovery and Excavation in Scotland' Report**

|   |   |
|---|---|
| <b>LOCAL AUTHORITY:</b>   | West Lothian Council  |
| <b>PROJECT TITLE/SITE NAME</b>  | Redhouse West, Blackburn  |
| <b>PROJECT CODE:</b>  | AOC 22835   |
| <b>PARISH:</b>  | Whitburn  |
| <b>NAME OF CONTRIBUTOR:</b>   | Kevin Paton   |
| <b>NAME OF ORGANISATION:</b>  | AOC Archaeology Group   |
| <b>TYPE(S) OF PROJECT:</b>  | Archaeological Evaluation   |
| <b>NMRS NO(S)</b>   | None  |
| <b>SITE/MONUMENT TYPE(S):</b>   | N/A   |
| <b>SIGNIFICANT FINDS:</b>   | N/A   |
| <b>NGR (2 letters, 6 figures)</b>   | NS 992 653  |
| <b>START DATE</b> (this season)   | 7 <sup>th</sup> October 2014  |
| <b>END DATE</b> (this season)   | 9 <sup>th</sup> October 2014  |
| <b>PREVIOUS WORK</b> (incl. DES ref.)   | None  |
| <b>MAIN (NARRATIVE) DESCRIPTION:</b><br>(May include information from other fields) | <p>An archaeological evaluation was undertaken as part of pre-planning works for a possible development at Redhouse West, Blackburn, West Lothian.</p> <p>The evaluation required an 8% trenching sample of the available development area. A total of 23 trenches of varying lengths and alignments were excavated encountering N-S aligned agricultural furrows and associated rubble drains.</p> <p>Two trenches were placed across an open ditch in the southern edge of the development area that was formerly a mill lade powering the Hopefield Mills to the east. The trenches revealed that any stone that may have lined the channel had been robbed out. Furthermore, since the lade was blocked off from the river to the west and left to silt up, all that remained of it was the ditch with turf and stone banks on either side.</p> <p>Throughout the majority of the site no significant archaeological features or artefacts were encountered. As the former mill lade has been robbed of stone and the ditch and banks recorded at either end of the development area, no further works are considered necessary within these areas. Where the development impacts the edge of the former mill buildings, further archaeological works will be required.</p> |
| <b>PROPOSED FUTURE WORK:</b>  | None  |
| <b>CAPTION(S) FOR ILLUSTRS:</b>   | ---   |
| <b>SPONSOR OR FUNDING BODY:</b>   | Lovell Partnership Ltd.   |
| <b>ADDRESS OF MAIN CONTRIBUTOR:</b>   | Edgefield Road Industrial Estate, Loanhead, Midlothian, EH20 9SY  |
| <b>EMAIL ADDRESS:</b>   | admin@aocarchaeology.com  |
| <b>ARCHIVE LOCATION</b><br>(intended/deposited)                                     | Archive to be deposited in NMRS   |



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