

**MAP  
ARCHAEOLOGICAL PRACTICE LTD**

**10.14: Low Cowlam Farm  
Driffield Road  
Cowlam  
East Yorkshire  
SE 96882 64394**

**Archaeological 'Strip and Record' Report**

**Authorised By.....**

**Date.....**

**Low Cowlam Farm  
Driffield Road  
Cowlam  
East Yorkshire  
SE 96882 64394**

**DC/11/01770/PLF; SMR/PA/CONS/17067**

**Archaeological 'Strip and Record' Report**

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## Archaeological 'Strip and Record' Report

### **Summary**

*An Archaeological Strip and Record excavation was carried out by MAP Archaeological Practice Ltd on land to the west of Low Cowlam Farm, Driffield Road, Cowlam, East Yorkshire on August 9th 2011. The work was undertaken in order to fulfil a condition attached to the Planning Application Consent (DC/11/01770/PLF; SMR Casework No PA/CONS/17067) and involved monitoring the groundworks associated with the installation of a 50kw wind turbine with associated infrastructure.*

*A single modern water pipe was uncovered in part of the cable trench.*

*No archaeological features, deposits or finds were encountered during the Strip and Record.*

### **1. Introduction**

- 1.1 This report sets out the results of an Archaeological 'Strip and Record' excavation that was carried out during the groundworks associated with the erection of a 50kw wind turbine at Low Cowlam Farm, Driffield Road, Cowlam, East Yorkshire (SE 96882 64394, Fig. 1).
- 1.2 The development had the potential to affect archaeological remains associated with a landscape spanning the prehistoric to medieval periods. Accordingly, the developer, Mr Robinson, was required by the SMR of

Humber Archaeology Partnership to arrange for a programme of Archaeological Works to be carried out during the groundworks associated with the development. MAP Archaeological Practice Ltd was engaged to carry out the archaeological work, which took place on the 9<sup>th</sup> August 2011. The application number for the development was DC/11/01770/PLF, the SMR Casework number being SMR/PA/CONS/17067.

- 1.3 The work was funded by Mr Robinson.
- 1.4 The Ordnance Survey maps are reproduced under licence from the Ordnance Survey, licence no. AL 50453A, with permission from the Controller of Her Majesty's Stationery Office, (c) Crown Copyright.

## **2. Site Description**

- 2.1 The site lies in the field immediately west of Low Cowlam Farm, which is situated just off the B1253, on an unclassified road leading from Cowlam to Driffield (Fig. 1). The site had previously been used as a potato field.

## **3. Historical and Archaeological Background**

- 3.1 The Yorkshire Wolds contain relict landscapes dating from the Neolithic through to the medieval periods, and cropmarks exist within the vicinity of the site that give evidence for possible settlement activity. The remains of an extensive cropmark complex containing enclosures, ditches, pits, a track way and a ring ditch are visible from the air in the field immediately north of the site (Loughlin and Miller 1979). Similarly the cropmarks of a complex Iron Age and/or Romano-British ladder settlement can be seen just north-west of the application site (*ibid*). Additionally, the site of a Bronze Age round barrow and Iron Age square barrow have been identified to the south of the site.

- 3.2 In the medieval period the site fell within the lands of Buckrose Wapentake. Cowlam existed at the time of the Domesday Survey (1084) when it was referred to as *Colume* or *Coleham*, the name meaning “*top of the hill*”. The church at Cowlam was dedicated to St Mary and still stands close to the site of the village itself.
- 3.3 At the time of the 1854 First Edition Ordnance Survey map the site lay within an open agricultural field. Low Cowlam Farm itself (then named Little Cowlam) had not been established until the 1890 Edition Ordnance Survey Map. It is not until 1978 that Little Cowlam becomes Low Cowlam.

#### **4. Methodology**

- 4.1 The installation of the wind turbine base involved the preliminary topsoil strip of an area c. 5m by 5m using a 360<sup>o</sup> tracked excavator with a broad, toothless ditching bucket, operating under close archaeological supervision. Machining ceased at the top of archaeological or naturally-formed deposits, depending upon which was located soonest.
- 4.2 The machine subsequently excavated the trench for the cable using a 0.60m wide toothless bucket under archaeological supervision. The cable trench ran approximately west-eastwards from the turbine for a length of c.100m, and was 0.90m deep.
- 4.3 All work was carried out in line with the Institute of Field Archaeologists Code of Conduct (IFA 1998).
- 4.4 A photographic record of the monitored groundworks was maintained throughout the Recording Brief on a high resolution digital camera.

## 5. Results (Pls. 2-6)

- 5.1 Natural deposits of chalk were encountered at the location of the wind turbine. A relatively recent loose topsoil deposit, possibly associated with modern ploughing lay directly above the natural chalk, and had a maximum depth of 0.20m (Pl. 2).
- 5.2 Similar deposits were encountered throughout the cable trench (Pls. 3-5). Loose, modern topsoil overlaid the hard compact natural chalk. A slight change in the natural was observed towards the western end of the cable trench which coincided with the sloping of the land. The natural chalk changed to a reddish brown clay containing frequent chalk fragments. Towards the eastern end of the cable trench a modern water pipe was identified (Pl. 6).
- 5.3 No archaeological features, deposits or finds were present within the turbine base or cable trench.

## 6. Discussion

- 6.1 Natural deposits were reached in both the turbine base and cable trench and *in situ* subsoil deposits were also observed. The absence of any archaeological deposits may be due to the relative shallowness of the topsoil which may have been disturbed by modern ploughing.

## 7. Bibliography

- |                              |      |  |
|------------------------------|------|--|
| Loughlin, N<br>& Miller, K R | 1979 | A Survey of Archaeological Sites in Humberside.              |
| Mackney D <i>et al.</i>      | 1983 | Soil Survey of England and Wales, Sheet 1: Northern England. |
| Smith, A H                   | 1937 | The Place-Names of the East Riding of Yorkshire and York.    |

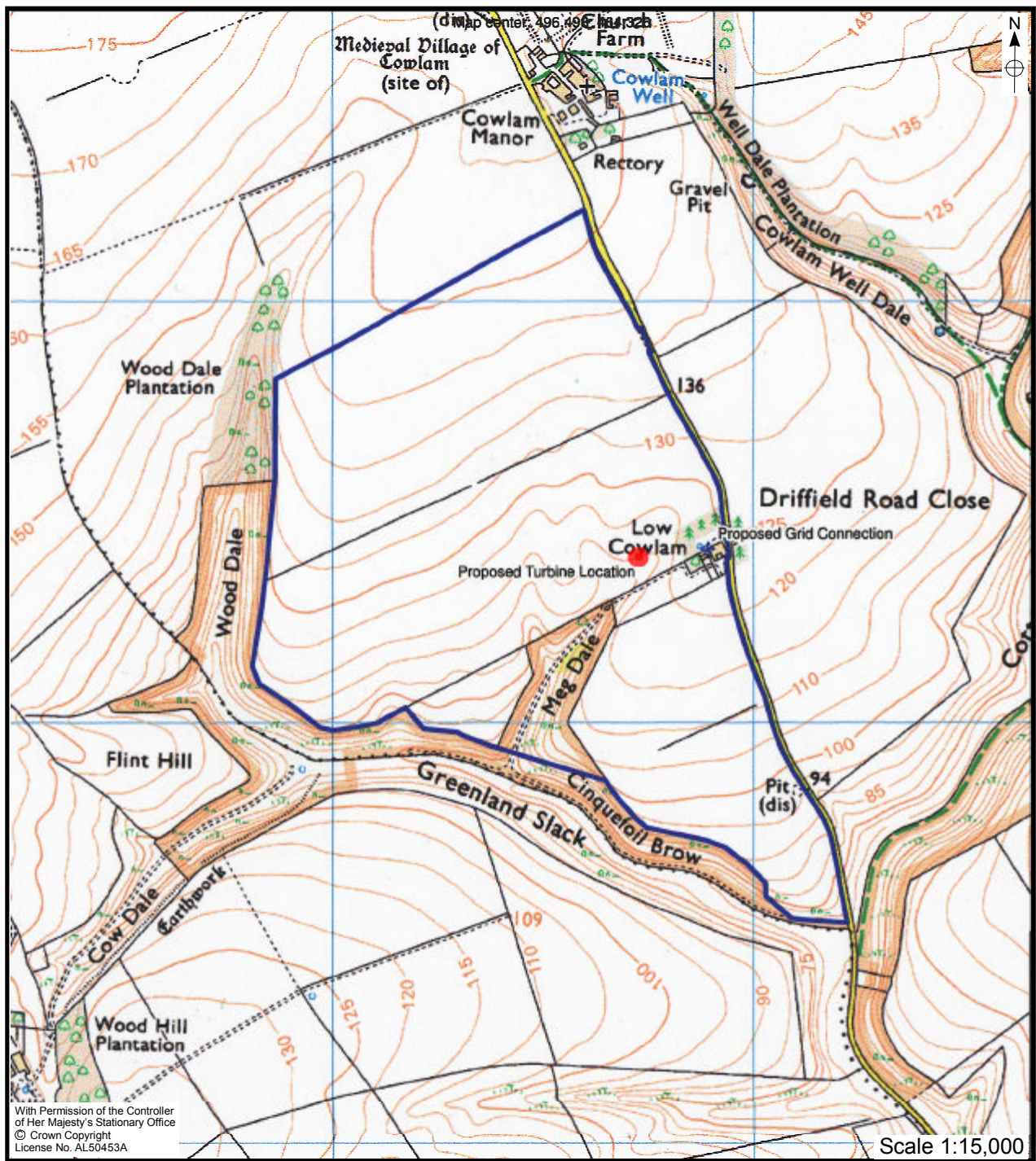


Figure 1. Site Location



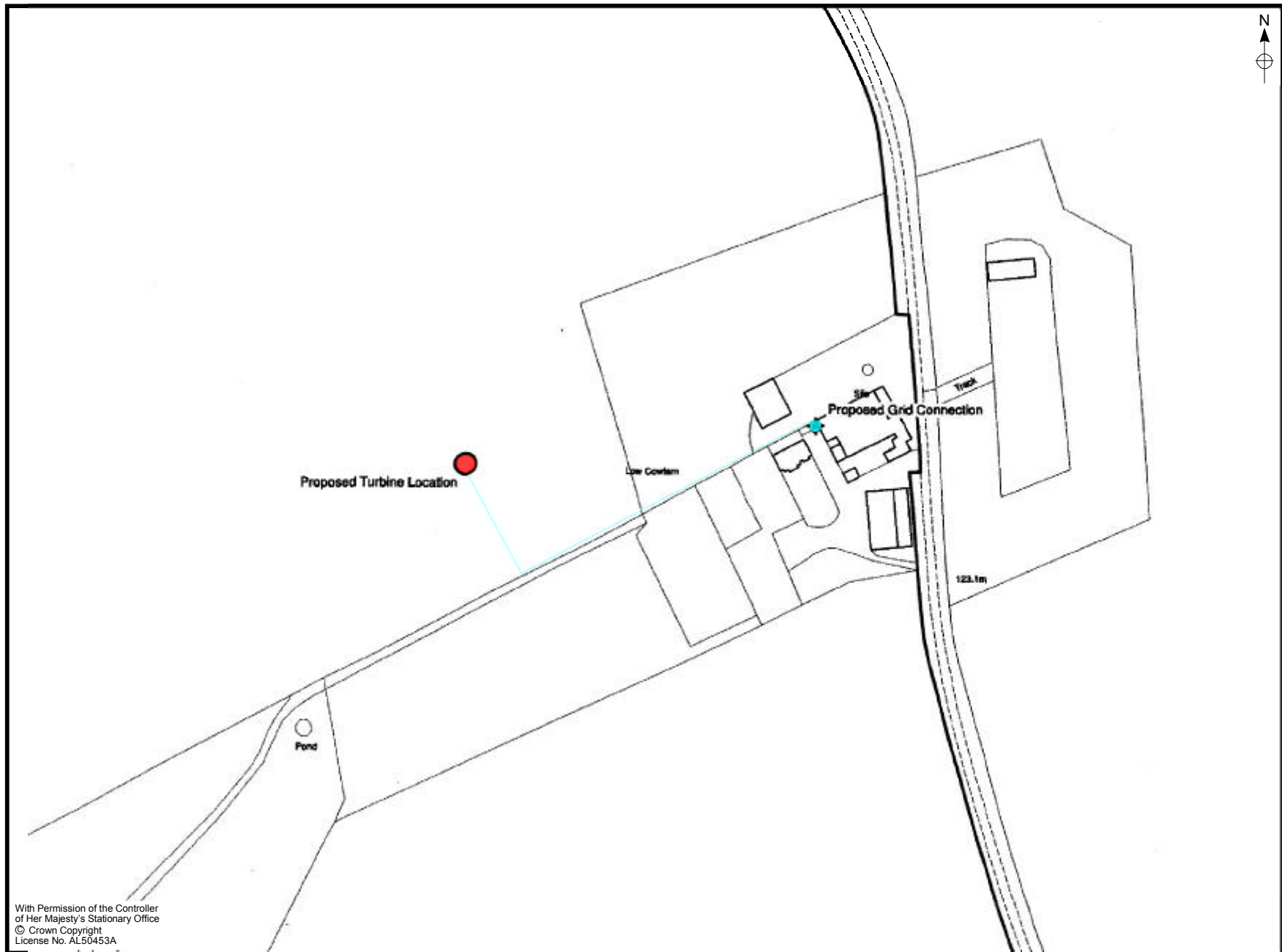


Figure 2. Location of Turbine Base and Cable Trench.



Plate 1. General View of Site. Facing West.



Plate 2. Wind Turbine Base. Facing East.





Plate 3. Cable Trench Showing Changes in Natural.  
Facing South-east.



Plate 4. Cable Trench. Facing West.





Plate 5. Section Through Cable Trench. Facing North-west.



Plate 6. Modern Service in Cable Trench.  
Facing North-west.

## APPENDIX 1

### Low Colam Farm, Driffield Road, Cowlam

#### Context Listing

Context	Description
1001	Deposit          Topsoil; Dark Brown Loam

## APPENDIX 2

#### Photographic Archive Listing

Frame	Description	Scale	Facing
<b>Digital Camera</b>			
1	General View of Site	N/A	W
2	General View of Site	N/A	S
3	General View of Site	N/A	E
4	General View of Site	N/A	NE
5	Section Through Wind Turbine Base	N/A	W
6	Wind Turbine Base	N/A	W
7	Wind Turbine Base	N/A	E
8	General View of Site	N/A	SE
9	General View of Site	N/A	SE
10	Cable Trench	N/A	SE
11	Cable Trench	N/A	SE
12	Cable Trench	N/A	SE
13	Changes in Natural	N/A	SE
14	Cable Trench	N/A	SE
15	Cable Trench	N/A	SE
16	Cable Trench	N/A	S
17	Cable Trench	N/A	NW
18	Changes in Natural	N/A	NW
19	Section Through Cable Trench	N/A	NE
20	General View of Site	N/A	W
21	General View of Site	N/A	NW
22	Cable Trench	N/A	SE
23	Cable Trench	N/A	E
24	Cable Trench	N/A	E
25	Cable Trench	N/A	W
26	Modern Service in Cable Trench	N/A	E
27	Cable Trench	N/A	W
28	Cable Trench	N/A	W
29	Cable Trench	N/A	E
30	Cable Trench	N/A	E

## APPENDIX 3

#### Project Team Details

##### Fieldwork

Zara Burn

##### Post-excavation

Zara Burn *Report*

Kelly Hunter *Figures*

**Low Cowlam Farm  
Driffield Road  
Cowlam  
East Yorkshire**

**Project Design for Archaeological Strip and Record**

**1. SUMMARY**

- 1.1 This Project Design has been prepared by MAP Archaeological Practice Ltd, on behalf of Mr Robinson in order to fulfil a condition attached to a planning consent for the erection of a 50kw wind turbine with associated infrastructure at Low Cowlam, Driffield Road, Cowlam, East Yorkshire (**Planning ref: DC/11/01770/PLF; SMR ref SMR/PA/CONS/17067**).
- 1.2 In accordance with the recommendations of the Planning Policy Statement 5 on 'Archaeology and Planning' a staged scheme of archaeological work is proposed.
- 1.3 The first stage of this scheme would be a supervised topsoil strip of the area of the turbine base, followed by targeted excavation, undertaken to establish the presence/absence of archaeological remains. The results of this preliminary excavation would enable the impact of the proposals on the archaeological resource to be assessed, in order to determine what mitigation may be required. The installation of the cable would be subject to a standard watching brief level of recording.

**2. SITE DESCRIPTION**

- 2.1 The site is located at Low Cowlam Farm, Driffield Road, Cowlam, East Yorkshire.

**3. ARCHAEOLOGICAL BACKGROUND**

- 3.1 The site of the proposed development lies within an extremely sensitive archaeological landscape containing heritage assets dating to the prehistoric and Romano-British periods. To the north of the application site an extensive cropmark complex containing enclosures, ditches, pits, a track-way and ring ditch has been identified on aerial photographs. The complex is likely to date to the prehistoric period when you consider its location and similarity to comparable sites elsewhere in the region. Another crop-mark complex has been

identified to the north-west; this one can be seen running north-east to south-west and contains at least seven enclosures all adjoining a track-way; pits and additional ditches had also been identified associated with this complex. This type of complex is called a ladder settlement and dates from the Iron Age and/or Romano-British periods. There are numerous other crop-marks within this landscape that all indicate prehistoric and/or Romano-British activity, for example, to the south are various ditches and earth-works as well as the site of a Bronze Age round barrow and Iron Age square barrow.

#### **4. AIMS AND OBJECTIVES**

4.1 The aim of this archaeological evaluation is to gather sufficient information to establish the presence/absence, date, sequence, nature depth, quality of survival and importance of any archaeological deposits to enable an assessment of the potential and significance of the archaeology of the site to be made, and the impact which development will have upon them.

a) To locate, sample, record and interpret any archaeological features and deposits exposed during topsoil stripping and any excavation associated with the development.

b) To locate, recover, identify and conserve (as appropriate) any archaeological artefacts exposed.

c) Provision should be made for the full post excavation, recovery and analysis of any finds or eco-facts recovered from the excavations. Where appropriate it is intended to undertake a post- excavation assessment after completion of fieldwork to assess the potential for further analysis and publication, and to undertake such analysis, reporting and publication as appropriate.

d) To prepare and submit a suitable archive to the appropriate museum.

e) An informed decision can then be taken regarding the future treatment of the remains and to establish any mitigation strategy in advance of any groundworks should significant archaeological finds deposits be encountered.

## **5. METHODOLOGY**

- 5.1 The first stage will be to strip all of the topsoil from the area of the proposed development area. The exposed surface will then be thoroughly cleaned, in order to assist the identification of any features. A detailed plan will be made of all features, which are showing, to an appropriate scale (e.g. 1:50, or 1:20). The installation of the cable would be subject to a standard watching brief level of recording.
- 5.2 The topsoil and any recent overburden can be removed using a rear-acting or 360° mechanical excavator with a wide, toothless ditching bucket. Mechanical excavation equipment will be used judiciously under direct archaeological supervision down to the first significant archaeological horizon or natural subsoil.
- 5.3 If archaeological features were indeed shown to be present, then a targeted second archaeological excavation would need to take place on, in order to establish their nature, significance, date, depth, and quality of survival. The start of this second stage will be preceded by a site meeting between, the client, MAP and Humber Archaeology Partnerships Archaeology Manager, to agree the scope of the next stage of works.
- 5.4 A sufficient sample of any archaeological features and deposits revealed will be excavated in an archaeologically controlled and stratigraphic manner, in order to establish the aims of the evaluation. The complete excavation of features is not regarded as necessary; a sufficient sample will be investigated to understand the full stratigraphic sequence in each trench, down to naturally occurring deposits. The sampling policy is as follows:
- a) A 100% sample will be taken of all stakeholes.
  - b) A 50% sample will be taken of all post-holes, and of pits with a diameter of over 1.5m;
  - c) A minimum 25% sample will be taken of pits with a diameter of over 1.5m; but this will include a complete section across the pit to recover its profile.
  - d) A minimum 20% sample should be taken on all linear features, up to 5m in length; for features greater than this, a 10% sample would suffice.



- 5.5 In certain cases, the use of mechanical excavation equipment may also be appropriate for removing deep intrusions (e.g. modern brick and concrete floors or footings), or for putting sections through major features after partial excavation (e.g. ditches), or through deposits to check that they are of natural origin
- 5.6 A full written, drawn and photographic record will be made of all material revealed during the course of the trial excavation. Plans should be completed at a scale of 1:50 or 1:20 (as appropriate), whilst section drawings should be at a scale of 1:10. A minimum 35mm format for photography is required (in monochrome and colour)
- 5.7 Deposits must be sampled for retrieval and assessment of the preservation conditions and potential for analysis of all biological remains. Deposits will be sampled for retrieval and analysis of all biological remains. The sampling strategy will include a reasoned justification for selection of deposits for sampling, and will be developed in collaboration with the recognised bioarchaeologist (WYAS nominated person). Sampling methods will follow the guidance of the Association for Environmental Archaeology (1995) and English Heritage (2002). Flotation samples and samples taken for coarse-mesh sieving from dry deposits will be processed at the time of the fieldwork wherever possible, partly to permit variation of sampling strategies if necessary, but also because processing at a later stage could cause delays.
- 5.8 Deposits will be sampled for retrieval and assessment of the preservation conditions and potential for analysis of all biological remains. The strategy for the recovery and sampling of environmental remains from the site is subject to agreement with an environmental consultancy (WYAS) in advance of the project. The sampling strategy will include a reasoned justification for selection of deposits for sampling, and will be developed in collaboration with a recognised bioarchaeologist (WYAS nominated person). Sampling methods will follow the guidance of the Association for Environmental Archaeology (1995) and English Heritage (2002). Copies of the strategy will be

submitted to the English Heritage Regional Science Advisor (Dr Andy Hammon) at the York Office, prior to commencement of site works. Copies of the strategy are attached at Appendix 1. Opportunity will be afforded for an environmental specialist to visit the site during the evaluation and to discuss the strategy.

5.9 Samples will be collected from primary and secondary contexts, where applicable, from a range of representative features, including pit and ditch fills, postholes, floor deposits, ring gullies and other negative features. Positive features will also be sampled. Sampling will also be considered for those features where dating by other methods (for example pottery and artefacts) is uncertain. Animal bones will be hand collected, and bulk samples collected from contexts containing a high density of bones. Spot finds of other material will be recovered where applicable. Flotation samples and samples taken for coarse-mesh sieving from dry deposits will be processed at the time of the fieldwork wherever possible, partly to permit variation of sampling strategies if necessary, but also because processing at a later stage could cause delays.

5.10 In accordance with the EH guidelines (*'Environmental Archaeology'*, English Heritage, 2002), all securely stratified deposits considered suitable for environmental analysis (i.e. those not consisting of building debris, rubble mortar etc.) will be sampled (40-60 litres in volume, where deposits allow) in order that their potential and interpretative value can be fully assessed, and a suitable sampling strategy can be formulated in case of further mitigation. Entire contexts will be sampled if the volume is low, and specialist samples, such as for General Biological Analysis (GBA) will be of the order of 20 litres. Allowance has been made for a site visit from WYAS specialists and for this excavation, a minimum of 12 bulk samples should be taken from suitable contexts.

- 5.11 If human remains are encountered during the course of this evaluation, it may be necessary to remove these, under the conditions of burial licence (issued by the Ministry of Justice, to ensure that they are treated with due dignity. The preferred option would be for them to be adequately recorded before lifting, and then carefully removed for scientific study, and long term storage with an appropriate museum; however, the burial licence may specify reburial or cremation as a requirement.
- 5.12 A finds recovered and conservation strategy will be discussed with the Archaeology Manager and recipient museum in advance of the project commencing, and a policy for finds recording should be agreed and submitted to the Archaeology Manager, before commencement of site works. Any recording, marking and storage, materials will be of archive quality, and recording forms and manuals will be submitted to the Archaeology Manager, prior to the commencement of on site works, if these have not been supplied previously. Allowance will be made for preliminary conservation and stabilisation of all objects and an assessment of long-term conservation and storage needs We have made an allowance for a minimum four boxes in calculating estimates for museums storage grant.
- 5.13 All finds (artefacts and ecofacts) visible during excavation will be collected and processed, unless variations in this principle are agreed with the Local Authority. Finds will be appropriately packaged and stored under optimum conditions, as detailed in the RESCUE/UKIC publication First Aid for Finds. In accordance with the procedures outlined in MAP2, all iron objects, a selection of non-ferrous artefacts ~-(including all coins), and a sample of any industrial debris relating to metallurgy will be X-radiographed before assessment.
- 5.14 The following categories of artefacts may be predicted, as they have been recovered from the previous evaluation: pottery, ferrous and non-ferrous metalwork, glass, worked wood, worked bone, worked stone, ceramic building materials, and metalworking debris and residues.
- 5.15 We will demonstrate that we possess the necessary levels of professional experience and technical expertise, to undertake rural excavations, and are familiar with the prehistoric, Romano-British, medieval and post medieval wares from this area. We will ensure that

the pottery and CBM reports use the fabric classifications established on published Beverley and Hull sites.

- 5.16 We will make provision within our excavation strategies, where necessary, for use of shoring, pumps or artificial lighting. Such strategies will also follow for sampling for radiocarbon, archaeomagnetic and/or dendrochronological determinations, as appropriate: where in situ timbers are found to survive in good condition, samples should be taken for dendrochronological assay.
- 5.17 Arrangements for site access and reinstatement are to be agreed with the commissioning body.
- 5.18 Should the contractor or commissioning body wish to vary the survey strategy, if, for example, a part or the whole of the site is not amendable to evaluation as outlined above, or trench positions conflict with development proposals; or an alternative evaluation technique may be more appropriate or likely to produce more informative results, it is expected that a proposal for amended/additional work would be drafted by ourselves and discussed urgently with the Archaeological Manager to resolve the matter.

## **6. REPORT PREPARATION, CONTENTS AND DISTRIBUTION**

- 6.1 Upon completion of the evaluation, the artefacts, soil samples and stratigraphic information will be assessed as to their potential and significance for further analysis.
- 6.2 A report will be prepared to include the following:
- a) A non-technical summary of the results of the work, Introduction and aims and objectives.
  - b) An introduction which should include
    1. the site code/project number
    2. planning reference number and SMR Casework number
    3. dates when fieldwork took place
    4. grid reference

- c) An account of the methods and results of the evaluation, describing structural data and associated finds and/or environmental data recovered.
- d) Interpretation, including phasing of the site sequence and spot-dating of ceramics (Descriptive material should be clearly separated from interpretive statements). This shall be supported by the use of photographs and drawings, to include an overall plan of the site accurately identifying the location of trenches; individual trench plans as excavated indicating the location of archaeological features, with at least one section detailing the stratigraphic sequence of deposits within each trench.
- e) A specialist assessment of the artefacts recovered with a view to their potential for further study. Allowance should be made for preliminary conservation and stabilisation of all objects and an assessment of long term conservation and storage needs.

Assessment of artefacts must include inspection of X-radiographs of all iron objects, a selection of non-ferrous artefacts (including coins), and a sample of any industrial debris relating to metallurgy. A rapid scan of all excavated material should be undertaken by conservators and finds researchers in collaboration. Material considered vulnerable will be selected for stabilisation after specialist recording. Where intervention is necessary, consideration will be given to possible investigative procedures (e.g. glass composition studies, residues in or on pottery, and mineral preserved organic material). Once assessed, all material will be packed and stored in optimum conditions, as described in First Aid For Finds. Waterlogged organic materials should be dealt with, following the English Heritage documents, Guidelines for the care of waterlogged archaeological leather, and guidelines on the recording, sampling, conservation and curation of waterlogged wood.

- f) A specialist assessment of environmental samples taken, with a view to their potential for subsequent study.

Processing of all samples collected for biological assessment, or sub-samples of them, will be completed. Bulk and site-riddled

samples from dry deposits should have been processed during excavation, where possible. The preservation state, density and significance of material retrieved must be assessed, following methods presented in Environmental Archaeology and archaeological evaluations, or existing local guidelines, until national guidelines are available. Unprocessed sub-samples must be stored in conditions specified by the appropriate specialists.

Assessments for any technological residues will be undertaken. Samples for dating must be submitted to laboratories promptly, so as to ensure that results are available to aid development of specifications for subsequent mitigation strategies.

- g) The results from investigations in archaeological sciences will be included in the Site Archive and presented in the Evaluation Report. Reports must include sufficient detail to permit assessment of potential analysis. They will include tabulation of data in relation to site phasing and contexts, and must include non-technical summaries. The objective presentation of data must be clearly separated from interpretation. Recommendation for further investigation (both on samples already collected, and at future excavations) must be clearly separated from the results and interpretation.
- h) An assessment of the archaeological significance of the deposits identified, in relation to other sites in the region.
- i) A conclusion with recommendations for further post-excavation work, if required.
- j) Detailed archive location and destination.
- k) Appendices and figures, as appropriate, including a copy of the specification and/or project design.
- l) References and bibliography of all sources used

6.3 Copies of the report will be submitted to the commissioning body, the Local Planning Authority and the Humber Sites and Monuments record

within an agreed timetable and subject to any contractual requirements on confidentiality (see 8.2 below). A copy of the Evaluation Report must also be sent to the English Heritage Regional Advisor for Archaeological Sciences: Dr Andy Hammon, English Heritage, 37 Tanner Row, York, YO1 6WP

6.4 We will provide a digital copy of the report in PDF format to the Humber Sites & Monuments Record Office.

6.5 A Brief, interim report may be required shortly after the completion of fieldwork.

## **7. COPYRIGHT, CONFIDENTIALITY AND PUBLICITY**

7.1 Unless the individual/organisation commissioning the project wishes to state otherwise, the copyright of any written, graphic or photographic records and reports rests with MAP.

## **8. ARCHIVE PREPARATION & DEPOSITION**

8.1 The requirements for archive preparation and deposition will be addressed and undertaken in a manner agreed with the recipient museum: in this instance, the East Riding of Yorkshire Museums Service. The recipient museum has been contacted and informed about commencement of fieldwork.

8.2 A site archive will be prepared in accordance with the specification outlined in *Management of Archaeological Projects* (MAP2, English Heritage 1991, 5.4; Appendix 3). See also *Towards an Accessible Archaeological Archive, the Transfer of Archaeological Archives to Museums: Guidelines for use in England, Northern Ireland, Scotland and Wales* Society of Museum Archaeologists 1995.

8.3 The site archive, including finds and environmental material, subject to the permission of the relevant landowners, will be labelled, conserved and stored according to the United Kingdom Institute for Conservation (UKIC)'s. Provision will be made for the stable storage of paper records and their long term storage on a suitable medium, such as microfilm, a copy of which should be deposited with the NMR (English Heritage). An index to the contents of the archive together with details of its date and place of deposition will be lodged with the SMR.

- 8.4 Archive deposition has been arranged in consultation with the recipient museum and the Archaeology Manager of the Humber Archaeology Partnership, and will take account of the requirements of the recipient museum and the relevant guidelines (see above) relating to the preparation and transfer of archives. The timetable for deposition will be agreed on completion of the site archive and narrative.

## **9. PUBLICATION AND DISSEMINATION**

- 9.1 The information contained within the assessment report will enable decisions to be taken regarding the future treatment of the archaeology of the site and any material recovered during the excavation.
- 9.2 If as a result of excavation the decision is not to initiate a further project, it should be appreciated that assessment may produce results of sufficient significance to merit publication in their own right.
- 9.3 Where no further work is envisaged, allowance should be made for the preparation and publication in a local journal of a brief note on the results of the evaluation and a summary of location and material held within the site archive.
- 9.4 Should further archaeological excavation be undertaken, a synopsis of the results of the assessment should be prepared for publication with the final results of any further fieldwork.

## **10. MONITORING, HEALTH AND SAFETY, STAFFING & INSURANCE**

- 10.1 The work will be monitored under the auspices of the Archaeology Manager of the Humber Archaeology Partnership who have been consulted about the commencement of site works.
- 10.2 Health and safety will take priority over archaeological matters. All archaeologists undertaking fieldwork will comply with all Health and Safety Legislation and all are CSCS cardholders. A Risk Assessment and Method Statement have been produced
- 10.3 Necessary precautions will be taken over underground services and overhead lines.
- 10.4 We are adequately insured including Employer's Liability, Professional Liability and Public Liability Cover.



10.5 All on-site archaeological work will be undertaken by employees of MAP Archaeological Practice Ltd. The following Staff will have the specific responsibilities;

Project Manager Paula Ware  
Fieldwork Director Mark Stephens  
Post-Excavation coordinator Anne Finney

**Post Excavation Specialists**

Prehistoric pottery	T G Manby
Roman, Medieval and Post Med Conservation	Mark Stephens and Paula Ware York Archaeological Trust
Flint	P Makey
Human Remains	Malin Holst – York Osteology
Environmental	West Yorkshire Archaeological Services

**Timetable**

On-Site works is due to commence August 2011

Post-excavation will commence on completion of onsite works.

**References**

- Walker, K., 1990. *Guidelines for the preparation of excavation archives for long-term storage*, Archaeology Section of the United Kingdom Institute for Conservation.
- Watkinson, D. & Neal, V., 1998. *First Aid For Finds. 3<sup>rd</sup> ed.* Rescue / UKIC (United Kingdom Institute for Conservation), Archaeology Section. Museum of London.

## APPENDIX 1

### Low Cowlam Farm, Driffield Road, Cowlam, East Yorkshire - Conservation Strategy By Ian Panter of York Archaeological Trust

Artefacts from all categories and all periods will be recovered as a matter of routine during the excavation. When retrieved from the ground finds will be kept in a finds tray or appropriate bags in accordance with **First Aid for Finds**. Where necessary, a conservator may be required to recover fragile finds from the ground depending upon circumstances.

If waterlogged conditions are encountered a wide range of organic materials may be recovered, including wood, leather and textiles. Advice will be sought from a conservator to discuss optimum storage requirements before any attempt is made to retrieve organic finds and structural timbers from the ground.

After the completion of the fieldwork stage, a conservation assessment will be undertaken which will include the X-radiography of all the ironwork (after initial screening to separate obviously modern debris), and a selection of the non-ferrous finds (including all coins). A sample of slag may also be X-rayed to assist with identification and interpretation. Wet-packed material, including glass, bone and leather will be stabilised and consolidated to ensure their long-term preservation. All finds will be stored in optimum conditions in accordance with **First Aid for Finds** and **Guidelines for the Preparation of Excavation Archives for Long-Term Storage** (Walker, 1990).

Waterlogged wood, including structural elements will be assessed following the English Heritage guidelines, **Waterlogged wood: sampling, conservation and curation of structural wood** (Bunning 1996). The assessment will include species identification, technological examination and potential for dating.

The conservation assessment report will include statements on condition, stability and potential for further investigation (with conservation costs) for all material groups. The conservation report will be included in the updated project design prepared for the analysis stage of the project.

#### References

Bunning, R. 1996

*Waterlogged wood. Guidelines on the recording, sampling, conservation and curation of waterlogged wood.* English Heritage, London.

Walker, K. 1990 *Guidelines for the preparation of excavation archives for long-term storage*, Archaeology Section of the United Kingdom Institute for Conservation.

*Watkinson, D. and Neal, V. 1998 First Aid for Finds (3<sup>rd</sup> edition), RESCUE and the Archaeology Section of the United Kingdom Institute for Conservation.*

## Low Cowlam Farm, Driffield Road, Cowlam, East Yorkshire - Environmental Strategy By Diane Alldrit

The on-site environmental sampling strategy will systematically seek to recover a representative sample of botanical, molluscan (both terrestrial and aquatic), avian and mammalian evidence from the full range of contexts encountered during the excavation. This will enable, at the assessment stage, the possibility for radiocarbon dating material to be obtained, and for an initial analysis of the economic and environmental potential of the site. In order to achieve this, a bulk sample (BS, Dobney *et al* 1992) comprising an optimum size of 28litre of sediment (where possible) should be taken from **every stratigraphically secure and archaeologically significant context**. In practice it may not always be possible to obtain 28l of sediment from certain features during the assessment stage, for instance from partially excavated pits or post-holes, in which case a single bucket sample, c.10 to 14litre should be taken at the site supervisors discretion. Deposits of mixed origin, for instance topsoil, wall fills and obvious areas of modern contamination, should be avoided where possible, as these will contain intrusive material and not provide secure radiocarbon dates.

All buckets and other sampling equipment must be clean and free of adherent soil in order to prevent cross-contamination between samples. If dry soil is to be stored for any length of time it should be kept in cool, dry conditions, and away from strong light sources. However, it is preferable to process samples as soon as possible after excavation.

Bulk soil samples shall be processed using an Ankara-type water flotation machine (French 1971) for the recovery of carbonised plant remains and charcoal. The flotation tank should contain a >1mm mesh for collection of the retent or 'residue' portion of the sample (which may contain pottery, lithics and animal / bird bone, in addition to the heavier fragments of charcoal which do not float). The 'flot' portion of the sample, which may include carbonised seeds, cereal grain, charcoal and sometimes mollusc shell, should be captured using a nest of >1mm and >300micron Endicot sieves. Flotation equipment, including sieves, meshes, brushes and so forth must be meticulously cleaned between samples in order to prevent contamination of potential radiocarbon dating material. All material resulting from flotation will be dried prior to microscopic examination. Flotation is not suitable for the recovery of pollen or for processing waterlogged samples, which shall be discussed below.

Where there is potential for waterlogged preservation, shown for instance by the presence of wood and other organic or wet material, then a 5 to 10litre size sample should be taken (GBA sample, Dobney *et al* 1992). This material is to be retained for later processing using laboratory methods to enable the recovery of waterlogged plant material and insects. For assessment purposes a 1litre sub-sample of the organic sediment from each potential waterlogged sample shall be processed using laboratory wash-over methods, and once processed **kept wet**. All waterlogged samples awaiting processing should be kept damp, preferably stored in plastic sealable tubs, and in cool

conditions. Where large waterlogged timbers are recovered these should be stored under refrigerated conditions and an appropriate conservator consulted.

If sediment suitable for pollen analysis is encountered, for instance rich organic peaty deposits, or deep ditch sections with organic preservation, the archaeobotanical specialist is to be consulted prior to any sampling taking place. These deposits would require sampling with large kubiens tins and require the specialist to be on-site. Pollen analysis, even at assessment level, would subsequently impose a considerable cost implication should it be carried out.

The specialist is available to provide consultation and advice on the environmental sampling strategy throughout the course of the excavation and during post-excavation processing if required.

## **References**

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French, D. H. 1971 An Experiment in Water Sieving. *Anatolian Studies* 21 59-64.