

CFA Archaeology Ltd

archaeological consultants

Advice on Archaeology & Planning

Environmental Impact Assessment

Intpretation, Design & Display

Finds/ Environmental Analysis

Field Evaluation & Excavation

Historic Building Recording

Site & Landscape Survey

Geophysical Survey

Braid Burn Flood Prevention Scheme (WU11) Duddingston Road West, Edinburgh

Archaeological Watching Brief

Report No. 1670

CFA ARCHAEOLOGY LTD

The Old Engine House
Eskmills Business Park
Musselburgh
East Lothian
EH21 7PQ

Tel: 0131 273 4380
Fax: 0131 273 4381
email: info@cfa-archaeology.co.uk
web: www.cfa-archaeology.co.uk

Author	Helena Gray MA
Illustrator	Leeanne Whitelaw BSc MAAIS
Editor	Chris O'Connell BA MA AIFA
Commissioned by	City of Edinburgh Council
Date issued	February 2010
Version	0
OASIS Reference	cfaarcha1 - 65763
Planning Application No	-
Grid Ref	NT 28550 72044

This document has been prepared in accordance with CFA Archaeology Ltd standard operating procedures.

Braid Burn Flood Prevention Scheme (WU11) Duddingston Road West, Edinburgh

Archaeological Watching Brief

Report No. 1670

Contents

1.	Introduction	3
2.	Working Methods	4
3.	Archaeological Results	4
4.	Conclusion	6
5.	References	6

Appendices

1.	Context Register	7
2.	Photographic Register	8
3.	Drawings Register	9

Illustrations (bound at rear)

Fig. 1	Site location map
Fig. 2	Detail of site location map
Fig. 3	Pre-ex shot of drainage trench Area 1 from SE
Fig. 4	Working shot of drainage trench Area 1 from SE
Fig. 5	Shot of stone dump (019) from SW
Fig. 6	Working shot of bypass trench Area 2 from SE
Fig. 7	Pillar base (033) excavated at SW side showing bullnose bricks resting on stone base from SE
Fig. 8	Shot of grading batter for new course of Braid Burn From NE

1. INTRODUCTION

1.1 General

- 1.1.1 This report presents the results of an archaeological watching undertaken by CFA Archaeology Ltd (CFA) from November 2008 until February 2009 at Duddingston Road West (NGR: NT 28550 72044), City of Edinburgh. The work was commissioned by The City of Edinburgh Council.
- 1.1.2 John Lawson of the City of Edinburgh Council Archaeology Service (CECAS) requested an archaeological watching brief during groundbreaking works at Duddingston Road West (Fig. 1 and 2). A Written Scheme of Investigation (WSI) for the project was produced by CFA based upon documents provided by CECAS.

1.2 Background

- 1.2.1 Groundbreaking work was being undertaken at Duddingston Road West, Work Unit 11 (WU 11), as part of a wider programme of works associated with the Braid Burn Flood Prevention Scheme. Construction work was located in three areas, Areas 1, 2 and 3 (Figs. 1 and 2), all of which required an archaeological watching brief.
- 1.2.2 Area 3 was located within the south-eastern boundary of the Scheduled Area of Holyrood Abbey, Palace Gardens and Park (Ref. 90131).
- 1.2.3 Area 1 is located within Prestonfield Golf Course. The National Monuments Record of Scotland records that remains of Rig and Furrow cultivation are present within the golf course (NT27SE 596).
- 1.2.4 Previous archaeological work undertaken by AOC to the south and east of Area 2 had revealed made ground of between 1.7 and 3m sealing the foundations of several buildings. These remains comprised various surfaces of cobble, brick, concrete and tarmac, alongside brick walls, drainage gullies and concrete pillars. These were thought to represent the remains of the Pentland and Duddingston breweries which occupied the area at the beginning of the 20th century (Hunter Blair 2007).
- 1.2.5 Work in Area 1 involved the excavation of a drainage pipe trench and new outfall within Prestonfield Golf Course. Work in Area 2 involved realignment of the Braid Burn itself and the construction of a new flood embankment and water drain bypass trench. Modern industrial units lie to the south of this area. Work in Area 3 involved the construction of new flood wall, as well as additions to the existing river wall and excavation to provide a stable surface for plant operations.

1.3 Objectives

- 1.3.1 The objectives of the programme of archaeological works were to determine if archaeological features were present and record them prior to development.

2. WORKING METHODS

- 2.1 CFA Archaeology Ltd follows the Institute for Archaeologists' Code of Conduct, Standards and Guidance for Archaeological Watching Briefs.
- 2.2 The removal of soil deposits was carried out using mechanical excavators equipped with smooth-bladed ditching buckets under constant archaeological supervision. The excavation of archaeological features were carried out by hand.
- 2.3 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.

3. ARCHAEOLOGICAL RESULTS

3.1 General

- 3.1.1 Numbers in bold and parentheses refer to contexts, a full list of which is contained in Appendix 1.

3.2 Area 1

- 3.2.1 The drainage trench (Figs. 3 & 4) excavated was approximately 100m by 0.9m wide by 1.9 to 3.0m deep. A manhole excavated at the north-eastern terminus of the trench measured 2.3 by 2.5m by 1.9m deep. No features of archaeological significance were identified within Area 1
- 3.2.2 Generally, topsoil (**001**) overlay natural orange sandy clays (**002**) and mixed gravels (**003**), to a depth of 0.3m. A subsoil (**010\011**), containing coal flecks, was recorded in the southern extent of the trench to a depth of 0.2m. Occasional 19th century rubble and clay pipe field drains were recorded alongside 19th and 20th century metal water pipes. No remains of Rig & Furrow agriculture were identified.
- 3.2.3 Previous ground disturbance relating to the construction of a golf tee was evident in the middle of the trench, where a tree had been removed (**007**) and the subsequent hollow infilled with sand (**008**). A deposit of fly ash (**015**) 13m wide by 0.2m deep, had been used to build up the tee.
- 3.2.4 An area of 5.2 m by 3.2m by 1.0m deep was excavated prior to the construction of a head wall on the northern bank of the burn. A dump of broken mortared sandstone stones mixed with cobbles and modern debris (**019**) (Fig. 5) was identified within a soil matrix (**020**) underlying the current bank topsoil (**018**). This in turn overlay a natural river deposit (**021**) of dark

sandy clay material. Deposits (019-020) are likely to have been used to build up the Braid Burn bank in this area, possibly during construction of the golf course.

3.3 Area 2

- 3.3.1 The water drain bypass trench (Figs. 2 and 6) measured 4.2m wide at ground surface level, and stepped in to 1m wide at the base, with an overall depth of 2.2m. There were no significant archaeological features found during the excavation of the trench.
- 3.3.2 Deposits in this area consisted mainly of various layers of made ground. A 1m deep deposit of mixed rubble, brick and modern debris (027) overlay three lenses, 0.1- 0.15m deep, of redeposited subsoil (028), black coal ash and dross (029), and mortar dust and mortar fragments (030). A subsoil (031) consisting of mid-red brown clay silt underlay (030) to a depth of 0.65m, under which lay undisturbed subsoil of red brown clay (032).
- 3.3.3 A compacted gravel and soil surface (036) was located at the southern terminal end of the trench. It lay directly over (028).
- 3.3.4 An in-situ pillar base (033) (Figs. 2 and 7) was revealed midway along the trench underlying (029) (NT 28594 72025), consisting of edge-set bricks set on a cement and rubble plinth, of dimensions 0.8m wide by 0.2m deep. A square impression probably left by a corroded iron pillar (0.36m diameter) (034), could be seen in the centre of pillar base. Bull-nose bricks were present on two edges of the pillar base.

3.4 Area 3

- 3.4.1 Excavation on the burn bank revealed three deposits of made ground consisting of a rubble layer (023), a sandy lime levelling material (024) and pink mortar blaise (025). These were excavated to a maximum depth of 1.25m. Undisturbed subsoil was not reached and no features of archaeological significance were identified within Area 3.
- 3.4.2 Excavation within the burn next to the retaining wall revealed only natural river deposits. The wall itself was constructed of reclaimed dressed sandstone by the present occupiers of the adjacent house.

4. CONCLUSION

- 4.1 An archaeological watching brief was carried out during construction works at Duddingston Road West (WU 11). The work was associated with the Braid Burn Flood Prevention Scheme. Groundbreaking work was located in three areas. No features of archaeological significance were identified in Areas 1, 2 and 3.
- 4.2 Area 1 revealed mostly undisturbed natural subsoil with some modern disturbance associated with the present golf course construction. Evidence of previous land-use was present in the form of 19th century field drains. There were no remains of the Rig and Furrow agriculture recorded by the NMRS identified within Area 1.
- 4.3 Excavations in Areas 2 and 3 demonstrated that the majority of the deposits uncovered were made ground with inclusions of stone and building rubble in the upper layers (**027**) and (**023**). A brick and concrete plinth (**033**) with the impression of a square iron pillar (**034**) was found in Area 2, attesting to the presence of previous structures within this area. The pillar is probably one of the same series as those excavated by AOC in 2007 (Hunter Blair 2007).
- 4.4 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 City of Edinburgh Council Sites and Monuments Record.
- 4.5 A *Discovery and Excavation in Scotland* entry will be prepared for the whole Braid Burn Flood Prevention Scheme.

5. REFERENCES

Hunter Blair, A. 2007. *Prestonfield Phase 2:Excavation Data Structure Report*

APPENDIX 1: Context Register

Context No.	Trench/Area	Context type	Description
001	1	Topsoil	Mid brown clayey silt
002	1	Natural subsoil	Mid pinkish-orange sandy clay
003	1	Natural subsoil	Compact brownish orange and grey clay-sand and gravels
004	1	Fill of rubble field drain [005]	
005	1	Cut of rubble field drain	
006	1	Lower fill of field drain [005]	
007	1	Cut for tree removal	Irregular cut 3.4m wide x 0.5m deep
008	1	Fill of [007]	Loose medium grained mid yellow brown sand
009	1	Bank material cut by [007]	Mid grey silty clay containing tree roots and <1% coal flecks, 2.2m wide x 0.26m deep
010	1	Deposit/lower topsoil horizon	Mid brown clayey silt with 2% coal flecks, 0.15m deep
011	1	Deposit/lower topsoil horizon	As for (010)
012	1	Cut of red clay pipe field drain	
013	1	Fill of [012]	
014	1	Red clay pipe	
015	1	Modern deposit/made ground	Fly-ash deposit used to construct golf tee, 13m wide x 0.2m deep
016	1	Fill of [017]	Mixed redeposited natural subsoil
017	1	Cut of modern sewer pipe	
018	1	Current Braid Burn bank topsoil	Dark brown loose sandy silt
019	1	Dump of stones used to build up Braid Burn bank	Unstructured rubble material consisting of medium-large sub-rounded and sub-angular stones, alongside pieces of mortared quarried sandstone. Rubble includes modern pottery, tile, glass and clay pipe field drain. 4.2m 1.2m exposed, 0.7m deep
020	1	Lower bank material containing (019)	Mid grey brown silty sand, 4.4m x 2m x 0.45m deep
021	1	Bank levelling material under (020). (019)	Mid-dark grey firm sandy clay, 0.3m deep, possible bank levelling material
022	1	Burn material	Dark bluish black gritty sandy clay containing modern rubbish and rotting vegetation within/at edge of burn
023	3	Made ground	Dark clayey sand mixed with brick, stone and concrete rubble, 0.25m deep
024	3	Made ground under (023)	Sandy lime levelling material, 0.2m deep
025	3	Made ground under (024)	Pink mortar blaise, >0.9m deep
026	2	Natural subsoil	Mid orange yellow river gravels
027	2	Made ground	Mixed soil, brick and stone rubble, modern debris, 1m deep
028	2	Deposit/made ground under (027)	Redeposited natural subsoil of mid red-brown clay, 0.1m deep
029	2	Deposit/made ground under (028)	Black coal ash and dross lense, 0.1m deep
030	2	Deposit/made ground under (029)	Mortar dust and fragments, 0.15m deep
031	2	Possible buried soil under (030)	Mid reddish -brown clay silt with 1% coal flecks, 0.65m deep

Context No.	Trench/Area	Context type	Description
032	2	Natural subsoil	Red-brown clay
033	2	Pillar base under (029)	Brick base of possible metal pillar, 0.6m x 0.05m deep, aligned WSW-ENE. Bull-nose bricks present on 2 edges. Bricks sit on a cement and rubble plinth, 0.8m wide.
034	2	Shadow of iron pillar on (033)	Square rusty shadow in centre of (033), 0.36m diameter
035	2	Made ground overlying and replacing (027)	Mixed deposit of crushed concrete, brick and modern debris,
036	2	Probable old surface merging with (029)	Compacted deposit of small gravels and soil

APPENDIX 2: Photographic Register

Colour Slide Film 1

Shot	Contexts/Description	Taken from	Conditions
1	Pre-ex shots of stones (019)	SW	Flood lit
2-3	Pre-ex shots of stones (019)	SE	flood lit
4-5	Pre-ex shots of stones (019)	S	Flood lit
6	Pre-ex shots of stones (019)	SW	Flood lit
7	Registration shot		
8-9	NE facing section through (019) and (020)	NE	Low light
10-11	Shot of full extent of stones (019)	SW	Dull

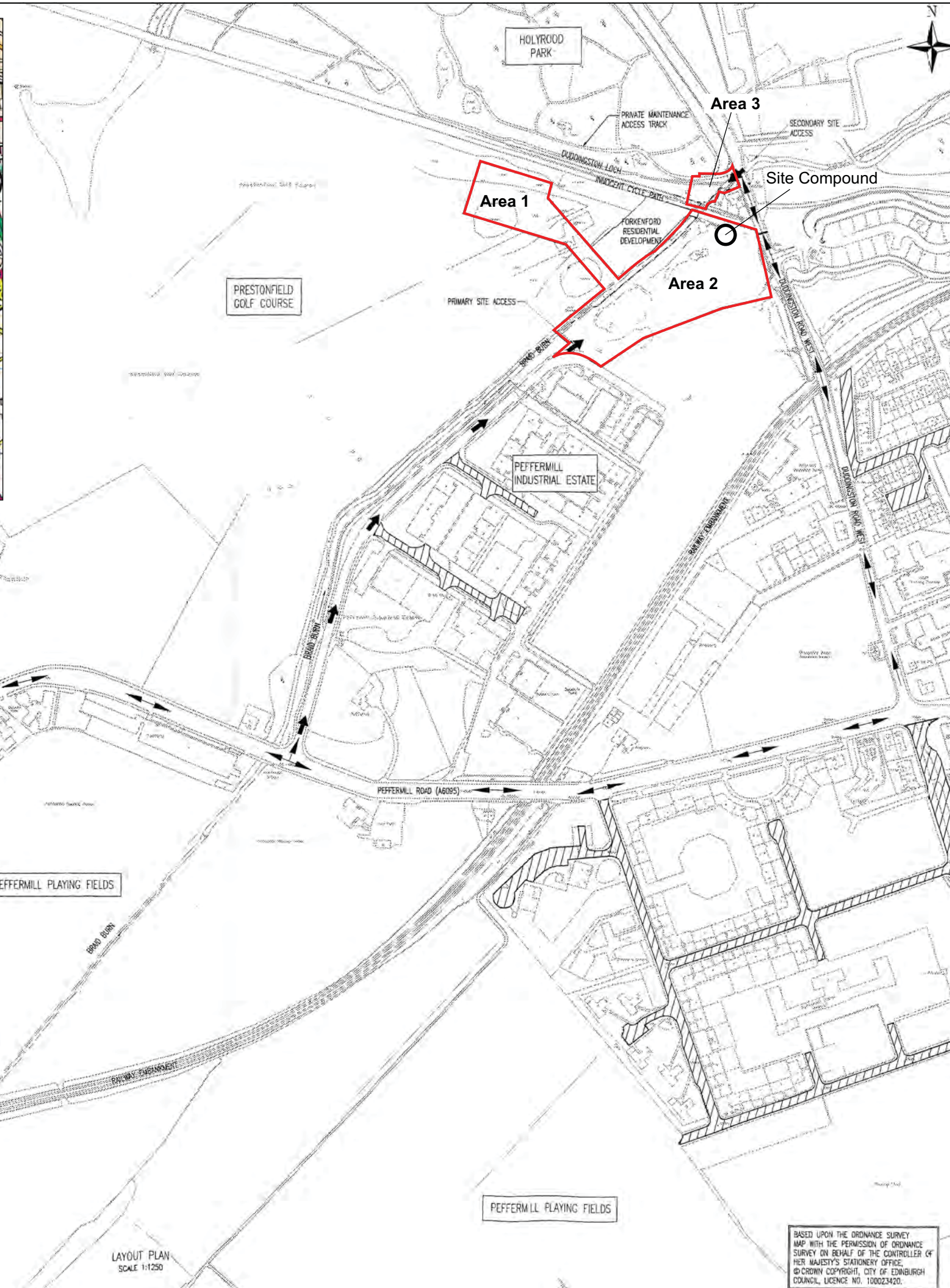
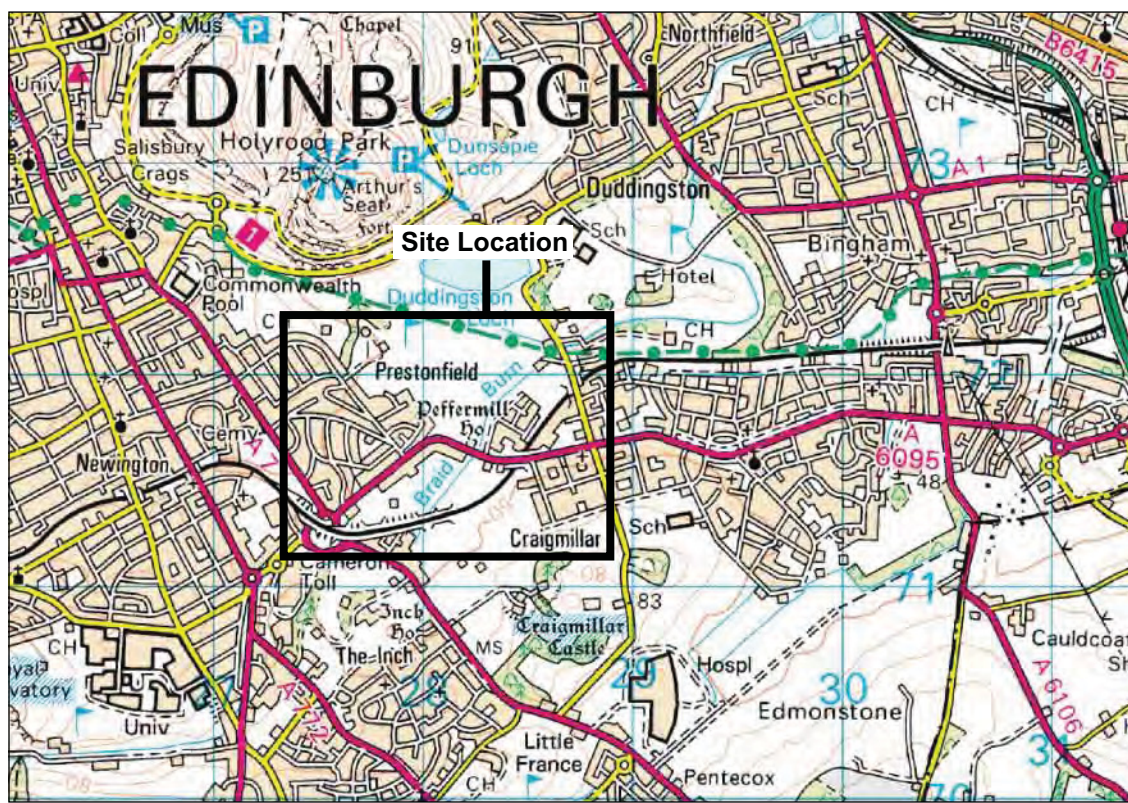
Digital

Shot	Contexts/Description	Taken from	Conditions
1	Pre-ex shot of drainage trench Area 1	NW	O/C
2	SW facing section of completed manhole Area 1	SW	O/C
3	Plan view of rubble field drain (004) and [005] Area 1	NW	Sunny
4	E facing section through (004) and [005]	E	Bright
5	General shot of trench excavation	SE	Bright
6	SW facing section of trench showing (010) and (011)	SW	Bright
7	Shot of W side of bridge	SW	Sunny
8	Shot of E side of bridge	E	Sunny
9	Shot of W side of bridge	SW	Sunny
10	General shot of Area 1	SE	Sunny
11	Shot of stones (019)	SE	Floodlit
12	Shot of full extent of (019)	SW	Dull
13	Record shot of area once (019) removed	SW	Dull
14	Shot of area excavated around tree root Area 3	SW	Sunny
15	General shot of Area 3 being cleared	WSW	Sunny
16	General shot of final section of drainage Area 1	SE	Sunny
17	General shot of end of bypass trench Area 2	NE	Bright
18	General shot of bypass trench section showing (036), (029), (031) and (032) Area 2	SE	O/C
19	Shot of lumps of brick and concrete within made ground (0270)	SE	O/C
20	Trench section	SE	O/C
21	General view of Area 2	SW	O/C
22	Plinth (033) excavated at SW side showing bullnose bricks resting on stone base	SW	O/C
23	Plinth (033) excavated at SW side showing bullnose bricks	SE	O/C

Shot	Contexts/Description	Taken from	Conditions
	resting on stone base		
24	General shot of course of Braid Burn including retaining NW facing section of modern brick wall Area 2	SW	Bright
25	Working shot of wall removal and and infilling Braid Burn Area 2	NE	O/C
26	Retaining wall NE elevation Area 2	NE	O/C
27	Section of trench showing natural and subsequent made ground Area 2	S	Bright
28	Working shot of outflow pipe removal Area 2	SW	O/C
29	Grading batter for new course of Braid Burn Area 2	NE	O/C
30	Working shot of excavating course of Braid Burn exposing clay bed Area 3	NE	Bright

APPENDIX 3: Drawing Register

Dwg No.	Sheet No.	Contexts/Description	Plan/section	Scale
1	DB	SW facing section of manhole	S	1:50
2	DB	Plan of trench showing rubble field drain [005]	P	1:20
3	DB	SW facing section through [005]	S	1:10
4	DB	E facing section through [005]	S	1:10
5	DB	SW facing section through bank showing (001) and (009)	S	1:20
6	DB	SW facing section of trench showing (010) and (011)	S	1:20
7	1	Pre-ex plan of stones (019)	P	1:20
8	1	NE faacing section through (019) and (020)	S	1:10
9	DB	Plinth (003) profile	P	1:10
10	DB	Plinth (003) profile	P	1:10
11	DB	Trench section, NE end	S	1:20



Key:

CFA ARCHAEOLOGY LTD
 The Old Engine House
 Eskmills Park
 Musselburgh
 East Lothian, EH21 7PQ
 t: 0131 273 4380
 f: 0131 273 4381
 e: info@cfa-archaeology.co.uk
 w: www.cfa-archaeology.co.uk

Fig. No:	1	Revision:	A
----------	---	-----------	---

Title:
Site Location

Project:
**Braid Burn Flood Prevention Scheme (WU11)
 Duddingston Road West,
 Edinburgh**

Scale:
1:2500 @ A3

Client:
City of Edinburgh Council



Key:

-  Trench
-  Site Boundary




CFA ARCHAEOLOGY LTD
 The Old Engine House
 Eskmills Park
 Musselburgh
 East Lothian, EH21 7PQ
 t: 0131 273 4380
 f: 0131 273 4381
 e: info@cfa-archaeology.co.uk
 w: www.cfa-archaeology.co.uk

Fig. No: **2** Revision: **A**

Title:
Detail of site location map

Project:
**Braid Burn Flood Prevention Scheme (WU11)
 Duddingston Road West,
 Edinburgh**

Scale:


Client:
City of Edinburgh Council

Drawn by: **LW** Report No: **1670**



Fig. 3 - Pre-ex shot of drainage trench Area 1 from SE



Fig. 4 - Working shot of drainage trench Area 1 from SE



Fig. 5 - Shot of stone dump (019) from SW




Fig. 6 - Working shot of bypass trench Area 2 from SE



Fig. 7 - Pillar base (033) excavated at SW side showing bullnose bricks resting on stone base from SE



Fig. 8 - Shot of grading batter for new course of Braid Burn from NE

Key:	Fig. No:	3-8	Revision:	A	Client:	City of Edinburgh Council
	Title:					
	Project:	Braid Burn Flood Prevention Scheme (WU11) Duddingston Road West, Edinburgh				
Scale:						 <p>CFA ARCHAEOLOGY LTD The Old Engine House Eskmills Park Musselburgh East Lothian, EH21 7PO t: 0131 273 4380 f: 0131 273 4381 e: info@cfa-archaeology.co.uk w: www.cfa-archaeology.co.uk</p>
						Drawn by: LW Page No: Report No: 1670