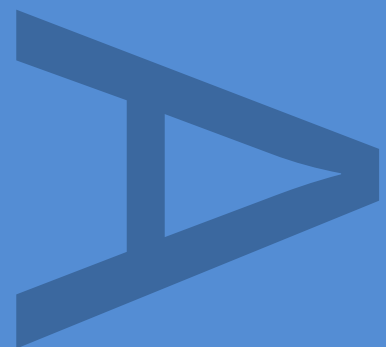


**AN ARCHAEOLOGICAL WATCHING BRIEF  
ON B6318 SIGNING IMPROVEMENTS,  
HARLOW HILL, NORTHUMBERLAND**

**JANUARY 2011**



**PRE-CONSTRUCT ARCHAEOLOGY**

**An Archaeological Watching Brief on B6318 Signing Improvements,  
Harlow Hill, Northumberland**

***National Grid Reference: NZ 076 683 – NZ 081 682***

***Site Code: HWL 10***

***Commissioning Client:***

**Highways & Transport, Street Scene, Place Group  
Northumberland County Council  
County Hall  
Morpeth  
Northumberland  
NE61 2EF  
Tel: 01670 533 954**



***Contractor:***

**Pre-Construct Archaeology Limited  
Northern Office  
Unit N19a, TurSDale Business Park  
Durham  
DH6 5PG  
Tel: 0191 377 1111**



**© Pre-Construct Archaeology Limited  
January 2011**

This report is protected by copyright. The report and the information contained herein are and remain the sole property of Pre-Construct Archaeology Limited and are provided on a single site multi-user basis. If provided in paper form, the report may be utilised by a number of individuals within a location, but copying is prohibited under copyright. If provided in an electronic form, the report may be utilised in a shared server environment, but copying or installation onto more than one computer is prohibited under copyright and printing from electronic form is permitted for own, single location, use only. Multiple printing from electronic form for onward distribution is prohibited under copyright. Further distribution and uses of the report either in its entirety or part thereof in electronic form is prohibited without prior consent from Pre-Construct Archaeology Limited.

Pre-Construct Archaeology Limited has made every effort to ensure the accuracy of the content of this report. However, Pre-Construct Archaeology Limited cannot accept any liability in respect of, or resulting from, errors, inaccuracies or omissions herein contained.

## CONTENTS

	<i>page</i>
1. NON-TECHNICAL SUMMARY	1
2. INTRODUCTION	2
3. PROJECT AIMS AND OBJECTIVES	9
4. ARCHAEOLOGICAL METHODOLOGY	10
5. ARCHAEOLOGICAL RESULTS	12
6. CONCLUSIONS AND RECOMMENDATIONS	15
7. REFERENCES	16
8. ACKNOWLEDGEMENTS AND CREDITS	17

### List of Figures

Figure 1	Site Location	7
Figure 2	Foundation Pit Locations	8
Figure 3	Sections and Plans from Foundation Pits 4 & 6	13
Figure 4	Stone Layer [4] in Foundation Pit 6 ( <i>photograph</i> )	14
Figure 5	Layer [3] in Foundation Pit 4 ( <i>photograph</i> )	14

### Appendices

Appendix A	Stratigraphic Matrix
Appendix B	Context Index
Appendix C	Written Scheme of Investigation

## **1. NON-TECHNICAL SUMMARY**

- 1.1 An archaeological monitoring and recording exercise was conducted in association with groundworks undertaken for signing improvements to the B6318 (the Military Road) at Harlow Hill, Northumberland. The work was conducted on a stretch of the road between National Grid References NZ 076 683 and NZ 081 682.
- 1.2 The archaeological investigation was commissioned by Highways and Transport, Northumberland County Council and was undertaken on 22 March 2010 by Pre-Construct Archaeology.
- 1.3 The archaeological work was undertaken as a condition of Scheduled Monument Consent for the signing improvement scheme, as the affected stretch of the B6318 lies within two Scheduled Ancient Monuments, part of the Hadrian's Wall Roman frontier. The importance of the archaeological resource at the site is reinforced by the fact that the entire Hadrian's Wall Corridor forms part of the UNESCO transnational World Heritage Site 'Frontiers of the Roman Empire'.
- 1.4 The excavation of six foundation pits (1-6) for new traffic signs were monitored during the archaeological investigation. The pits were excavated along highway verges of the B6318 and two adjoining unclassified roads in the vicinity of Harlow Hill.
- 1.5 Archaeological remains of potential significance were encountered in Foundation Pit 6, sited on the western verge of a road running southwards from the B6318. A sandstone deposit, potentially representing part of a stone surface associated with Hadrian's Wall, was recorded 0.55m below the existing ground surface.
- 1.6 As a consequence of the limited depth of the groundworks, the natural sub-stratum was never encountered. However, an undated sub-soil was recorded in four of the foundation pits, and this material was overlain by an undated dump/levelling layer in Foundation Pit 4, sited on the western verge of a road running northwards from the B6318.
- 1.7 Modern 'made-ground', overlain by topsoil and turf comprised the remainder of archaeological deposits recorded, with the turf forming the existing ground surface at all locations at the time of the investigation.

## **2. INTRODUCTION**

### **2.1 General Background**

- 2.1.1 This report details the results of an archaeological monitoring and recording exercise (hereafter 'watching brief') conducted in association with groundworks for a traffic signing improvement scheme for the B6318 (the Military Road) at Harlow Hill, Northumberland (Figures 1 and 2). Highways and Transport, Northumberland County Council (NCC) commissioned the work, which was undertaken by Pre-Construct Archaeology (PCA) on 22 March 2010.
- 2.1.2 The archaeological watching brief was required as a condition of Scheduled Monument Consent (SMC) granted by the Department for Culture, Media and Sport (DCMS) advised by English Heritage. The B6318 closely follows the line of Hadrian's Wall at Harlow Hill and elements of the scheme were undertaken in sections of the road that have statutory protection as Scheduled Ancient Monuments (SAMs). Accordingly, a programme of archaeological work was required by DCMS, a written scheme of investigation (WSI) for which had to be approved by English Heritage in advance of the work. PCA prepared the required WSI.<sup>1</sup>
- 2.1.3 The groundworks involved hand excavation of six foundation pits for new traffic signs. The main aim of the archaeological element of the project was to mitigate the impact of the works on archaeological deposits or evidence of the SAM through archaeological supervision and recording.
- 2.1.4 The completed Site Archive, comprising written, drawn and photographic records, will be deposited at the Great North Museum, under the site code HWL 10. The Online 'Access to the Index of Archaeological Investigations' (OASIS) reference number for the project is: preconst1-78410.

### **2.2 Site Location and Description**

- 2.2.1 The site was located between National Grid References NZ 076 683 and NZ 081 682, comprising a stretch of the B6318 (the Military Road) and parts of two adjoining, unclassified roads at Harlow Hill, Northumberland (Figure 1). The road to the south ran to join the A69 west of Horsley, while the road to the north ran to Ouston Airfield.
- 2.2.2 The groundworks for the signing improvement scheme were undertaken on the grassed highway verges of the carriageway of the B6318 and the two adjoining roads (Figure 2).

### **2.3 Geology and Topography**

- 2.3.1 The area of Harlow Hill lies within the Tyne Gap, a distinctive lowland corridor which separates the North Pennines from the Border Moors and Forest. The area is underlain by sedimentary rocks of Carboniferous age, comprising a repetitive sequence of limestones, sandstones and shales, with thin coals and a small number of mineral veins. The area is characterised by Millstone Grit of Namurian age, *i.e.* the middle part of the Carboniferous Period.

---

<sup>1</sup> PCA 2010. This is included as Appendix C to this report.

- 2.3.2 The landscape of the Tyne Gap has been greatly influenced by the passage of ice sheets moving across it from southern Scotland and the Lake District during the last glacial period, with boulder clay or till deposited over much of the area. The river valley landscape owes much to the legacy of Pleistocene glaciation and thick glacial, periglacial and glaciofluvial deposits mantle hill slopes and infill valley floors.<sup>2</sup> Modern river channels are inset within the Pleistocene deposits, Holocene alluvium and bedrock.
- 2.3.3 In the central part of the area, the underlying rock sequence is comprised of Lower Carboniferous (Dinantian) sediments intruded by the quartz-dolerite of the Great Whin Sill. On higher ground, the hard, black rock outcrops as east-west orientated escarpments. Over higher ground the bedrock is well exposed and is known to have been utilised as the foundations of Hadrian's Wall.<sup>3</sup> The B6318 runs through land on the north side of the Tyne Valley, where the escarpments and east-west orientated valleys have created an undulating landscape of largely unimproved and unenclosed moorland.

## **2.4 Planning Background**

- 2.4.1 The importance of the archaeological resource at the site herein described is underlined by the fact that the Hadrian's Wall Corridor forms part of the UNESCO transnational World Heritage Site 'Frontiers of the Roman Empire'.
- 2.4.2 Statutory protection for archaeological remains is principally enshrined in *The Ancient Monuments and Archaeological Areas Act 1979*, as amended by *The National Heritage Act 1983* and 2002. Nationally important sites are listed in a schedule of monuments maintained by the DCMS and are accorded statutory protection as SAMs.
- 2.4.3 Substantial lengths of the Hadrian's Wall Corridor in Northumberland have SAM status, including the route of the B6318 at Harlow Hill. English Heritage advises DCMS on all development proposals in the vicinity of scheduled portions of the Hadrian's Wall Corridor and all intrusive groundworks in scheduled areas require SMC from DCMS prior to their undertaking. Thus those elements of the works at Harlow Hill involving intrusive groundworks required SMC, for which Highways and Transport, NCC duly applied.
- 2.4.4 The majority of the works at Harlow Hill Two lay within two adjoining scheduled sections of the B6318 (Figure 2). To the east is SAM No. 26040 'Hadrian's Wall and Vallum between the March Burn and Oaten's Bank, Harlow Hill, in Wall Miles 13, 14 and 15'. In this section, all buildings, telegraph poles, field boundaries, road surfaces and road signs are excluded from the scheduling, but the ground beneath these features is included. To the west is SAM No. 26041 'Hadrian's Wall from Oaten's Bank, Harlow Hill, to Whittle Dene Watercourse in Wall Mile 16'. In this section, the surface of the road, and road signs and the field boundaries are excluded from the scheduling, but again the ground beneath these features is included.

---

<sup>2</sup> Passmore and Macklin 1997.

<sup>3</sup> Johnson 1997.

- 2.4.5 In accordance with the 1979 Act, the Secretary of State for Culture, Media and Sport consulted with English Heritage before deciding whether or not to grant SMC. English Heritage considered the effect of the proposed works upon the monument to be works that would not significantly diminish the visual amenity of the monument but would cause significant damage to the monument's archaeological deposits or evidence. However, English Heritage considered that this could be acceptably mitigated by conditions or safeguards to ensure archaeological supervision and recording.
- 2.4.6 Accordingly, SMC was granted (in a letter from English Heritage North East Region for and on behalf of the Secretary of State for Culture, Media and Sport, dated 25 January 2010) subject to a condition requiring a programme of archaeological work to be commissioned by Highways and Transport, NCC, and then undertaken in accordance with WSI submitted to and approved by the Secretary of State, advised by English Heritage, in advance of the proposed works. The scheme was to cover an archaeological 'watching brief' on all excavations associated with the proposed works at Harlow Hill. PCA compiled the required WSI prior to the commencement of work, on behalf of Highways and Transport, NCC.
- 2.4.7 In advance of the work, Highways and Transport, NCC discussed the intended scope of works with PCA in order that an appropriate programme of archaeological monitoring could be agreed and implemented. Failure to ensure an adequate level of archaeological supervision and recording during the works would have constituted a breach of SMC.

## **2.5. Archaeological and Historical Background**

### ***Hadrian's Wall: General***

- 2.5.1 The main archaeological potential for the B6318 in the Harlow Hill area relates to the Roman period due to its proximity to Hadrian's Wall. The course of the wall spanned the Tyne-Solway isthmus, running along higher ground to the north of the Stanegate Road which itself is thought to have formed part of a frontier system pre-dating Hadrian's Wall.
- 2.5.2 The significance of the Hadrian's Wall Corridor in archaeological terms lies both in its complexity and the degree of survival of Roman military and civilian remains. This was recognised by UNESCO through the designation of the Hadrian's Wall Military Zone as a 'World Heritage Site' in 1987. The management plan produced by English Heritage in 1996<sup>4</sup> identified the 'archaeological core' of Hadrian's Wall and Vallum (the World Heritage Site itself), the surrounding 'buffer zone' and the outer 'visual envelope' as the main distinct areas. A second management plan was produced in 2002.<sup>5</sup> In 2005 UNESCO amalgamated the Hadrian's Wall and the German Limes World Heritage Sites into the transnational World Heritage Site, 'Frontiers of the Roman Empire'.
- 2.5.3 Although Hadrian's Wall and its associated vicinity were subject to many phases of construction and changes in design and plan, the general character of the frontier can be summarised as:

---

<sup>4</sup> English Heritage 1996.

<sup>5</sup> English Heritage 2002.

- Hadrian orders construction of a wall between Newcastle and the River Irthing in AD 122. The foundations consistently measure 3m in width, however the wall itself varies between 1.8m and 3m in width. The wall face was constructed from courses of neatly cut and shaped stone with a core of coarse rubble set in puddled clay or capped with mortar. An associated ditch was located c. 6m to the north.
- After initial construction, a series of walled fortlets were built against the southern wall face at mile intervals (milecastle). Between each pair of milecastles, two equally spaced towers (turrets) were constructed approximately a third of a Roman mile apart.
- After the forts were under construction, a defensive earthwork was added. The earthwork, known as the Vallum, comprised a broad flat-bottomed ditch flanked by a pair of linear banks. It was located to the south of Hadrian's Wall and whilst sometimes following the same course, in other places it was located up to 1km to the south. The Roman road known as 'Military Way' ran along the corridor between Hadrian's Wall and the Vallum, providing a link between the many turrets, milecastles and forts.

#### ***Hadrian's Wall: the vicinity of Harlow Hill***

- 2.5.4 The Roman fort of *Vindobala* lay on the line of Hadrian's Wall at Rudchester, c. 3km to the east of the village of Harlow Hill. 'Volume I, Resource Assessment' of *Frontiers of Knowledge*,<sup>6</sup> the research framework for Hadrian's Wall, states that little of the fort plan is known apart from a few internal buildings such as the headquarters.
- 2.5.5 West of *Vindobala*, the line of Hadrian's Wall veers slightly northwards to cross the summit of Harlow Hill and then turns immediately back to a more westward alignment running towards the next fort at Halton Chesters.
- 2.5.6 South of the village of Harlow Hill, the Vallum runs c. 300m to the south of Hadrian's Wall, thus taking a lower course skirting the southern slope.
- 2.5.7 In 1745, General Wade constructed a new lateral road, the Military Road, linking Newcastle and Carlisle to improve the efficiency of troop movements in response to the Jacobite rebellion. This road utilised the levelled foundations and lower courses of Hadrian's Wall for the first 30 miles out of Newcastle, including the section at Harlow Hill. The B6318 is thus often known as 'the Military Road'.

#### ***Hadrian's Wall: Scheduled Ancient Monuments 26040 & 26041***

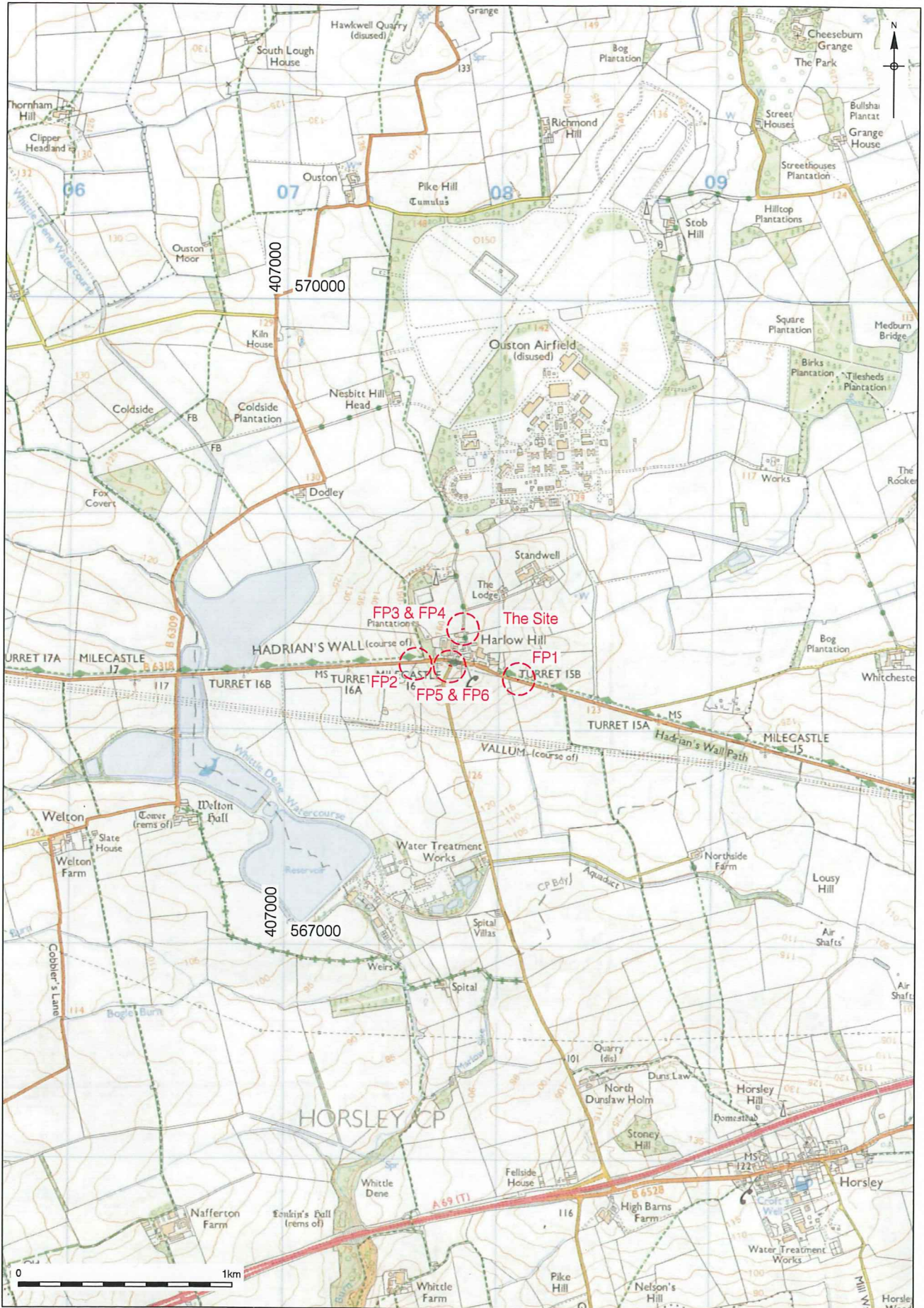
- 2.5.8 SAM 26040 'Hadrian's Wall and Vallum between the March Burn and Oaten's Bank, Harlow Hill, in Wall Miles 13, 14 and 15' incorporates the Wall east of the summit of Harlow Hill. The Wall likely survives as a buried feature directly beneath the B6318 east of Three Tuns Farm.
- 2.5.9 SAM 26041 'Hadrian's Wall from Oaten's Bank, Harlow Hill, to Whittle Dene Watercourse in Wall Mile 16' incorporates the Wall west of Harlow Hill. Throughout this section, the Wall likely survives as a buried feature directly beneath the B6318.

---

<sup>6</sup> Symonds and Mason, eds., 2009



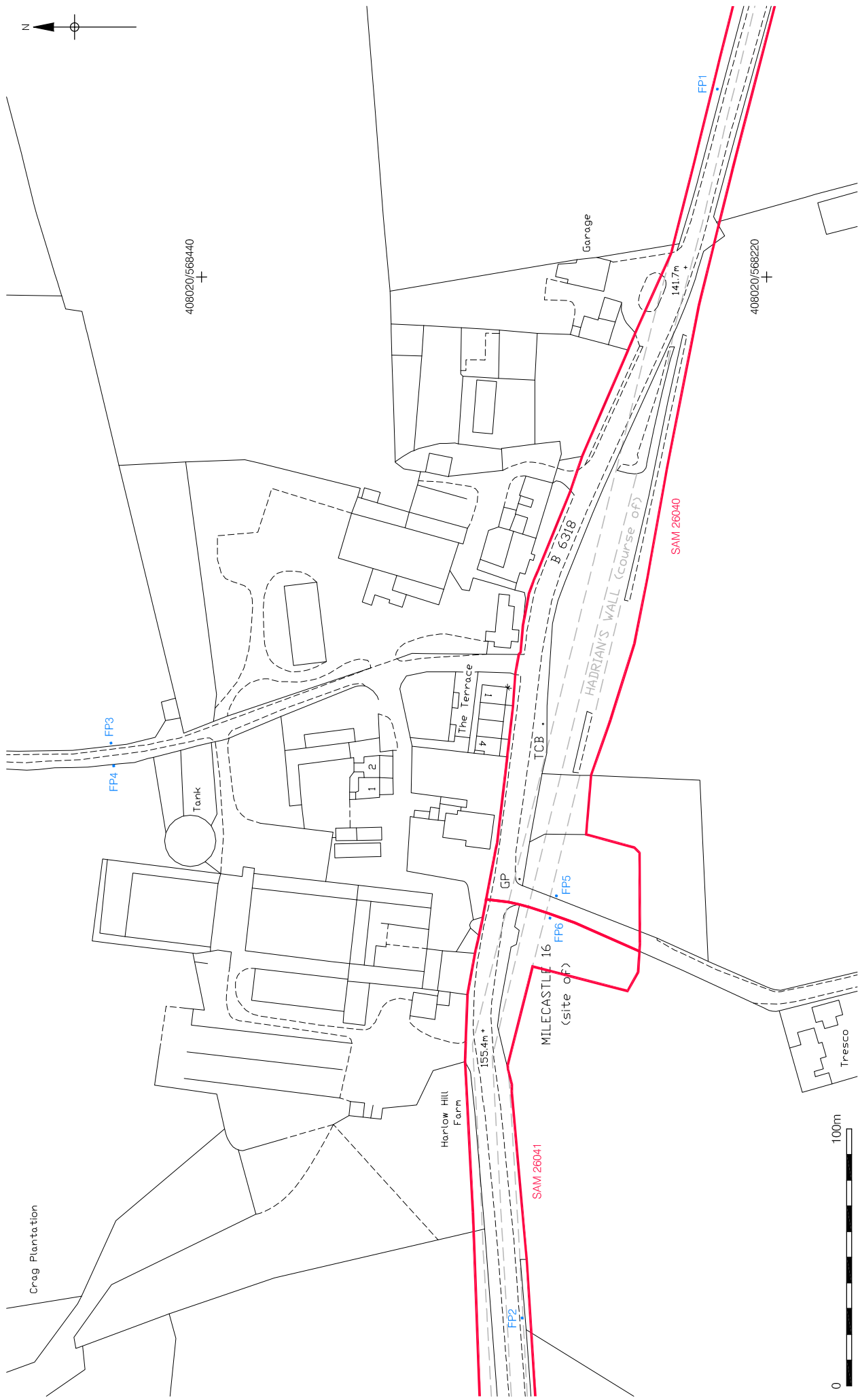
- 2.5.10 To the west of Harlow Hill, Milecastle 16 is situated on a crest with wide views in all directions. Milecastle 16 survives as a buried feature in a field to the south of the B6318, with the only upstanding feature being a scarp on the eastern side of the reduced platform.
- 2.5.11 On the east side of the village of Harlow Hill there are no visible remains of Turret 15B, which lies partly below the surface of the B6318, c. 200m to the west of the unclassified road running northwards to Ouston Airfield. To the west of the village, the location of Turret 16A has been postulated but not confirmed.



© Crown copyright 2005. All rights reserved. License number 36110309

© Pre-Construct Archaeology Ltd 2010

Figure 1  
 Site Location  
 1:25,000 at A4



© Crown copyright 2010. All rights reserved. License number PMP36110309

© Pre-Construct Archaeology Ltd 2010

Figure 2  
Foundation Pit Locations  
1:2,000 at A4

### **3. PROJECT AIMS AND RESEARCH OBJECTIVES**

#### **3.1 Project Aims**

- 3.1.1 The main aim of the archaeological element of the project was to mitigate the impact of the works on the archaeological deposits or evidence of the SAM through archaeological supervision and recording.

#### **3.2 Research Objectives**

- 3.2.1 'Volume II, Research Agenda and Strategy' of the aforementioned *Frontiers of Knowledge* identifies and prioritises key themes for future research for the Wall. The following research objective is of relevance to this project:

- S.4. The Wall. Sub-section '4.1 *Understanding the Wall*', describes the importance of establishing the course and survival of the Wall and sub-section '4.4 *Examining the context of the smaller structures*' underlines the importance for developing knowledge of the extramural activity related to milecastles and turrets.

- 3.2.2 Specific research objectives for the project also arise with reference to *Shared Visions: The North-East Regional Research Framework for the Historic Environment* (NERRF).<sup>7</sup> The following NERRF research priorities for the Roman period are of direct relevance to the project:

- Rii. Roads and communication.
- Riii. The Roman military presence.

---

<sup>7</sup>Petts and Gerrard 2006.

## 4. ARCHAEOLOGICAL METHODOLOGY

### 4.1 Fieldwork

- 4.1.1 The watching brief was undertaken on 22 March 2010. The fieldwork was undertaken in accordance with the relevant standard and guidance document of the Institute for Archaeologists (IfA)<sup>8</sup>, of which PCA is a Registered Organisation (RO 23). The WSI complied by PCA in advance of the work should be consulted for full details of methodologies employed regarding archaeological recording and sampling.
- 4.1.2 The groundworks comprised hand excavation of six foundation pits (FPs 1-6) in advance of the installation of new traffic signs (Figure 2). Each sign was to be mounted on a 76mm diameter tubular steel post housed within an approximately 600mm square concrete foundation. Other new signs were to be mounted on existing posts or on existing post extensions thereby obviating the need for intrusive foundation excavations. All intrusive groundwork was subject to continuous monitoring by the attendant archaeologist.
- 4.1.3 FP 1 was located on the northern highway verge of the B6318 at the eastern limit of Harlow Hill village, within SAM 26040. The pit measured 0.50m north-south by 0.50m east-west and was 0.50m deep.
- 4.1.4 FP 2 was located on the southern highway verge of the B6318 at the western limit of Harlow Hill village within SAM 26041. The pit measured 0.50m north-south by 0.55m east-west and was 0.60m deep.
- 4.1.5 FPs 3 and 4 were located on the eastern and western highway verges, respectively, of the road running northwards between the B6318 and Ouston Airfield, to the north of SAM 26040. FP 3 measured 0.50m north-south by 0.50m east-west and was 0.60m deep, while FP 4 measured 0.50m north-south by 0.65m east-west and was 0.55m deep.
- 4.1.6 FPs 5 and 6 were located on the eastern and western highway verges, respectively, of the road running from the B6318 southwards to the A69. FP 5 lay within SAM 26040 and FP 6 lay at the junction of SAMs 26040 and 26041. FP 5 measured 0.50m north-south by 0.50m east-west and was 0.60m deep, while FP 6 measured 0.50m north-south by 0.45m east-west and was 0.60m deep.
- 4.1.7 'Test Pit Recording Sheets' were used to record the stratigraphy within each foundation pit. Archaeological deposits and features were recorded on *pro forma* 'Context Recording Sheets'. A photographic record was compiled during the watching brief.

### 4.2 Post-excavation

- 4.2.1 The stratigraphic data for the project comprises written, drawn and photographic records. A total of five archaeological contexts were defined during the watching brief (Appendix B). Post-excavation work involved checking and collating site records, grouping contexts and phasing the stratigraphic data (Appendix A). A written summary of the archaeological sequence was then compiled, as described below in Section 5.

---

<sup>8</sup> IfA 2008a.

- 4.2.2 No artefactual or organic material was recovered during the fieldwork and no suitable archaeological deposits were encountered to warrant the recovery of bulk environmental samples.
- 4.2.3 The complete Site Archive will be packaged for long-term curation. The Site Archive has been prepared using relevant documents referenced in the 'Archaeological Archives Forum Guidelines',<sup>9</sup> in particular the 'United Kingdom Institute for Conservation' document<sup>10</sup> and a recent IfA publication.<sup>11</sup> No material was recovered that required specialist stabilisation or an assessment of potential for conservation research. The depositional requirements of the receiving body, in this case the Great North Museum, Newcastle, will be met in full.

---

<sup>9</sup> Brown 2007.  
<sup>10</sup> Walker 1990.  
<sup>11</sup> IfA 2008b.

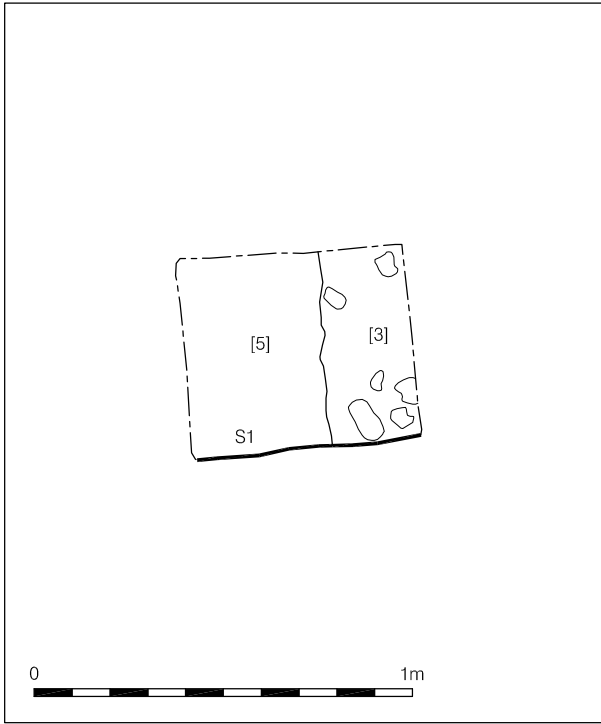
## **5. ARCHAEOLOGICAL RESULTS**

### **5.1 Phase 1: Undated**

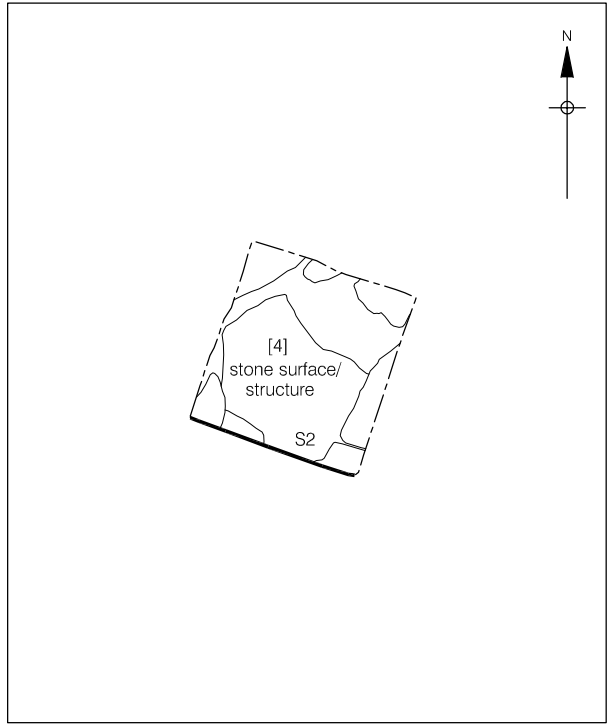
- 5.1.1 A layer, [5], comprising soft, mid pinkish brown, sandy silt, was recorded as the basal deposit in FPs 1, 2, 3 and 4. It contained occasional fine and medium sub-angular stones and was at least c. 0.40m thick at each location. This deposit has been interpreted as an ancient sub-soil or uncertain period of origin.
- 5.1.2 Overlying the sub-soil in FP 4 was a layer, [3], c. 0.10m thick, comprising compact, light orange brown silt, with frequent small and medium angular fragments of sandstone throughout (Figures 3 and 5). Interpreted as dump/levelling deposit, its period of origin is uncertain.
- 5.1.3 In FP 6, a compact layer, [4], comprising roughly worked fragments of sandstone, up to c. 100mm x 100mm in size, in a mid greyish brown sandy silt matrix, was encountered at a depth of c. 0.55m below existing ground level, this forming the basal deposit at this location (Figures 3 and 4). It appeared to be a deliberately compacted stone surface, or possibly another form of structural element, such as a wall, although the former is the preferred interpretation. Its period of origin is uncertain but it could potentially be related to Hadrian's Wall. It was preserved *in situ*, at the base of the foundation pit.

### **5.2 Phase 2: Modern**

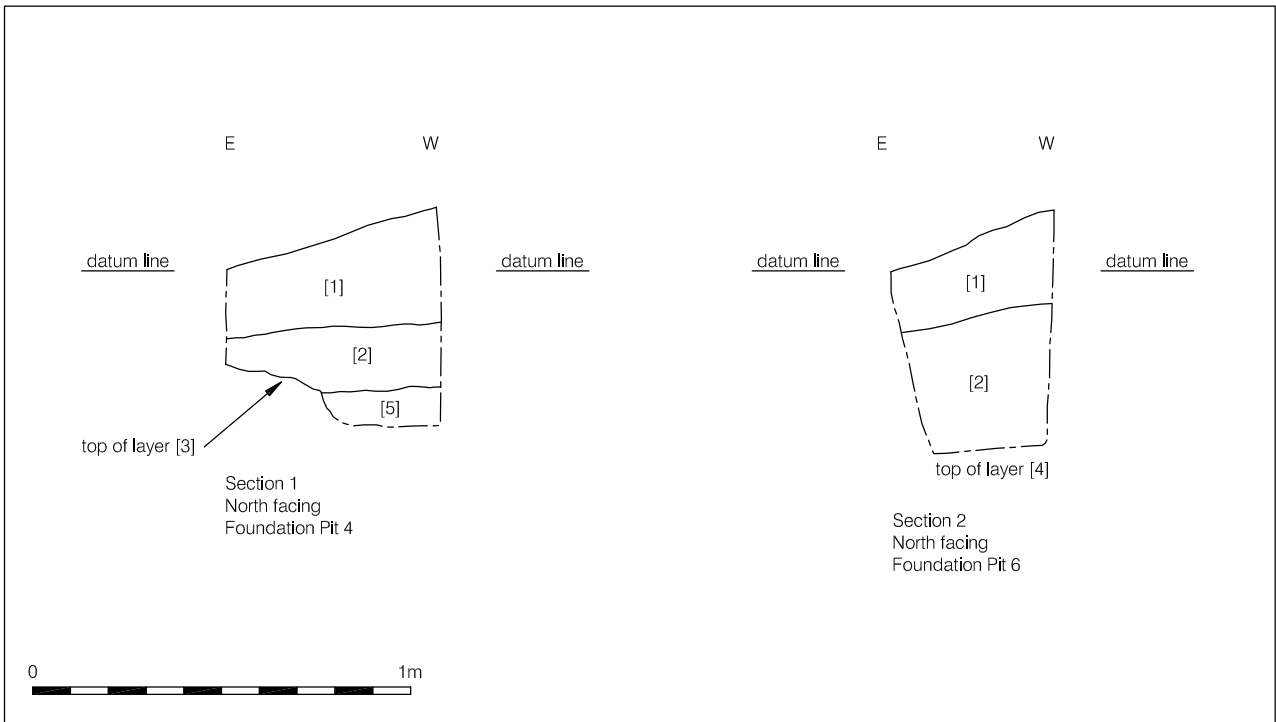
- 5.2.1 The remainder of the recorded archaeological deposits likely date to the modern era. A layer, [2], comprising soft, dark brown clayey sandy silt, was encountered within Foundation Pits 1, 4, 5 and 6 (in FP 5 it was the lowermost deposit exposed). It contained sandstone fragments, pieces of modern glass and plastic and has been interpreted as representing an episode of 'made ground' in the modern era. It was typically c. 0.35m thick, however in FP 5 where it continued beyond the basal limit of excavation, it exceeded 0.43m in thickness.
- 5.2.2 The most recent deposit in all foundation pits was topsoil, [1], comprising soft, mid brown sandy clayey silt with a developed turf line. Up to c. 0.30m in thickness, this layer formed the existing ground surface at each location at the time of investigation.



Plan of Foundation Pit 4  
1:20 at A4



Plan of Foundation Pit 6  
1:20 at A4



© Pre-Construct Archaeology Ltd 2010

Sections 1 & 2  
1:20 at A4

Figure 3  
Sections and Plans from Foundation Pits 4 & 6  
1:20 at A4





Figure 4: Layer [4] in Foundation Pit 6 (scale 0.5m)



Figure 5: Layer [3] in Foundation Pit 4 (scale 0.5m)

## **6. CONCLUSIONS AND RECOMMENDATIONS**

### **6.1 Conclusions**

- 6.1.1 As a consequence of the limited depth of the excavations, the natural sub-stratum was not encountered at any location, so no conclusions regarding the geology of the site can be made.
- 6.1.2 A relatively sterile sub-soil horizon comprised the basal deposit in FPs 2, 3 and 4. In FP 4, this was overlain by a stony dump/levelling layer. The date of these deposits are unknown, but the sub-soil is likely to be of medieval or earlier origin
- 6.1.3 Part of what appeared to be a sandstone surface was recorded as the basal deposit in FP 6. This could represent part of a surface or structural element associated with Hadrian's Wall. However, no dating evidence was found in association with it and a precise interpretation is impossible based on the limited degree of exposure.
- 6.1.4 Modern 'made-ground' material was recorded in FPs 1, 4, 5 and 6. The uppermost layer in all six FPs was topsoil, with turf line, this representing the existing ground surface at the time of the investigation.

### **6.2 Recommendations**

- 6.2.1 No further work is required on the information recovered during the watching brief, with the Site Archive, including this report, forming the permanent record of the strata encountered.

## 7. REFERENCES

### Bibliography

- Brown, D. H., 2007. *Archaeological Archives. A guide to best practice in creation, compilation transfer and curation*, Archaeological Archives Forum.
- English Heritage, 1996. *Hadrian's Wall World Heritage Site Management Plan*, English Heritage.
- English Heritage, 2002. *Hadrian's Wall World Heritage Site Management Plan 2002-2007*, English Heritage.
- Institute for Archaeologists, 2008a. *Standard and guidance for archaeological watching brief*, IfA.
- Institute for Archaeologists, 2008b. *Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives*, IfA.
- Johnson, G.A.L., 1997. *Geology of Hadrian's Wall*, The Geologists' Association.
- Passmore, D. and Macklin, M., 1997. 'Geoarchaeology of the Tyne Basin: Holocene River Valley Environments and the Archaeological Record', in C. Tolan-Smith, *Landscape Archaeology in Tynedale*, Department of Archaeology, University of Newcastle-upon-Tyne.
- Petts, D. and Gerrard, C., 2006. *Shared Visions: North East Regional Research Framework for the Historical Environment*, English Heritage, Durham County Council and Durham University.
- Pre-Construct Archaeology, 2010. *An Archaeological Watching Brief on B6318 Signing Improvements, Harlow Hill, Northumberland. Written Scheme of Investigation*, unpublished.
- Symonds, M. F. A. and Mason, D. J. P., 2009. *Frontiers of Knowledge. A Research Framework for Hadrian's Wall. Volume 1 Resource Assessment*, Durham County Council.
- Symonds, M. F. A. and Mason, D. J. P., 2009. *Frontiers of Knowledge. A Research Framework for Hadrian's Wall. Volume 2 Agenda and Strategy*. Durham County Council.
- Walker, K., 1990. *Guidelines for the Preparation of Excavation Archives for Long-term Storage*, Archaeology Section. United Kingdom Institute for Conservation.

### Internet Sources

- Archaeology Data Service* website: <http://ads.ahds.ac.uk/catalogue/terms.cfm>
- Keys to the Past*, the online Sites and Monuments Record of County Durham and Northumberland: [www.keystothepast.info/](http://www.keystothepast.info/)

## 8. ACKNOWLEDGEMENTS AND CREDITS

### Acknowledgements

Pre-Construct Archaeology Limited would like to thank Highways and Transport, Northumberland County Council for commissioning and funding the project herein described. The liaison role of Stefan Bell of the Design Section is acknowledged.

The curatorial role of Mike Collins, Historic Environment Advisor Archaeology (Hadrian's Wall), English Heritage is acknowledged.

### PCA Credits

*Fieldwork:* Amy Roberts

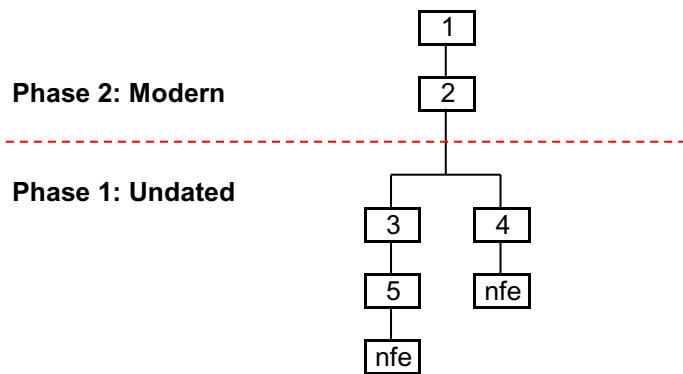
*Report:* Amy Roberts & Robin Taylor-Wilson

*Project Management:* Robin Taylor-Wilson

*CAD:* Hayley Baxter

**APPENDIX A**  
**STRATIGRAPHIC MATRIX**

**HWL 10: STRATIGRAPHIC MATRIX**



**APPENDIX B**  
**CONTEXT INDEX**

**HWL 10: CONTEXT INDEX**

<b>Context</b>	<b>FP</b>	<b>Phase</b>	<b>Type 1</b>	<b>Type 2</b>	<b>Interpretation</b>
1	1,2,3,4,5,6	2	Deposit	Layer	Topsoil
2	1,4,5,6	2	Deposit	Layer	Made ground
3	4	1	Deposit	Layer	Levelling dump/layer
4	6	1	Deposit	Layer	Stone surface/structure
5	1,2,3,4	1	Deposit	Layer	Developed soil



**APPENDIX C**  
**WRITTEN SCHEME OF INVESTIGATION**

# **AN ARCHAEOLOGICAL WATCHING BRIEF ON B6318 SIGNING IMPROVEMENTS, HARLOW HILL, NORTHUMBERLAND**

## **WRITTEN SCHEME OF INVESTIGATION**

*Prepared on behalf of*

*Highways and Transport, Northumberland County Council by  
Pre-Construct Archaeology Limited*

**19 February 2010**

**Reference: PCA/HWL10/WSI DOC 1**

---

### **1. INTRODUCTION**

- 1.1 New and replacement traffic signs are to be erected in the highway verge of the B6318 (the Military Road), at Harlow Hill, Northumberland. The work will be undertaken in sections of the road that have statutory protection as Scheduled Ancient Monuments (SAMs).
- 1.2 Previous interventions on the B6318 in Northumberland have demonstrated that structural remains of Hadrian's Wall and associated features survive immediately below the existing road surface. Scheduled Monument Consent (SMC) has been granted for the work, subject to conditions and safeguards to ensure archaeological supervision and recording during intrusive groundworks.
- 1.3 Pre-Construct Archaeology Limited (PCA) has been contracted by Highways and Transport, Northumberland County Council (NCC) to undertake archaeological supervision and recording in association with the work at Harlow Hill. The first stage of this involves the compilation of this Written Scheme of Investigation (WSI), the purpose of which is to set out the aims and methodologies for the required archaeological investigation.

### **2. SITE LOCATION AND DESCRIPTION**

- 2.1 New and replacement traffic signs are to be erected along the B6318 at Harlow Hill, within the county of Northumberland. The works are to be undertaken between National Grid References NZ 076 683 and NZ 081 682,

### **3. PLANNING BACKGROUND**

- 3.1 Much of the Military Road in Northumberland has SAM status and thus has statutory protection under *The Ancient Monuments and Archaeological Areas Act 1979* amended by *The National Heritage Act 1983* and *2002*. Accordingly, any intrusive groundworks in the road corridor require SMC from the Department of Culture, Media and Sport (DCMS) prior to their undertaking.
- 3.2 The proposed works at Harlow Hill will comprise erection of a small number of new traffic signs in the highway verge, with each sign to be mounted on a 76mm diameter tubular steel post housed within an approximately 600mm square concrete foundation. SMC is required due to the intrusive nature of the groundworks for these foundations; therefore the Highways and Transport, NCC made an application for the proposed works. Other new signs are to be mounted on existing posts or on existing post extensions thereby obviating the need for intrusive foundation excavations.
- 3.3 Two adjoining scheduled sections of the B6318 lie within the area of the proposed works at Harlow Hill. To the east is SAM No. 26040 'Hadrian's Wall and Vallum between the March Burn and Oaten's Bank, Harlow Hill, in Wall Miles 13, 14 and 15'. In this section, all buildings, telegraph poles, field boundaries, road surfaces and road signs are excluded from the scheduling, but the ground beneath these features is included. To the west is SAM No. 26041 'Hadrian's Wall from Oaten's Bank, Harlow Hill, to Whittle Dene Watercourse in Wall Mile 16'. In this section, the surface of the road, and road signs and the field boundaries are excluded from the scheduling, but again the ground beneath these features is included.
- 3.4 In accordance with the 1979 Act, the Secretary of State for Culture, Media and Sport consulted with English Heritage before deciding whether or not to grant SMC. English Heritage considers the effect of the proposed works upon the monument to be works that would not significantly diminish the visual amenity of the monument but would cause significant damage to the monument's archaeological deposits or evidence. However, English Heritage considered that this could be acceptably mitigated by conditions or safeguards to ensure archaeological supervision and recording.
- 3.5 Accordingly, SMC was granted (letter from English Heritage North East Region for and on behalf of the Secretary of State for Culture, Media and Sport, dated 25 January 2010) subject to a condition requiring a programme of archaeological work to be commissioned, and then undertaken in accordance with a written scheme of investigation (WSI) submitted to and approved by the Secretary of State, advised by English Heritage, in advance of the proposed works. The scheme will cover an archaeological 'watching brief' on all excavations associated with the proposed works at Harlow Hill. PCA has compiled this document prior to the commencement of work on behalf of Highways and Transport, NCC to represent the required WSI.
- 3.6 Highways and Transport, NCC has discussed the intended scope of works with PCA in order that an appropriate programme of archaeological monitoring can be agreed and implemented. Failure to ensure an adequate level of archaeological supervision and recording during the works would constitute a breach of SMC.

#### 4. ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

- 4.1 No desk-based assessment has been undertaken ahead of the proposed works.
- 4.2 The work is to be undertaken at Harlow Hill along the B6318, the Military Road, in Northumberland and, therefore, within the Hadrian's Wall Corridor. Hadrian's Wall is part of the defensive system of the northern frontier of the Roman Empire in Britain. The Wall and its associated features represent the best-preserved frontier of the Roman world and consequently the Hadrian's Wall Corridor has been designated a UNESCO World Heritage Site. Substantial lengths of the Hadrian's Wall Corridor in Northumberland have SAM status, including the route of the B6318 at Harlow Hill.
- 4.3 Although the Wall and its associated features were subject to many phases of construction and changes in design and plan, the general character of the frontier can be summarised thus. The Wall was constructed between Newcastle and the River Irthing on the orders of the Roman Emperor Hadrian from AD 122. Although foundations 3m wide were laid, the Wall itself was not always completed to this width and in many places a narrower gauge wall stands on this broad initial foundation. In places it does measure the full 3m, in others it is nearer 2.5m, and at its narrowest it measures 1.8m. The facing stones of the Wall were carefully cut and shaped, allowing them to be set in neat courses. They were bedded into a coursed rubble core set in puddled clay or capped with mortar. To the north of the Wall, at a distance of around 6m, was a deep ditch.
- 4.4 The decision to add a series of forts along the line of the Wall was made some time after parts of the 'Broad Wall' had been laid out and constructed. A small walled fortlet was constructed every mile (milecastle), attached to the southern side of the Wall. Between each pair of milecastles there was planned to be two equally spaced towers (turrets), approximately a third of a Roman mile apart.
- 4.5 After the forts were under construction, a further defensive element was added. This earthwork, known as the Vallum, comprised a broad flat-bottomed ditch flanked by a pair of linear banks. It was located to the south of the Wall, sometimes following the course of the Wall, in other places up to 1km to its south. The Roman road known as the Military Way ran along the corridor between the Wall and the Vallum linking turrets, milecastles and forts.
- 4.6 In 1745, General Wade constructed a new lateral road (the Military Road) to link Newcastle and Carlisle to improve the efficiency of troop movements in response to the Jacobite rebellion. This road utilised the levelled foundations and lower courses of Hadrian's Wall for most of the first 30 miles out of Newcastle, including the section at Harlow Hill.
- 4.7 The Roman fort of *Vindobala* lay on the line of the Wall at Rudchester, c. 3km to the east of the elevated (at c. 160m OD) small village of Harlow Hill. 'Volume I, Resource Assessment' of *Frontiers of Knowledge* (Symonds and Mason, eds., 2009), the recently published research framework for Hadrian's Wall, states that little of the fort plan is known apart from a few internal buildings such as the headquarters building.

- 4.8 West of *Vindobala* the line of the Wall veers slightly northwards to cross the summit of Harlow Hill and then turns immediately back to a more westward alignment running towards the next fort at Halton Chesters. Harlow Hill is therefore situated at an angle in the line of the Wall, and the overlying Military Road, in the vicinity of Milecastle 16 and between the sites of Turret 15B in the east and Turret 16A in the west.
- 4.9 The two adjoining scheduled sections of the B6318 at Harlow Hill join on the western side of the village, at the point at which a minor road runs southwards from the B6318 down Oaten's Bank, towards the A69(T). In SAM No. 26040 'Hadrian's Wall and Vallum between the March Burn and Oaten's Bank, Harlow Hill, in Wall Miles 13, 14 and 15', the Wall runs westwards up a steep gradient to the summit of Harlow Hill. The Wall survives as a buried feature beneath the B6318 throughout this section. Milecastle 16 is situated on the crest of Harlow Hill with wide views in all directions. It survives as a buried feature in the field to the south of the road and the only upstanding feature is the scarp on the east side of the reduced platform. On the east side of the village there are no visible remains of Turret 15B which lies partly below the surface of the B6318, c. 200m to the west of a minor road which runs northwards to the disused airfield at Ouston. In SAM No. 26041 'Hadrian's Wall from Oaten's Bank, Harlow Hill, to Whittle Dene Watercourse in Wall Mile 16', the Wall runs downslope to the west from Harlow Hill. Again the Wall survives as a buried feature beneath the B6318 throughout this section. The exact location of Turret 16A is not confirmed.
- 4.10 South of the village of Harlow Hill the Vallum runs c. 300m to the south of the Wall, thus taking a lower course skirting the southern slope of the higher ground, without the change of direction seen for the Wall itself.
- 4.11 'Volume II, Research Agenda and Strategy' of *Frontiers of Knowledge* identifies and prioritises key themes for future research for the Wall. Research Strategy 'S.4. The Wall' includes sub-section '4.1 Understanding the Wall', which describes the importance of establishing the course and survival of the Wall.

## 5. PROPOSED SCHEME OF WORKS

### 5.1 Project Specific Aims and Objectives

5.1.1 The main aim of the archaeological element of the project is to mitigate the impact of the works on the archaeological deposits or evidence of the SAM through archaeological supervision and recording.

5.1.2 While English Heritage considers that the proposed works will not significantly diminish the visual amenity of the monument, it is considered that they could cause significant damage to its archaeological deposits or evidence. However, it has been decided that this impact can be acceptably mitigated by archaeological supervision and recording ('watching brief') as set out as a condition of SMC.

5.1.3 The watching brief will cover groundworks described in the following documentation relating to the excavation of holes to house approximately 600mm square concrete foundations for a series of new traffic signs:

- Traffic Sign Post Foundation Details – S/D/12/1.
- Drawing title 'Proposed 40mph Speed Limit – Associated Signs and Road Markings', Drawing no. 'HE095328/08/B6318/Revision A'.

5.1.4 English Heritage have stipulated that if intact archaeological remains are encountered during intrusive groundworks then NCC must *either*:

- limit the level of excavation to preserve the archaeological remains, for instance by using a more extensive, but no deeper than the level of surviving archaeological remains, concrete pad

*or*:

- move the sign location (within the parameters allowable for such important safety signage) to a different location until a location is found which would not have such an impact on surviving archaeological remains

5.1.5 It was on this basis that English Heritage determined the application for SMC.

### 5.2 Fieldwork: General Standards

5.2.1 All archaeological work at the site will be carried out in compliance with the codes and practice of the Institute for Archaeologists (IfA) and will follow the IfA *Standard and guidance: for archaeological watching brief* (IfA 2001).

5.2.2 All archaeological staff will be suitably qualified and experienced for their project roles.

5.2.3 All staff will be aware of the work required under the proposed scheme of works, and will understand the aims and methodologies of the project.

### 5.3 Archaeological Methodology

- 5.3.1 Proposed locations of the works are shown in NCC drawing 'Proposed 40mph Speed Limit – Associated Signs and Road Markings' (drawing no. 'HE095328/08/B6318/Revision A').
- 5.3.2 The attendant archaeologist will observe all invasive groundworks.
- 5.3.3 All non-archaeological groundworks will be the responsibility of NCC. Any mechanical excavation will be undertaken under archaeological supervision, but all plant and associated works, including traffic management and welfare, will be provided or co-ordinated by NCC. NCC will have responsibility for all issues related to traffic management, as well as any issues relating to temporary alterations to pedestrian routes (including appropriate barriers and signage). NCC will have responsibility for any backfilling, surface reinstatement and removal of excess material.
- 5.3.4 As described in 5.1.4, if intact archaeological remains of significance are encountered then NCC must **either** limit the level of excavation to preserve the archaeological remains **or** move the sign location (within the parameters allowable for such important safety signage) to a different location until a location is found which would not have such an impact on surviving archaeological remains. Thus all significant archaeological remains will be preserved *in situ*.
- 5.3.5 All exposures will be recorded on *pro forma* PCA recording sheets. If appropriate, plans will be drawn at 1:20 and sections at 1:10. Photographs on both colour slide and black and white print will be taken, again as appropriate. A 'Harris' matrix will be compiled where non-archaeologically significant stratified deposits are encountered.
- 5.3.6 All artefacts and finds recovered will be retained. Given the mitigation measures to be implemented, as described in 5.1.4, any such items should only be from non-archaeologically significant deposits, although there is the possibility of artefacts being encountered at the depth at which archaeological remains of significance are exposed. Specialist assessment of any such recovered material would be a requirement and this will include a basic quantification of the material, a statement of its potential for further analysis and recommendations for such work. All finds will be treated in a proper manner and will be exposed, lifted, cleaned, conserved, marked, bagged and boxed in accordance with the guidelines set out in *First Aid for Finds* (Watkinson and Neal, 2001, 3rd Edition, Revised) and the United Kingdom Institute for Conservation (UKIC), Archaeology Section's *Conservation Guidelines No.2. Packaging and storage of freshly excavated artefacts from archaeological sites* (1983).
- 5.3.7 Preliminary conservation and stabilisation of all objects would be undertaken as soon as possible during or upon completion of the fieldwork. Vulnerable materials that require immediate specialist archaeological conservation would be transported to appropriate facilities without delay. There would be an assessment of long term conservation and storage needs of all excavated material. All metal objects would be X-rayed and then selected for conservation. All iron objects will be X-rayed, along with a selection of non-ferrous artefacts (including all coins).
- 5.3.8 All gold and silver would be removed to a safe place and reported to the local coroner, according to the procedures relating to the '*Treasure Act 1997*'.
- 5.3.9 All processing of artefacts will be undertaken away from the site. Assessment of artefactual material will be undertaken by suitably qualified personnel.

## 5.4 Site Archive

- 5.4.1 The undertaking of the watching brief will, through data collection, as defined in *Management of Research Projects in the Historic Environment* (MoRPHE) (English Heritage 2006), result the establishment of a Site Archive. In line with *MoRPHE. PPN3: Archaeological Excavation. Appendix 1*, the Site Archive will include all materials recovered (or a comprehensive record of such materials) and all written, drawn, and photographic records generated during data collection. Preparation of the archive will include the indexing, ordering, quantification and checking for consistency of all original context records, object records, bulk find records, sample records, skeleton records (if compiled), photographic records, drawing records, photographs and negatives, drawings, level books, site note-books, spot-dating records and conservation records. It will also contain a site matrix, a site summary and brief written observations on the artefactual and environmental data.
- 5.4.2 In preparing the Site Archive for deposition all relevant standards and guidelines documents referenced in the Archaeological Archives Forum guidelines document *Archaeological Archives. A guide to best practice in creation, compilation transfer and curation* (Brown 2007) would be adhered to, in particular *Standard and guidance for the creation, compilation, transfer and deposition of archaeological archives* (IFA forthcoming) and *Guidelines for the preparation of excavation archives for long term storage* (Walker, UKIC 1990).
- 5.4.3 The Site Archive will be ultimately deposited at a location agreed with the Great North Museum, Newcastle. Copyright of the written archive will be vested in that body unless otherwise determined.
- 5.4.4 The 'finds' from all archaeological investigations provide an immensely valuable research archive, but the bulk of the material is of little or no financial worth. The owner of the site (and hence of any finds recovered) is urged to donate all 'finds' to the relevant museum as part of the site archive. Appropriate guidance set out in the Museum and Galleries Commission's '*Standards in the Museum Care of Archaeological Collections*' (1992) and the Society of Museum Archaeologist's draft '*Selection and Retention and Dispersal of Archaeological Collections*' (1992), will be followed in all circumstances.
- 5.4.5 Pursuant to these agreements the Site Archive will be presented to the archive officer or relevant curator within 6 months of the completion of fieldwork, unless alternative arrangements have been agreed in writing with English Heritage.

## 5.5 Reporting

- 5.5.1 A report on the watching brief will be prepared, whatever the findings, and this will include:
- an introductory section;
  - a section outlining the perceived archaeological background to and potential of the area in which the work was undertaken;
  - a section describing the aims and methods adopted in the course of the watching brief;
  - a section detailing the nature, extent, date, condition and significance of any archaeological remains exposed during the work.



- 5.5.2 The report will include a location plan of the site tied into the Ordnance Survey National Grid at an appropriate scale. The report will also include a plan showing the location and layout of areas of investigation at a suitable scale, with illustrations of exposures, at suitable scales, as appropriate.
- 5.5.3 The report will list the dates when the fieldwork was undertaken and name the individual(s) who undertook the fieldwork and wrote the report.
- 5.5.4 The report will include a statement regarding the location of the Site Archive at the time of writing, and the intended depository of the finds and archive.
- 5.5.5 The report will contain full details of any dating analysis that has been undertaken, along with a non-technical summary of these findings.
- 5.5.6 Copies of the report will be sent to Highways and Transport, NCC, the NCC Conservation Team and English Heritage.

## **5.6 OASIS**

- 5.6.1 Northumberland County Council supports the Online Access to Index of Archaeological Investigations (OASIS) Project. An online OASIS form will be completed within 3 months of completion of the work.

## **5.7 Health & Safety**

- 5.7.1 All relevant Health and Safety legislation, regulations and codes of practice will be respected.
- 5.7.2 PPE will be used by all archaeological personnel, as appropriate.
- 5.7.3 On-site welfare facilities will be provided by NCC.

# PCA

PCA SOUTHERN

UNIT 54

BROCKLEY CROSS BUSINESS CENTRE

96 ENDWELL ROAD

BROCKLEY

LONDON SE4 2PD

TEL: 020 7732 3925 / 020 7639 9091

FAX: 020 7639 9588

EMAIL: [info@pre-construct.com](mailto:info@pre-construct.com)

PCA NORTHERN

UNIT 19A

TURSDALE BUSINESS PARK

DURHAM DH6 5PG

TEL: 0191 377 1111

FAX: 0191 377 0101

EMAIL: [info.north@pre-construct.com](mailto:info.north@pre-construct.com)

PCA CENTRAL

7 GRANTA TERRACE

STAPLEFORD

CAMBRIDGESHIRE CB22 5DL

TEL: 01223 845 522

FAX: 01223 845 522

EMAIL: [mhinman@pre-construct.com](mailto:mhinman@pre-construct.com)

