



Archaeological Watching Brief Report

3 Arnothill (OASIS No. neoenvir1-271685)

06/10/2017



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1. INTRODUCTION

- 1.1. Neo Environmental was commissioned by Arka Architects to undertake a programme of archaeological observation for the construction of a residential development on land at the former Carmelite Nunnery, 3 Arnothill (NS 8808 7997) (**Figure 1**).
- 1.2. The request for the programme of archaeological works was made by the archaeological advisor at FCT as part of Condition 5 in the decision notice for planning application P/15/0666/FUL. Permission was granted for the “*Conversion and Partial Demolition to Form 2 Maisonettes and 3 Flatted Dwellings, Erection of Dwellinghouse & Detached Garage, Conversion of Chapel with Partial Demolition and Extension to form Dwelling, Extension of Existing Cottage with New 1st Floor Accommodation at 3 Arnothill, Falkirk, FK1 5RZ*”. Condition 5 of the planning permission states that:

“Before development commences a Written Scheme of Investigation (WSI) shall be submitted for the approval of Falkirk Council as Planning Authority including amendment as required. The WSI shall set out a methodology to ensure the in situ preservation of any Roman remains encountered within the Antonine Wall World Heritage Site. The WSI shall be prepared by an independent archaeological advisor.”

- 1.3. The development site is approximately 5285m² in size and is located on the south side of Arnothill Lane and partly within the Ordnance Survey line of the Antonine Wall (**Figure 1**).

2. ARCHAEOLOGICAL BACKGROUND

- 2.1. Ordnance Survey mapping suggests that the course of the Antonine Wall runs east to west across the northern end of the development site. However, a previous programme of trial trenching on 31st March and 1st April 2015 within the development site did not encounter any remains related to the Antonine Wall and it is likely that the monument is located further to the north than depicted on Ordnance Survey mapping. The possibility of related Roman remains is still present within the site due to its proximity to the Antonine Wall. Physical remains of the rampart and ditch are discernible c. 500m to the west and c. 1.1km to the east-southeast of the application site.
- 2.2. The development footprint is located within the curtilage of the former ‘Carmelite Convent’, which was a nunnery hosting the Sisters of the Carmelite Monastery of the Immaculate Conception from 1931 – 2014. The nunnery consisted of the principle Victorian building (c. 1855) as well as several outbuildings, including a church, greenhouse and storage buildings. Prior to this use, the building was the former manse of the Free Church.

3. SCOPE & AIMS OF THE PROJECT

- 3.1. A watching brief is defined by the Chartered Institute for Archaeologists (CIfA) *Standards and guidance: Archaeological Watching Brief* (December 2015)¹ as a formal programme of observation and investigation that will define as far as reasonably possible the nature, depth and preservation of archaeological materials encountered during any operation conducted for non-archaeological reasons.
- 3.2. The broad aims of the project as set out in the Written Scheme of Investigation (WSI) produced by Neo Environmental (Briggs 2016)² were to conduct a watching brief *“to ensure that any Roman stratigraphy relating to the Antonine Wall is not removed and alternative design solutions are applied to ensure in situ preservation. In addition, the location and extent of any remains uncovered will be recorded fully.”*

4. METHODOLOGY

- 4.1. The design of the development included two buildings; the main house to the south and a garage to the north. Observation of main groundworks during the project occurred on 12th December 2016. This involved the monitoring of a controlled strip of the southern building's (house) footprint. This area was stripped of topsoil down to a level reaching natural subsoil. Some areas were subsequently reduced further in order to meet the technical specifications required for the development. Excavations for the house footprint were done with a 1.5m wide toothless ditching bucket fitted to a c. 5 ton tracked excavator. Excavations for the service trench were done with a 0.6m wide bucket. Excavated areas were not tracked over by the machine until the archaeologist had investigated the area. **Figure 2** shows a plan of monitored groundworks within the site.
- 4.2. The northern section of the site (garage) retained a large area of hardstanding from its previous foundational use. As a result, the design of the project aims to build upon this hardstanding and does not require any topsoil stripping within the northern section of the site. Between the northern and southern sections was a service trench, the excavation of which was subsequently monitored on 4th October 2017. Much of this service trench was located within the previous hardstanding area but due to the depth of excavation required this was also monitored.
- 4.3. The project followed current best archaeological practice, embodied in the by-laws, codes of professional conduct, and standards and guidance (specifically that for an archaeological watching brief) of the CIfA.

¹ Chartered Institute for Archaeologists (2015). *Standards and Guidance for an Archaeological Watching Brief*. Reading.

² Briggs, M (2016). *Written Scheme of Investigation – 3 Arnothill*. Neo Environmental Ltd

- 4.4. Written records, where appropriate, in the form of site notes and annotated sketches were made and high resolution digital photographs taken to show specific stages of fieldwork and the layout and relationship of archaeological features or deposits. Scales were included within the photographs where appropriate.

5. RESULTS

Controlled Strip

- 5.1. A controlled strip of the main house footprint was undertaken on 12th December 2016. The area stripped measured approximately 17m by 12m in a rectangular shape, orientated north-south (**Figure 2**). The works took half a day and nothing of archaeological origin was encountered during the monitoring. The outline of a previous trench excavated during the preceding trial trenching was identified in the eastern extent of the stripped area.
- 5.2. Topsoil in the stripped area was a dark-brown loam, c. 400 – 550mm depth, which lay directly above the natural subsoil – in this case a brown-orange loamy gravel.

Service Trench

- 5.3. The excavation of a service trench (**Plate 1**) was monitored on the 4th October 2017. The trench measured approximately 600mm wide and c. 30m in length in a west-southwest to east-northeast orientation. The trench was excavated to a depth of c. 700 – 900mm and did not encounter natural subsoil until the northeastern extent (last 5m of excavation) at a depth of c. 900mm. Nothing of archaeological interest was uncovered. A ceramic drainage pipe and a black PVC pipe were both identified at a depth of c. 300mm.
- 5.4. The topsoil was a similar dark-brown loam to that encountered within the controlled strip. This was heavily mixed with construction rubble and hardstanding areas throughout the trench length. This mixed layer was at least 700 – 900mm deep but its full depth was not reached within the western half of the trench. The natural subsoil encountered within the eastern extent was a mid-brown loamy gravel, slightly coarser than the subsoil encountered within the controlled strip. The topsoil with significant amounts of construction material and hardstanding lay directly over the natural subsoil (**Plate 2**) and is residual from its previous usage within the garden area.

6. CONCLUSION

- 6.1. In conclusion, no archaeological features, deposits or artefacts of significance were encountered during the monitoring of the development and it is recommended that no further archaeological investigation of the development site is required.

7. APPENDICES

APPENDIX A – FIGURES

Figure 1 – Site Location

Figure 2 – Monitored Groundworks

APPENDIX B – PLATES

Plate 1 – Extent of service trench, showing topsoil with mixed construction material and hardstanding. Facing ENE



Plate 2 – Natural subsoil within service trench. Facing NNW.



APPENDIX C – OASIS ENTRY

OASIS Report Form: neoenvir1-258529

PROJECT DETAILS	
Project name	Arnothill Watching Brief
Short description of the project	<p>The design of the development included two buildings; the main house to the south and a garage to the north. Observation of main groundworks during the project occurred on 12th December 2016. This involved the monitoring of a controlled strip of the southern building's (house) footprint. This area was stripped of topsoil down to a level reaching natural subsoil. Some areas were subsequently reduced further in order to meet the technical specifications required for the development. Excavations were done with a 1.5m wide toothless ditching bucket fitted to a c. 5 ton tracked excavator. Excavated areas were not tracked over by the machine until the archaeologist had investigated the area. The northern section of the site (garage) retained a large area of hardstanding from its previous foundational use. As a result, the design of the project aims to build upon this hardstanding and does not require any topsoil stripping within the northern section of the site. Between the northern and southern sections was a service trench, the excavation of which was subsequently monitored on 4th October 2017. Much of this service trench was located within the previous hardstanding area but due to the depth of excavation required this was also monitored. In conclusion, no archaeological features, deposits or artefacts of significance were encountered during the monitoring of the development and it is recommended that no further archaeological investigation of the development site is required.</p>
Project dates	Start: 12-12-2016 End: 04-10-2017
Previous/future work	Yes / No
Any associated project reference codes	P/15/0666/FUL - Planning Application No.
Type of project	Recording project

Current Land use	Residential 1 - General Residential
Monument type	N/A None
Significant Finds	N/A None
Investigation type	"Watching Brief"
Prompt	Planning condition
Type of project	Recording project
Project Location	
Country	Scotland
Site location	Falkirk, Arnothill
Postcode	FK1 5RZ
Study area	5285 Square metres
Site coordinates	NS 8808 7997 55.999634116898 -3.794783113076 55 59 58 N 003 47 41 W Point
Project Creators	
Name of Organisation	Neo Environmental
Project brief originator	Local Authority Archaeologist and/or Planning Authority/advisory body
Project design originator	Neo Environmental
Project director/manager	Paul Neary
Project supervisor	Michael Briggs
Type of sponsor/funding body	Developer
Name of sponsor/funding body	Arka Architects
Project Archives	
Physical Archive Exists?	No
Digital Archive recipient	Neo Environmental
Digital Archive ID	NEO00382
Digital Contents	"none"
Digital Media available	"GIS","Images raster / digital photography","Text"
Paper Archive recipient	Neo Environmental
Paper Contents	"none"
Paper Media available	"Aerial Photograph","Drawing","Map","Notebook - Excavation',' Research',' General Notes"
Project Bibliography	
Publication type	Grey Literature (unpublished document/manuscript)
Title	Arnothill Watching Brief Report
Author(s)/Editor(s)	Briggs, M

Date	2017
Issuer or publisher	Neo Environmental
Place of issue or publication	Glasgow
Description	A4 report with plates and A3 figures.



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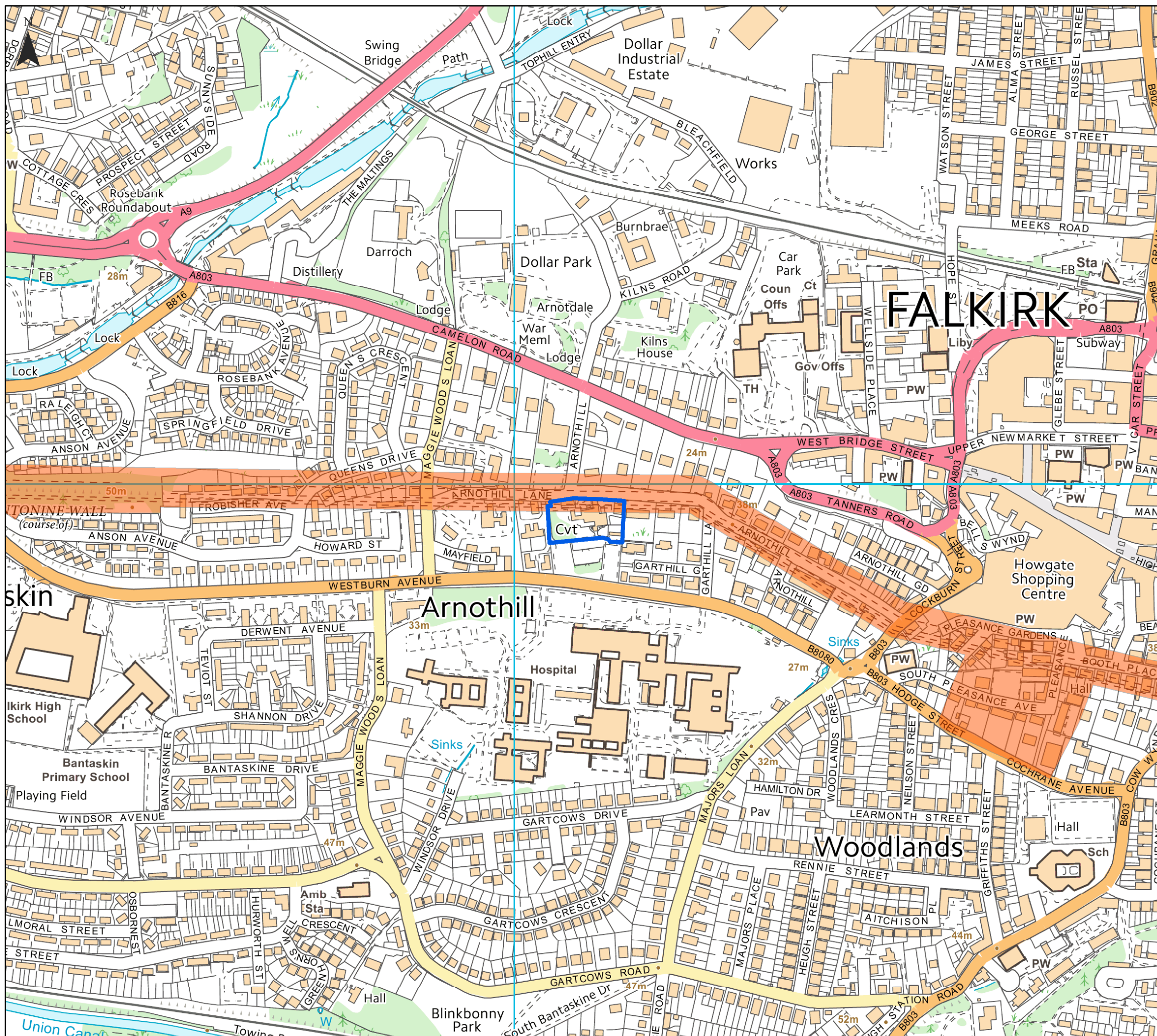
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3 Arnothill Site Location Figure 1

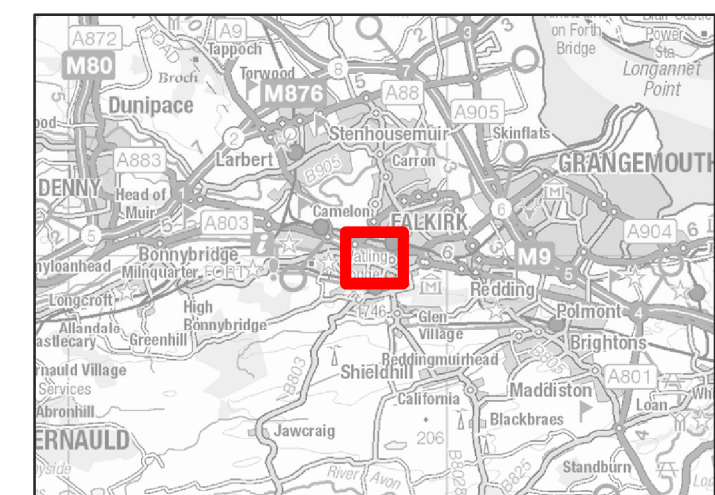
Key



Site Boundary



Antonine Wall Buffer Zone



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Date: 16/12/2016

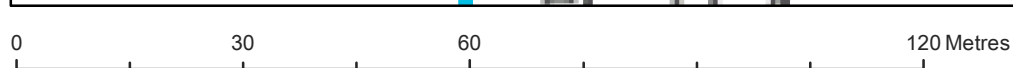
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


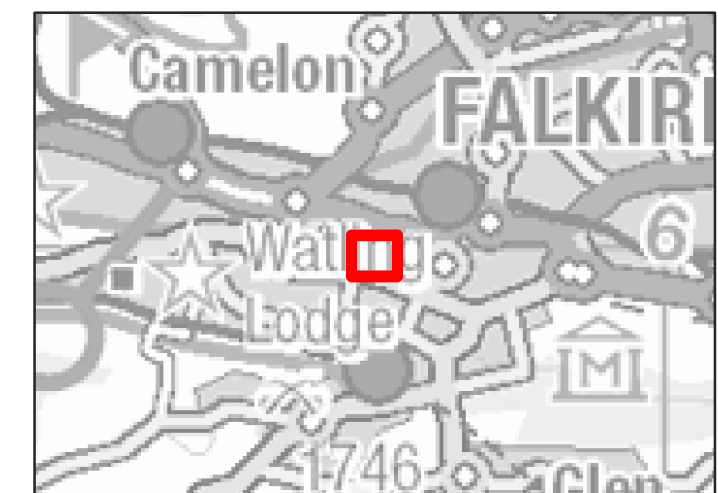
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3 Arnothill
Monitored Groundworks
Figure 2

Key

-  Controlled Strip
-  Service Trench
-  Antonine Wall Buffer Zone



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Date: 09/10/2017
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