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HIGHWAYS
AGENCY

NYCC HER	
SNY	18639
ENY	5932
CNY	5567
Parish	Linear A1
Rec'd	5/7/06

*A1 Dishforth to Barton Improvement
Report on Archaeological Watching Brief on
Geotechnical Investigation, 2004*

May 2005

RET. 5/7/05



A1 Dishforth to Barton Upgrade
A Report on the Archaeological Watching Brief undertaken during
Geotechnical Works, September-October 2004

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1 Introduction

A programme of archaeological work was undertaken as part of the process of excavating geotechnical trial pits and boreholes on the A1 Dishforth-Barton upgrade in North Yorkshire, over a distance of 40 km (Fig 1). The programme of geotechnical investigations was undertaken to assess the geological conditions in order to facilitate the design of the road.

The archaeological mitigation to this programme of work involved a Watching Brief on the removal of all topsoil. A specification for the work was agreed following consultation with North Yorkshire County Council (Appendix 1). Risk Assessments were also undertaken (Appendix 2), in addition to the Risk Assessment formulated for all of the works by the contractor for the geotechnical work, Soilmechanics of Doncaster.

The work commenced on 28th September, 2004. Initially three archaeologists were employed, one to monitor the excavation of boreholes to a depth of 1 m by hand, the other two archaeologists worked with the test pit teams each comprising an engineer and JCB excavator. Three archaeologists monitored the work for the first four weeks, reduced after this period until the final monitoring of test pits on 5th November 2004. A total of 180 pits was excavated by JCB, to a standard size 3 m x 0.60 m. The pits were not excavated in sequence (ie from south to north), but as and when access became available. In addition to these, a total of 78 boreholes was examined. These were a maximum of 1 m square and up to 1.2 m deep. The gazetteer of sites provides details of the locations where features of archaeological interest were encountered. These are presented in the numbered sequence from the south at Dishforth to the north at Barton, for their location see Figures 7-18.

2 Gazetteer of sites

TP 02001 NZ 436028 92E – 474222 33N, 54.09 m OD

Three furrows were noted at right angles to the trial pit. The furrows were 1 m wide and have a fill of topsoil and sand. No finds were recovered from the feature.

TP 02005 NZ 435877 57E - 475034 00N, 41.48 m OD

A cobbled feature was exposed at a depth of 0.40 m below the topsoil, where a grey-brown clay, context 37, overlies a cobbled horizon that extended over the full extent of the trench 3 m north-south and 0.60 m east-west (Fig. 2). The cobbled surface was recorded as context 39. The cobbles comprised a mix of rounded and angular stones that varied in size between 35 mm and 200 mm (Pl. 1). At a distance of 0.50 m from the northern baulk a shallow gully was recorded. This feature, context 38, was 0.30 m wide and 0.15 m deep, with a gentle U-shaped profile. It was not possible to recognise a different fill from the overlying clay, context 37. No chronologically diagnostic finds were recovered from the excavation of this trench; indeed, only one fragment of animal bone was found, from the topsoil and this may be modern.

The interpretation of this feature is that it is a road or track, but probably not the Roman road Dere Street. Feature 38 and an east-west alignment of larger stones, 1.6 m to the south, suggested to the excavator that it is a road or track aligned east-west, perhaps joining Dere Street or the Great North Road from the east. It was decided not to excavate beneath this feature, having demonstrated that horizons of archaeological interest survived in this area.

TP 03001 NZ 435702 40E - 494415 34N, 45.00 m OD

This trench was 3.2 m long east-west and 0.60 m wide, north-south, (Fig. 3). Beneath topsoil layer 14 were two pits, feature 16 filled by layer 15 and feature 18, filled by layer 17 (Fig. 4). Feature 16 was 0.58 m wide and 0.33 m deep, and cut into layer 19, a medieval plough horizon. Feature 18 was 0.85 m in diameter and 0.22 m deep with a single fill, layer 17. This feature also cut medieval horizon, layer 19. Beneath layer 19 was a further pit, recorded as feature 21, which cut the natural sand and clay recorded as 22. Feature 21 had a single fill, layer 20, from which three sherds of handmade prehistoric pottery were recovered. Feature 21 was a shallow pit at the north side of the trench adjacent to the balk, 0.86 m east-west, 0.12 m north-south, it was 0.15 m deep.

The interpretation of the features within this trench is that there are three pits, two of which are modern as seen by their relationship to the medieval plough horizon layer 19. These features may represent a recent phase of agricultural activity. The third feature, pit 21, is a pit which dates to the later Neolithic.

TP 04004 NZ 434967 53E - 478064N, 31.79 m OD

A shallow plough furrow, 0.25 m deep, aligned east-west.

TP 05002 NZ 434310 34E - 479231 79N, 32.98 m OD

A post-medieval land drain was observed, this had been cut by a modern field drain, it was not recorded any further.

TP 07001 NZ 433431 03E - 481244 18N, 36 22 m OD
A post-medieval drain was exposed

TP 08008 NZ 432518 48E - 483489 71N, 33 45 m OD
Two sherds of Roman pottery were found in the ploughsoil, no features were observed in the trench

TP 08010 NZ 432333 56E - 483851 23N, 28 5 m OD
A trench was excavated to the east of the Scheduled Ancient Monument at Healam Bridge fort. This was 4 m long north-south and 0 60 m wide, the topsoil, layer context 200, was 0 30 m deep, beneath which was layer 201, a grey-brown subsoil that extended for the full length of the trench and was 0 25 m deep. Underneath layer 201 was a pale blue-grey, sandy-clay into which was cutting a modern field drain, feature 202. The blue-grey sandy-clay was recorded as context 203, this layer again extended across the whole of the trench and was excavated by hand for a depth of 0 15 m. The layer had a series of Roman finds comprising five ceramic sherds, and nine fragments of clay and slag.

This trench was not excavated further archaeologically and it was backfilled rather than continued as a trial trench. Clearly, extensive archaeological features survive immediately outside the Scheduled area and it was not possible to understand and interpret the archaeology in such a small trench. No further machine work was undertaken at this location.

BH 12110 NZ 428707 76E - 489108 66N, 28 3 m OD
A borehole 1 m x 1 m was excavated by hand. A peat deposit was identified at a depth of 0 65m, and was 0 55m thick.

BH 16204 NZ 425896 40E - 494415 34N, 59 6 m OD
A field drain was present at the edge of the excavated pit.

TP 18001 NZ 424400 92E - 496342 59N, 60 74m OD
This trench was 2 8 m long east-west and 0 68 m wide, at the eastern end of the trench was a ditch (Fig 5). The topsoil in this trench, layer 01, was 0 32 m thick, beneath which was a fine sand, context 02 (Fig 6). Ditch 4 was recorded cutting into the natural sandy bedrock with a single fill, layer 3. The ditch continued east beyond the trench, but was at least 1m wide east-west and excavated for a depth of 0 20 m. There were six abraded sherds of Roman greyware pottery, found in fill 3 of the ditch, but no other finds from this trench.

TP 19008 NZ 422514 50E - 498623 47N, 65 50 m OD
A sherd of Black Burnished ware pottery was noted on the surface adjacent to this trench, along with fragments of Roman tile. No features were seen in the trench excavated by the machine. The pottery was not collected but left in the field as were other sherds to the west of the trench, which were within the Scheduled area.

3 Report on finds by *Blaise Vyner*

TP02005 Fragment of bone - probably pig (discarded)

TP03001 (20) Three abraded sherds of coarse pottery, surfaces and fabric dark grey, many small angular mixed igneous grits, quartz dust in the clay matrix. One sherd has traces of finger-nail impressions on the exterior surface, probably later Neolithic Peterborough Ware.

Abraded sherd from the rim of a large jar or bowl, most of the surfaces have disappeared but a few areas of the original reddish-grey surface survive, fabric core dark grey with many small, medium and large angular quartzitic grits, quartz dust in the clay matrix. Where the original surface survives on the rim's upper surface a series of worn indentations suggests the former presence of impressed decoration, probably later Neolithic Mortlake Ware.

TP08008 Two sherds from jar(s), dark grey exterior surface, grey-buff interior, dark grey core, fine sandy quartz fabric with occasional milky quartz sands. Pre-Roman Iron Age or native Romano-British.

TP08010 (203) Two sherds from a samian bowl(s), three sherds from Romano-British grey ware jars, nine fragments of hard fired ceramic/slag with iron discolouration, perhaps from a smithing hearth, nine pieces of bone including pig and cattle (discarded).

CPT 16204 Ceramic scrap - seemingly pre-Roman Iron Age or native Romano-British. Two fragments of slag - undatable.

TP18001 (03) Six abraded sherds of grey ware, probably Crambeck ware, Roman. Single unidentifiable ceramic scrap.

4 Conclusions

The Watching Brief has demonstrated the potential for further archaeological discoveries. The two geotechnical survey pits at Healam Bridge were located to the east of the Scheduled area and archaeological finds have been recovered from both TP 08008 and TP 08010. It should also be noted that TP 08009 was not excavated because it was considered to be sited too close to a gas pipeline. More recent geophysical surveys, fieldwalking, and metal detecting at Healam Bridge have demonstrated that features and finds can be found over the length of the road corridor extending approximately 1200 m south from Tilicum (ASUD 2005, & Bullen forthcoming).

The geotechnical survey at Bainesse Farm also found features extending outside the Scheduled area. The site at Bainesse is thought to be a roadside settlement dating from the 1st century AD. Trial excavations were undertaken by CAS at site 506 (Samuels 1996). The fieldwalking of this area by English Heritage revealed Roman pottery and prehistoric lithic material (CAS 505, grid reference SE 247 963). A series of geophysical surveys of Catterick, undertaken in the 1980s and 1990s, supported English Heritage's work (Wilson 2002). More recently the work by ASUD as part of the present scheme of preliminary archaeological work (ASUD 2005), has revealed evidence for possible features extending towards this area. In this context the ditch at TP18001 may be considered to be part of a landscape which extends south-west from Bainesse Farm.

Some incidence of further new sites could have been expected and this has been proven with the prehistoric finds from TP 03001. Whilst there were no other prehistoric features or finds noted in the ploughsoil, the recent fieldwalking and metal detecting survey has recovered flint scatters and the site of a possible burial mound near Hutton Moor.

In conclusion, a total of 12 locations from a total of 180 trial pits and 78 boreholes produced finds or features indicative of human activity.

At Healam Bridge work outside the Scheduled area demonstrated that stratified deposits survive to the east of the Scheduled Ancient Monument. Similarly, in fields to the south of Healam, at TP 08008, Roman pottery was noted on the field surface although not the trench, and so the probability of Roman activity should be expected in this vicinity.

It can be expected that the Roman road may be discovered in places along the course of the A1. Whilst Dere Street may be very close to the present alignment of the existing highway, the proposed road is in places on the east of the A1 and elsewhere will be west of the existing road. Allied to the creation of overbridges and local access roads, it is conceivable that Roman Dere Street will be exposed. Good preservation of the road is possible based upon the evidence of TP 02005.

Some incidence of prehistoric material should be expected within the confines of the road corridor, a suggestion supported by recorded features in TP03001.

5 Acknowledgements

The archaeological monitoring was supervised by three archaeologists Emma Allen, Dawn Harrison, and Andrew Holland, with the fieldwork co-ordinated by Stephen Sherlock. The logistical support was provided by Helen Maclean, Simeon Parker, and Kirsten Ward of Bullen Consultants. Finds reports and editing was undertaken by Blaise Vyner.

6 Bibliography

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7 Appendix 1 Specification

ARCHAEOLOGICAL BRIEF FOR GEOTECHNICAL TRIAL PIT MONITORING

- 1 The purpose of the work is to monitor the excavation of geotechnical trial pits along the route of the A1 between Dishforth and Barton, so that any archaeological remains can be recorded. The work should not require the overall programme to be held up while archaeological investigation takes place.
- 2 The removal of overburden (that is vegetation, turf, loose stones, rubble, made ground, Tarmac, concrete, hardcore, building debris and topsoil) should be supervised by the Archaeologist contracted to carry out the monitoring. The Archaeologist should be informed of the correct timing and schedule of this work. Removal of overburden by machine should be undertaken using a back-acting excavator fitted with toothless bucket only. Where surface materials or foundations are exceptionally difficult to lift, they should be broken up first, and a toothed bucket used temporarily to open up the materials for lifting. Bulldozers or wheeled scraper buckets should not be used to remove overburden above archaeological deposits.
- 3 Where structures, finds, soil features and layers of archaeological interest are exposed or disturbed by excavation works, the Archaeologist should record their location, as well as their nature and extent, where possible within the limits of the trial pit. Where structures, finds, soil features and layers of archaeological interest are exposed or disturbed by construction works, the Archaeologist should be provided with the opportunity to observe, clean, assess, excavate by hand where appropriate, sample and record these features and finds, where possible within the limits of the trial pit. The application of archaeological science to artefacts and samples is a standard requirement for all archaeological investigations, and arrangements should be made to ensure that specialist advice and analysis are available as appropriate to the potential of the site.
- 4 If the contractors or plant operators notice archaeological remains, they should immediately tell the Archaeologist.
- 5 Heavy plant should not be operated in the vicinity of archaeological remains until they have been recorded, and the Archaeologist on site has allowed operations to recommence at that location. Sterile subsoils (C horizons) and parent materials below archaeological deposits may be removed without archaeological supervision. Where reinstatement is required, subsoils should be backfilled first and topsoil last.
- 6 Upon completion of fieldwork, any samples should be processed and evaluated, and all finds cleaned, identified, assessed, spot-dated, and properly stored. A field archive should be compiled consisting of all primary written documents, and any plans, sections, and photographs. The Archaeologist should arrange for either the County Archaeologist or an independent post-excavation specialist to inspect the archive before making arrangements for the transfer of the archive to an appropriate museum or records office.
- 7 A summary report should be produced following NYCC guidelines on reporting. The report should contain planning or administrative details of the project, a summary of works carried out, a description and interpretation of the findings, an assessment of the importance of the archaeology including its historical context where appropriate, and catalogues of finds, features, and primary records. All excavated areas should be accurately mapped with respect to nearby buildings, roads and field boundaries. All

significant features should be illustrated with conventionally scaled plans, sections, or photographs. Where few or no finds are made, it may be acceptable to provide the report in the form of a letter with plans attached.

- 8 Copies of the summary report should be provided to the client(s), the County Heritage Unit (SMR), to the museum accepting the archive, and if the works are on or adjacent to a Scheduled Ancient Monument, to English Heritage.
- 9 The County Archaeologist should be informed as soon as possible of the discovery of any unexpected archaeological remains, or changes in the programme of ground works on site. Any significant changes in the archaeological work should be specified in a variation to the brief to be approved by Bullen Consultants and the planning authority.
- 10 This brief represents a summary of the broad archaeological requirements needed to comply with an archaeological planning condition. The scheme does not comprise a full specification, and no warranty is made that the works are fully or exactly described. The details of implementation must be specified in a contract between the developer and the selected archaeological contractor.

Appendix 7.2 A1D2B Geotechnical Investigations: Risk Assessment and Safety Measures

Scheme and sub-contractor's HSE mles apply where they are more stringent than those outlined here Hard hats, fluorescent vest/jacket and boots with hard toes must be worn by project staff, visitors must have stout shoes, hard hat and fluorescent jacket/vest

Project supervisor to be aware of the sub-contractor's programme and safe working requirements

RISK	ACTION
Access	No right turns are to be taken on or off the A1 road Use an access from a minor road or track where possible Use only signed left turns onto or off the A1
Machines	Safe working distance (beyond jib reach) to be maintained at all times that the machine is working, or the operator must have acknowledged awareness When in the vicinity of machines project personnel to be within sight of operator at all times, or the operator must have acknowledged awareness Project supervisor not to direct machines unless with the agreement and knowledge of the mam contractor
Trench depth	Trenches up to 1 m depth to be entered with caution step or batter sides to having regard to subsoil/surrounding material and trench width Trenches greater than 1 00 m in depth not to be entered unless sides battered, stepped or otherwise solid, trenches greater than 1 20 m in depth not to be entered unless shoring is in place
Trench edges	Ensure that no loose material is overhanging or adjacent to trench edges before entering trench Check that trench edges are stable before entering trench Ensure safe access and use a ladder if required
Surfaces and Obstmctions	Be alert to uneven surfaces, plant, materials and machinery on site, establish and observe safe access routes

General safety The consultants Health and Safety document applies

Communications Mobile phone with project supervisor is 07814 564092

First Aid/HSE - First Aid kit with project archaeologist, check access to contractor's facilities on site

Visitors - unwanted, to be discouraged, wanted, pre-arranged visitors to ring in advance

Blaise Vyner, 23 9 04