The Department of Transport
Midland Expressway Ltd

Birmingham Northern Relief Road
Public Inquiry

Archaeological Report

Volume 1
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Oxford Archaeological Unit
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CONTENTS

1 Introduction

1.1 This report on the archaeological effects of the BNRR has been prepared by Mr G Lambrick of the Oxford Archaeological Unit.

1.2 In May 1992 the Oxford Archaeological Unit was appointed by Ove Arup and Partners to carry out on behalf of Midland Expressway Ltd an assessment of the archaeological implications of the Birmingham Northern Relief Road. The study was mainly conducted between May 1992 and March 1993. It consisted both of a desk-based study and fieldwork.

1.3 Mr G Lambrick MA FSA MIFA, the Deputy Director of the Oxford Archaeological Unit and Head of its Consultancy Department, was responsible for directing the study and contributing to the cultural heritage section of the Environmental Statement for the scheme. The Oxford Archaeological Unit is a Member of the Institute of Environmental Assessment.

2 Presentation of evidence

2.1 The evidence on the archaeological effects of the BNRR is presented in a main report explaining the scope and method of study, the national and local statutory, planning and policy framework, the general archaeological background to the route and contents of the study area, the main general effects of the BNRR, and the site-specific effects.

2.2 A series of Appendices provides detailed descriptive material on individual sites or complexes, general supporting evidence, a gazetteer of identified features within the study area.

2.3 A series of maps showing all the cultural heritage aspects of the route including the archaeological data based on those prepared for the Environmental Statement (DD5) with minor amendments forms part of Appendix A1.0 of the Landscape Evidence (drawings L05.1 to L05.16). More detailed plans are included as appropriate within the appendices.

3 Policy Framework, Scope, Methodology and Definition of Terms

3.1 This section describes the legislative and policy context of the study, its scope, and the methods used to assess the existing situation and predict the impacts and effects of the proposals. It also defines some technical terms used within the subsequent evidence. Typical mitigation measures, which have been considered in the design of the scheme and for investigation and recording of features that would be lost, are described at the end of this section.

3.2 Relevant national legislation, policy standards and local planning policies

3.2.1 The assessment of effects of the BNRR on archaeological features has been guided principally by the Department of the Environment Planning Policy Guidance Note 16 (Archaeology and Planning) 1990 (referred to hereafter as PPG16). This document sets out national policy on archaeology, establishing a presumption in favour of preserving nationally important archaeological sites and their settings, whether they are Scheduled as Ancient Monuments or not. It establishes the basis of decision making within the planning process, by which the desirability of conserving archaeological remains can be most effectively weighed against other factors. This key document setting out national policy on archaeology in relation to development relates to a range of legislation and planning policies which are relevant to the BNRR proposals.

3.2.2 Archaeology is one of the topics which is required to be covered under the EC Directive on Environmental Assessment, as implemented in the UK by the amendments to the Highways Act 1980 (SI 1988 No 1241).

3.2.3 The principal legislation protecting archaeological remains is the Ancient Monuments and Archaeological Areas Act 1979. The main provisions of this legislation are to enable important monuments to be protected by scheduling and/or guardianship powers, mainly exercised by the Secretary of State (now for National Heritage) as advised by English Heritage (under the 1983 National Heritage Act). The Act establishes the requirement to obtain consent for works such as ground disturbance, dumping, flooding or tunnelling, which would physically affect a scheduled monument. Only about 2% of known monuments are currently scheduled, and this is known to be an unrepresentative sample of the nation's archaeology. English Heritage is actively pursuing a 'Monuments Protection Programme' of which a primary aim is to increase the proportion and representativeness of nationally important monuments that are scheduled.

3.2.4 Other legislation with relevant archaeological provisions includes the Burials Act 1856 (in relation to any burials found), the Disused Burials Grounds Act 1981 (in relation to any disused burial grounds whether consecrated or not), and the Water and Electricity Acts 1989 (in relation to the possible effects of service diversions).

3.2.5 In terms of implementation, the principles established by DoE planning guidance on archaeology set out in PPG 16 are reflected in relevant local plan policies, as listed below, and in Volume 11, Section 3 of the Department of Transport's Design

Manual for Roads and Bridges, and the DoE Guidelines for Environmental Assessment. The key provisions of PPG 16 are as follows:

Paras 3-14: Explain why archaeology is important and assert basic principles.

Paras 15-17: Assert the need for local authorities to include policies for the conservation of archaeological remains and explain the value of Sites and Monuments Records.

Para 8: Asserts a presumption in favour of preserving nationally important monuments and their settings, whether scheduled or not.

Para 18: States that preserving an ancient monument and its setting is a material consideration in determining a planning application, whether scheduled or not.

Para 19: Recommends early consultation with County Archaeological Officers and English Heritage to provide early warning of archaeological sensitivity.

Para 20: States that assessment normally involves desk-based evaluation of existing information.

Para 21: Stresses the value of field evaluation consisting of ground survey and small scale trial trenching to define the character and extent of archaeological remains to establish what weight should be attached to their preservation and information to identify options for minimising or avoiding damage. On this basis an informed and reasonable planning decision can be taken.

Para 22: States that local authorities can expect developers to provide the results of such assessments and evaluations as part of their application, or may request such information under Regulation 4 of the Town and Country Planning (Applications) Regulations 1988; in some cases a full Environmental Assessment may be necessary.

Para 24: Recognises that it is not always feasible to preserve archaeological remains when considered in relation to other factors, and that excavation is a reasonable means to record evidence.

Para 25: Stresses the desirability for planning authorities to satisfy themselves that appropriate recording action carried out would be undertaken to approved briefs, and the results published. This may be achieved through agreements or conditions.

Para 27: Stresses that the case for preservation of remains must take account of archaeological policies in development plans, together

with all other relevant policies and material considerations including weighing the intrinsic importance of the remains against the need for the development.

Paras 29-30 Outline the basis on which planning conditions requiring archaeological recording may be imposed.

Para 31: Outlines the position regarding the unexpected discovery of important archaeological remains.

3.2.5 English Heritage have published policies explaining their intentions for exercising their discretionary powers to promote archaeological conservation, and the Institute of Field Archaeologists have established good practice standards for the conduct of archaeological investigations which are relevant to the development of mitigation measures to record archaeological remains which cannot be retained *in situ*.

3.2.6 The following list outlines the principal relevant legislation and planning and other policies, advisory notes etc which have guided the assessment of the effects of the BNRR on archaeological resources. This Report deals with the archaeological implications of the BNRR; the policy implications are dealt with in the Planning Evidence.

Natural Legislation and Policy
Ancient Monuments and Archaeological Areas Act 1979.
DoE PPG 16, Archaeology and Planning 1990.
Department of the Environment, Environmental Assessment a Guide to the Procedures HMSO 1989.
DoT Design Manual for Roads and Bridges, Vol 11 Section 3, Guidelines for Environmental Assessment.

Local Authority Planning Policies (these have been identified by the specialist planning consultants as relevant):

Barr Beacon and Sandwell Valley Countryside and Recreation Subject (Local) Plan, March 1986.

(Proposals Map and Written Statement) adopted March 1986.
Policy: P42
Title: Archaeological sites.

Aldridge/Brownhills Local Plan (Written Statement and Proposals Map) adopted February 1986.

Policy: ENV 23
Title: Archaeological sites.

Staffordshire Structure Plan 1986 - 2001 Written Statement, April 1991.

Policy: 89, 90, 91
Title: Archaeology.

West Midlands County Structure Plan, January 1986

Policy: ENV 18
Title: Archaeological Sites and Monuments.

Walsall Unitary Development Plan, Draft for deposit 1988 - 2001, September 1991 (as amended by Statement of the Council's decisions and reasons on the Inspector's report and proposed modifications to the Plan).

Policy: TC 14 as modified to Policy 138
Title: Archaeological interest.

South Staffordshire Local Plan - Deposit Plan - March 1993.

Policy: BE24 and BE25
Titles: BE24 Archaeological sites - Protection from Damage
BE25 Evaluation and Preservation.

Other relevant policies:-

R.19 - Canals, Environmental Improvements.
R.20 - Hatherton Branch Canal.

South Staffordshire Local Plan - Statement of Consultation and Participation.

This Statement renumbers BE24 to new Policy BE25 and old Policy BE25 to new Policy BE27 in respect of the South Staffordshire Local Deposit Plan, March 1993 as above.

Norton Canes Local Plan (D1) Written Statement, December 1984.

There are no specific archaeological policies contained within this Plan.

Lichfield District Council Southern Area District Plan Written Statement, March 1988.

Ref: 7.08
Policy: 29 Assessment of Archaeological Remains.

Coleshill District (Local) Plan Written Statement, March 1984

Ref: 6.94, 6.95
Title: Archaeological Sites - Access

Warwickshire Structure Plan - Written Statement, September 1987.

Policy: E4
Title: This policy is part of the measures for the protection of the physical environment and addresses the need to respect archaeological remains.

North Warwickshire Local Plan - Revised Consultation Draft - Written Statement, September 1992.

There is no specific archaeological policy under this Plan.

Deposit North Warwickshire Local Plan, Public Local Inquiry. Document No. BP5. These modifications suggest a policy is added to the Local Plan - Policy No. E10B. Following the Public Local Inquiry the Inspector has recommended that proposed alterations to E10B should be adopted to extend it to cover non-scheduled remains and the setting of monuments.

Title: Sites of Archaeological Importance.

Birmingham Unitary Development Plan (Deposit)

Ref: Paragraph 3.23. Proposed modification no. MOD 10 and MOD 57
Title: Archaeology.

Cannock Chase District - Wide Local Plan (Phase 2) Draft for Consultation, March 1993.

Policy: B6
Title: Archaeology.
Other Relevant Policies:
B5 - Ancient Monuments.
B1 - Built Heritage.
TR6 - Hatherton Branch Canal.

South Staffordshire District Council District Plan No. 1, Written Statement and Proposals Map, September 1980.

Policy: 5.2.18
Associated Policies:
Policy 5.2.19
Policy 5.2.20

Lichfield District Local Plan, Draft Written Statement for Public Consultation, January 1994.

Policy: EC13 and DC14

Title: Archaeology.

General Approach of the Study

3.2.7 The study addresses the likely effects of the construction and operation of the Birmingham Northern Relief Road on the archaeology of the proposed route corridor. Consideration has been given both to the effects of the proposals on the physical survival of archaeological remains and their research potential and also its effects on how they may be appreciated and understood through their visual quality and setting, their accessibility and amenity value. This report does not consider in detail the implications of the BNRR for the possible restoration of parts of the historic canal network. These involve wider planning policy considerations which are considered in the Planning evidence.

3.2.8 The approach has been essentially a *qualitative* rather than *quantitative* assessment of the likely effects of the BNRR on archaeological remains, taking into account both how important archaeological remains are (or might prove to be), and how serious the impact of the scheme could be. Given the inevitable uncertainties of such judgements, the approach to archaeological issues adopted for the BNRR has in part been in the nature of a *risk* assessment. This can be characterised as encompassing three distinct, but closely interrelated elements:

i) At each stage in developing the BNRR proposals the risks of significant effects arising for the archaeological heritage have been considered, initially through a basic appraisal, then through more detailed desk-based assessment and field evaluation, taking into account both the importance or demonstrable potential of the remains and the likely type(s) and scale of impact upon them;

ii) Where possible, given other significant constraints, opportunities have been taken to avoid or reduce the impact of any obviously significant remains, initially by modification of the basic route alignment, and then by modification of detailed design;

iii) Additional mitigation in the form of a strategy for a staged programme of archaeological investigations has been proposed, to be carried out prior to and during the early stages of construction, which would minimise the risk of significant archaeological remains being lost without record.

3.2.9 The risk that the full character and extent of subsoil archaeological remains may not be understood has been recognised and allowed for in the assessment in line with paragraph 32 of the Department of the Environment Guidelines on Environmental Assessment (1989), which requires that issues of uncertainty are recognised and not dismissed.

3.2.10 It is inevitable that such a project cannot avoid all archaeological remains. The use of excavation and survey to record significant features that would be lost is a generally acceptable means of offsetting these losses, and can result in valuable gains to knowledge which will often be of interest to local communities.

3.3 Scope of the Study

Range of Archaeological Remains Covered

3.3.1 Archaeological remains include a wide variety of forms, several specific variants of which are defined below. In general, 'sites' are areas of land where there is clear evidence of, or good documentation for, physical traces of past human activity. The remains identified for the study are listed in a Gazetteer Appendix 1, and shown on maps of the route in Volume 3. Some sites may have been destroyed or partly destroyed. An expanded glossary of archaeological terms used may be found in Appendix 2.

i) *Earthworks* - visible physical remains of banks, mounds, ditches, hollows and other undulations in ground surface attributable to the remains of man-made features;

ii) *Cropmarks, soilmarks, parchmarks* - caused by differential crop and plant growth due to localised differences in soil moisture and fertility, or soil discolourations attributable to subsoil archaeological deposits such as ditches, pits, walls, and road or track surfaces occur in a wide variety of forms;

iii) *Wetlands* - areas of extensive peat and alluvial deposits where the preservation of archaeology can be high, because of survival of organic objects (leather, wood, etc.) and biological remains (beetles, pollen, seeds, etc.);

iv) *Finds* - man-made objects which may be found individually or in localised scatters and groups. These may indicate either a site (see above) or casual losses as a result of agricultural operations or other activities. Finds may be of any period and include pottery, metal objects, ornamental domestic and agricultural equipment etc. In earlier prehistoric periods (pre c.650 BC) flint was the main form of durable artefact;

v) *Industrial archaeological remains* - these are remains of industrial origin, particularly, though not exclusively, of the industrial age (c.1760 onwards), including canals, railways and their associated features;

vi) *Scheduled Ancient Monuments* - archaeological structures or other physical remains legally protected from damage, disturbance, flooding, dumping or undermining by the Ancient Monuments and Archaeological Areas Act 1979. Some Scheduled Ancient Monuments are in the Guardianship of English Heritage under the National Heritage Act 1983, and are referred to as Properties in Care. Frequently they are owned by private individuals. Formal consent is required for any potentially damaging activity.

Study Corridor

3.3.2 The corridor for the study area has varied with respect to the different stages of assessment and the potential impacts on the resources being considered. A desk study was undertaken of an area 500m to either side of the Published Route and the alternative routes considered in the ES. A more restricted corridor, essentially corresponding to the area of landtake required for construction, or within which specific visual impacts might be expected, was studied in detail. The detailed fieldwork has concentrated on more specific areas as explained in the methodology. Consideration has also been given to the wider archaeological and historical context of different aspects of the archaeology of the route as required for achieving a reasonably balanced assessment.

3.4 Methodology

Consultation

3.4.1 English Heritage and the various planning authority archaeologists have been consulted since 1990 both with respect to their views on the route itself, and the methodology and scope of the study. These consultations highlighted significant issues relating to the archaeological implications of the Scheme. The principal concerns which emerged from consultation were:

i) to explore possible improvements to the Public Consultation Route alignment at Wall in relation to the A5(T) Watling Street;

ii) to ensure adequate provision for proper investigation of key areas of interest prior to construction;

iii) to consider, where engineering constraints permit, whether the burial of remains *in situ* might be an acceptable alternative to excavation;

iv) to agree the parameters and methodology of a systematic surface collection survey, geophysical survey and trial trenching in key areas.

3.4.2 Since June 1992 the consultees have been kept informed of the progress of fieldwork and the relevant county archaeologists have visited sites being trial trenched, and have had the opportunity to comment on results and the scope of work being undertaken in the light of the results of fieldwork.

3.4.3 For the purposes of this report a meeting was held in October 1993 at which the principle of preparing an agreed statement was discussed and the consultees were specifically asked to comment on the overall assessment presented in the published Environmental Statement (Dep. Doc).

3.4.4 As a result of these discussions and continued liaison the issues raised have been addressed. This report takes account of those general comments, the results of field work carried out since publication of the ES, and further specific comments which have arisen during the drafting of this document, and on a final draft which was circulated to the consultees.

Identifying Sites and Determining their Importance

3.4.5 The desk study involved obtaining and collating information from a variety of sources, studying aerial photographs and old maps. Appendix 7 lists the various records and maps which have been used, together with publications and reports.

3.4.6 Information on archaeological sites and finds has been obtained from:

i) The relevant county Sites and Monuments Records and the National Archaeological Record;

ii) Background information and recent work from published sources;

iii) Comments and unpublished documents from local societies and individuals involved in research;

iv) Historic maps, including First Edition Ordnance Survey 1", 6" and some 25" plans, together with tithe, enclosure, and estate maps;

v) Aerial photographs held by the Royal Commission for Historical Monuments England (RCHME) Swindon, The Committee for Aerial Photography Library (Cambridge University), county council collections, and route photographs provided by Ove Arup and Partners;

vi) English Heritage lists and maps of Scheduled Ancient Monuments.

3.4.7 Fieldwork surveys and trenching were carried out during 1992, 1993 and 1994. The aim of the fieldwork was to determine the likely impact of the proposals on those cultural heritage features identified by the desk study, and to identify further features or areas of potential interest. The fieldwork undertaken has included the following:

i) A walkover survey was carried out during Summer 1992. This survey was largely concentrated within the route corridor, to assess visually cultural heritage sites and features potentially affected by the BNRR, as identified by i) above or the walkover survey itself. The survey involved travelling and walking along roads and footpaths within both the route corridor and the surrounding areas. With regard to archaeological sites, this survey also covered accessible land likely to contain visible archaeological remains. It excluded intensively farmed land in temporary grass where earthworks were not likely to be visible, together with landfill and quarry sites.

ii) A detailed surface collection survey (report contained in Appendix 3), covering accessible areas of arable land that would be directly affected by landtake, was undertaken in autumn 1992 and 1993 to identify areas of significant archaeological potential. Artifacts were collected from standard 20m long units walked along transects 20m apart. The survey covered those areas that would be affected by landtake for the BNRR.

iii) A detailed geophysical survey was undertaken at Wall, beginning with a pilot magnetometer study to test the applicability of the technique, to locate areas of archaeological potential within pasture fields immediately south of the A5. Trenching of the area covered by this pilot study showed that only partially useful results could be obtained by this method, and further work using resistivity technique was undertaken, but this also indicated that only a few of the more substantial archaeological features revealed by trenching could be detected.

iv) Observations were made of six geotechnical trial pits at Wall;

v) Trial trenching was undertaken on part of the Wall complex, Shenstone, Wishaw and Hawkeswell.

3.4.8 Consideration has also been given to the quality of the setting of identified features, if relevant, taking into account the physical and historical character of the surroundings and their visual ambience, including views of and from them.

3.4.9 Some limited consideration has been given to the possible existence of unknown subsoil archaeological resources by studying data from comparable geological and topographical regions, with a broadly similar history of settlement.

Baseline Conditions for the Purposes of Assessment

3.4.10 It has been assumed that the baseline situation would be the same as the existing situation at the time of this survey. Explanation is given in the text where the baseline would differ from the existing situation.

Evaluation of the Importance of Archaeological Remains

3.4.11 The importance of affected archaeological sites and Ancient Monuments has been evaluated by general reference to the non-statutory criteria for scheduling Ancient Monuments, as extended for the English Heritage Monuments Protection Programme. The ten criteria are: survival/condition, period, rarity, fragility/vulnerability, diversity, documentation, group value, potential, amenity value, and conservation value. Most weight is given to the consideration of rarity, diversity, period, group value, potential and amenity value.

3.4.12 Identified archaeological features likely to be subject to impacts have been broadly graded as being of national, regional/county or local importance; or where

information is insufficient of unknown importance. These judgements have been based on the following guidelines:

i) *national importance* - Scheduled Ancient Monuments; Properties in Care; and sites fulfilling most of the criteria for scheduling (see paragraph 3.4.7 above) to a substantial degree (eg the scheduled monument at Wall);

ii) *regional or county importance* - sites fulfilling some of the criteria for scheduling to a substantial degree, but with other criteria fulfilled to a significantly lower level; or sites fulfilling all the criteria to a moderate degree. For example, the medieval site at Wishaw Hall Farm (see section 6.5.2 to 6.5.10) fulfils several criteria well, but 'survival' to only a limited degree;

iii) *local importance* - sites fulfilling most of the criteria for scheduling to only a limited degree. For example, the deserted hamlet of Hawkeswell (see section 6.6.7 to 6.6.9).

3.4.13 All identified cultural heritage features are shown on Drawings L05.1 to L05.15 inclusive, contained in Appendix A1.0 of the Landscape Evidence. Each feature has been allocated a unique number which provides a cross reference between the text, gazetteer (Appendix 1) and drawings. For example, 1001 = archaeological site or feature.

Identification of Types and Sources of Impact

3.4.14 Those sites likely to be affected, have been identified in terms of the various type and scale of impacts, as follows:

i) *Landtake, physical damage or severance* - by comparing the Cultural Heritage Plans (ref Drawings L05.1 to L05.15 inclusive, in Appendix A1.0 of the Landscape Evidence with the proposals illustrated on the Engineering proposals Scheme Layout, Drawings (ref. DD26);

ii) *Potential hydrological impacts* - has been assessed by considering existing information on the presence or absence of waterlogged deposits, the geological and topographical context of the route in relation to archaeological sites which are likely to contain such deposits, and the vertical alignment of the route in potentially sensitive areas;

iii) *Visual intrusion* - has been assessed by the specialist visual and landscape consultants whose methodology is set out in the Landscape Evidence;

iv) *Noise intrusion* - has been assessed by identifying sensitive sites i.e. those with amenity value, and by consultation with the noise specialist to determine the degree of increase or decrease in noise levels, as described in the Noise Evidence);

v) *Indirect impacts* - by considering the possible effects of the BNRR on other identifiable proposals such as canal restoration schemes.

3.4.15 In assessing the effect of the BNRR, the following potential sources of impact have been considered:

i) construction of the road, buildings and ancillary structures;

ii) road diversions;

iii) de-watering (long term changes in local water-table levels) and drainage;

iv) visual appearance of the road and ancillary structures;

v) planting and other mitigation methods;

vi) indirect sources (e.g. where the construction of the BNRR would affect other proposals i.e. canal restorations, in a way which would have an impact on cultural heritage).

Severity of Impacts

3.4.16 Impacts have been classified as negligible, slight, moderate or severe. A more detailed account of the semantic definitions used to for assessing the scale of impact is given in the Environmental Statement (ref. DD5). The severity of physical impacts such as severance and landtake has been judged on the basis of whether it is likely that essential, significant, minor or unimportant evidence and relationships between features would be lost. In many cases the level of detailed information about subsoil remains is such that only a broad assessment of impact may be made. In some cases where the detailed character of remains is still uncertain the level of impact remains uncertain. The severity of visual and noise intrusion on sites with amenity value has been judged by the visual and noise specialists as explained in the Landscape and Visual and Noise Evidence.

Phases of Development

3.4.17 Impacts and effects may occur in the following phases of development:

i) *Design Phase* - the period from initial proposal of the scheme up to construction;

ii) *Construction Phase* - the period from the start to completion of all construction works (Year 1 to 3);

iii) *Early Operational Phase* - after completion but before planting has established. (Year 3 to 15);

iv) *Long Term Phase* - from the end of the early operational phase up to 50 years

after opening (Year 15 to 50).

3.4.18 Impacts and effects occurring during these phases may be permanent, temporary, and short or long term. In most cases the temporary or permanent landtake for construction is likely to result in permanent effects on the physical survival of archaeological remains and this should be assumed where not specifically stated otherwise. Visual intrusion on the setting of visible remains is likely to be higher in the short term during construction than in the medium to long term after construction is completed (including any screen mounding) and planting has become reasonably mature.

Assessment of Effects

3.4.19 The following method has been adopted to identify the nature and significance of effects on archaeological resources:

i) identification of those sites likely to be affected, and their importance;

ii) identification of the type of impacts that would arise as a result of the proposals, and of the likely scale and severity of individual impacts;

iii) assessment of the significance of individual adverse effects (and where relevant the potential beneficial effects), taking into account both the importance of the resources and the scale of the impacts upon them.

iv) consideration of the cumulative effect of several impacts on features of particular types or date and how the overall level of impact compares with other linear infrastructure projects.

3.4.20 This approach addresses the point that a slight impact on a famous national monument may be of more concern than a severe impact on a feature of local historic importance. Where the exact character, extent and importance of identified archaeological sites is still uncertain, a broad indication of potential 'risk' is given.

Mitigation Measures

3.4.21 During the development of the published route and in the Environmental Statement (ref .....) the following mitigation measures have been considered to reduce significant adverse impacts:

i) modification of the vertical or horizontal alignments of the main route and the position of its associated structures;

ii) minimising landtake, for example, by the use of retaining walls, or by using steeper gradients for mounding;

iii) siting construction facilities, spoil disposal areas and ancillary features in locations which would avoid sensitive areas;

iv) avoidance of soil stripping under embankments, or landscape regrading, in archaeologically sensitive areas;

v) adoption of landscape and engineering solutions which minimise visual or noise intrusion and sensitive design of structures within historic settings;

vi) provision for the control of construction operations;

vii) investigation and recording of threatened archaeological sites and non-listed buildings or structures of local historic interest;

viii) adoption of strategies for archaeological investigations to offset the risk of impacts upon currently unknown archaeological sites; making allowance for detailed archaeological recording with possible academic or educational benefits.

3.4.22 The engineering and landscaping design of the Scheme are described in the relevant specialist evidence. Aspects of the design which are relevant to the mitigation of impacts on archaeological resources are described below in the detailed assessment of the overall effect of the Scheme and its site-specific impacts in sections 5 and 6 below. Details of the overall strategy for archaeological investigation to offset the impacts of the Scheme are set out in Appendix 6.

4 Overall Baseline Conditions

4.1 *Archaeological and Historical Development of the Study Area*

4.1.1 The route passes through a variety of landscapes. From the north the route starts in the undulating landscape of the South Staffordshire and South Cannock plateaux, both divisions of the Birmingham Plateau. The Black Brook cuts through the north east tip of the Sutton Plateau at Hints and its upper basin forms a subdivision known as the Shenstone Basin. In general this is a region of low relief. The southern part of the route enters the Blythe-Lower Tame valleys, part of the Trent valley system. Traditionally the region has been seen as having been forested and sparsely settled for much of its early history, though in recent years this has been brought into question.

4.1.2 The Palaeolithic period is poorly represented in the region. Only one artefact of this period, a quartzite hand axe (Drawing L05.7 in Landscape Evidence Appendix A1.0; Appendix 1 Gazetteer No. 1038) is located within the corridor.

4.1.3 Mesolithic find scatters are indicative of a hunting and gathering population within the route corridor (Thomas 1974); this is further evidenced by small scatters of flint tools in the Wishaw area (1164-5 Hodder 1988). No other traces of Mesolithic settlement are known. The material is generally too sparse to distinguish between hunting and base camps as has been attempted for some other parts of the country.

4.1.4 Again it is flint artefacts which characterise the nature of sites in the Neolithic period. For example within the corridor a flint core, and flake were located at Weeford Park (1183), and some flints have been found in the Wishaw area (1184,1107). Few Neolithic monuments have been definitely identified in the region, though cropmark complexes such as that traversed by the route at Shenstone could contain Neolithic elements.

4.1.5 Round barrows, burnt mounds and chance finds of metalwork, including bronze palstaves, are all known within the study area representing the Bronze Age period. Offlow Tumulus (Drawing L05.7, 1033), close to the A5148 north east of Shenstone, was perhaps the most prominent monument of the period within the study area but has been much diminished by ploughing, as has the ring ditch to its west. Further cropmarks of ring ditches, one with a central burial, occur in the adjacent cropmark complex to the south crossed by the route (1211, 1094). Two burnt mounds of the late Bronze Age occur within the study corridor, typically adjacent to streams, as with the possible example at Wishaw Hall Farm (1109). Such sites have been variously interpreted, and are perhaps best seen as prehistoric cooking places though suggestions have been made that they were primitive saunas.

4.1.6 There are several find spots including flintwork and socketed axes. A late Bronze Age hoard was retrieved from Shenstone, though bronzes are in general rare and their occurrence usually relate to chance finds.

4.1.7 Some of the cropmarks identified at Shenstone may have Iron Age origins. It is likely that Iron Age settlements, especially around the Wall area were predecessors of known Roman settlements. Occupation at the settlement excavated at Grimstock Hill, Gilson (Drawing 5.13, 1116) began in the late Iron Age, extending into the Roman period. A number of pre-Roman or early Roman buildings were overlain by a Roman temple. Hillforts in the region are rare and are concentrated towards the Welsh Borderlands.

4.1.8 Two major routes were established by the Romans; Watling Street (Drawing 5. to 5.2 to 5.8, 1026) from London, north-west across the Midlands to Wroxeter, and Ryknield Street (Drawing 5.6b, 1145), which branched from the Foss Way in Gloucestershire through Alcester, Birmingham, Wall and Derby to Templeborough in Yorkshire. These two roads crossed within the study area at Wall (*Letocetum*), which is almost half-way along Watling Street. This site has a series of Roman forts around which a small town flourished. The main Roman centres in the West Midlands are all located near or at forts and began as modest settlements. Compared with some parts of Roman Britain the Midlands was only a second rate growth area with settlements relatively thinly spread, few of which exhibited the wealth of regions to the south. Roman farming settlements with possible evidence of associated fields are known at Shenstone (1036, 1039, 1195-6), and another late Roman settlement is recorded at Wishaw (1005-6) close to the route.

4.1.9 There are extensive prehistoric and Roman cropmarks in the Tame and mid Trent valleys as well as the River Blythe. The number of undated cropmarks interpreted as farmsteads and enclosures within the study corridor may point to a reasonable level of settlement and farming if they are of late prehistoric and Roman origin. There may have been little change from the Iron Age farmsteads after the Roman conquest.

4.1.10 The upland areas in the region e.g. the Birmingham Plateau and Cannock Chase are thought to have been forests, light woodlands and scrub which supported hunting, pannage and providing wood for charcoal burners. The coalfields of the region were also exploited during the Roman period on a small scale. The most well known industrial site, however, is that of Mancetter, which was one of the largest pottery producing centres in the country.

4.1.11 Roman finds compared with other periods are generally fairly numerous within the study area, though the systematic surface collection survey produced a notable paucity of Roman pottery compared with similar surveys on more calcareous soils, possibly suggesting that little was spread on the fields with manuring or possibly that pottery was not used much in minor settlements and farms.

4.1.12 Relatively little is known of the end of the Roman period, but Wall has for some time been seen as a centre of particular potential interest. The Roman administrative area centred on Wall may have been maintained into the fifth century in the form of a bishopric. Certainly the area is of considerable interest for the connection between Wall and the later Diocese of Lichfield.

4.1.13 Very little is known about the study corridor for the early Anglo Saxon period, in complete contrast to areas such as the Avon Valley where several cemeteries of this date have been discovered. There are no known Anglo-Saxon sites within the 1000m study corridor.

4.1.14 Most of the parishes crossed the route are recorded as settlements in the Domesday Book of AD 1086, and the names given often have Saxon origins. Even Watling Street has a name of Saxon origin and has been interpreted as 'way of the sons of Waetla'. The name Canwell is first recorded in the 12th century, though Cane was probably an Anglo-Saxon personal name.

4.1.15 The route passes through what was essentially a rural area during the medieval period; a substantial length of the route crosses what were the chases of Cannock and Sutton. These chases were probably created because they were on relatively poor soils, well wooded and thinly populated at the time of the Norman Conquest and before, and remained so into the later Middle Ages.

4.1.16 In 1086 Cannock or Chenet was an estate directly held by the king, largely as a hunting forest. Within this estate woodland was recorded as being six leagues long by four leagues wide. It became a free chase in 1290 when the metes and bounds covering Cannock and Rugeley were set out. The overlordship of Great Wyrley remained with the Crown apparently from before the Conquest until at least 1487. Prior to the Norman Conquest land in Great Wyrley appears to have been attached to the office of Keeper of the Royal Forest of Cannock.

4.1.17 The unevenly distributed hamlets and settlements and the characteristic moated sites of the 12th and 13th centuries and later reflect the practice of *assarting* as inroads into the waste and woodlands after probable forest regeneration in the post-Roman period. The early Middle Ages saw substantial population expansion which led to many areas being taken into cultivation. Settlements were established on the edge of prosperous land gradually encroaching on the 'waste' land, taking it into use. Moated sites were created primarily for prestige, often surrounding major dwellings, and occasionally had a limited defensive function.

4.1.18 Medieval parks were formed as areas of land enclosed to keep in game, especially deer. These were often 'waste' land in so far as they were unenclosed tracts of rough grazing and heath. Parks of medieval origin of which traces survive within the landscape of the study area include Weeford (1021, H25) and Coleshill (H36). Weeford received its licence to embark in about 1288-9.

4.1.19 The more recent history of the region through which the route passes is characterised by its industrial development towards the end of the 18th century. The coal industry was expanding from the 16th century, and the invention of the blast furnace in 1639 laid the foundations which enabled the two major resources of the region to be exploited to their full extent. The smelting of iron ore using pit coal as opposed to charcoal meant that these major assets could be capitalised on. The North Warwickshire and South Staffordshire coalfields are within the northern end of the study corridor.

4.1.20 From the late 18th century the turnpike roads were undergoing improvements by Act of Parliament which enabled tolls to be levied for their upkeep.

4.1.21 The success of Brindley's canal in 1758 for the Duke of Bridgwater's colliery at Worsley meant that a canal network was rapidly established to aid in the transport of goods, the main parts of which were established by c. 1800. In the 1830's to 1860's the canal network was extended by several branches to serve the collieries, which were by then expanding into Cannock Chase. A number of these late canals built in the railway age are crossed by the route (see section 5 below).

4.1.22 Early systems of primitive railways which connected the mines started on wooden tramrails. Main lines soon followed, such as the London and North Western. The route crosses a number of disused mid- to late nineteenth century branch lines which again reflect the industrial expansion of the Victorian era.

4.1.23 Population increased in areas where there was a concentration of industrial activity, as for example at Bridgtown. The pattern of smaller agricultural settlements remained similar to that of the later medieval period. The main inclosure of fields took place in the mid 19th century.

4.2 *The Range of Archaeological Remains within the Study Corridor*

4.2.1 Within the study corridor two hundred and twenty-five locations or items of archaeological interest have been defined by the methods already described. These sites are listed within the archaeological gazetteer contained in Appendix 1.

4.2.2 By period these include twenty-one prehistoric items, one Palaeolithic, three Mesolithic, four Neolithic, four Bronze Age (with one other possible Bronze Age entry), one Iron Age and seven unclassified prehistoric items or sites. The greatest concentration of prehistoric material is in the vicinity of Shenstone. There are sixty Roman entries (with another nine possible Roman features), most of which occur around Wall, Shenstone and Wishaw. There are twenty-eight medieval entries, which are fairly widely distributed. There are forty-three post-medieval and one modern item. The post-medieval remains of greatest interest include canals and railways dating from early to mid nineteenth century, mostly within the Cannock/Brownhills section of the study area. Fifty-three sites are undated or are multi-period.

4.2.3 By type of archaeological remains these sites have been categorised as forty-four miscellaneous sites, (of buildings, settlements etc), eighty cropmark sites (many occurring within fairly extensive complexes at Wall and Shenstone, and also scattered throughout the southern half of the study area but including a few doubtful and spurious sites), fifteen earthworks, five miscellaneous linear features (park boundaries, tracks etc), three roads (two Roman), five canals (with seven associated canal features), four disused railways (with one associated feature), four structures or ruins, twenty-three scatters of surface finds and twenty-nine other finds spots. In addition, one general area of wetland, two woods and two buildings have been identified from County Sites and Monuments Records.

4.2.4 There is one Scheduled Ancient Monument within the study corridor, at Wall, including an English Heritage 'Property in Care', owned by the National Trust. A second Scheduled Ancient Monument lies beyond the 1000m study corridor at Maxstoke.

5. Overall Effects

5.1 Introduction

5.1.1 In this section the main route-wide effects that would arise from construction of the BNRR are examined, in order to put the more site-specific effects into perspective. From the brief summary of the general baseline data set out in sections 4.1 and 4.2 above, three aspects of the overall effect that BNRR would have on archaeological resources are worth particular consideration. One is the general question of how the overall density of remains that it would affect compares in general with other such developments. The others concern the two particular aspects of the route's archaeology where the most significant effects are likely to arise. These are its effects for Roman archaeology and on industrial archaeological remains of the 19th century transport infrastructure of the region.

5.2 Overall Density of Archaeological Remains

5.2.1 The scale of the impact of the BNRR in comparison to other major infrastructure schemes can be estimated in a very broad way by comparing the results of the assessment and survey work undertaken for this scheme with the results of studies of other linear infrastructure projects. Such comparisons are inherently imprecise, and can only be taken to provide a broad order of magnitude. Within the counties concerned, there have been few detailed systematic surveys of previous motorway and major highway schemes, though most have been subject to various levels of monitoring. It should also be noted that the 'sites' discovered vary considerably in character, extent and importance.

5.2.2 The following figures from the limited amount of published information available, based mainly on observations from watching briefs, with some pre-construction survey, provide an approximate idea of the density of remains that have been recorded in a selection of linear developments crossing broadly similar terrain.

M40 Warwickshire (Keuper Marl, Lower Lias; Adams et al 1990): 0.3 sites/km.
Blackstone to Astley Aqueduct, Worcestershire (Pebble beds, lower and upper Mottled Sandstone; Dinn and Hemingway, 1992): 0.9/Sites/Km.
M5 Gloucestershire (Lower Lias; Fowler 1979): 0.8 sites/km.
M5 Somerset (Keuper Marl, Lower Lias; Fowler 1979): 1.16 sites/km.
Northampton Expressway (Lower Lias; Williams 1972): 0.8 sites/km.
Southern Feeder Gas Pipe (various clays; Catherall et al 1984): 0.14-0.2 sites/km.
Southern Feeder Gas Pipe (mixed clay, gravel, chalk; Catherall et al 1984): 1.0 sites/km.

5.2.3 The number of locations where physical effects have been identified along the BNRR route is currently 0.7 sites/km (31 locations along 44km of route, see Table in section 7). While this figure is not strictly directly comparable with the figures

given above especially as it deals with pre-construction assessment rather than observations arising from construction, it suggests that, even with further discoveries that might be made during further investigations before and during construction, BNRR is not particularly different from other comparable schemes. The surface collection survey of the accessible fields along the route has in fact produced a noticeably low level of finds, though this could in part be due to factors other than low levels of settlement (if for example pottery was not used much on some roman and Medieval rural settlements).

5.2.4 There are two sections of the BNRR route where the risk of disturbing unknown sites would be very limited. The first is from Middle Hill (Chainage 13+300) to west of Norton Canes (Chainage 16+800) where the scale of industrial activity, dumping of colliery spoil and opencast mining has been such that it is unlikely that much other than the industrial archaeology sites already identified would be affected. The second area is where BNRR shares the M42 alignment (Chainage 44+800 to 48+200) where impacts would probably to be very limited, and sites are likely to have been disturbed already.

5.3 Roman Archaeology

5.3.1 About 14.2 km of the BNRR route (32%) lies within 500 m of Watling Street, one of the major Roman roads in Britain where there is a potentially enhanced risk of disturbing sites of this period on or alongside the road. Roman settlement was normally at some distance from the road except where it went through towns. This is exemplified in the context of BNRR by the location of the Roman town, forts and suburban settlement on Watling Street at Wall, compared with the farmsteads at some distance from the road at Shenstone (1036, 1039), though there is also some indication of occupation close to the road (1195-6).

5.3.2 There is a clear possibility of disturbing Roman deposits near Wall. While it has not yet been possible to clarify fully the scale of the impact by fieldwork, the risk has been significantly reduced by changes in the alignment from those originally proposed by the Department of Transport and in the Public Consultation alignment of 1991 (ref. Concessionaire's Evidence), to avoid areas of dense settlement along Watling Street. About 19% of the BNRR route close to Watling Street (1026) crosses areas which are likely to have been disturbed by coal mining and other industrial activities. The surface collection survey of accessible arable land has so far covered another 37% of the route close to Watling Street without locating any significant pottery scatters. This suggests that despite the general proximity of the route to Watling Street, this does not mean that settlements will necessarily be affected. In the rest of the route the surface collection survey has again located no obvious concentrations of Roman material, even close to the only other known site of clear potential within the study corridor at Wishaw (1005-6). Again modifications to the design of the proposals since the 1991 Public Consultation Scheme mean that it now avoids this site.

5.4 Industrial Archaeology of Canals and Railways

5.4.1 The published route of the BNRR crosses the line of five dismantled or extant canals, and physically affects a variety of specific elements of the canal infrastructure, including the remains of a reservoir, the sites of two canal basins, and one working lock with a pair of associated cottages and another derelict building. It also crosses the line of four dismantled branch railways.

5.4.2 Following publication of the Environmental Statement, English Heritage and the Staffordshire and Warwickshire county archaeologists identified the cumulative effect of the route on the industrial archaeology of the canal network as a potentially significant issue which deserved further clarification. In the light of those comments further work has been undertaken to provide a clearer description of the canals and the impacts that would arise from the BNRR, and a fuller assessment of its cumulative effect on the industrial archaeology of the canal network.

5.4.3 About 2,300 miles of canals were built in Britain during the 18th and 19th centuries. The canals with which this study is concerned formed part of a wider network of inland navigation in the Midlands, which mainly developed from the 1770's to the 1820's, and exceptionally until the 1860's. The Birmingham and Fazeley canal (1783-90) (1175) was an important part of the basic network round Birmingham providing the first link to the Trent, and an additional one via the Oxford Canal to the Thames. The Wyrley and Essington (1794-7, with later additions and branches) (1129-1132) was a secondary link providing a similar connection for Wolverhampton. These canals were part a network that was of great importance for the industrial growth of south Staffordshire, Warwickshire and the west midlands in the 19th century, carrying fuel and manufactured goods on short and long-distance journeys.

5.4.4 The Hatherton Branch (1844) of the Staffordshire and Worcestershire Canal (1135), and the Anglesey (1860's) and Cannock (1850's) Extensions of the Wyrley and Essington Canal (1133, 1132) were local branches linking collieries and other industrial facilities to the rest of the network. The Churchbridge Extension (1860) provided a further local link between the Hatherton and Cannock Extension canals. Together this group of canals represent virtually the last developments of the canal network in Britain, being very unusual in reflecting the continuing economic viability of this form of transport well into the railway age.

5.4.5 These late canals were built to serve the Cannock Chase collieries which were expanding in the mid-19th century. Their viability lay mainly in their direct links with the railways and with canalside works requiring fuel and transport facilities for distributing their products. They were also, after initial problems, well supplied with water from reservoirs such as Hatherton, and more particularly Chasewater. The Wyrley and Essington Canal Company was able to sell surplus water to other companies.

5.4.6 The canals successfully met competition with railways until the 1860s, though partly in combination with the railway companies. In 1846 a special agreement between the Birmingham Canal Navigations and the London and Birmingham Railway Company led eventually to the railway gaining control of the canals. Although overall tonnage carried on the canals continued to rise until the end of the century, profitability was falling, and there were problems of dereliction through mining subsidence.

5.4.7 The BNRR route thus affects examples of canals of varying significance as links within the system, and reflecting distinct periods in the development of the canal network. The basis for assessing the significance of the effects of the route has been broadly in line with the English Heritage and British Waterways Board approach currently being used to create a database of canal architecture, though this survey has not yet extended to the canals affected by BNRR. The historical importance and interest of the canals, their general state of preservation, and whether key features of them would be lost or severely intruded upon represent the main issues. The relative rarity and technological complexity of the main standard components of the canals are also basic considerations. Thus features such as reservoirs and basins are moderately common and not especially complex, but not as common as locks and bridges which normally conform to standard designs. The basic earthworks of canal beds are relatively simple linear features contrasting with the more site-specific parts of canal infrastructure. Good groups of features with contemporary associated buildings tend to be relatively rare in the context of individual canals, though they are often recurrent features of canals in general. Such groups of features, and places where their setting encompasses areas of good historic landscape or townscape survival, are often of particular value in illustrating how canals interfaced with contemporary industry, other communications systems and the local settlement and landuse pattern. Features representing the first, or particularly early examples of technical innovations are also of particular value. In general these mainly occur among the earlier canal developments, or represent the application of increasingly sophisticated engineering techniques, often originally developed for the railways. The condition of canals and of specific components of them vary considerably from being substantially unchanged and still operational to derelict or largely destroyed and no longer visible.

5.4.8 The cumulative effect of the BNRR on the canal network using this framework can be summarised as follows, grouped first by date range, summarising their date, overall condition and the features affected by the BNRR proposals. The individual cases are fully described and assessed in the detailed site-by-site assessment in section 6.

1. Effects on early innovative canals:

None

2. Effects on canals dating from the height of the canal era (1790's):

Birmingham and Fazeley Canal (1789; extant and generally well preserved) (1175):

Loss of lock and associated lock cottages and one other derelict cottage.

Wyrley and Essington Canal Extension (1797; largely derelict, part destroyed) (1129):

Severance and loss of short section of embankment close to derelict lock; any future restoration of the route would require dismantling and replacement of two locks in new location.

Overall effect for Midlands canal network:

Within the overall context of the canal network of this date or earlier such features and groups are not particularly rare, and the cumulative effect is slight to moderate.

3. Effects on late canals built during the railway era:

Hatherton branch of the Staffordshire and Worcestershire Canal (1844; derelict and partly destroyed) (1135):

Loss of two basins (one filled in or possibly destroyed, one partly filled and derelict), partial loss of remains of aqueduct (filled in or partly dismantled), loss of reservoir dam.

Churchbridge extension of Hatherton Branch (1860; largely destroyed) (1135):

Severance of former route.

Cannock Extension branch of Wyrley and Essington Canal (1850's; part extant, much dismantled and filled in, partly destroyed) (1132):

Severance and loss of part of embankment of dismantled route at site of minor bridge and wharf.

Anglesey Branch of the Wyrley and Essington Canal (1840; actively in use) (1133):

Visual and noise intrusion affecting amenity of public open space, which was historically a common and extant heathland, containing remains of basins, weirs and spillways, sites of wharves and an extant bridge.

Overall effect for Midlands canal network:

Most of the unusually late group of local branch and extension canals serving the Cannock coalfields and industrial centres would be affected. The best preserved of these canals and the only one in active use (the Anglesey canal) would be least seriously affected physically, though its setting and amenity would be intruded upon. The most significant effects would be the loss of the reservoir and remains of basins and aqueduct on the Hatherton canal. Apart from the reservoir these features are not readily appreciated from the few visible remains that can still be

seen. Several other key elements of the canal and associated industrial complexes have been destroyed, so that the remaining features that would be affected by the BNRR have lost any visible coherence and can only be understood with the aid of historic maps.

Taken as a group, these late canals are of interest principally in reflecting the particular economic circumstances locally which made them still viable as extensions to the existing network, rather than for any wider strategic role in the 19th century transport infrastructure of the region, or any special technological characteristics. Except for the Anglesey they are not well preserved. Taking account of the rarity of such late canals and the relatively severe effect on the Hatherton canal on the one hand, balanced against their generally poor state of preservation and localised historical significance on the other, the cumulative effect of the impacts of BNRR on these late canals within the Midlands network would be moderate.

5.4.9 Taking all the different periods of the development of the canal system and the local, regional and national significance of different parts of the network together, the overall cumulative effect of the BNRR on the region's canals would be slight to moderate. In terms of individual canals the effects on the Hatherton canal at Churchbridge and the Birmingham and Fazeley at Dunton Wharf would be severe because important features would be lost in each case. The assessment of the effects of BNRR for each canal is set out in more detail in Section 6 below.

5.4.10 A further consideration is whether the route would prevent the restoration of the former canals. While this is mainly an amenity issue, such restoration is often a good way of promoting the conservation of the industrial archaeology of canals. In this case the tentative proposals for restoring a northern link round Birmingham could be made rather more difficult but would not be precluded. The two sections affected in this way are the Wyrley and Essington canal at Hammerwich, which would require an aqueduct over BNRR and two new locks (involving the loss of two existing derelict chambers) and the Wash Brook and Churchbridge section of the Hatherton canal, where a new route would have to be found anyway.

5.4.11 The effects on the industrial archaeology of the railway network can be summarised as follows:

London and North Western Railway, Norton, Walsall Wood, and Cannock Chase Colliery branches (1858-67; derelict) (1126, 1128, 1118):
Severance and slight landtake only affecting earthworks.

Midland Railway, Whiteacre and Hampton branch (derelict) (1172):
Slight landtake filling part of cutting

The cumulative effect of these impacts on industrial archaeology of 19th century railways would be negligible.

6. Detailed Assessment of the Effects of the BNRR

6.1 Saredon to Churchbridge

6.1.1 The route would pass through an area of predominantly open countryside in agricultural use, and then between the urban areas of Cheslyn Hay, Great Wyrley and Bridgtown, cutting through Churchbridge. The main effects arising in this part of the route would be at Churchbridge where various visible and subsoil remains of a mid-nineteenth century canal complex would be affected.

Cropmarks, Saredon
(Drawing L05.1, Reference 1221, 1222, 1223, 1224, 1225)

6.1.2 A series of five cropmarks immediately east of the M6 near Saredon Hall and Laney Green were identified by Staffordshire County Council from vertical air photographs taken in 1991. These were drawn to the attention of the project immediately before publication of the ES, and were included in the assessment before being checked. Subsequent inspection of the photographs by the County Archaeologist and by Oxford Archaeological Unit suggests that these features were a misinterpretation of the photographs and the entries in the Sites and Monuments record have since been noted as non-antiquities. The surface collection survey in this area produced no particular concentration of finds.

Assessment of Effects and Mitigation

6.1.3 Contrary to the assessment given in the ES, therefore, no particular impact is now anticipated in this area.

Hatherton Branch Canal, Hawkins Canal Basin and Aqueduct, Hatherton Reservoir, Gilpin Basin and associated features (Drawing L05.2, Reference 1121, 1122, 1135, 1181, 1226, 1230).

6.1.4 The Hatherton branch of the Stafford and Worcestershire Canal was built in c. 1840 to provide a transport link for the growing coal industry and other commercial interests, including the Walk Mill (1228, 1229), a large flour mill which was in existence by 1775. The BNRR route affects the eastern end of the canal, where the line of the canal itself has largely been lost, but visible remains of its main feeder reservoir and less apparent remnants of two basins with wharfage and an undistinguished connecting aqueduct survive. A more detailed description of the complex is given in Appendix 4.

6.1.5 Immediately west of Walkmill Lane, south of Wyrley Brook, lies the site of the two acre Hawkins Canal Basin and aqueduct (1121), now virtually invisible having been filled with colliery spoil. Low brick arches supporting high sides mark the ends of the 36m long culvert which carried the aqueduct from the canal to Hawkins Basin, Walkmill Lane and a tramway over the Wyrley Brook.

6.1.6 The line of the canal itself, which ran parallel to the leat serving the mill pond for the Walk Mill (1228, 1229), has been infilled or destroyed due to commercial development north of BNRR.

6.1.7 Immediately east of Walkmill Lane, lies Hatherton Reservoir (1122), constructed c.1837-40 as a feeder for the canal (Lichfield and Hatherton Canal Trust 1990) via the Hawkins Basin. The reservoir was formed by building a dam along the side of the valley of the Wyrley Brook where some small tributary streams joined it. The dam (a well used footpath) has been partly breached in one place so its top is now approximately 3m above water level, the extent of the reservoir having originally been about 5ha.

6.1.8 The original eastern end of the Hatherton canal was close to the Church Bridge (1064) where Watling Street (the A5(T)) crossed the Wash Brook. The eastern end of the canal originally served the Gilpins colliery and tool factory at Churchbridge, but in 1860, shortly after the branch of the South Staffordshire Railway was open to Cannock Station, the Churchbridge extension was added as a link to the Cannock extension of the Wyrley and Essington, via a flight of 13 locks since destroyed by open cast mining. A basin and wharf (1226) was built for the Gilpins colliery and factory, involving a short diversion of the Wash Brook and mill leat to allow direct interchange between a tramway from the colliery and factory, the canal and the main road. The most prominent features of these arrangements that survive are a fine double bridge for the South Staffs railway and an accommodation bridge parallel to it on the west (1230), which spanned both the canal and the Wash Brook. A brick-lined channel (1181) alongside the track on the west side of the railway acted as an overflow to the mill leat, diverting surplus water back into the Wash Brook. The site of the basin and wharf is overgrown with scrub, and only minor features are visible.

6.1.9 Much has been lost of this once extensive and varied industrial complex, such that it can no longer be appreciated on the ground without the aid of historic maps. The Hatherton canal was one of only a very few new canals built in the railway era, and though it is generally poorly preserved, as a whole it is of county or regional interest. The various individual features are of variable significance (the remnants of the basins and aqueduct are probably of only local importance, whereas the reservoir is a much more visible and more substantial feature and is of county importance).

Assessment of Effects and Mitigation

6.1.10 The BNRR and the Lodge Lane Link would be in a slight cutting over Hawkins Canal Basin, possibly exposing most of its original extent. The aqueduct would be replaced by a new culvert which would destroy any buried remains that survive.

6.1.11 Eastwards, the BNRR and adjacent link road would follow the course of the Wyrley Brook in order to avoid recent commercial development to the north. Construction of the BNRR would result in the loss of the whole of the Hatherton Reservoir dam and the western end of the reservoir itself.

6.1.12 The BNRR would avoid the railway arches passing beneath the railway just to the south, where part of the brick overflow channel west of the railway would be lost. On the east side of the railway BNRR would occupy most of the area of the Gilpins wharf and basin.

6.1.13 The general arrangements of the complex are recorded on 1 to 25" OS plans. In each of the three areas described above where the Hatherton canal would be affected, a watching brief would be undertaken during site clearance before or during the early stages of construction to record any details of construction and recover any industrial artifacts of interest. In the case of Hatherton Reservoir existing detailed mapping of the reservoir with contours plotted at 1m intervals, together with historic maps provide a good record of the overall topography and design of the reservoir. The detailed method and programme of work required for this would be agreed in advance with English Heritage and the county archaeologist, but in outline it is envisaged that an archaeological base map would be prepared at a scale large enough to record details, supplemented by controlled clearance of selected areas prior to or during the early stages of construction to elucidate specific features of archaeological interest.

6.1.14 This part of the BNRR route would cut across the area in which a new route for the Hatherton canal might be established if it were to be restored. Since firm proposals for restoration have not been drawn up, it is not clear whether this indirect effect would be significant.

Watling Street Roman Road and Church Bridge (Drawing L05.2, Reference 1026, 1064)

6.1.15 The line of the Roman Watling Street (1026) is perpetuated in the general alignment of the present A5(T). Where it crossed the Wash Brook lies the site of the Church Bridge (1064), shown on a seventeenth century map of Staffordshire (Thomas 1934). The present bridge has undergone several phases of improvement and underneath appears to be largely of concrete, but with a 19th century sandstone masonry parapet with polygonal end piers rebuilt on the north side. Watling Street has thus already undergone much alteration at this point. The A5(T) has been built up 1m since the late nineteenth century and while it is conceivable that some remains of Roman surfaces might survive, and perhaps remnants of the foundations of the 17th century bridge, it is very unlikely that preservation is good. These features are therefore unlikely to be more than of local interest.

Assessment of Effects and Mitigation

6.1.16 The impact of the Churchbridge Interchange on the site of Church Bridge (1064) and the Roman Watling Street (1026) would depend on both the survival of deposits and the depth of disturbance required for construction. Since the BNRR would be slightly lower than the A5(T) Watling Street, it is possible that some disturbance would occur. A watching brief would take place during construction to record any remains. The masonry parapet of the present bridge would lie between the southern side of the Churchbridge Interchange and BNRR, but would be unlikely

to survive construction. The masonry would be dismantled and salvaged for reuse elsewhere.

6.2 Churchbridge to Chasewater/Burntwood

6.2.1 The route would follow the A5(T) Watling Street corridor eastwards from Great Wyrley, to pass south of Norton Canes and Chasewater. The main effects in this part of the route would result from visual and noise intrusion on the setting and historical amenity value of Chasewater and the Anglesey Branch Canal. A number of other minor effects would arise from severance of various derelict branch railways and a canal, and from landtake affecting minor cropmark features.

Chasewater Reservoir and Anglesey Branch Canal (Drawing L05.4, Reference 1143, 1133)

6.2.2 Chasewater Reservoir (1143) was built in c. 1799 as the main reservoir for the Wyrley and Essington Canal, within a large area of heathland common, part of Cannock Chase. The area of the dam and the complex hydraulic arrangements include a weir pool, weir and fine brick spillway, for controlling the flow of water into the canal to the east. These form the primary interest as an area of industrial archaeology of county or regional importance.

6.2.3 In 1840 Lord Anglesey developed the original feeder for the Wyrley and Essington Canal from Chasewater into the Anglesey Branch of the Wyrley and Essington Canal (1133) to serve the expanding Cannock Chase collieries (Gilson 1959). The branch runs east for about 0.5km from Chasewater, before swinging south east to cross the A5(T) (Watling Street) at Brownhills. There were wharves on the north and east side of the canal and these were linked to the former Cannock Chase Colliery Branch of the London and North Western Railway (1118). White Horse Road crosses the canal on a reasonably well preserved brick bridge, presumably dating from the 1840s when the canal was made navigable. Few other structural features of the wharves are visible, and indeed most of the wharf buildings and other facilities known from historic maps were located further west towards Chasewater. The interest of the complex would be greater if more structural remains of the wharves had survived, though the bridge has some value in its contribution to the interest of the complex as a whole.

6.2.4 The area of former common lying to the east of the reservoir and south of the head of the canal remains largely undisturbed, and retains much of its original heathland character. This area now forms part of the Chasewater Heaths SSSI and together with the reservoir and Anglesey Branch Canal forms an area of historic landscape interest with significant amenity and conservation value (Codling u.d.).

Assessment of Effects and Mitigation

6.2.5 The route would pass south of Chasewater Reservoir (1143), with the re-aligned Pool Road encroaching slightly into the remodelled secondary pond located adjacent

to the weir pool. Visual and noise intrusion would detract from the setting and amenity of the former common east of the reservoir and the associated industrial archaeological complex of former weir pools and spillways linking the reservoir with the head of the Anglesey Canal (ref. Landscape, Noise and Flora and Fauna Evidence). It would not be possible to mitigate this satisfactorily without causing additional landtake within the SSSI. The BNRR would cross the Anglesey Branch Canal (1133) on a new bridge to allow continued navigation and access along the adjacent towpath, but causing high visual intrusion by blocking views of the 1850s bridge from the north. The impact of the BNRR on the amenity of this part of the canal would be severe during the construction phase, and would be mitigated to a limited extent in the long term by the careful design of the new bridge for the BNRR, and by the planting of adjacent embankments.

6.2.6 The overall long-term effect of BNRR on the setting and amenity of the Chasewater and Anglesey canal complex would be significant.

Enclosure at Washbrook Lane; Cannock Extension Canal, Walsall Road; Norton Branch Extension, and Walsall Wood Branch Railways; Cropmarks south of Chasewater, Cannock Chase Colliery Branch Railway, Brownhills (Drawings L05.3, L05.4, Reference 1072, 1132, 1126, 1128, 1073, 1074, 1118).

6.2.7 Landtake for the re-aligned Washbrook Lane would encroach marginally into an area of former ridge-and-furrow, but would not affect an adjacent cropmark enclosure and associated cropmarks (1072). A watching brief would be undertaken to check for any material potentially associated with the enclosure.

6.2.8 At Albutts Road, immediately east of the B4154 Walsall Road the BNRR would sever the Cannock Extension Canal (1132), a branch of the Wyrley and Essington Canal, which was completed in 1863, with the loss of approximately 110m of embankment, including the site of Norton Green Bridge which carried Albutts Road over the canal, and part of the adjacent former wharfage. Pedestrian access along the canal would remain via a short diversion over the realigned B4154 Walsall Road, past Norton Green. The BNRR would be visible from this disused section of the canal and would adversely affect its setting to some extent (ref. Landscape Evidence). Within the context of the canal as a whole, these would be slight impacts, though they would be exacerbated by the Motorway Service Area proposed further east, including some additional landtake for its slip roads. A watching brief during construction would allow any remains of the canal structures and the form of the canal embankment to be observed and recorded.

6.2.9 The BNRR would sever the line of the former Norton Branch Railway (1126), with the loss of approximately 100m of its length. It is used as a footpath, and pedestrian access would be maintained over the BNRR on a footbridge. These slight impacts on this feature of local archaeological interest would be a negligible adverse effect. The severance of the Walsall Wood Branch Railway (1128) would similarly result in a negligible adverse effect.

6.2.10 The BNRR would result in the loss of part of a double ditched boundary cropmark just south of Chasewater Reservoir (1073). The date, significance and extent of this feature is uncertain. There would be a risk of a slight adverse effect. Mitigation would be achieved by a watching brief to record any significant remains.

6.2.11 The BNRR would also sever the line of the former Cannock Chase Colliery Branch Railway (1118). The bridge abutment provided over the proposed Burntwood link road, would result in the loss of approximately 110m length of the derelict course of the railway line, with a further partial loss of approximately 240m of its course adjacent to the link road. The link road would cross the former railway further south, where it is already bisected by Ogley Hay Road. The Burntwood Interchange would avoid encroaching on the line of the railway at Anglesey Wharf, and would not preclude any future restoration up to this point. This moderate impact on a feature of local interest would be a slight adverse effect.

6.3 Chasewater/Burntwood to Weeford Island

6.3.1 From Burntwood the BNRR would enter open countryside, crossing to the south of the A5(T) Watling Street, east of Newtown. It would then pass south of Muckley Corner, before swinging north to follow the A5(T) corridor south of Wall, and north of Shenstone. The main effects in this part of the route would arise at three locations, first where the BNRR would cross the course of the Wyrley and Essington Canal, second in the area close to the Roman settlement at Wall, and third in an area of cropmarks at Shenstone. Some minor effects would arise between Shenstone and Weeford Island.

Wyrley and Essington Canal, Hammerwich (Drawing L05.5, Reference 1129)

6.3.2 Immediately south of Watling Street lies the embankment of the derelict Wyrley and Essington Canal (finished 1797; Gilson 1959), including Lock 8 of the first flight on the Ogley Section. This lock is relatively well preserved, with the lower gates present though broken, and some of the sluice gear present. The chamber is unfilled, but is reported to have a bulging north wall (Lichfield and Hatherton Canals Restoration Trust 1990). The chamber survives up to coping level and the date of 1858 inscribed on the ironwork records the rebuilding of the Ogley flight by the Birmingham Canals Navigation. Immediately below the lock, the canal is on an embankment approximately 3m high, substantially overgrown but with the canal profile intact. Further south, Lock 7 is not clearly visible, having been largely backfilled, possibly after partial demolition. The canal is of county or regional importance. There is the possibility that the canal could be restored to provide a recreation resource, although there are no firm proposals for this.

Assessment of Effects and Mitigation

6.3.3 The BNRR would sever the line of the canal, removing a 60m long section of embankment just below Lock 8, possibly affecting the wing walls which retain the canal embankment, but not the lock itself. However, the BNRR would be at or just

below ground level, and any restoration of the canal would involve constructing an aqueduct over the BNRR. To regain the original canal level would require the heightening of the embankment either side, and the replacement of both Locks 7 and 8 with two new locks (possibly located immediately north of the BNRR). The direct impact of BNRR would be a minor adverse effect. However, the indirect impact on the canal if its restoration proceeded, would be more significant. Lock 8 would be safeguarded from damage during construction, otherwise no direct mitigation is proposed except for a watching brief to record features exposed during construction including the structure of the canal embankment.

Wall Archaeological Complex - General Assessment (Drawing L05.6b)

6.3.4 The Roman town at Wall *(Letocetum)* is the most significant site of the period in Staffordshire, and includes one of only two English Heritage 'Properties in Care' in the county (the other being Croxden Abbey). This comprises the exposed walls of two Roman public buildings, the *Mansio* and Bath House, just west of St John's Church, and a small museum. It is well visited. The site is on the westward facing side of the low hill on which Wall stands, and has views to the west, in which the line of Roman Watling Street is marked by the now heavily trafficked A5(T) Watling Street.

6.3.5 Wall has had a very long history of antiquarian and archaeological investigations, summarised in an unpublished report by Staffordshire County Council, which was prepared in 1987 at the time of the Department of Transport's consideration of a scheme for the route. That report was the first time that the disparate existing evidence accumulated over the last 300 years had been summarised and re-appraised in any detail.

6.3.6 The core of the complex is an extensive Scheduled Ancient Monument (Staffordshire Monument No 15), of national importance, located within agricultural land around and within the village. This encompasses the remains of two known forts, the *Mansio* (official staging post and hostel) and Bath House (in care and open to the public as described above), parts of Watling Street, the civilian settlement, various minor side roads, some paddocks and fields and possible peat deposits west of the village. Several other elements of interest outside the scheduled area can also be considered as being of national importance, for their contribution to the setting and archaeological context of the Scheduled Monument. This is particularly true of the cemeteries and main concentration of civilian settlement along Watling Street.

6.3.7 There has been a long history of archaeological investigations at Wall, mostly in the main core area of the settlement and the military forts. The southern margins of the complex south of the A5(T) Watling Street have not been very thoroughly surveyed in the past, the principal discoveries having arisen from Oswald's salvage excavations on the A5(T) (Oswald 1966-7), and some recent survey work recorded by the South Staffordshire Archaeological and Historical Society.

6.3.8 Additional information kindly provided by the South Staffordshire Archaeological and Historical Society from examination of air photographs has been accumulated for this assessment. Six geotechnical trial pits, dug in the area between a location 500m to the west of the Crane Brook to 850m east of Ashcroft Lane, were observed and recorded archaeologically. It was not possible to carry out the surface collection survey in the area south of Wall because most of the land is under grass, and access was not granted to the one small area of arable land. It has been possible to carry out a pilot geophysical survey and trenching in part of the area either side of the Crane Brook at the western end of the complex. The areas of finds scatters plotted on Drawing L05.6b in Appendix A1.0 of the Landscape Evidence, show the area covered by the South Staffordshire Archaeological and historical society's plotting of metal detector finds, and indicate a broad distinction in the density of finds recovered.

6.3.9 For a variety of reasons, including comments from English Heritage and Staffordshire County Archaeologist, the published route for the BNRR has been altered from the 1991 Public Consultation Route (ref. Concessionaires's Evidence). The emphasis of consultees' comments was first to ensure that changes of alignment should be considered in respect of how the new proposals and the A5(T) Watling Street alignments might best interrelate; and second that an adequate field survey and evaluation should be completed in time for *in situ* preservation beneath the BNRR or detailed excavations to be agreed and completed before construction work begins on the land concerned. These views are reflected in the realigned route as published, and in the mitigation strategy of staged archaeological recording which is proposed. English Heritage and the Staffordshire County Archaeologist stressed the desirability of completing the first stages of refining the main mitigation proposals as soon as possible, subject to access, and this has been achieved as far as possible.

6.3.10 Because access for trial trenching has so far been limited, there is still some uncertainty as to the exact nature of archaeological features and deposits that would be affected by the published scheme at Wall, and this is reflected in the detailed assessment of specific impacts and effects which follows. However, it nevertheless seems clear that the BNRR route would affect an area peripheral to the main core of important remains. This is suggested by the contrasting density of metalwork finds from metal detector surveys (information provided by South Staffordshire Archaeological and Historical Society), and from the character of some of the cropmarks which suggest fields and tracks rather than dense settlement. Oswald's observations (Oswald 1966-7) do suggest some settlement in the area, but the absence of finds from the geotechnical trial pits suggests that there was not a general spread of dense occupation along the route corridor, as appears to be the case along the line of Watling Street. These observations also suggest that there is not much potential for finds within extensive peat deposits although general stratigraphic preservation may be good. Finally, some of those features which would be affected can be seen from air photography to extend some way beyond the limits of the proposed BNRR landtake, so that at least some parts would not be affected.

Wall Archaeological Complex - Site Specific Assessment (Drawing L05.6b)

6.3.11 Fourteen groups of archaeological features are currently identifiable along the route of the BNRR in the area immediately south of the present A5(T), extending from west of the Crane Brook, to west of the Birmingham to Lichfield railway. They are briefly described below working from west to east. A more detailed description is given in Appendix 5.

6.3.12 In the vicinity of the Crane Brook these include an oval enclosure marked by field boundaries, ditches, and a possible trackway and field system (Drawing L05.6b, Reference 1052, 1158, 1059, 1081 and 1082). Evaluation trenches dug in this area have revealed a possible Roman or earlier enclosure, other ditches and a possible trackway corresponding to some of these cropmarks (Oxford Archaeological Unit 1994a). Poorly preserved organic deposits were noted in the possible enclosure ditch, but very few artefacts. A significant degree of truncation by cultivation is evident.

6.3.13 Immediately next to the Crane Brook 'considerable evidence of Roman occupation of the 2nd or 3rd century' (1110) was observed by Oswald (1966-7), adjacent to a possible road (possibly represented by a parchmark 1157). The magnetometer survey undertaken for this study indicated a large area of disturbance close to the Crane Brook. Trenching confirmed this, producing late 2nd and early 3rd century Roman pottery, but the reason for the disturbance is unclear. There was evidence of rather poor organic preservation (Oxford Archaeological Unit 1994a).

6.3.14 West of Ashcroft Lane further linear cropmarks of ditches occur and a thin scatter of Roman metalwork finds have been recovered from a limited area covered by a metal detector finds recorded by the South Staffordshire Archaeological and Historical Society (Drawing L05.6b, Reference 1110, 1113, 1156, 1157, 1178 and 1088).

6.3.15 East of Ashcroft Lane a further thin scatter of metalwork finds has been recovered (1177). The putative position for an early Roman Fort (1147) has been tentatively suggested, by Staffordshire County Council (Staffs. Co. Co. 1987) as being indicated by the south-east corner of Ordnance Survey field number 2512. However, consideration of both the topographical and archaeological evidence make the existence of this feature doubtful.

6.3.16 About 500m east of Ashcroft Lane is the north-south course of Ryknield Street (1145). In 1965 cambered metalling, approximately 12m wide, with ditches immediately to the west and approximately 6m and 8m to the east, were seen on the right alignment north the A5(T), just south of the junction of Watling Street and Ryknield Street (Oswald 1966-7). A further 0.6km to the south, the South Staffordshire Archaeological and Historical Society has recorded a concentration of Roman metalwork either side of Ryknield Street, south-east of Chesterfield (1067).

6.3.17 All these sites, except for the ditches of recent origin, are of potential value for understanding of the archaeological and environmental context and history of Wall and, as such they have some bearing on a nationally important complex. As illustrated by the evaluation trenches west of the Crane Brook, these sites may incorporate more extensive and significant elements than those known currently. The quality of preservation is likely to be variable: there is evidence of some organic preservation in subsoil features, but also significant truncation of deposits at least in higher areas. Individually, features not readily ascribable to recent field boundaries or background finds scatters are of uncertain significance, but on the basis of current evidence are best seen as being of county or regional importance.

Assessment of Effects and Mitigation

6.3.18 The construction of the BNRR would result in some further severance of the overall archaeological complex at Wall. However, the A5(T) Watling Street has already severed the southern part of the complex, and while some further relationships could be lost, these concern relatively peripheral outlying areas on only one side of the settlement rather than affecting its core. The Public Consultation Route by contrast would have crossed the area of dense settlement running eastward along Watling Street, including its intersection with Ryknield Street, in one of the very few places where Watling Street is not overlain by later roads. With the published alignment, south of the A5(T), there would be no extensive landtake or severance of key relationships within the core of the Roman settlement.

6.3.19 During the construction phase, the views westward from the *Mansio* and Bath House Complex would be affected. The proposed mounding would reduce visual intrusion to low in the early operational phase, while in the long-term, the planting of tree belts and hedgerows would help to assimilate the line of the BNRR into the landscape (ref. Landscape Evidence). There would be an imperceptible to slight increase in noise above that of the A5(T) Watling Street. The appreciation of this site as an archaeological monument is not heavily reliant on the visual quality of its wider setting, and the long term impact of the BNRR would not be a significant adverse effect.

6.3.20 The landtake impacts on the archaeological features along the route south of the A5(T) would be offset by a staged programme of archaeological investigations. Initially, this would include further geophysics and trial trenching to define in more detail the potential interest and preservation of the archaeological remains likely to be affected by the BNRR. This would also establish whether *in situ* preservation (where feasible) beneath the BNRR embankments and landscape mounding would be acceptable, or whether there should be a further stage of more detailed excavation in advance of construction. These stages of investigation would apply from west of the Crane Brook eastward as far as the other side of Ryknield Street. In some cases, such as where the BNRR would cross simple linear features, investigation consisting of limited sampling by trenching may be sufficient in itself.

6.3.21 In the work carried out so far, the limited trenching undertaken suggests that the type of geophysics used for the pilot surveys (magnetometery and resistivity) are not very reliable on these soils, at least for picking up features not closely associated with settlement, and further consideration is being given to the use of magnetic susceptibility surveying as part of a staged process of investigation of the area south of Wall.

6.3.22 In the areas west of the Crane Brook and either side of Ryknield Street where the BNRR would be in cutting or on slight embankment, it would not be possible to preserve deposits *in situ* and the loss of significant remains would be offset by archaeological investigation to an appropriate level of detail, and publication of the results. For example the loss of part of the enclosure west of the Crane Brook (the only part of the complex where full evaluation has yet been possible) would be offset by further detailed investigation to record the deposits lost and establish more clearly the nature of this site. Despite the presence of some organic deposits, it is not anticipated that a significant effect from hydrological drawdown will arise at this locality: the organic remains occurred in levels above the local permanent water table and are likely to have survived mainly due to very localised soil conditions.

6.3.23 Both west and east of Ashcroft Lane the BNRR would be on an embankment of 4m or more. In this section two options for archaeological mitigation, either *in situ* preservation beneath the route embankments or excavation prior to construction, would be possible. The choice between these options depends on balancing the public benefit between the desirability of long term preservation and the gains to knowledge that could arise from investigation. The main argument for preservation *in situ* is to conserve the resource for future investigation when techniques have improved, but in this case the existence of BNRR would preclude such investigation for the foreseeable future, and could also result in compression of soft materials.

6.3.24 The quality of organic preservation would be a significant consideration in the choice between potential *in situ* preservation beneath the BNRR, or excavation. Although no direct or indirect impact from hydrological draw-down is anticipated as a result of the BNRR, wooden and other artifacts could be severely distorted by compression caused by the weight of the embankment. It is also conceivable that *in situ* preservation of organic deposits beneath the BNRR could be compromised if subsequent dewatering (unrelated to the BNRR) were to result in desiccation. If this happened, it would be impossible to mitigate any such impacts by excavation. However, at present, the results of the evaluation trenches and geotechnical trial pits suggest that any organic preservation is likely to be limited to isolated features rather than a general complicating factor.

Summary

6.3.25 Taking the issues at Wall as a whole, it can be concluded first, that the development of the published alignment has made it possible to avoid the main core of the Wall settlement; second, that the impact on the setting and amenity of the *Mansio* and Bath House complex would not significantly detract from public appreciation of the remains in the long term; and third, that the residual landtake

impacts on remains in the immediate surroundings, although still ill-defined at this stage, would be unlikely to be unacceptably severe if the effects are offset by a full programme of staged investigation, and/or preservation *in situ*. Careful consideration will be given to programming the archaeological fieldwork to ensure completion before construction begins in the areas concerned.

Cropmark Complex, Shenstone
(Drawing L05.7, Reference 1208, 1093, 1094, 1095, 1097, 1098)

6.3.26 North of Shenstone there is an extensive area of cropmarks, mainly concentrated between the Birmingham to Lichfield railway to the west, the property known as The Castle to the east, the Black Brook to the south and the A5148 to the north. The complex as a whole incorporates prehistoric ring ditches, Roman farmsteads, undated enclosures, trackways or double ditched boundaries, and numerous overlapping patterns of linear features, some of which are identifiable as relatively recent boundaries shown on 19th century maps (Whitehouse 1960-1, Gould 1972, Hodkinson and Chatwin 1939-40). The BNRR would avoid some of the most archaeologically significant features of the Shenstone cropmark complex, such as the Roman farmsteads to the south and north (1036 and 1039) and possible prehistoric remains (1092 and 1211). The area affected by the published route for BNRR was identified as requiring more detailed evaluation and this has been carried out where access was available. In the event it was only in the area east of Birmingham Road that access was granted for either the surface collection survey or trenching.

6.3.27 In the area where fieldwork has not been possible, between the railway and the A5127, approximately 300m south of A5(T) Watling Street, there is a complex of curving and straight linear features (1208), most of which correspond to boundaries shown on the Shenstone tithe map and Ordnance Survey First Edition 6" map. These features are of minor local interest. A double ditched boundary or trackway (1093), possibly associated with the known Roman farmstead complex (1039) immediately to the south, lies approximately 80m west of the A5127 Birmingham Road, north of Birmingham Road Nurseries. This feature could be part of an ancient field system which might be of county importance.

6.3.28 In the area east of the A5127 Birmingham Road, the existence of a probable Bronze Age or Neolithic ring ditch (1094) identified from cropmarks immediately next to the road 200m south of Watling Street, has been confirmed by trenching (Oxford Archaeological Unit 1994b). The ditch is oval, approximately 20 x 18m in diameter, there is no surviving trace of any mound, but the ditch contained some rather poor organic preservation. This ring ditch may be the remains of a small barrow, though the central area where a burial might be expected was not exposed. A number of gullies, ditches and post holes were also located, suggesting multi-period activity. It is considered likely to be of county importance.

6.3.29 Further south, east of Birmingham Road Nurseries, there are further cropmarks of ditches. The examination of the air photographs suggested that these included a double ditched feature (1097), a rectangular pattern of linear boundaries, part of a

rectangular enclosure (1095), and possibly a small, irregular, long trapezoidal feature (1098). Both the latter identifications were very tentative, and possibly spurious. No particular concentration of artifacts was found in the surface collection survey over this area (Appendix 3), and the trial trenching failed to locate either of the suspected enclosures (Oxford Archaeological Unit 1994b). The double ditched feature is the remains of undated trackway, while the other ditches are either undated or definitely post-medieval.

Assessment of Effects and Mitigation

6.3.30 West of Birmingham Road there is a risk that an adverse effect could arise from the construction of BNRR in this area, but on the available evidence this is not likely to be severe. The impact would be offset by archaeological evaluation and if necessary more detailed investigation prior to construction. In the area east of the Birmingham Road the ring ditch would be fully investigated prior to construction, together with its immediate surrounding area of landtake where isolated unmarked cremations or burials, or domestic features might exist. The trackway and other ditched features are not likely to yield much further worthwhile information and would be recorded by means of a watching brief during topsoil stripping.

Linear Cropmarks and Medieval Coins, Shenstone
(Drawing L05.7, Reference 1028, 1030, 1099, 1100 and 1101)

6.3.31 East of The Castle, there are further linear cropmarks which are of negligible importance, since they appear to correspond to nineteenth century field boundaries (1099, 1100, 1101). A flint knife, Roman coins, a brooch and ring, and three medieval coins have been found in this area (1028, 1030). It is likely that they represent no more than casual losses since the surface collection survey produced no significant concentration of finds in this area (see Figure 6, Appendix 3). Four evaluation trenches in this area confirmed the existence of one of the ditches and revealed one other. No finds were recovered and the archaeological potential of the area is confirmed as being low.

Assessment of Effects and Mitigation

6.3.32 No further mitigation is proposed for the area east of the Castle. More generally in the Shenstone-Weeford part of the route where access for detailed surveys has not been available, such surveys would be undertaken to clarify whether significant remains exist and to establish the level of any investigations required to offset any significant adverse effects.

6.4 Weeford Island to Wishaw Holly Lane

In this section the BNRR would run close to the A38(T) London Road, diverging westwards round Bassets Pole before converging with and crossing the line of the A38(T) near Langley Mill.

6.4.1 In this part of the route there are relatively few known archaeological remains, and

those potentially affected are of a minor or uncertain character. Finds of prehistoric flint scatters at Weeford may indicate that sites are under-represented, but the surface collection survey has revealed no further scatters of such material Appendix 3).

(Drawings L05.8 to L05.10, Reference 1227, 1022, 1204, 1166, 1187, 1202, 1188)

6.4.2 A few straight linear cropmarks indicative of field boundaries but not corresponding to those shown on 19th century maps are visible as cropmarks north of Weeford park. They are unlikely to be of particular significance. No access was available for the surface survey in this area.

6.4.3 There is documentary evidence from the Lay Subsidy returns of 1327 and 1332 for a settlement at *Thickbroome* (Bate and Palliser 1970-71), probably in the vicinity of Thickbroom Farm. Its precise locality is unknown, though the present farm and house are obvious possible candidates. Several areas of ploughed out ridge-and-furrow (1204) exist around Bassetts Pole as well as a dubious cropmark (1166) which might indicate some form of occupation. The site of an extensive clay pit (1187) is also crossed by the route. These remains are considered unlikely to be of more than local significance, though if the cropmark site proved to be genuine it would be of greater interest.

6.4.4 In the vicinity of Collet's Brook there are cropmarks of some old field boundaries (1202) identified on historic maps north of Langley Mill. They are of negligible local interest. Langley Pools are shown on the 1st ed 1" OS map conforming very much to their present configuration. A mill (1188), with two buildings indicated, is shown on this map, while late 19th century and subsequent maps show only one building. The mill stood immediately next to the present sluice at the north east corner of the lower pool in a small area now overgrown. The pools presumably originated as mill pools.

Assessment of Effects and Mitigation

6.4.5 If the site of the deserted settlement was centred on either the farm or Thickbroom House BNRR is likely to have no impact on this possible site, but there remains an uncertain risk that part of the settlement might be adversely affected by BNRR. The risk of an adverse effect occurring at this location would be mitigated by surface survey of the route when access is available followed by further investigation if appropriate (see Appendix 6). This would also apply to the cropmarks north of Weeford Park.

6.4.6 South of Turf Pits Lane BNRR is on embankment with extensive mounding. Much of the former ridge-and-furrow and part of the clay pit would be lost but these are only slight adverse effects. North of Fox Hill Road BNRR is in cutting and would have a slight impact truncating the possible trackway feature, avoiding the main area of putative cropmarks. There is a some risk of an adverse effect, which would be mitigated by a staged investigation, initially by trenching and then more detailed investigations if significant remains were shown to exist.

6.4.7 Immediately west of Fox Hill House there is a beehive pottery or tile kiln listed Grade II and dating from c.1830. A nearby pond probably represents a clay pit associated with the making and it is possible that other kilns once existed. However, BNRR would pass to the east of Fox Hill House and is very unlikely to affect any parts of this complex.

6.4.8 There is a slight possibility of disturbance to the location of Langley Mill and any associated structures, though works should not encroach on its limits. The site would be safeguarded from accidental disturbance during construction by the fencing of the landtake area.

6.5 Wishaw Holly Lane to Curdworth

6.5.1 In this section the BNRR would cross open agricultural land running parallel to the A446(T) near the Belfry before joining the M42 (which would be widened) at Dunton Junction. Two localities in this part of the BNRR route are of particular interest for their archaeological remains would be affected. There is a multi period archaeological complex at Wishaw Hall Farm, including Mesolithic artefacts, a possible Bronze Age burnt mound (1109), extensive Romano-British remains including traces of settlement (1005, 1006), and a medieval moated site and possible associated settlement (1002). The settlement here continued into the post-medieval period with a few houses surrounding the former Lower Green (Hodder 1988, 1993). The other locality is Dunton Wharf (1119), on the Birmingham and Fazeley Canal, which retains many original features associated with the lock and a pair of contemporary cottages.

Wishaw Hall Farm (Drawing L05.11, Reference 1109, 1002, 1003, 1004, 1005, 1006, 1216)

6.5.2 Fieldwalking by Dr M Hodder (Hodder 1988) located a small number of Mesolithic and Neolithic flints and a scatter of fire cracked pebbles possibly indicative of a Bronze Age 'burnt mound' (Hodder and Welsh 1987; 1109). The Mesolithic material consists of a core, scraper and blades from the general area of the moated site (see below), while the Neolithic material is a single retouched flake from the Lower Green Area. The putative burnt mound is from the site of one of the ponds shown on the 1843 estate map and may therefore be redeposited though the location adjacent to a stream is typical of these features.

6.5.3 Of this material the possible Mesolithic flintwork is potentially most interesting, but given the level of later activity in the area it is rather unlikely that significant *in situ* deposits survive. No evidence of prehistoric activity was found in trenching carried out after publication of the ES.

6.5.4 Immediately north east of Wishaw Hall Farm a metal detector survey reported by the South Staffordshire Archaeological and Historical Society revealed evidence clearly indicating a farm or settlement, and metalworking activity (1005, 1006). Its extent is uncertain, particularly to the south where it may extend under the

present farmyard. Northwards the evidence of Roman occupation was observed to cover an area of about one hectare north of the farmyard.

6.5.5 The separate fieldwalking study by Dr M Hodder (Hodder 1988) of a narrow strip immediately adjacent to Grove Lane on its north side, east of the farm produced medieval, but not Roman pottery (1218), and a linear area west of the known concentration of Roman material produced post-medieval finds associated with the documented settlement of Lower Green (1017), but virtually no Roman finds. Trenching carried out subsequently to the publication of the ES west of Grove Lane also produced no evidence that the Roman settlement extended as far as Grove Lane (Oxford Archaeological Unit 1994c).

6.5.6 East of Grove Lane, opposite Wishaw Hall Farm, are the remains of a medieval settlement. This was recorded as earthworks in 1969 when they were thought to be a series of fishponds (1003), leats and paddock boundaries. Central to the complex was an L-shaped moat-like feature (1004) enclosing a platform (presumably of material dug out of the 'moat'). In the early 1970's this site was levelled by stripping the topsoil, and bulldozing the platform area into the hollows. Other areas of less prominent earthworks (e.g the ponds) may also have been levelled in this way. The whole complex was ploughed over. Subsequently a surface collection survey was carried out by Dr M Hodder which suggested medieval occupation in the northern end of the field (next to the old A446 west of Brook Cottage) and in the southern part (east of Well Cottage). Sandstone rubble was observed in the northern part of the moated area (Hodder 1988). Less definite traces of medieval activity were found over the whole area. Metal detecting has produced a medieval and an Elizabethan coin. The surface collection survey carried out for the BNRR suggested a concentration of medieval pottery just south of Wishaw Hall Farm (Appendix 3, Figure 12).

6.5.7 Most of the earthworks, particularly the lesser ditches recorded in 1969 are visible as crop or pasture marks on vertical air photographs taken for the BNRR project in April 1992. In addition a linear ditch parallel to the north-south boundaries recorded in the earthwork survey is visible on the air photographs in the field to the east.

6.5.8 The layout of the subdivisions between the earthwork boundaries is very suggestive of cultivation strips with the characteristic reverse S-shape of medieval ridge-and-furrow. Prior to the field evaluation it was thought that there was a possibility, taking all the topographical, earthworks and finds data together, that the site represented a c 13th century and later planned settlement laid out round a moated manor house and its associated farmyard, orchards or paddocks, and ponds.

6.5.9 The trenching carried out subsequently to the publication of the ES provided only partial support for this theory (Oxford Archaeological Unit 1994c). Both the 'moat' and fishponds contained silts at the bottom with 13th century pottery. No waterlogged organic remains were preserved in the remains of the fishponds, but some survived within the 'moat'. Some of the ditches which had survived as earthworks in the 1960's were exposed. However there was no surviving evidence

for either a manor house or other buildings, and in general the density of finds was very low, making it rather unlikely that there was much medieval domestic occupation on the site. It was also clear that the levelling of the site had severely truncated the archaeology in the area east of the fishponds, since only features dug well into the subsoil were found, and there was no trace of some of the features recorded in 1969.

6.5.10 Wishaw Hall Farm, the 18th, 19th and 20th century successor to the presumed medieval house stands on the other side of Grove Lane, at the south end of the former Lower Green, a small post-medieval hamlet recorded on historic maps and evidenced by finds from Dr M Hodder's field survey. Fieldnames from Tithe maps (1847) include to Hall Meadow and Hall Orchard, which may refer equally to the existing farm.

Assessment of Effects and Mitigation

6.5.11 The small quantity and doubtful survival and extent of the prehistoric material suggests that BNRR would have little or no impact. Given the degree of later disturbance from Roman and medieval activity it is unlikely that there would be more than a slight adverse effect. The landscape mounding has been designed to avoid the area of the burnt mound and the possible area of medieval occupation near Brook Cottage.

6.5.12 The impact of BNRR on the Roman settlement would also be limited. The road would pass through Wishaw Hall Farm almost at grade, affecting the area of the farmyard and buildings where there may already have been some disturbance of earlier levels, a little way south of the known scatter of Roman material. There would be some additional landtake for mounding, and the embankment for the diversion of Grove Lane over BNRR would pass very close to the edge of the Roman settlement evidence. The field evaluation suggests that the impact would be slight to negligible, avoiding the main area of settlement but possibly affecting peripheral features (eg field and paddock boundaries).

6.5.13 BNRR would sever the medieval complex, splitting it in half. This was considered likely to be a severe adverse effect in the ES but the results of the field evaluation since carried out have indicated that the complex may have been much less significant than was first thought, and also that it is poorly preserved. There would therefore be only a moderate adverse effect.

6.5.14 The evaluation process has already offset the impact to some extent, but there remain significant questions about the nature of this complex, in particular to confirm the form and date of the moat and the ponds, and to clarify the origin and if possible the function of the surrounding paddocks. Some further selective archaeological investigation is proposed prior to construction to address these points, and the site would be monitored in order to make any other observations during the early stages of construction.

Dunton Wharf (Drawing L05.12, Reference 1119)

6.5.15 The Birmingham and Fazeley canal (dating to 1783-90) incorporates Dunton Wharf and lock. The canal is navigable and well used, and with the lock keeper's cottages, this particular lock has some additional historic interest to those in either direction. The lock itself and its brick built overflow spillway are well preserved, as is typical for most of the locks on this canal. Its interest is enhanced by the good preservation of the sluice winding gear with rope grooves cut in the spandrels of the casting, and an iron-bound timber mooring post. Immediately below the lock is a contemporary bridge, unfortunately very unsympathetically extended for the widened A446(T) on the northern side. There are no particular remains of the wharf in terms of surviving superstructure, but between the lock and the road bridge on the south side of the canal there is a small wrought iron bridge carrying the towpath over the remains of a channel which led to a basin now filled in and occupied by commercial premises. The iron footbridge has rope-worn grooves in its hand rails and posts. The basin certainly existed by 1840, and by 1887 there were lime kilns just south of it.

6.5.16 The canal is generally well preserved and actively used, and this section has recently undergone sympathetic conservation and restoration. Dunton Wharf retains a good range of features, and although only one among 37 locks on the canal, many of which are well preserved, it is a good example of a lock with associated buildings on the Birmingham and Fazeley canal. Another example, just north of Dunton is at Marston Lane Bridge where there is a canalside barn or workshop. More generally the combination of lock and cottages is a recurrent feature of most canals, and this example is good but not exceptional, while its setting is only poor to average. The Dunton Wharf complex is of county/regional importance

Assessment of Effects and Mitigation

6.5.17 Construction of BNRR would cross the line of the canal on a bridge. The canal would remain navigable. However, the bridge clearance would not be sufficient for canal traffic, and the present lock would therefore cease to be operative, and would be demolished, together with the associated lock cottages. The loss of both the lock and the associated cottages would be a severe impact, and given its value, this would be a severe adverse effect within the context of this canal. The basin and footbridge would not be directly affected.

6.5.18 The lock would be replaced on the line of the canal further south. The logistics of keeping the canal open for navigation during construction of the replacement lock means that the original lock could not simply be rebuilt in the new location, and it is likely that only some non-structural original materials could be reused. The present lock and cottages would be archaeologically recorded and the lock dismantled so that sound original materials could be retained for incorporation in the replacement lock if feasible, or otherwise saved for possible reuse elsewhere. The success of the mitigation would depend partly on how much of the present lock and associated features could be reused. The iron footbridge would be protected from accidental damage during construction.

6.6 Curdworth to M6 River Blythe

6.6.1 This part of the BNRR route would initially follow the widened M42 before swinging eastwards, south of Coleshill to join the M6 motorway. In this section BNRR would avoid most of the more valuable known archaeological remains, the only real exception being Coleshill Hall Walk which has already been severed twice by previous road improvements. Even here the adverse effect is considered moderate since the remaining section of the Walk would still be a valuable feature and a significant part of the setting of the Coleshill Hall moated site. Other landtake impacts would affect features of local interest. These include the ploughed out remains of ridge and furrow and old boundaries surrounding an enclosure and the remains of Hawkeswell deserted medieval and later settlement.

Curdworth to Coleshill (Drawings L05.12 to L05.14, Reference 1001, 1219, 1190, 1220, 1176)

6.6.2 A medieval moated site (1001) lies between Curdworth and the M42 at Curdworth Hall Farm. Two small, possibly insignificant clusters of prehistoric pottery were located in the surface collection survey at Curdworth (1219) and Coleshill Hall Farm (1220). The latter may relate to a nearby undated, fairly coherent cropmark complex (1012) just north of a well preserved earthwork site at Coleshill Hall Moat (1013). Two other cropmark sites lie near the route to the south (1105, 1176) and just west of near Hawkeswell Farm (1171). Coleshill Hall Moat was reached by Hall Walk (1190) one of two avenues (aligned north and east) from the moated site of Coleshill Hall where the house still stood until the late 18th century. The Walk is a well cambered metalled track with side ditches and is a well marked landscape feature and a public right of way, but is already severed by the A446(T) and the M42. Ridge-and-furrow and old field boundaries have been identified from cropmarks at several locations within the section, for example around Gilson (1207, 1214) and particularly around the site of Hawkeswell deserted settlement (1173).

Assessment of Effects and Mitigation

6.6.3 BNRR would avoid the moated site and possible manor house site at Curdworth, and fencing of the route would safeguard the site during construction.

6.6.4 The route would affect the two possible finds scatter sites. These would be further investigated by sample trenching followed by any more detailed investigation if appropriate prior to construction.

6.6.5 BNRR would result in secondary severance of Coleshill Hall Walk, which, given the previous impacts of the A38 and M42, is considered a slight adverse effect. However construction of BNRR would also increase the landtake loss due to severance by roads from 25% to 36% and result in additional visual intrusion. Both would be moderate adverse effects, as the better preserved part of the feature leading to the moated site would not be directly affected, and fencing would prevent any extra encroachment during construction. The right of way would be restored by a footbridge, allowing the Walk leading to the moated site to continue to be used

and thus reducing the impact of the severance.

6.6.6 BNRR would cut across the edge of the remains of the former field pattern west of Wheeley Moor Farm (1176) resulting in a slight landtake impact increased marginally for a balancing pond placed within one of the former fields or paddocks. The element with the greatest potential interest, an enclosure set within the old field pattern (1176), would not be affected. Some of the eastern end of the complex was lost to the M42, and there would be slight further landtake to provide screening for Wheeley Moor Farm. The overall result would be a slight adverse effect and no mitigation is proposed.

South of Coleshill (Drawings L05.14 to L05.15, Reference 1173, 1172, 1201, 1106)

6.6.7 The medieval hamlet of Hawkeswell (1173) lay south east of the present Hawkeswell Farm, and survived as part of Coleshill parish until the last century. A plan of Coleshill parish of 1783 shows 14 buildings, most of which stood in the area now occupied by the M6. One substantial building in a small group either side of a still visible hollow way (1201) was demolished for the railway. A few buildings stood south of the M6, the site of the Hall. The present Hawkeswell Farm is locally said to have replaced the original Hall when the railway was built. A winding lane (1201) connects Coleshill to Hawkeswell which is still a fine hollow way east of the present farm (though clearly deepened by water action). It turned south into the hamlet of Hawkeswell approximately where it meets the railway.

6.6.8 The trenching carried out subsequent to the publication of the Environmental Statement has shown that a sequence of medieval and post medieval ditches and a few pits and cobble spreads associated with the lane survive. The earliest material recovered dates from the 12th to 14th centuries. There is evidence of medieval domestic occupation on or near the area investigated, but no *in situ* traces of buildings were located (Oxford Archaeological Unit 1994d).

6.6.9 Hawkeswell was never an important place - it was not one of the subsidiary manors of Coleshill, and given the depredations of the railway and motorway is now a site of only local value, although clearly some deposits of interest survive.

6.6.10 Adjacent to the River Blythe BNRR crosses the line of the Whitacre and Hampton branch of the Midland Railway (1172) which was in cutting at this point. It is not more than of local interest. Amorphous linear cropmarks (1106), possibly field boundaries or an enclosure, but perhaps only geological features, lie to the east of the railway beside the river Blythe. These are unlikely to be of more than local or negligible interest.

Assessment of Effects and Mitigation

6.6.11 BNRR would merge with the M6 at Hawkeswell, the eastbound carriageway of the M6 being slewed north to cross over BNRR, rejoining it east of the River Blythe, and crossing the Hawkeswell site on embankment. The agricultural side road for Hawkeswell Farm would encroach on the cropmark 1106, and follows the line of

the former lane (1201), thereby removing the earthwork traces of the lane through the hamlet, though the more impressive part of this feature, the hollow way leading up to Hawkeswell Farm, would not be affected. Otherwise topsoil stripping prior to construction immediately north of the M6 would cause damage to surviving archaeological deposits at Hawkeswell, and all the remains of the hamlet north of the M6 would probably be lost. The evaluation trenches have suggested that the site retains a fairly complex sequence of moderately preserved features, probably dating from the 12th to 16th centuries. The site has some potential to shed light on the origin and development of this subsidiary hamlet and the impact of BNRR would be offset by further limited investigation of the site prior to construction. The extent of such investigations would be agreed in advance with English Heritage and the County Archaeologist.

6.6.12 The embankment for the eastbound lane of the M6 and the agricultural side road would fill part of the old railway cutting, a slight impact also affecting the amorphous features near the River Blythe. This is likely to be at most a slight adverse effect and no mitigation is proposed, other than a watching brief during the early stages of construction.

7. Proposed Mitigation

7.1 Site-specific Mitigation

7.1.1 The proposed mitigation measures for specific effects described in Section 6 are summarised in the following table with comments on the programming of these measures within the timetable for the project, and on whether the residual effects of the scheme after mitigation to reduce or offset its impact would be significant. The detailed scope of archaeological investigations will be agreed in advance with the relevant local authority archaeological officers and with English Heritage on the basis of full written schemes of investigation setting out research objectives and methods.

7.1.2 Further detailed consideration will be given to the programming of archaeological investigations when the detailed sequence of construction activities has been clarified. Whenever possible detailed archaeological investigations will be completed prior to the start of construction. In the case of Wall it may prove possible to stage the archaeological work so as to clear areas most immediately required for construction first, allowing some initial construction work to proceed while the archaeological investigations elsewhere are completed.

7.1.3 The construction work will allow for proper consideration and consultation over the treatment of antiquities under contractual clauses based on Institute of Civil Engineers standard models of contract as described in paragraph 1.4.11.12 of volume 2(i) of the Environmental Statement (DD5).

7.1.4 Construction work will be confined within the permanent or temporary fence lines and adherence to this will be supervised. In any cases where in the light of more detailed evidence and further consultation it is agreed that archaeological remains should be buried undisturbed, this will be carried out to a specification setting out detailed construction methods.

Site	Significance	Impact type	Proposed mitigation	Programme implications	Residual effect
Hawkins canal basin and aqueduct (1121)	Local, group = County/ Regional	Landtake	Recording through watching brief	Detailed provision for recording to be built into programme	Significant (only as part of group)
Hatherton reservoir (1122)	County, group = County/ Regional	Land take	Recording through watching brief	Detailed provision for recording to be built into programme	Significant long term effect & part of group
Gilpins basin and wharf (1226)	Local, group = County/ Regional	Landtake	Recording through watching brief	Detailed provision for recording to be built into programme	Significant (only as part of group)

Site	Significance	Impact type	Proposed mitigation	Programme implications	Residual effect
Church Bridge complex (1064)	Local	Landtake	Recording through watching brief	Detailed provision for recording and salvage of bridge parapet to be built into programme	Not significant
Enclosure/ridge and furrow, Washbrook Lane, Norton Canes (1072)	Local	Possible landtake	Recording through watching brief	Detailed provision for recording to be built into programme	Not significant
Cannock Extension Canal (1132)	Local, group = County	Severance, slight landtake	Recording through watching brief	Detailed provision for recording to be built into programme	Not significant
Norton Branch Railway (1126)	Local	Severance, slight landtake	Nil	Nil	Not significant
Cropmarks south of Chasewater (1073)	Local	Landtake	Recording through watching brief	Detailed provision for recording to be built into programme	Not significant
Chasewater Reservoir and spillways etc (1143, 1133)	Regional, group = regional	Visual and noise intrusion	4m screen mounding between BNRR and Chasewater Reservoir	Nil	Significant long term effect (part of group)
Anglesey Branch Canal (1133)	Regional, group = regional	Visual and noise intrusion	Careful detailed design of new bridge over canal, and planting as per scheme proposals	Nil	Significant long term effect (part of group)
Cannock Chase Colliery branch Railway (1118)	Local	Severance and slight landtake	Nil	Nil	Not significant
Wyrley and Essington Canal (1129)	Regional/ County	Severance and slight landtake; possible additional indirect landtake	Recording through watching brief	Detailed provision for recording to be built into programme	Directly not significant; indirectly possibly significant
Wall - Mansio and Bath House (1151, 1152)	National	Moderate to low visual intrusion	Mounding and landscape planting as per scheme proposals	Nil	Significant in short term, not in long term
Wall - west of Crane Brook: possible Roman enclosure (1052)	? County	Landtake	Full excavation within landtake	To be programmed to be complete prior to construction	Not significant (because of gains to knowledge)
Wall - west of Ashcroft Lane: Possible trackway, Field system, Occupation site, Ditches, Parchmark, Roman Road?	? County	Landtake	Stage i) geophysical survey. Stage ii) trenching and further detailed investigation or burial *in situ* as appropriate.	Full consideration to be given to possible implications, potentially including programme to allow staged release of area for construction	Potentially significant (but offset by gains to knowledge)

Site	Significance	Impact type	Proposed mitigation	Programme implications	Residual effect
Wall - east of Asheroft Lane: Possible Fort (1147)	? County	Landtake	Stage i) geophysical survey, Stage ii) trenching and further detailed investigation as appropriate	Full consideration to be given to possible implications, potentially including programme to allow staged release of area for construction	Potentially significant (but offset by gains to knowledge)
Wall - Ryknield Street (1145)	? Regional	Severance and slight landtake	Stage i) geophysical survey, Stage ii) trenching and further detailed investigation as appropriate	To be programmed to be complete prior to construction	Potentially significant (but offset by gains to knowledge)
Linear features Shenstone (1208, 1209, 1093)	Local/ County	Landtake	Stage i) and ii) investigation followed by more detailed investigation if appropriate	Full consideration to be given to possible implications, to allow time to complete essential work prior to construction	Potentially significant (but offset by gains to knowledge)
Ring Ditch (1094)	County	Landtake	Full excavation	To be programmed to be complete prior to construction	Not significant (because of gains to knowledge)
Enclosures/ linear features (1097, 1098)	Local/ County	Landtake	Recording through watching brief	Detailed provision for recording to be built into programme	Not significant
Linear cropmarks and finds (1101)	? Local	Landtake	Nil	Nil	Not significant
Linear cropmarks N of Weeford Park (1227)	? Local	Landtake	Recording through watching brief	Detailed provision for recording to be built into programme	Probably not significant
Thickbroom DMV (1022)	? County	Risk of landtake	Stage i) survey of route to check for possible presence of features; further stages if positive	Full consideration to be given to possible implications, to allow time to complete essential work prior to construction	Slight risk of significant effect
Clay pit etc., Bassets Pole (1187)	Local	Landtake	Nil	Nil	Not significant
Possible cropmark enclosures Fox Hill (1166)	Uncertain	Landtake	Stage ii) investigation followed by more detailed excavation if appropriate	To be programmed to be complete prior to construction	Probably not significant
Langley Mill (1188)	Local	Risk of landtake	Safeguarding from encroachment by contractors' plant	Nil	Not significant
Wishaw - Roman site (1188)	County	Risk of landtake	Safeguarding from encroachment by contractors' plant, recording of any outlying areas through watching brief	Nil	Not significant

Site	Significance	Impact type	Proposed mitigation	Programme implications	Residual effect
Wishaw - Prehistoric remains (1109)	? Local/ County	Possible landtake	Area of suspected potential excluded from area of mounding: recording of any deposits found in excavation of medieval remains	See below	Not significant
Wishaw - Medieval site (1002-3, 1216)	Local/ County	Landtake	Limited sample excavation	To be programmed to be complete prior to construction	Not significant (because of gains to knowledge)
Wishaw - Post medieval site (1070)	Local/ County	Landtake	Recording through watching brief	Detailed provision for recording to be built into programme	Not significant
Dunton Wharf (1119)	Regional	Landtake	Full investigation and recording of lock and lock cottages and outbuildings; salvage of sound materials and features for reuse if possible; safeguarding of iron footbridge and channel from encroachment by contractors' plant	Full investigation and recording to be programmed to be complete prior to construction, salvaging of materials to be built into construction programme	Significant long term effect
Curdworth prehistoric finds (1219)	? Local/ County	Landtake	Stage ii) investigation followed by more detailed excavation if appropriate	To be programmed to be complete prior to construction	Probably not significant (offset by gains to knowledge)
Coleshill Hall Walk (1190)	County	Additional severance, landtake and visual intrusion	Footbridge as per scheme design to reduce severance effect	Nil	Not significant
Coleshill finds scatter (1220)	? Local/ County	Landtake	Stage ii) investigation followed by more detailed excavation if appropriate	To be programmed to be complete prior to construction	Probably not significant (offset by gains to knowledge)
Hawkeswell (1173)	Local/ County	Landtake	Limited sample excavation	To be programmed to be complete prior to construction	Not significant (because of gains to knowledge)
Whiteacre and Hampton Railway (1172)	Local	Landtake	Nil	Nil	Not significant
Cropmarks N of River Blythe (1106)	? Local	Landtake	Recording through watching brief	Detailed provision for recording to be built into programme	Probably not significant

7.2 Route-wide Mitigation Strategy

7.2.1 In addition to these effects there remains some risk that further archaeological remains would be uncovered during construction, particularly where there has as yet been no access for survey, or where preliminary superficial surveys are impracticable (e.g. the difficulty of reliably detecting subsoil archaeology in grassland on the geologies concerned). This risk would be minimised and offset by the following strategy for identifying and recording such remains before and during construction.

7.2.2 A structured sampling strategy will be adopted, in which the intensity of investigation is related to a hierarchy of objectives, summarised as follows in four general stages:

i) Intensive field investigation of the route to quantify the recognised risk of further sites and areas of archaeological potential being affected.

ii) Field investigation to evaluate in detail the research potential of sites and areas of potential identified by this assessment or by stage i) above.

iii) Appropriate levels of excavation to record significant sites in sufficient detail to meet key research objectives.

iv) Watching briefs and monitoring during construction to check success of identifying significant resources by the above stages.

In some cases Stage ii) may lead to detailed specifications for methods of preserving sites *in situ*, or may show that no further work is needed, rather than leading to Stage iii). Appendix 6 provides a more detailed outline of the stages.

8. General conclusions

8.1 It is not possible to build major highways without affecting archaeological remains, and the BNRR route is no exception. The overall level of impact in terms of the density of sites affected appears likely to be similar to comparable infrastructure projects in the region, so far as can currently be judged from published information.

8.2 No Scheduled Ancient Monuments would be physically affected, though there would be some visual intrusion on that at Wall, but landscaping would lessen this effect in the long term (ref. Landscape Evidence).

8.3 The development of the route since the Public Consultation Route of 1991 has enabled a number of potentially significant Roman and prehistoric sites to be avoided, or the effects reduced, especially at Wall, and also at Shenstone and Wishaw.

8.4 The effects of the BNRR on subsoil archaeological remains would be offset satisfactorily by prior excavation and recording, or possibly in a few cases by *in situ* preservation of deposits beneath embankments. The results of excavations would be published and it is expected that there would be some valuable gains to knowledge which would do much to offset the permanent loss of *in situ* remains. Nevertheless the permanent adverse effect of the route on archaeological remains at Wall, although likely to be less serious than the Public Consultation scheme, is still likely to be significant. The character of the archaeology that would be affected is not fully apparent but in general terms is likely to represent the immediate rural surroundings of the main settlement at Wall, consisting of fields, tracks and roads and probably some discontinuous concentrations of settlement activity. Such remains are likely to contribute to an understanding of the nationally important archaeological complex at Wall rather than being a key part of it.

8.5 The permanent loss of or intrusion upon visible remains which contribute to people's understanding and enjoyment of the historic environment would be more difficult to mitigate, notably in three cases where visible remains of the region's canal infrastructure would be lost or intruded upon. The BNRR affects a small, unusually late group of canals representing a localised phenomenon of building branch canals well into the railway age. The most serious physical impacts affect derelict remnants of the Hatherton canal at Churchbridge, (new largely destroyed) which served a complex industrial area. Only one of the features, Hatherton Reservoir, has clear amenity value, but its setting lacks sufficient coherence to appreciate its original function without the aid of historic maps. The best preserved part of this late canal network that would be affected is the Chasewater and Anglesey Canal complex where there would be no physical damage, but significant noise and visual intrusion in an area where the industrial archaeology contributes to its general amenity value. The third case where the effects of the scheme would result in a significant long term effect would be at Dunton Wharf, on the somewhat

earlier Birmingham and Fazeley Canal, where a well preserved lock and lock keeper's cottage would be lost. Such groups of features make a valuable contribution to individual canals but are not nationally rare, and this example is not especially early.

8.6 Overall the residual effect of the BNRR on archaeological resources would be significant in respect of outlying areas round the Roman settlement at Wall, and of elements of the region's canal network, but otherwise would not be serious once the additional mitigation measures proposed to reduce and offset its impacts had been carried through.

The Department of Transport
Midland Expressway Ltd

Birmingham Northern Relief Road
Public Inquiry

Archaeological Report

Volume 2
APPENDICES

Oxford Archaeological Unit
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Contents of Volume 2 Appendices

APPENDIX 1

Archaeological Gazetteer

Appendix 1 BNRR ARCHAEOLOGICAL GAZETTEER

(For Abbreviations and Definitions see Appendix 2)

Ref No.	SMR No.	Grid Ref. Parish	Type Date	Sub-Type	Description
1001	43	SP18259295 CURDWORTH	EARTHWORK MED	MOAT	CURDWORTH HALL FARM MOAT THE EARTHWORKS PROBABLY ENCLOSED MANOR HOUSE (NO.1004).
1002	55	SP173 954 WISHAW	EARTHWORK MED	MOAT	WISHAW HALL FARM MOAT NOW INFILLED, PART OF EARTHWORKS ASSOCIATED WITH FISHPONDS (NO.1003).
1003	6124	SP173 954 WISHAW	EARTHWORK MED	FISHPONDS	WISHAW HALL FARM FISHPONDS NOW INFILLED & ASSOCIATED WITH MOAT (NO. 1002). ALSO MEDIEVAL POTTERY SCATTER.
1004	6227	SP18259295 CURDWORTH	SITE OF MED	HOUSE	CURDWORTH HALL FARM MANOR: POSSIBLE SITE OF MANOR HOUSE ASSOCIATED WITH MOAT (NO. 1001).
1005	6393	SP173 956 WISHAW	SURFACE SCATTER RB	SETTLEMENT	WISHAW HALL FARM EXTENSIVE SITE ASSOCIATED WITH COIN HOARD (NO. 1006).
1006	6394	SP17359550 WISHAW	FIND RB	COIN HOARD	WISHAW HALL FARM REMAINS OF COIN HOARD ASSOCIATED WITH SETTLEMENT SITE (NO. 1005).
1007	54	SP177 945 WISHAW	SITE OF MED	POSSIBLE DMV	WISHAW DMV POSS SITE OF DESERTED MEDIEVAL VILLAGE, THOUGH LITTLE ARCHAEOL EVIDENCE. ASSOCIATED WITH CHURCH OF ST. CHADS.
1008	47	SP18 92 CURDWORTH	FIND BA	AXE	BRONZE PALSTAVE UNLOOPED, WITH SHIELD PATTERN. NOT PLOTTED.
1009	4882	SP185 925 CURDWORTH	FIND RB	POTTERY	ROMANO-BRITISH POTTERY ONE SHERD OF MORTARIUM, DISCOVERED DURING CONSTRUCTION OF M42.
1010	875	SP19109075 COLESHILL	FIND RB	BROOCH	TRUMPET BROOCH PROB RELATED TO IA/RB SETTLEMENT AT GRIMSTOCK HILL (NO. 1116).
1011	4884	SP192 895 COLESHILL	EARTHWORK UD	ENCLOSURE	SMALL AREA OF EARTHWORKS D-SHAPED ENCLOSURE.

Ref No.	SMR No.	Grid Ref. Parish	Type Date	Sub-Type	Description
1012	4846	SP19078857 COLESHILL	CROPMARK UD	ENCLOSURE	ENCLOSURE 3 SIDES OF BANKED & DITCHED ENCLOSURE. POSSIBLY RELATED TO MOAT & MANOR HOUSE (NO. 1013).
1013	289	SP19048834 COLESHILL	EARTHWORK MED	MOAT	COLESHILL HALL FARM MOAT REMAINS OF MOAT, PROBABLY ON SITE OF COLESHILL HALL MANOR. COULD BE RELATED TO ENCLOSURE CROPMARKS (NO. 1012).
1014	4406	SP202 875 COLESHILL	FIND RB	COIN	HADRIANIC COIN POSSIBLY RELATED TO NO.1015.
1015	5120	SP202 875 COLESHILL	FIND RB?	POTTERY	UNIDENTIFIED POTTERY POSSIBLY AN RB POTSHERD.
1016	194	SP18159525 WISHAW	EARTHWORK MED	MOAT	MOAT AT MOXHULL OLD HALL REMAINS OF POSSIBLE FORMER MOAT. ASSOCIATED WITH MOXHULL OLD HALL (NO. 1123) AND FISHPONDS (NO. 1017).
1017	193	SP18179550 WISHAW	EARTHWORK MED	FISHPONDS	MOXHULL POOL FORMER FISHPOND MODIFIED TO FORM LAKE FOR GOLF COURSE. ASSOCIATED WITH MOXHULL OLD HALL (NO. 1123) AND MOAT (NO. 1016).
1018	57	SP16529558 WISHAW	SITE OF MED	MANOR HOUSE	GROUNDS FARM MANOR HOUSE: POSSIBLE SITE OF MED MANOR HOUSE.
1019	1720	SP15809800 MIDDLETON	EARTHWORK BA	BURNT MOUND	NEW PARK WOOD BURNT MOUND MOUND 15 X 13 M NEXT TO TRIBUTARY OF LANGLEY BROOK.
1020	3243	SP14309830 SUTT COLDF	SITE OF PM	WINDMILL	HIGH HEATH MILL WINDMILL, NOW NO TRACE.
1021	4284	SK143 013 WEEFORD	EARTHWORK MED	PARK	WEEFORD PARK PALE: PARK & WITH EARTHWORK BOUNDARY ON W & N SIDES OF MEDIEVAL PARK
1022	2083	SK130 038 WEEFORD	SITE OF MED	DMV	THICKBROOM DMV SUGGESTED APPROX LOCATION OF 'THICKBROOME' DESERTED SETTLEMENT.
1023	3664	SK129 034 WEEFORD	STRUCTURE PM	BUILDING	ICE HOUSE TO MANLEY HALL

Ref No.	SMR No.	Grid Ref. Parish	Type Date	Sub-Type	Description
1024	3623	SK134 049 WEEFORD	CROPMARK RB	ENCLOSURE	LARGE RECTANGULAR ENCLOSURE
1025	1890	SK12320524 SHENSTONE	SURFACE SCATTER RB	POTTERY	POTSHERDS LOCATED ADJACENT TO WATLING STREET.
1026	1140	SK07000650	ROAD RB	COURSE OF ROMAN ROAD	WATLING STREET ROAD FROM LONDON TO WROXETER, NOW THE A5.
1027	3943	SK11550504 SHENSTONE	FIND MUL	COIN	ROMAN COIN & 3 MED COINS FOUND BY METAL DETECTOR (MED COINS - SMR 5317).
1028	3944	SK11900517 SHENSTONE	FIND MUL	METAL ARTEFACTS	FIBULA & RING. ALSO 3 MED COINS - SMR 5318.
1029	3938	SK11350538 SHENSTONE	FIND RB	COIN	COIN FOUND BY METAL DETECTOR
1030	3942	SK11820543 SHENSTONE	SURFACE SCATTER MUL	METAL & FLINT	3 COINS & A BRONZE SEAL ALSO FLINT ?KNIFE - SMR 5315.
1031	3939	SK11750575 SHENSTONE	SURFACE SCATTER MUL	METAL ARTEFACTS	COINS & FIBULA ALSO MEDIEVAL COIN - SMR 5314.
1032	3941	SK12090576 SHENSTONE	FIND RB	BROOCH	FIBULA FOUND BY METAL DETECTOR
1033	1093	SK12230598 SWINFEN & PACK	CROPMARK BA	ROUND BARROW	OFFLOW TUMULUS SUBSTANTIAL BOWL BARROW, NOW ALMOST TOTALLY DESTROYED. SMALLER RING DITCH TO WEST.
1034	1102	SK12250616 SWINFEN & PACK	CROPMARK FINDS RB	ENCLOSURE	RECTILINEAR ENCLOSURE RB COINS ALSO LOCATED.
1035	3940	SK11800605 SHENSTONE	SURFACE SCATTER RB	METAL ARTEFACTS	3 COINS & A FIBULA
1036	1100	SK11500586 SHENSTONE	CROPMARK RB	SETTLEMENT	MULTIPLE CROPMARKS FARMSTEAD, 2 ENCLOSURES, DITCHED ROADWAY, PIT ALIGNMENT & HUT CIRCLES. FINDS OF RB POTTERY

Ref No.	SMR No.	Grid Ref. Parish	Type Date	Sub-Type	Description
1037	1822	SK110 055 SHENSTONE	FIND PRE	AXE	STONE AXE NEOLITHIC OR BRONZE AGE IN DATE.
1038	2076	SK111 054 SHENSTONE	FIND PAL	AXE	QUARTZITE HAND AXE: A WATER WORN BUNTER QUARTZITE PEBBLE, SPLIT & TRIMMED.
1039	1098	SK11060540 SHENSTONE	CROPMARK RB	ENCLOSURE	DOUBLE DITCHED ENCLOSURE ASSOCIATED WITH FIELD SYSTEM, EXTENDING TO N & E.
1040	1099	SK10640531 WALL	CROPMARK RB	ENCLOSURE	RECTANGULAR ENCLOSURE WITH PARALLEL DITCHES. POSS. SMALL FARMSTEAD.
1041	1726	SK10710615 WALL	SITE OF RB	BUILDINGS	SEVERAL STRUCTURES 1 BUILDING ON N SIDE OF WATLING STREET, & 3 ON S SIDE.
1042	3950	SK10700624 WALL	SURFACE SCATTER RB	METAL ARTEFACTS	INCLUDING 5 COINS & 1 FIBULA NEAR ROMAN BUILDING NO. 1041
1043	3953	SK10600630 WALL	FIND RB	MILESTONE	FRAGMENT OF ROMAN MILESTONE. ORIGINALLY LOCATED AT JUNCTION OF WATLING ST & RYKNEILD ST.
1044	3949	SK10500628 WALL	SURFACE SCATTER RB	METAL ARTEFACTS	AT LEAST 17 COINS & 6 FIBULAE NEAR NO.1041.
1045	3948	SK10500635 WALL	SURFACE SCATTER MUL	METAL ARTEFACTS	ROMAN & MEDIEVAL FINDS AT LEAST 8 COINS, A FIBULAE & PAIR OF TWEEZERS, ALSO MED COINS (SMR 5321).
1046	3951	SK10670647 WALL	FIND RB?	KEY	KEY FOUND BY METAL DETECTOR POSS RB KEY.
1047	3947	SK10250635 WALL	SURFACE SCATTER RB	METAL ARTEFACTS	SEVERAL COINS & 2 FIBULAE SEE NO. 1042& 1044 -1046& 1048.
1048	3952	SK09900650 WALL	SURFACE SCATTER RB	POTTERY	INCLUDES MORTARIA & SAMIAN ALSO COARSE GREY AND BLACK WARES. SCATTER EXTENDS INTO SAM.
1049	3946	SK09680649 WALL	SITE OF RB	SETTLEMENT	SEVERAL PHASES OF BUILDING DATING BETWEEN C1ST-5TH AD, DISCOVERED DURING RESCUE EXCAVATION. PART OF SAM

Ref No.	SMR No.	Grid Ref. Parish	Type Date	Sub-Type	Description
1050	3997	SK09 06 WALL	FIND RB	BROOCH	30 FIBULAE FROM WALL AREA NOT PLOTTED, ARTEFACTS RESCUED FROM ANTIQUES FAIR.
1051	2070	SK095 066 WALL	CROPMARK UD	ENCLOSURE/ TRACKWAY	CROPMARKS W OF WALL TRACKWAYS & FIELD BOUNDARIES RELATED TO N-S TRACKWAY NO. 1082.
1052	813	SK09460634 WALL	CROPMARK UD	LINEAR FEATURE	CROPMARKS W OF WALL ?FIELD BOUNDARIES INCLUDING LARGE CURVED LINEAR FEATURE. PARTLY EXTANT IN MODERN FIELD BOUNDARIES.
1053	2079	SK09 06 WALL	FIND BA	AXE	BRONZE LOOPED PALSTAVE. NOT PLOTTED.
1054	2069	SK090 066 WALL	CROPMARK RB	ENCLOSURE	POSS MARCHING CAMP MORE LIKELY SITE OF RB CEMETERY EXCAVATED 1921 & 1927.
1055	2483	SK08140557 WALL	SITE OF MED	SETTLEMENT	HILTON SMALL SETTLEMENT IN DOMESDAY BOOK, RELATED TO CROPMARKS NO. 1077.
1056	2676	SK076 066 HAMMERWICH	FIND PRE	AXE	NEO / BA FLINT AXE FOUND NEAR CRANE BROOK.
1057	1091	SK05710714 HAMMERWICH	FIND NEO	FLAKE	FLINT WASTE FLAKE
1058	2664	SK04960647 BROWNHILLS	EARTHWORK RB?	ENCLOSURE	KNAVE'S CASTLE DEFENSIVE ENCLOSURE SITUATED ON SIDE OF WATLING ST. ON SLIGHTLY RAISED GROUND, POSS. NATURAL
1059	2624	SK04860647 BROWNHILLS	SITE OF RB?	QUARRY	OCCAMSLEY PITS GRAVEL QUARRY USED BY ROMANS IN CONSTRUCTION OF WATLING ST. NOW NOT VISIBLE.
1060	2071	SK03900675 BROWNHILLS	SITE OF PM	BUILDING	WILKIN COLLIERY COLLIERY POWDER HOUSE, NOW DEMOLISHED.
1061	1087	SK01530775 NORTON CANES	CROPMARK MED	MOAT	NORTON CANES MOATED SITE RECTANGULAR IN SHAPE & LARGELY DESTROYED BY PLOUGHING.
1062	4014	SK01520765 NORTON CANES	CROPMARK UD	ENCLOSURE	POLYGONAL ENCLOSURE ALSO LINEAR FEATURE, S OF NO. 1061.

Ref No.	SMR No.	Grid Ref. Parish	Type Date	Sub-Type	Description
1063	1088	SK01220764 NORTON CANES	EARTHWORK MED	MOAT	LABURNUM FARM MOATED SITE 3 SIDES STILL SURVIVING, WATER FILLED.
1064	1086	SJ98560828 GREAT WYRLEY	SITE OF PM	BRIDGE	SITE OF C17 BRIDGE AT INTERSECTION OF WATLING ST, CANAL & RAILWAY.
1065	2559	SJ951 085 SAREDON	SITE OF MED	SETTLEMENT	GREAT SAREDON SMALL VILLAGE IN DOMESDAY BOOK.
1066	2617	SK14100040 HINTS	SITE OF PM	SETTLEMENT	CANWELL DESERTED SETTLEMENT PROBABLE SITE OF DESERTED SETTLEMENT.
1067	----	SK104 054 WALL	SURFACE SCATTER RB	METAL ARTEFACTS	CHESTERFIELD COINS & BROOCHES RECOVERED BY METAL DETECTOR.
1068	----	SP176 958 WISHAW	SITE OF MED	DMV	NOEL GRANGE DESERTED MED SETTLEMENT LOCATED FROM CARTOGRAPHIC EVIDENCE. YATES' AND GREENWOOD'S MAPS.
1069	----	SP167 950 WISHAW	EARTHWORK MED	DMV	GROVE END EARTHWORKS, CROPMARKS & POTTERY SCATTER FROM SHRUNKEN SETTLEMENT.
1070	----	SP174 955 WISHAW	SITE OF MED	SETTLEMENT	LOWER GREEN COTTAGES ON 1ST ED OS MAP; MED POT ON SE SIDE OF GREEN. POST MED POT ON NW SIDE.
1071	----	SP174 955 WISHAW	SURFACE SCATTER PRE	FLINT	LOWER GREEN INDICATION OF PREHISTORIC ACTIVITY FROM FLINT ARTEFACTS.
1072	----	SK007 078 NORTON CANES	CROPMARK UD	ENCLOSURE	NORTON HALL FARM ENCLOSURE & DROVEWAY; TRACES OF RIDGE AND FURROW IN FIELD TO N.
1073	----	SK040 068 BROWNHILLS	CROPMARK UD	TRACKWAY	DOUBLE-DITCHED LINEAR FEATURE RUNNING NW-SE BETWEEN RACEWAY & AMUSEMENT PARK.
1074	----	SK041 066 BROWNHILLS	CROPMARK UD	ENCLOSURE	BROWNHILLS WEST POLICE OFFICE PART OF POSS. ENCLOSURE AND LINEAR FEATURE

Ref No.	SMR No.	Grid Ref. Parish	Type Date	Sub-Type	Description
1075	----	SK073 066 HAMMERWICH	CROPMARK UD	LINEAR FEATURE	CRANE BROOK HOUSE POSS. LINEAR FEATURE RUNNING N FROM WATLING STREET. POLYGONAL? FEATURE TO S MAY BE AGRICULTURAL.
1076	----	SK087 066 WALL	CROPMARK UD	ENCLOSURE	MOAT BANK HOUSE POLYGONAL ENCLOSURE & LINEAR FEATURE, POSS. AGRICULTURAL.
1077	----	SK086 055 WALL	CROPMARK UD	TRACKWAY	EAST OF HILTON TRACKWAY & FIELD BOUNDARIES. POSS RELATED TO NO. 1055.
1078	2070	SK09 06 WALL	CROPMARK UD	COMPLEX	LARGE COMPLEX W OF WALL INCLUDES TRACKWAYS/DROVEWAYS ?PITS & OLD FIELD BOUNDARIES. SEE ALSO ENCLOSURES NO. 1054 & 1079.
1079	2070	SK093 067 WALL	CROPMARK RB?	ENCLOSURE	CROPMARK COMPLEX W OF WALL RECTANGULAR ENCLOSURE WITHIN COMPLEX 1078. RELATED TO TRACKWAY RUNNING N FROM WATLING STREET ON E SIDE.
1080	----	SK088 064 WALL	CROPMARK UD	MOAT?	WALL LANE FARM 'MOAT' SMALL RECTANGULAR CROPMARK, WITH POSS. LINEAR FEATURES TO S & E.
1081	----	SK094 061 WALL	CROPMARK UD	LINEAR FEATURE	POSS. FIELD BOUNDARY RUNNING APPROX N-S.
1082	----	SK096 064 WALL	CROPMARK UD	TRACKWAY	CROPMARKS W OF WALL N-S TRACKWAY & E-W FIELD BOUNDARIES SW OF WALL, METALLING OBSERVED 1965. N-S TRACKWAY RELATED TO NO. 1051.
1083	----	SK098 067 WALL	CROPMARK UD	FIELD BOUNDARIES	OLD FIELD BOUNDARIES? ORIENTATED NE-SW & NW-SE.
1084	----	SK099 064 WALL	CROPMARK UD	LINEAR FEATURES	CROPMARKS S OF WALL LINEAR NW-SE FEATURE; OLD FIELD BOUNDARIES?; 2 SIDES OF POSS RECT. ENCLOSURE. POSS DITCH ON LINE OF ?ROAD WITH DITCH AT RIGHT ANGLES.
1085	----	SK101 067 WALL	CROPMARK RB	POST-HOLE ALIGNMENT	POST-HOLE FEATURE IN WALL MASSIVE RECTANGULAR STRUCTURE C.25 X 50M NW OF MANOR FARM. WITHIN SAM

Ref No.	SMR No.	Grid Ref. Parish	Type Date	Sub-Type	Description
1086	----	SK098 066 WALL	CROPMARK RB	LINEAR FEATURE	CROPMARK WITHIN WALL LINEAR FEATURE RUNNING NE-SW WITH CURVE AT NE END. WITHIN SAM.
1087	32	SK101 065 WALL	CROPMARK RB	FORT	FORT S OF WALL SOUTHERN DITCHES OF TRIVALLATE FORT. PART OF SAM.
1088	----	SK10120635 WALL	SITE OF RB	ROAD	EVIDENCE OF ROAD PARALLEL TO ASHCROFT LANE. SEE ALSO NO. 1148.
1089	----	SK099 059 WALL	CROPMARK UD	RING-DITCHES?	POSS RING-DITCHES 3 CROPMARK RINGS OF VARYING SIZE IN A LINE JUST W OF CHESTERFIELD. MAY BE FUNGUS RINGS.
1090	----	SK105 064 WALL	CROPMARK UD	LINEAR FEATURES	LINEAR CROPMARKS LINEAR FEATURES IN NW CORNER OF WATLING ST & RYKNEILD ST. PERPENDICULAR TO BOTH ROADS.
1091	31-4	SK098 066 WALL	SCHEDULED MONUMENT RB		LETOCETUM SCHEDULED ANCIENT MONUMENT. THE ROMAN TOWN OF WALL, INCLUDING MANSIO, BATH HOUSE, AT LEAST 2 FORTS
1092	----	SK109 053 SHENSTONE	CROPMARK BA?	RING-DITCH	PART OF COMPLEX 1039 RING-DITCH WITH CENTRAL BURIAL.
1093	1098	SK112 055 SHENSTONE	CROPMARK RB	TRACKWAY	DOUBLE-DITCHED LINEAR FEATURE ORIENTATED N-S. PART OF CROPMARK COMPLEX NO. 1039.
1094	----	SK113 056 SHENSTONE	CROPMARK PRE	HENGE/RING-DITCH	POSS HENGIFORM ENCLOSURE OR RING-DITCH.
1095	1098	SK113 053 SHENSTONE	CROPMARK UD	ENCLOSURE	ENCLOSURE E OF OAU 1039. PART OF COMPLEX NO. 1098.
1096	1098	SK113 053 SHENSTONE	CROPMARK UD	FIELD BOUNDARIES	FIELD BOUNDARIES PROBABLY NOT CONTEMPORARY WITH NO. 1095.
1097	1098	SK113 053 SHENSTONE	CROPMARK UD	TRACKWAY	DOUBLE-DITCHED LINEAR FEATURE ORIENTATED NE-SW. TO E OF NO. 1039.
1098	1098	SK113 053 SHENSTONE	CROPMARK PRE	ENCLOSURE?	SMALL TRAPEZOIDAL ENCLOSURE? POSS LONG BARROW? JUST E OF NO. 1095.

Ref No.	SMR No.	Grid Ref. Parish	Type Date	Sub-Type	Description
1099	----	SK118 055 SHENSTONE	CROPMARK UD	COMPLEX	CROPMARK COMPLEX S CORNER OF RECT ENCLOSURE/FIELD SYSTEM. SEE ALSO NO. 1166.
1100	----	SK120 050 SHENSTONE	CROPMARK UD	ENCLOSURE	CORNER OF RECT ?ENCLOSURE ALSO LINEAR FEATURE
1101	----	SK121 051 SHENSTONE	CROPMARK UD	ENCLOSURE?	CURVING LINEAR FEATURE ASSOCIATED INTERNAL FEATURES? MAY BE PART OF NO 1100.
1102	----	SK126 050 SHENSTONE	CROPMARK UD	ENCLOSURES	STREETWAY FARM SMALL RECTANGULAR ENCLOSURES ADJOINING WATLING STREET.
1103	----	SK129 051 WEEFORD	CROPMARK UD	ENCLOSURE	SUB-RECTANGULAR ENCLOSURE POSSIBLE INTERNAL FEATURES VISIBLE.
1104	2065	SK13930439 WEEFORD	CROPMARK RB	ENCLOSURE	DOUBLE-DITCHED ENCLOSURE AND PIT ALIGNMENT.
1105	----	SP191 871 COLESHILL	CROPMARK UD	ENCLOSURE	COLESHILL HALL FARM SMALL RECTANGULAR ENCLOSURE & POSSIBLE HOUSE PLATFORMS. JUST S OF FARM.
1106	----	SP217 867 COLESHILL	CROPMARK UD	ENCLOSURES	HAWKESWELL FARM TRACES OF SUB-RECTANGULAR ENCLOSURES PART OF MED/POST MED SETTLEMENT. RIDGE & FURROW IN AREA.
1107	----	SP165 955 WISHAW	SURFACE SCATTER MUL	ARTEFACTS	GROUNDS FARM SMALL SCATTER OF WORKED FLINT; SMALL QUANTITY OF R-B POTTERY.
1108	----	SP165 956 WISHAW	SURFACE SCATTER RB	COINS	GROUNDS FARM SCATTERED COIN HOARD FOUND BY METAL DETECTOR. SEE ALSO NO. 1107.
1109	----	SP174 954 WISHAW	SURFACE SCATTER PRE	BURNT FLINT	WISHAW HALL FARM POSSIBLE BURNT MOUND; SEE ALSO NO 1071.
1110	----	SK097 063 WALL	SURFACE SCATTER RB	POTTERY	WALL BYPASS EVIDENCE OF ROMAN OCCUPATION & OF A ROAD RUNNING SW.

Ref No.	SMR No.	Grid Ref. Parish	Type Date	Sub-Type	Description
1111	----	SK100 006 WALL	SITE OF RB?	WELL/PIT	WALL BYPASS PIT, POST-HOLE & STONE-LINED WELL DISCOVERED IN 1965.
1112	----	SK101 064 WALL	SITE OF RB?	OCCUPATION	WALL BYPASS DITCH AND BEAM SLOTS SUGGESTING BUILDING.
1113	----	SK099 062 WALL	SURFACE SCATTER RB	METAL ARTEFACTS	SOUTH OF WALL COINS & FIBULAE FOUND BY METAL DETECTOR.
1114	1107	SK11380494 SHENSTONE	SITE OF MED	WATERMILL	SHENSTONE MILL SHOWN ON MAP OF DOMESDAY MILLS. NOW BUILT OVER BY POST MED MILL.
1115	49	SP17859280 CURDWORTH	SITE OF PM	BUILDINGS	HOUSE & BARN BRICK HOUSE AND BARN, NOW DEMOLISHED.
1116	5130	SP19409065 COLESHILL	SITE OF IA	SETTLEMENT	GRIMSTOCK HILL IRON AGE SETTLEMENT & ROMAN TEMPLE, EXCAVATED IN 1979-81.
1117	418	SP21978610 LITTLE PACK'TON	EARTHWORK MED	MOAT	MOAT HOUSE FARM NW HALF OF MOAT REMAINS, 50M WIDE.
1118	----	SK04320754 BROWNHILLS	RAILWAY PM	DISUSED	CANNOCK CHASE COLLIERY
1119	4396	SP18559382 CURDWORTH	CANAL FEATURE PM	WHARF	DUNTON WHARF ON BIRMINGHAM & FAZELEY CANAL (NO. 1175) LOCK, COTTAGES & BRIDGE.
1120	52	SP18639183 CURDWORTH	SITE OF PM	BRIDGE	CURDWORTH BRIDGE: WOODEN PREDECESSOR OF ROAD BRIDGE OVER RIVER THAME.
1121	----	SJ97540812 CHESLYN HAY	CANAL FEATURE PM	SITE OF	HAWKINS BASIN & AQUEDUCT COMPLEX; FACILITATED BARGE LOADING FOR THE STAFFS & WORCS CANAL.
1122	----	SJ97800806 CHESLYN HAY	CANAL FEATURE PM	RESERVOIR	HATHERTON RESERVOIR BUILT AS A FEEDER TO THE STAFFS & WORCS CANAL.
1123	192	SP18159525 WISHAW	SITE OF MED	HOUSE	MOXHULL OLD HALL RELATED TO MOAT (NO. 1016) & FISHPONDS (NO. 1017). NOW PART OF THE BELFRY COMPLEX.

Ref No.	SMR No.	Grid Ref. Parish	Type Date	Sub-Type	Description
1124	56	SP17609575 WISHAW	BUILDING PM	INN	NOEL GRANGE ?PART OF SHRUNKEN MED SETTLEMENT (NO. 1068).
1125	3242	SP14909730 SUTT COLDF	SITE OF PM	WINDMILL	LANGLEY MILL C17TH.
1126	----	SK02870700 NORTON CANES	RAILWAY PM	DISUSED	NORTON BRANCH EXTENSION BRANCH OF LONDON & NORTH WESTERN RAILWAY.
1127	1105	SK13430364 WEEFORD	SITE OF PM	BRIDGE	SITE OF WOODEN FOOTBRIDGE REPLACED 1700-50 BY SINGLE SPAN STONE BRIDGE.
1128	----	SK02880764 BROWNHILLS	RAILWAY PM	FORMER BRANCH R'WAY	WALSALL WOOD BRANCH EXTENSION MIDLAND RAILWAY. NOW CHASEWATER AND DISTRICT LIGHT RAILWAY.
1129	2221	SK06650627 HAMMERWICH	CANAL PM	DISUSED CANAL	OGLEY HAY BRANCH WYRLEY & ESSINGTON CANAL
1130	3148	SK05650669 HAMMERWICH	RAILWAY FEATURE PM	POND	ANGLESEY SIDINGS POST-MED RAILWAY FEATURE & DEW POND FOR STEAM ENGINES.
1131	1618	SK05250643 BROWNHILLS	CANAL FEATURE PM	AQUEDUCT	ANGLESEY BRANCH AQUEDUCT CAST IRON & BRICK AQUEDUCT. ALSO LISTED GRADE II.
1132	2225	SK02000640 NORTON CANES	CANAL PM	DISUSED CANAL	CANNOCK EXTENSION CANAL
1133	2221	SK04660700 BROWNHILLS	CANAL PM	EXTANT CANAL	ANGLESEY BRANCH CANAL & WHARF PART OF THE WYRLEY AND ESSINGTON CANAL.
1134	2710	SJ94660877 HATHERTON	BUILDING PM	MILL	SAREDON MILL POSSIBLE EARLIER BRICK BUILDING HEIGHTENED TO FORM 3 STOREY DWELLING.
1135	2210	SJ95100907 HATHERTON	CANAL PM	DISUSED CANAL	COURSE OF HATHERTON BRANCH OF STAFFORDSHIRE & WORCESTERSHIRE CANAL.
1136	1110	SK13460202 WEEFORD	RUIN PM	WINDMILL	BRICK WINDMILL, NO ROOF

Ref No.	SMR No.	Grid Ref. Parish	Type Date	Sub-Type	Description
1137	4395	SP17649306 CURDWORTH	CANAL FEATURE PM	WHARF	CURDWORTH WHARF
1138	4394	SP17809320 CURDWORTH	CANAL FEATURE PM	TUNNEL	CURDWORTH TUNNEL
1139	1089	SK04280795 BURNTWOOD	FIND NEO	KNIFE	FLINT KNIFE
1140	3683	SP18 89 COLESHILL	SITE OF MED	DEER PARK	COLESHILL PARK RECORDED IN 1496.
1141	4561	SP14809710 SUTT COLDF	WOODLAND		OSIER BED SEMI-NATURAL ANCIENT WOODLAND OF 5HA.
1142	4560	SP13909810 SUTT COLDF	WOODLAND		WHEATMOOR WOOD SEMI-NATURAL ANCIENT WOODLAND OF 2HA.
1143	2693	SK035 075 BROWNHILLS	CANAL FEATURE PM	RESERVOIR	CHASEWATER RESERVOIR 260 ACRES; CONTAINED BY A HIGH DAM SURMOUNTED BY A HEXAGONAL BRICK VALVE HOUSE. CONSTRUCTED C1800.
1144	----	SK10800610 WALL	SURFACE SCATTER RB	MILLSTONES	MILLSTONES FOUND DURING A5 IMPROVEMENTS 1965. ALSO FROM S.STAFFS SURVEY. NMR 10NW14
1145	----	SK10590612 WALL	ROAD RB	1COURSE OF ROMAN ROAD	COURSE OF RYKNEILD STREET BRANCHED FROM FOSSE WAY TO YORKSHIRE. METALLING C. 8M WIDE & DITCHES OBSERVED IN 1965.
1146	----	SK10580615 WALL	SITE OF RB	BUILDING	TRACES OF STRUCTURES. BEAM SLOTS, POST HOLES & FLOOR SURFACES, & POTTERY. RESCUE EXCAVATION 1965.
1147	----	SK102 061 WALL	SITE OF RB	FORT?	SUGGESTED SITE OF PUTATIVE LEGIONARY POSSIBLY INDICATED BY S & W BOUNDARY OF FIELD 2512, ON COURSE OF OLD FARM TRACK.
1148	----	SK10190645 WALL	SITE OF RB	OCCUPATION	EVIDENCE OF OCCUPATION; TIMBER SLOTS & STONE FOUNDATIONS LOCATED IN 1962-4. SEE ALSO NO. 1088.

Ref No.	SMR No.	Grid Ref. Parish	Type Date	Sub-Type	Description
1149	1726	SK10800614 WALL	SITE OF RB	OCCUPATION	OCCUPATION ACTIVITY & BUILDING OBSERVED IN 1963-4.
1150	----	SK10940605 WALL	SITE OF RB	BUILDINGS / DITCHES	TIMBER SLOTS & DITCHES OBSERVED IN ROAD WORKS IN 1965.
1151	33	SK09820061 WALL	SITE OF RB	MANSIO	REMAINS OF MANSIO SEPARATED FROM BATH HOUSE BY A ROAD & PUBLIC SQUARE. PART OF SAM.
1152	33	SK09430630 WALL	SITE OF RB	BATH HOUSE	REMAINS OF BATH HOUSE SEPARATED FROM MANSIO BY A ROAD & PUBLIC SQUARE. PART OF SAM.
1153	31	SK100 067 WALL	SITE OF RB	FORT	FLAVIAN FORT PARTIALLY EXCAVATED IN 1959, 1967-72. PART OF SAM.
1154	----	SK10000672 WALL	SITE OF RB	BUILDING	TIMBER SLOTS PROBABLE BARRACK BLOCK WITHIN FLAVIAN FORT (OAU 1153). PART OF SAM.
1155	----	SK09930682 WALL	SITE OF RB	ROAD?	POSSIBLE ROAD METALLED SURFACE OBSERVED IN 1914.
1156	----	SK09730675 WALL	SITE OF RB	ROAD?	POSSIBLE ROAD PARCHMARK SW OF STREAM ON APPROX NE-SW ALIGNMENT.
1157	----	SK09700637 WALL	CROPMARK UD	DITCH	DOUBLE DITCHED BOUNDARY/ TRACK ALSO METALLED SURFACE ADJACENT TO OCCUPATION DEPOSITS S OF WALL. NE-SW ALIGNMENT MAY LINE TO CROPMARK COMPLEX IN NO. 1084.
1158	----	SK09480605 WALL	CROPMARK UD	DITCHES	PARALLEL DITCHES WIDELY SPACED ON NNW-SSE ALIGNMENT. MAY BE CONTINUATION OF SIMILAR FEATURE TO NW (NO. 1052).
1159	----	SK09150636 WALL	CROPMARKS UD	ENCLOSURES	SMALL ENCLOSURES SOMEWHAT AMORPHOUS CROPMARKS EAST OF NO. 1080.
1160	----	SK09350648 WALL	SITE OF RB	CEMETERY	9 CREMATIONS OBSERVED IN ROAD WORKS IN 1965.

Ref No.	SMR No.	Grid Ref. Parish	Type Date	Sub-Type	Description
1161	----	SK10030655 WALL	SITE OF RB	BUILDINGS	TIMBER SLOTS, TRENCHES,FLOORS INDICATE A BUILDING WITHIN OR PREDATING NO. 1087. PART OF SAM.
1162	----	SK07400645 HAMMERWICH	CROPMARK UD	?ENCLOSURE	THREE SIDED FEATURE ADJACENT TO WATLING STREET.
1163	----	SK10840603 WALL	CROPMARK UD		E - SHAPED FEATURE
1164	----	SK138 012 WEEFORD	SURFACE SCATTER MES	FLINT	CORE & FLAKES
1165	----	SK140 007 WEEFORD	SURFACE SCATTER MES	FLINT	CORE, SCRAPER, BLADE & FLAKE
1166	----	SP14129908 SUTT COLDF	CROPMARK UD		LINEAR FEATURES & ENCLOSURES PARCH MARKS ARE VERY UNCLEAR, BUT POSSIBLY PREHISTORIC IF GENUINE.
1167	4782	SP18409500 WISHAW	ROAD PM		TURNPIKE ROAD
1168	----	SP18169256 CURDWORTH	EARTHWORK UD		EARTHWORK OF UNCERTAIN FORM RECORDED IN NAR, SP 19SE21.
1169	----	SP18 89 COLESHILL	LINEAR FEATURE MED	PARK PALE	COLESHILL PARK BOUNDARY RECORDED IN NAR, SP 18NE4.
1170	281	SP19778912 COLESHILL	SITE OF PM	WINDMILL	NOW BUILT OVER BUILT BEFORE 1783.
1171	----	SP20748725 COLESHILL	CROPMARK UD	BUILDING	BUILDING WITHIN RIDGE & FURROW
1172	----	SP21608700 COLESHILL	RAILWAY PM	DISUSED	WHITACRE & HAMPTON BRANCH MIDLAND RAILWAY CLOSED IN 1917. RECORDED IN NAR, SP 28NW20.
1173	----	SP21528650 COLESHILL	CROPMARK UD	SETTLEMENT	HAWKESWELL SETTLEMENT CROPMARKS INDICATE OCCUPATION AS RECORDED ON 1783 MAP.

Ref No.	SMR No.	Grid Ref. Parish	Type Date	Sub-Type	Description
1174	----	SP21568640 LITTLE PACK,TON	CROPMARKS UD		?FIELD BOUNDARIES PROB. ASSOCI. WITH VILLAGE OF HAWKESWELL.
1175	----	SP18769400 CURDWORTH	CANAL PM		BIRMINGHAM & FAZELEY CANAL
1176	----	SP18508777 COLESHILL	CROPMARK UD		FIELD BOUNDARIES & ENCLOSURES
1177	----	SK10200612 WALL	SURFACE SCATTER RB	METAL ARTEFACTS	SPREAD INDICATING OCCUPATION.
1178	----	SK09800622 WALL	CROPMARK UD	DITCH	SHORT LENGTH OF N-S DITCH EAST OF NO. 1110.
1179	----	SK095 062 WALL	WETLAND	PEAT DEPOSITS	AREA OF WETLAND,SUSPECTED PEAT DEPOSITS EITHER SIDE OF STREAM SW OF WALL. IDENTIFIED FROM SOIL SURVEY REVIEWED BY NW WETLANDS PROJECT.
1180	----	SK00900702 NORTON CANES	CROPMARKS UD	BOUNDARIES	OLD FIELD BOUNDARIES?
1181	----	SJ98380818 CHESLYN HAY	STRUCTURE PM	CHANNEL	BRICK LINED CHANNEL OVERFLOW FOR WASH BROOK.
1182	----	SP14919929 HINTS	STRUCTURE MOD	SIGNPOST	BASSETTS POLE 1930S REPLACEMENT OF THE MEDIEVAL ORIGINAL BOUNDARY MARKER.
1183	----	SK144 014 WEEFORD	FIND NEO	FLINT	CORE & FLAKE
1184	----	SP176 946 WISHAW	FIND NEO	FLINT	SCRAPER
1185	----	SP175 957 WISHAW	FIND MES	FLINT	BLADE
1186	----	SK04340738 HAMMERWICH	CROPMARKS UD		RIDGE AND FURROW.
1187	----	SP13809943 SUTT COLDF	EARTHWORK PM	CLAY PIT	ON 1ST ED. OS MAP.

Ref No.	SMR No.	Grid Ref. Parish	Type Date	Sub-Type	Description
1188	----	SP15429684 SUTT COLDF	SITE OF PM	MILL & POOLS	LANGLEY WATERMILL RECORDED ON 1ST EDN OS MAPS. ALSO EXTANT MILL POOLS & SITES OF ASSOCIATED BUILDING(S)
1189	----	SP18479400 CURDWORTH	SITE OF PM	HOUSE	DUNTON HOUSE TRACES OF BRICK WORK & GARDEN VISIBLE.
1190	----	SP19428812 COLESHILL	LINEAR FEATURE MED		COLESHILL HALL WALK PRESERVED AS A BRIDLE WAY. WAS AVENUE WHICH LED TO COLESHILL HALL.
1191	----	SP14529920 HINTS	CROPMARKS UD		RIDGE & FURROW.
1192	----	SK08110681 HAMMERWICH	CROPMARK UD	?ENCLOSURE	POSSIBLE ENCLOSURE.
1193	----	SK09830676 WALL	SITE OF RB	DITCH	PUNIC DITCH, DISCOVERED IN EXCAVATION OF PART OF SAM.
1194	----	SK09580595 WALL	FIND RB	COIN	SESTERTIUS, C1/2ND
1195	----	SK12250528 SHENSTONE	SITE OF RB	OCCUPATION	C2/3RD POTTERY SPREAD. POTTERY FOUND DURING ROAD WIDENING IN 1957. SPREADS TO SK12400520. IN NAR, SK 10NW9.
1196	----	SK12150540 SHENSTONE	SITE OF RB	OCCUPATION	C2/3RD POTTERY IN PIT & FLOOR POTTERY FOUND WHEN PIPE TRENCH WAS CUT. SPREAD TO SK 12300520. IN NAR, SK 10NW9.
1197	----	SP17219562 WISHAW	FIND RB	BROOCH	
1198	----	SP17329572 WISHAW	FIND MED	COIN	
1199	----	SP17579522 WISHAW	FIND RB	COIN	
1200	----	SK02030703 NORTON CANES	LINEAR FEATURE PM	TRACK	HISTORIC TRACK ON 1ST ED OS. FROM BROWNHILLS TO NORTON CANES.
1201	----	SP21608675 COLESHILL	LINEAR FEATURE PM	TRACK	SUNKEN LANE TO HAWKESWELL VILLAGE. RECORDED ON C18TH MAP.

Ref No.	SMR No.	Grid Ref. Parish	Type Date	Sub-Type	Description
1202	----	SP153 976 MIDDLETON	CROPMARK PM	BOUNDARIES	OLD FIELD BOUNDARIES.
1203	----	SK06320632 HAMMERWICH	CROPMARK PM	BOUNDARIES	OLD FIELD BOUNDARIES. IDENTIFIED ON HISTORIC MAPS & APS.
1204	----	SP13909954 SUTT COLDF	CROPMARK PM	RIDGE & FURROW	RIDGE & FURROW. IDENTIFIED ON APS.
1205	----	SP155 964 WISHAW	CROPMARK PM	RIDGE & FURROW	RIDGE & FURROW. IDENTIFIED ON APS.
1206	----	SP187 898 COLESHILL	CROPMARK PM		L-SHAPED CROPMARK. POSSIBLY A FIELD BOUNDARY REMNANT.
1207	----	SP18829048 COLESHILL	CROPMARK PM		RIDGE & FURROW & FIELD BOUNDARIES.
1208	----	SK11150570 SHENSTONE	CROPMARK UD	BOUNDARIES	OLD FIELD BOUNDARIES. IDENTIFIED ON APS & HISTORIC MAPS.
1209	----	SK10980574 SHENSTONE	CROPMARK UD	LINEAR FEATURE	DOUBLE DITCHED FEATURE. POSS ROAD OR BOUNDARY.
1210	----	SK10900534 SHENSTONE	CROPMARK UD	BOUNDARIES	PROB. FIELD BOUNDARIES. IDENTIFIED FROM APS.
1211	----	SK11870548 SHENSTONE	CROPMARK UD		SEMI-CIRCULAR FEATURE. POSSIBLE BRONZE AGE RING DITCH, CUT BY ROAD.
1212	1100	SK11740602 SHENSTONE	CROPMARK RB?		LINEAR PIT ALIGNMENT. POSS ASSOC WITH FEATURES TO THE WEST.
1213	----	SP185 925 CURDWORTH	CROPMARK UD		RIDGE & FURROW.
1214	----	SP19058970 COLESHILL	CROPMARK UD		RIDGE & FURROW, & FIELD BOUNDARIES.
1215	----	SP171951 WISHAW	SURFACE SCATTER MED		SURFACE SCATTER OF MED POT SSW OF WISHAW HALL FARM. POSS. ASSOC. WITH MED MANOR (1002) AND SETTLEMENT (1216).

Ref No.	SMR No.	Grid Ref. Parish	Type Date	Sub-Type	Description
1216	----	SP174952 WISHAW	SITE OF MED	SETTLEMENT	POSS. MED SETTLEMENT ADJACENT TO MOATED SITE (1002) AND FISHPONDS (1003).
1217	----	SP173957 WISHAW	FINDS RB/MED	BROOCH AND COIN	RB BROOCH AND MED COIN FOUND BY METAL DETECTOR W OF NOEL GRANGE
1218	----	SP175956 WISHAW	SURFACE SCATTER MED		SCATTER OF MED POT FOUND BY M HODDER BESIDE A446(T) SW OF NOEL GRANGE. POSS. PART OF MED SETTLEMENT.
1219	----	SP185929 CURDWORTH	SURFACE SCATTER		SLIGHT SCATTER OF PREHISTORIC WORKED FLINT POT AND RB POT E OF CURDWORTH MOAT
1220	----	SP193884 COLESHILL	SURFACE SCATTER PRE/RB		SMALL SCATTER OF PREHIST FLINTS AND RB POT 200m FROM CROPMARK SITE (1012).
1221-1225	4534-4539	SJ9507	SPURIOUS CROPMARKS		CROPMARKS ORIGINALLY NOTED AS POSSIBLE ENCLOSURES BUT MISIDENTIFIED: NON-ANTIQUITIES
1226	----	SJ98500820 BRIDGTOWN	BASIN/WHARF PM		GILPINS BASIN AND WHARF ON HATHERTON CANAL
1227	----	SK133041 WEEFORD	CROPMARK UD		LINEAR CROPMARKS NORTH OF WEEFORD PARK: POSS. OLD FIELD BOUNDARIES.
1228	----	SJ97800825 BRIDGTOWN	SITE OF PM		WALK MILL POST MED FLOUR MILL IN EXISTENCE BY 1775.
1229	----	SJ98100820 BRIDGTOWN	SITE OF PM		MILL LEAT ASSOC. WITH WALK MILL.
1230	----	SJ98400830 GREAT WYRLEY	RAILWAY STRUCTURES PM		RAILWAY BRIDGES AND ACCOMMODATION BRIDGES OVER WASHBROOK AND HATHERTON CANAL.

APPENDIX 2

Glossary of Archaeological Abbreviations and Terms

Appendix 2 Glossary of Archaeological Abbreviations and Terms

APS	Air Photographs	Used as means of discovering archaeological remains from differential crop growth, soil markings etc.
	Artefacts	Man-made objects.
	Assarting	The process of incremental clearance and inclosure of forest or wate to create fields.
BA	Bronze Age	c. 2,000 to c. 650 BC.
	Barrow	Prehistoric or more rarely Saxon burial mound (cf Ring Ditch).
	Blade	Long narrow flint flake (qv) used for cutting.
	Burnt Mound	Bronze Age mound or scatter of fire fractured stones indicating a cooking place or other activity involving heating water.
	Core	Discarded flint nodule from which flakes (qv) and blades (qv) have been struck to make tools.
DMV	Deserted Medieval Village	A medieval village or hamlet which has been deserted (not necessarily during the middle ages).
	Double Ditched	Two parallel ditches often detectable from cropmarks (qv) indicating a boundary, track or road depending on spacing and relationship to other features.
	Earthworks	Archaeological remains visible in the form of banks, mounds, hollows etc.
	Enclosure	Area of land surrounded by a ditch (or other boundary) used for settlement, corralling animals etc.
	Fibula	Brooch of safety pin form.
	Finds	Man-made objects of pottery, stone metal, etc. May occur in groups as surface scatters or spreads (qv).

	Fishpond	Pond designed to stock fish, often formed by damming stream, usually medieval or post medieval.
	Flake	Piece of flint struck off a core (qv) which may be discarded, used for cutting or turned into a tool of specific form.
	Flavian	Of the time of the Emperor Flavian, late 1st century AD.
	Hadrianic	Of the time of the Emperor Hadrian, early-mid 2nd century AD.
	Henge/ Hengiform	A prehistoric, usually Neolithic circular or oval ditched ceremonial or funerary enclosure, with one or two (opposing) entrances, of varying size, normally originally with external bank.
	Hollow Way	A sunken track created by erosion caused by traffic and water erosion of unmettalled surfaces.
	House Platform	A flattened area of ground formed to provide a level site for a habitation.
	Hut Circle	A small circular or oval enclosure, often with an entrance, representing the site of a late prehistoric or Roman house or hut site. Usually known only from cropmarks (qv) in lowland Britain.
IA	Iron Age	c. 650 BC to 43 AD.
	Ice House	A sunken, usually circular domed building of the 18th and 19th centuries AD used for storing ice collected during the winter for use through the rest of the year.
	Long Barrow	A long burial mound of earlier Neolithic date (c. 4,500 to 3,500 BC).
	Lynchet	A bank or 'step' in the ground profile caused by differential soil erosion and accumulation either side of a field boundary as a result of ploughing.

	Mansio	Official staging post and inn located on Roman major roads at regular intervals.
	Marching Camp	Temporary Roman military encampment.
MED	Medieval	c. 1066 AD to c. 1500 AD.
MES	Mesolithic; Middle Stone Age	c. 8,000 to 4,500 BC.
	Metalling	Gravel or stone foundation and surfacing of a road.
	Mill Leat	A channel to divert water to or from a water mill.
	Moat	Wide ditch, originally and sometimes still water-filled, surrounding two or more sides of an enclosed area, often but not always the site of a high status house or farm. Usually medieval or early post medieval date.
MOD	Modern	c. 1900 AD to present.
	Mortarium	Roman pottery bowl internally encrusted with grits to assist grinding and mixing foods.
MUL	Multi-period	Applied to sites and scatters of finds consisting of elements of more than one period.
NAR	National Archaeological Record	A computerised national record of archaeological remains based on original records of the Ordnance Survey, now administered by the Royal Commission on the Historical Monuments of England.
NEO	Neolithic; New Stone Age	c. 4,500 to 2,500 BC.
	Occupation	Archaeological evidence of domestic activity of a rather ill-defined character.
OS	Ordnance Survey	
PAL	Palaeolithic; Old Stone Age	c. 450,000 to 8,000 BC
	Palstave	Form of middle Bronze Age bronze axe.

	Pannage	Rights of woodland grazing.
	Parchmark	Differential parching of grass revealing subsoil ditches, pits, walls, road surface etc.
	Pit alignment	Type of prehistoric or Roman boundary formed by a row of pits.
PM	Post-medieval	(Also Post-med). c. 1500 to 1900 AD.
	Post-hole	Soil-filled hole in the ground left by the removal of a post, usually revealed by excavation, but sometimes detectable from air photography.
PRE	Prehistoric	c. 450,000 BC to 43 AD; in practice refers to features most likely to date after c. 2,500 BC.
	Punic Ditch	Roman military ditch of asymmetrical profile.
RB	Romano-British	c. 43 to 415 AD.
RCHME		Royal Commission on the Historical Monuments of England
R&F	Ridge and Furrow	Characteristic medieval and early post-medieval form of cultivation forming broad ridges and furrows, creating a corrugated appearance to fields. A number of ridges and furrows, often reverse S-shaped in plan, formed strips within the fields. May be ploughed out by later cultivation but still detectable by air photography.
	Ring ditch	Circular ditch, usually discovered by air photography (qv) of cropmarks (qv). Typically the ploughed out remains of a Bronze Age barrow (qv) but may also be a henge or hut circle (qv).
SAM	Scheduled Ancient Monument	Designated archaeological site, structure or building protected under the 1979 Ancient Monuments and Archaeological Areas Act, and subject to a consent procedure for any damaging works.

	Samian	A type of fine Roman pottery with a lustrous red surface imported from the continent in the late 1st and 2nd centuries AD.
	Scraper	Flint stool used for scraping hides, bone, wood etc.
	Sestertius	Type of Roman coin.
	Site	An area containing or expected to contain archaeological remains based on evidence of documents, air photography, surveys, earthworks, excavations, etc.
SMR	Sites and Monuments Record	Index or database record, maps, photographs and other papers forming a county-based record of archaeological and historical features. Often originally based on OS records like the NAR (qv) SMRs tend to contain a larger amount of local information.
	Sondage	A trial-pit excavated to make a preliminary assessment of ground conditions.
	Spread; Surface Scatter	A concentration of finds in a small or over a large area.
	Timber slot	A soil-filled slot in the ground revealed by excavation indicating the position of a timber sleeper or wall plate used to support a building.
	Trackway	Linear feature often revealed by cropmarks (qv) of two parallel ditches suitably spaced to allow access for animals and carts etc.
	Trivallate	Form of Roman military fort defended by a triple line of ditches and banks.
UD	Undated	
	Wetland	Area of low-lying ground where extensive peat and/or alluvium are known or suspected, in which valuable archaeological deposits sedimentary sequences and organic remains providing evidence of the past environment are likely to be preserved.

APPENDIX 3

Archaeological Surface Collection Survey

Appendix 3 Archaeological Surface Collection Survey

A3.1 Background

A3.1.1 A surface collection survey of available areas of arable land along the proposed route of the Birmingham Northern Relief Road was undertaken by the Oxford Archaeological Unit in October and November 1992 and in January 1994. The survey is part of a staged programme of archaeological investigations aimed at mitigating the likely impact of the construction and operation of the proposed orbital motorway upon the cultural heritage.

A3.1.2 The survey area comprised the land-take of the proposed road and services, together with adjacent areas to be affected by landscaping and groundworks related to their construction. The route corridor examined runs approximately from Great Saredon in South Staffordshire to Maxstoke in North Warwickshire.

A3.1.3 Surface collection survey (or 'fieldwalking') is an established archaeological technique used to identify unknown sites, to define areas of archaeological potential, and to interpret past patterns of human settlement and activity. The evidence, in the form of artefacts visible on the bare surface of cultivated soil is much conditioned by factors such as the intensity of past activity, the depth of soil accumulation, and the history of subsequent land use.

A3.2 Methodology

Field Recording

A3.2.1 The methodology used for the surface collection survey took the form of a systematic linear transect sampling strategy designed to cover all arable areas that would be affected by land take for the BNRR. The collection was made in standard 20 m units transects 20 m apart. This sampling method was agreed in advance with English Heritage, the County Councils of Staffordshire and Warwickshire, and the West Midlands Joint Planning and Transportation Data Team as being appropriate.

A3.2.2 The survey was based on a basic corridor about 80 m wide. However, allowing for proposed cuttings, embankments, interchanges, slip roads and subsidiary works (such as balancing ponds), larger areas, up to 300 m wide in many cases, were examined.

A3.2.3 The transects to be walked were pre-determined on base maps of the BNRR proposals at a scale of 1:2500, (March 1992 Preferred Route; Drawing Nos. R41 CEH 01-29; Revs. B & C).

A3.2.4 In the field the start and finish points of each transect were measured in, normally with reference to field boundaries, and the transect was walked, with 20 m units along each transect being measured cumulatively using a fixed length of rope.

A3.2.5 Standard field recording forms were used to record each transect. The following information was logged:

Field number
Transect (identified alphabetically)
Soil description
Topography
State of crop
Weather/light conditions
Degree of weathering of soil
Collection unit
Presence or absence of finds
Notes on finds not collected
Recorder and date

Collection policy

A3.2.6 Guidelines were devised and agreed with the County Archaeological Officers on which categories of artefacts should be collected. In order to keep the quantity of material within manageable proportions, finds which were clearly post-Medieval in date (principally stoneware pottery, porcelain, 'frogged' brick, clay pipe, bottle glass and land drain fragments) were not collected, but noted as present on the field record forms. Samples of brick and tile fragments were kept even when they were thought likely to be of post-Medieval date since these materials are frequently not closely datable from superficial inspection. All other finds of flint, pottery, glass, bone, burnt stone, slag, shell, and metal objects were collected. Obviously 20th century objects (eg. plastics, gun cartridges, batteries) were ignored.

A3.2.7 There was not, therefore, a policy of total recovery of material. The practical application of such policies in the past has indicated that the collection of modern material is wasteful of time and resources with no gain in relevant information. However, there was an assumption to err on the side of caution and recover objects of uncertain date.

A3.2.8 Information was stored and manipulated on a dBaseIV database, and selected finds plotted using the EasyCAD 2 graphics program. The distribution of the most indicative types of material collected (worked flint, and prehistoric, Roman and Medieval pottery) is shown in Figures 2 to 17 of this appendix. These also show land parcel numbers referred to in the text.

A3.3 Conditions

Access

A3.3.1 Of the total of 31 property owners or tenants who were approached for access to their land in 1992, 24 gave access and 7 refused. In 1993 access was gained to a

few further areas where crop rotations brought land into favourable condition for survey. The latter included some land at Wall, Shenstone and Weeford.

A3.3.2 The total arable area walked was 200.1 ha. This represents about 13.4 km of the length of the route (ie. about 33% of the total length). The remaining land take was not surveyable either due to refusal of access, or because of non-arable land use.

Geology

A3.3.3 The route crosses a range of topography running from the South Staffordshire Plateau in the north-west, down through the Shenstone Basin, and on to the lower Tame and Blythe valleys in the south-east. Broadly, the underlying geology consists mainly of marls and shales of the Coal Measures in the north-west, a range of sandstones and pebble beds in the central section, and Mercian Mudstones in the south-east. There are also extensive gravel terraces in the south-east, particularly in the Coleshill area (Cole Valley) and in the Tame Valley as far as Wishaw. Drift Boulder Clay covers some areas, more especially the region between Chasewater and Bridgtown, large areas of which were not considered suitable for field survey in any case because of disturbance by mining and modern development. Elsewhere Boulder Clay is patchy. There are small areas of floodplain alluvium in the valleys of the rivers Blythe and Tame, but these are not extensive and were generally covered by pasture.

A3.3.4 Despite this variety, the geology does not give rise to extreme variations in topography or soil conditions. The relief generally consists of undulating hills and broad valleys. Altitude ranges from 76m AOD (the floodplain of the Tame) to 160m AOD (near Weeford Park), with a general altitude around 100-130m AOD.

Soils

A3.3.5 Soils were generally light and sandy, but slightly heavier over the Mercian mudstones. Pebbles were frequent on most of the land. The tendency of the sandy soils to weather rapidly meant that the conditions for field observation and collection were generally good and all categories of finds easily seen. The exception to this would have been spreads of burnt pebbles which might have been expected on sites of ploughed-out prehistoric burnt mounds. In the event, none were found and the only abnormally pebbly concentrations were interpreted as natural outcrops. There is no naturally occurring flint in the region and flint artefacts, which can sometimes be difficult to distinguish from natural flints, were consequently highly visible when they occurred.

Crops

A3.3.6 The field survey was conducted when crops were generally absent, or only just showing through. In some cases the crop growth in a single land unit was variable resulting in an inconsistent visibility of the ground surface. Occasionally, vegetable detritus remaining after the potato or beet harvest obscured the ground to some

degree, but even in these cases 70-80% of the land surface was often still visible. Seven land parcels were walked in poor conditions where surface visibility was 50-70%.

Summary of field conditions

A3.3.7 Combining the data collected on soil and crop conditions it is possible to broadly classify the survey conditions for each land parcel as 'good', 'fair' or 'poor'.

i) Good: soil well or moderately well weathered, crop not through or just through, surface visibility in excess of 85%.

ii) Fair: crop conditions variable, or fair-poor weathering of soil; soil sometimes compacted by farm machinery.

iii) Poor: ploughed but with poor weathering and poor surface visibility; unploughed with stubble.

A3.3.8 The number of land parcels attributable to the three categories of survey condition was as follows:

Condition	*No. of land parcels*
Good	54
Fair	8
Poor	7
Total	69

A3.4 Results

Finds

The Flintwork

A3.4.1 A small collection of 25 worked flints (including three post-medieval gun flints) was recovered. The collection comprises 18 unretouched flakes (7 complete, 8 broken and 3 burnt) and 7 retouched pieces.

A3.4.2 The flint exhibits fairly good flaking properties. It is generally dark brown in colour although there are occasional orange and grey pieces. The flint is lightly corticated. Cortex where present is thin and brown in colour. A derived source may be envisaged.

A3.4.3 Eight of the unretouched flakes exhibited Neolithic characteristics, narrow butts, diffuse bulbs of percussion and previous blade scars (Holgate 1988). However, in the absence of diagnostically earlier tool types, the dating of this material to the

Neolithic period should be treated with caution.

A3.4.4 The prehistoric retouched component consisted of two end scrapers, one thumbnail scraper, one small step flaked scraper. The scrapers are typically Bronze Age, ranging from early (the thumbnail and one end scraper) to late (the step flaked example). Three post-Medieval gun flints were also recovered.

A3.4.5 In conclusion the flint seems to represent mainly Bronze Age activity, but the possibility of earlier activity cannot be ruled out. More recent activity is attested by the three gun flints recovered.

The Pottery

Prehistoric pottery

A3.4.6 A single sherd of pottery with a shelly fabric, which is likely to be of prehistoric date, was recovered from Land Parcel 15 (Fig. 12).

Roman pottery

A3.4.7 A total of 26 sherds of Roman pottery were identified. This is a small quantity and its distribution is not widespread. The majority of sherds comprised very worn oxidised and reduced sandy wares. A stoneware burnished sherd was recorded in Land Parcel 30 and a fine colour coated rouletted beaker sherd from Land Parcel 39 (Fig. 12).

Medieval pottery

A3.4.8 A total of 69 sherds of Medieval pottery were identified. The majority of the pottery appeared to be non-diagnostic sandy fabric types and limestone tempered wares dating from the 12th to 14th centuries. Late Medieval Surrey white wares and Coarse Border wares were recorded in Land Parcel 30 (Fig. 12) giving a 14th/15th century date for some of the material. A handled cooking pot from the same area is probably earlier. A strap handle to a pitcher of probable 13th century date was found in Land Parcel 52 (Fig 7). Late Medieval reduced ware types were recovered from Land Parcels 43 and 104 (Figs. 11 and 2).

Finds Distribution

General

A3.4.9 Overall, the surface collection survey showed a low density of archaeologically significant finds. The more significant ones - knapped flints, Roman pottery, and Medieval pottery - have been plotted (Figs. 2 to 17). More than half the land parcels walked (35 out of 69) yielded no significant finds at all, and most of the remainder only the occasional artefact. However, a few scatters of possible

archaeological interest have been identified, and these are discussed below.

A3.4.10 It can be noted that, while the size of symbols on Figures 2 to 17 is calculated according to the statistical significance of the individual finds, the low density of finds from this survey made statistically significant concentrations difficult to define. In consideration of this, some concentrations of finds have been judged to be of possible significance despite having little statistical weight attached to them.

Knapped flint

A3.4.11 A total of 22 knapped flints of prehistoric date were recovered. Four of these were tools and the rest probably waste flakes. This is a very small collection in view of the extent of the survey area, and it is unlikely that any important sites were located. However, given that the absence of 'background scatters' of knapped flint is the norm in this area, it is possible that even small scatters could be of some significance. Attention can be drawn to three small concentrations of artefacts which might be related to occupation nearby.

i) Rye Farm (Land Parcels 22 & 23 - Figs. 12 and 13). Three of the four flint tools recovered in the survey were found in this area but were widely scattered.

ii) Wishaw Hall Farm (Land Parcels 30 & 38 - Fig. 12). A small scattered group of flints here might be related to an identified possible prehistoric site on the eastern side of the farm (M A Hodder 1988).

iii) Area north-east of Coleshill Hall Farm (Land Parcel 5 - Fig. 15). Four flints were recovered from the southern part of this field representing a very small but relatively tight cluster of objects.

Prehistoric pottery

A3.4.12 A single sherd of probable prehistoric pottery was recovered at Curdworth from Land Parcel 15 (Fig. 14). The significance of this stray find is unclear.

Roman pottery

A3.4.13 A total of 26 sherds of Roman pottery were recovered. The density of pottery was low and each scatter can probably be attributed to manuring rather than reflecting a focus of settlement.

A3.4.14 Three sherds from Land Parcel 116 (Fig. 6) are close to the Roman settlement at Wall. The absence of pottery from Parcel 116 is perhaps surprising but might be due to poor field conditions or soil wash burying Roman levels at the bottom of the slope (this is partly borne out by the evaluation trenches described in Appendix 6).

A3.4.15 Six sherds from Wishaw Hall Farm (Land Parcels 30 & 38 - Fig. 12) are close to

a known area of Roman settlement. Further sherds were noted from Land Parcel 38, but were not collected as they lay outside the survey zone.

A3.4.15 Four sherds from Rye Farm (Land Parcels 23 and 24 - Figs. 12) possibly relate to an unlocated settlement in the vicinity.

Medieval pottery

A3.4.16 Medieval pottery formed the largest category of archaeologically significant finds. Three particular concentrations can be noted:

i) Wishaw Hall Farm (Fig. 12). Relatively dense concentrations of sherds from Land Parcel 30 and the bottom of Land Parcel 38 are probably related to the known moated site and fishponds (M A Hodder 1988), but suggest occupation extending to the south and northwest of the present farmhouse.

ii) Rye Farm (Figs. 12 and 13). A light scatter of sherds in Land Parcels 22, 23 and 24 is probably a manuring scatter, and might be related to the fields of the putative deserted Medieval village of Wishaw.

iii) Area north of Shenstone (Fig. 7). There was a widespread distribution of sherds across Land Parcels 53 and 54 whose significance is difficult to assess. The scatter is diffuse and is probably associated with manuring in the Medieval period.

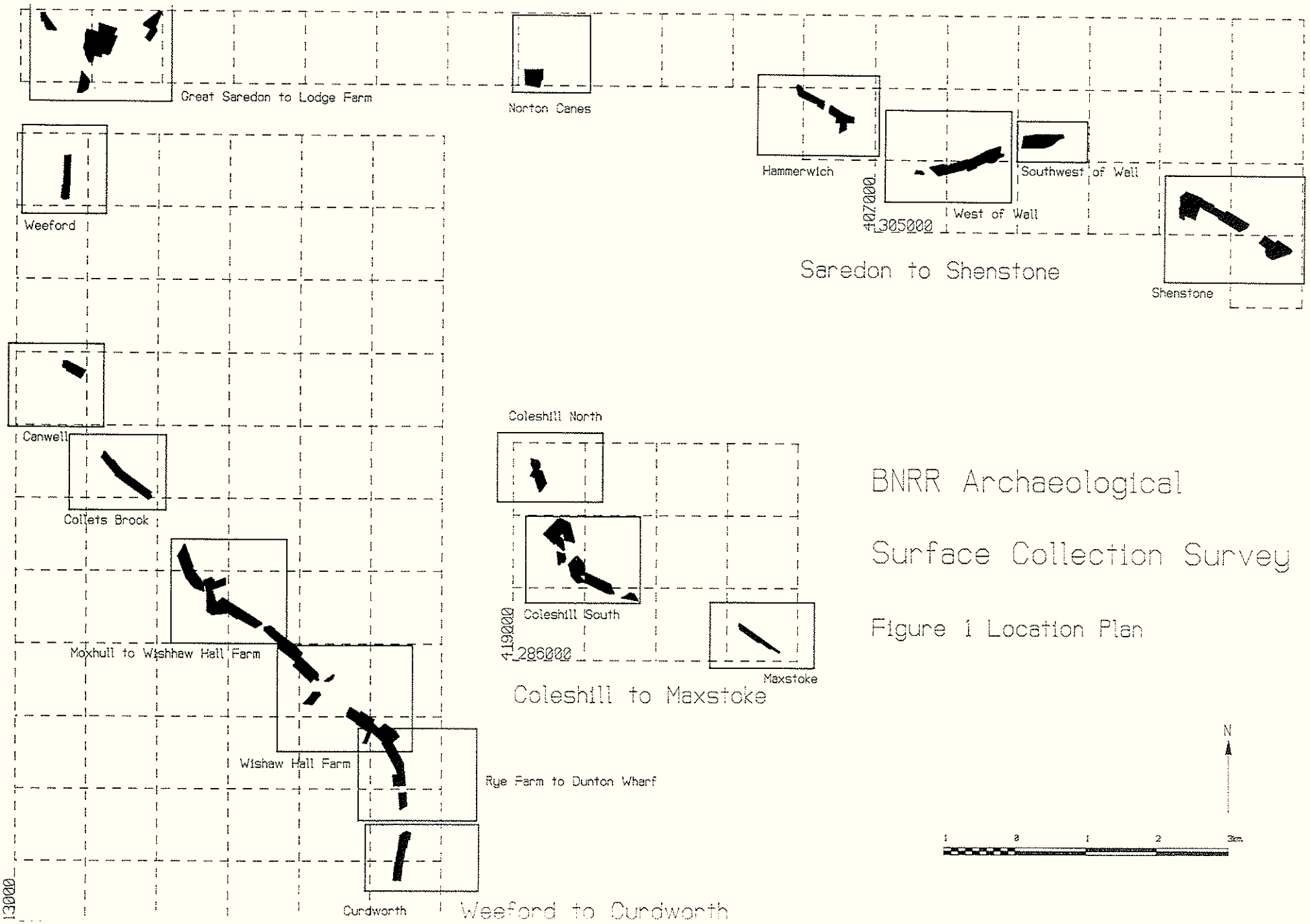
A3.5 Conclusions

A3.5.1 No definite new sites of obvious archaeological significance were found as a result of the surface collection survey. The density of artefacts was, on the whole, very light. Only the relatively dense concentration of pottery around Wishaw Hall Farm (Fig. 12) suggests a site of some interest, and that the Medieval occupation here might be more extensive than hitherto thought, but trial trenching of this area did not suggest good preservation of subsoil remains (see Appendix 8). Elsewhere, small concentrations of Medieval and Roman pottery probably reflect patterns of discard peripheral to actual occupation sites. The very low concentrations of prehistoric flintwork may similarly reflect low level activity peripheral to main areas of settlement, but this is less clear.

A3.6 Bibliography

Hodder, M. A. 1988, *The Development of some aspects of settlement and land use in Sutton Chase*, PhD Thesis, University of Birmingham.

Holgate, R. 1988, *Neolithic Settlement of the Thames Basin*, British Archaeological Reports 194.


Great Saredon to Lodge Farm
Norton Canes
Hammerwich
Southwest of Wall
West of Wall
407000
305000
Saredon to Shenstone
Shenstone
Weeford
Canwell
Collets Brook
Moxhull to Wishhaw Hall Farm
Wishaw Hall Farm
Rye Farm to Dunton Wharf
Curdworth
313000
Weeford to Curdworth
Coleshill North
Coleshill South
419000
286000
Maxstoke
Coleshill to Maxstoke
BNRR Archaeological
Surface Collection Survey
Figure 1 Location Plan
N
1
0
1
2
3km

BNRR Archaeological Collection Survey

Figure 2 Great Saredon to Lodge Farm

BNRR Archaeological Collection Survey

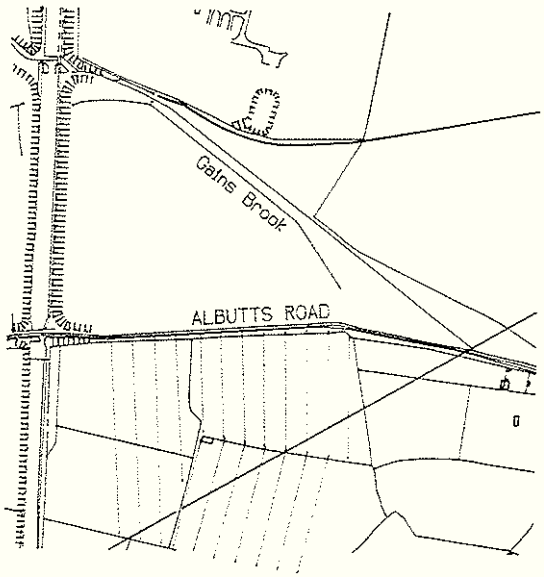


Figure 3 Norton Canes

- Worked Flint 1 Piece
- Prehistoric Pottery 1 Sherd
- Roman Pottery 1 Sherd
- Roman Pottery 2 Sherds
- Transects Surveyed
- Medieval Pottery 1 Sherd
- Medieval Pottery 2 Sherds
- Medieval Pottery 3 Sherds
- Medieval Pottery 4-5 Sherds

N

100 0 100 200 320m

BNRR Archaeological Collection Survey

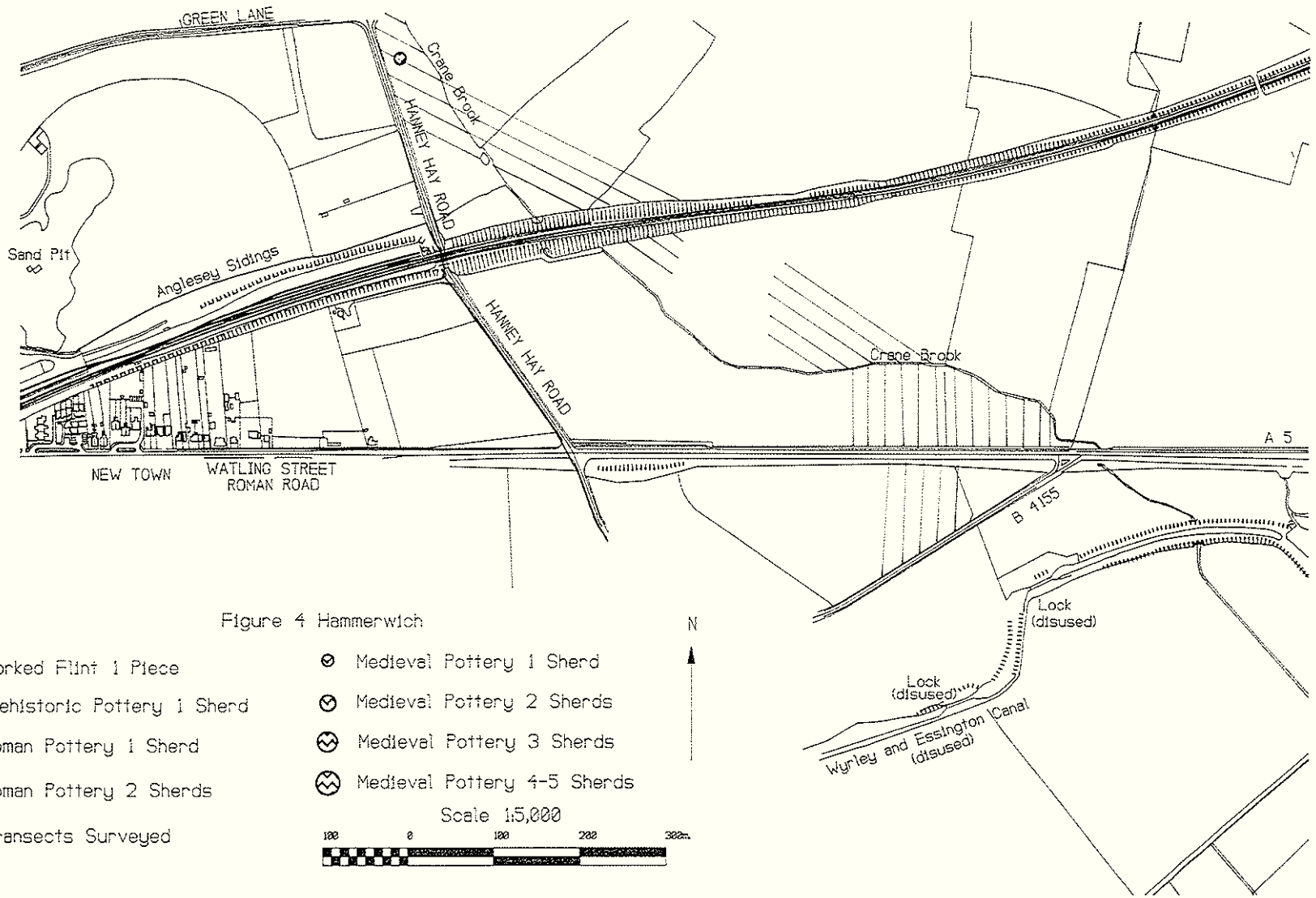


Figure 4 Hammerwich

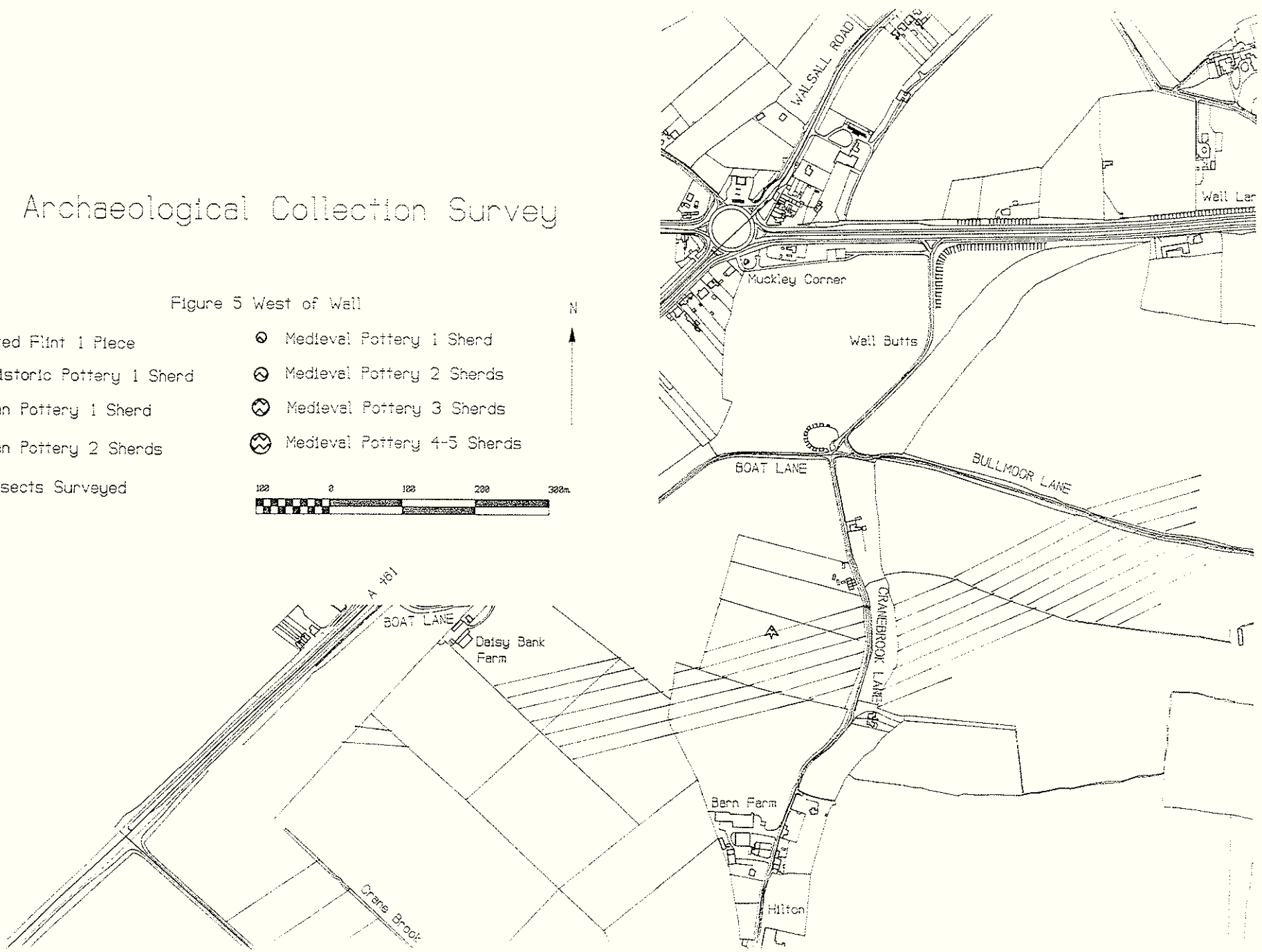
BNRR Archaeological Collection Survey

Figure 5 West of Wall

- Worked Flint 1 Piece
- Prehistoric Pottery 1 Sherd
- Roman Pottery 1 Sherd
- Roman Pottery 2 Sherds
- Transects Surveyed
- Medieval Pottery 1 Sherd
- Medieval Pottery 2 Sherds
- Medieval Pottery 3 Sherds
- Medieval Pottery 4-5 Sherds

N

122 0 122 200 300m

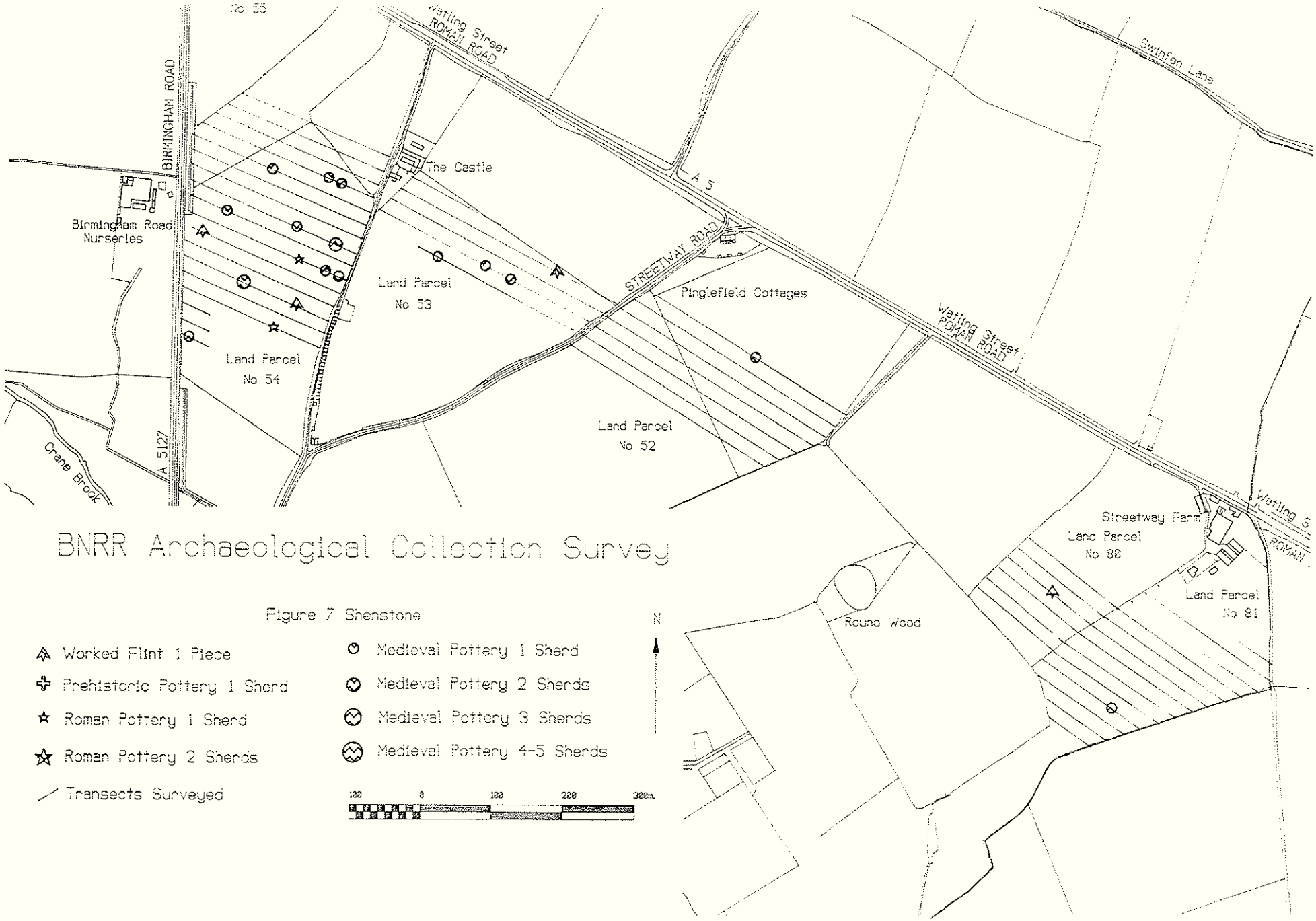


BNRR Archaeological Collection Survey

Figure 6 Southwest of Wall

N

- Worked Flint 1 Piece
- Prehistoric Pottery 1 Sherd
- Roman Pottery 1 Sherd
- Roman Pottery 2 Sherds
- Transects Surveyed
- Medieval Pottery 1 Sherd
- Medieval Pottery 2 Sherds
- Medieval Pottery 3 Sherds
- Medieval Pottery 4-5 Sherds



BNRR Archaeological Collection Survey

Figure 7 Shenstone

- Worked Flint 1 Piece
- Prehistoric Pottery 1 Sherd
- Roman Pottery 1 Sherd
- Roman Pottery 2 Sherds
- Transects Surveyed
- Medieval Pottery 1 Sherd
- Medieval Pottery 2 Sherds
- Medieval Pottery 3 Sherds
- Medieval Pottery 4-5 Sherds

Figure 8 Weeford

BNRR Archaeological Collection Survey

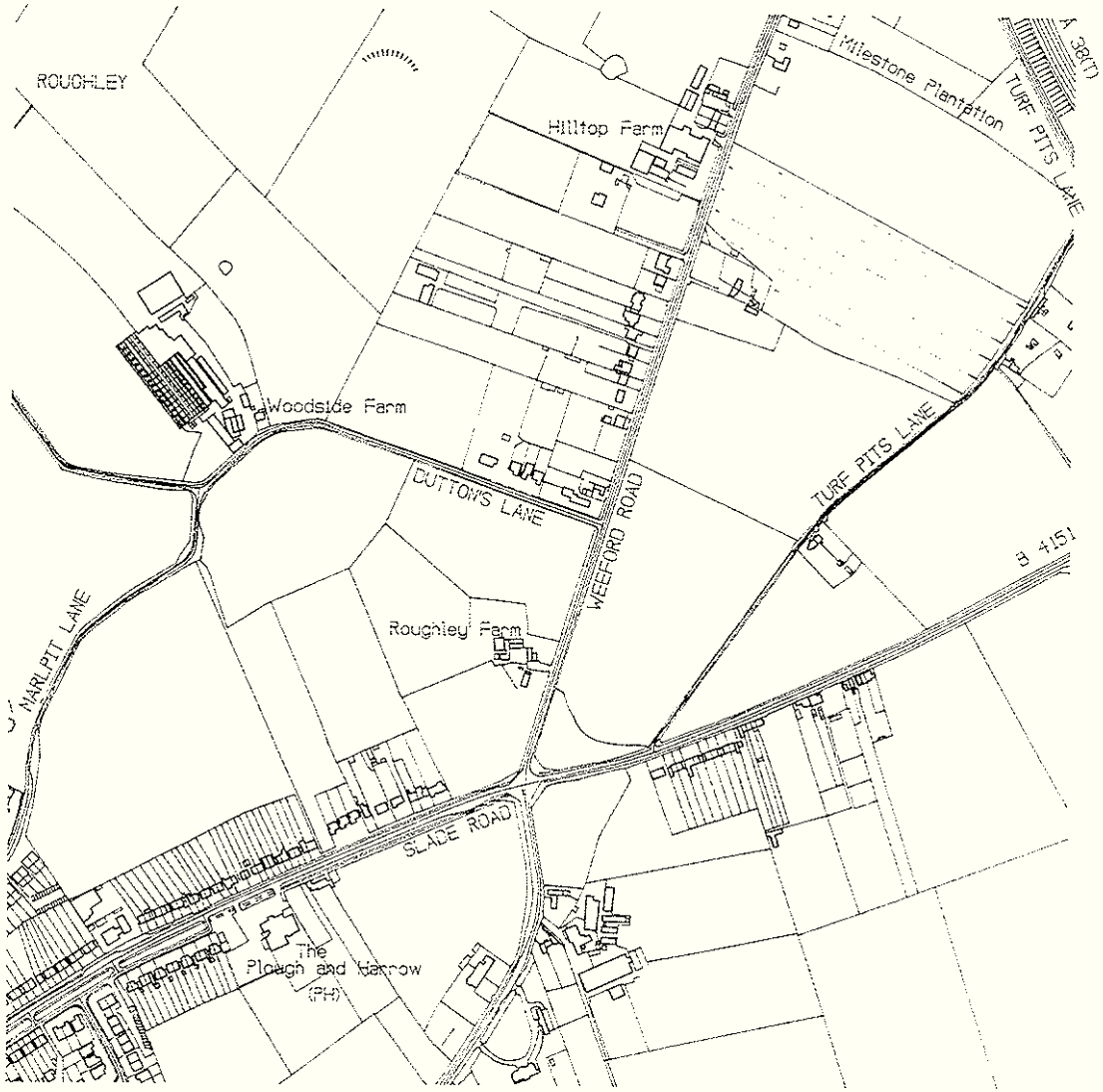


Figure 9 Canwell

- Worked Flint 1 Piece
- Prehistoric Pottery 1 Sherd
- Roman Pottery 1 Sherd
- Roman Pottery 2 Sherds
- Transects Surveyed
- Medieval Pottery 1 Sherd
- Medieval Pottery 2 Sherds
- Medieval Pottery 3 Sherds
- Medieval Pottery 4-5 Sherds

N

100 0 100 200 300m.

BNRR Archaeological Collection Survey

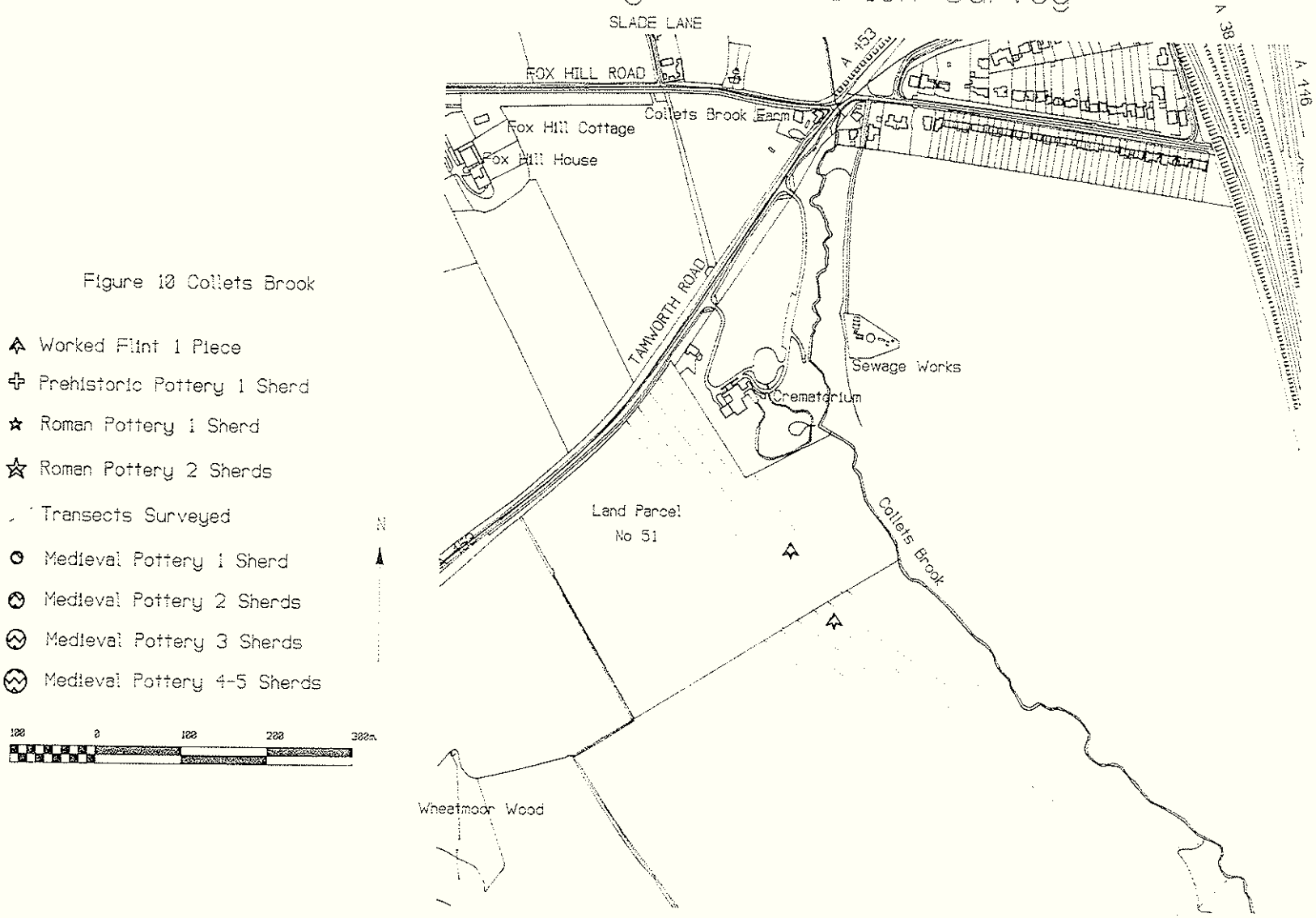
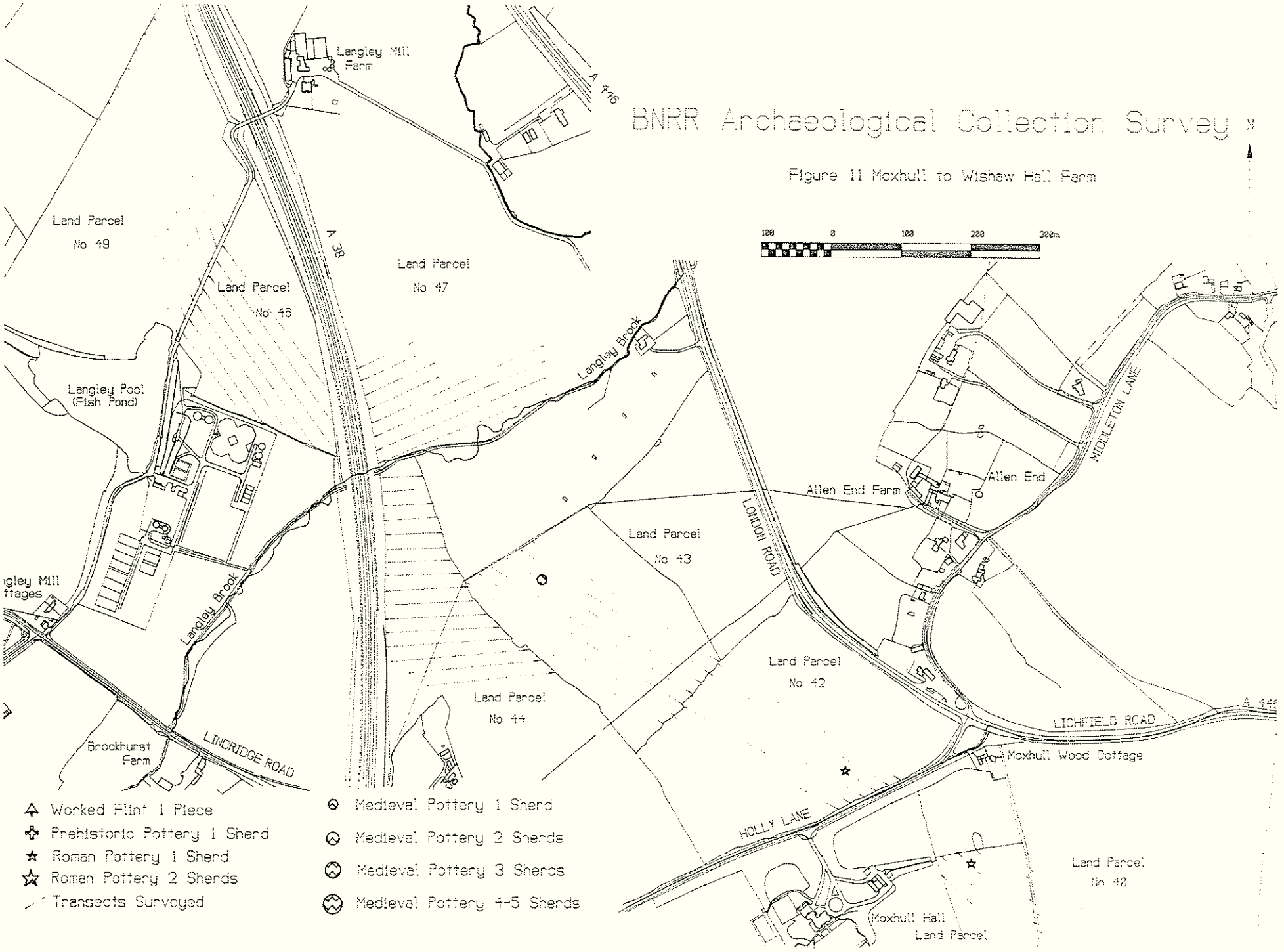
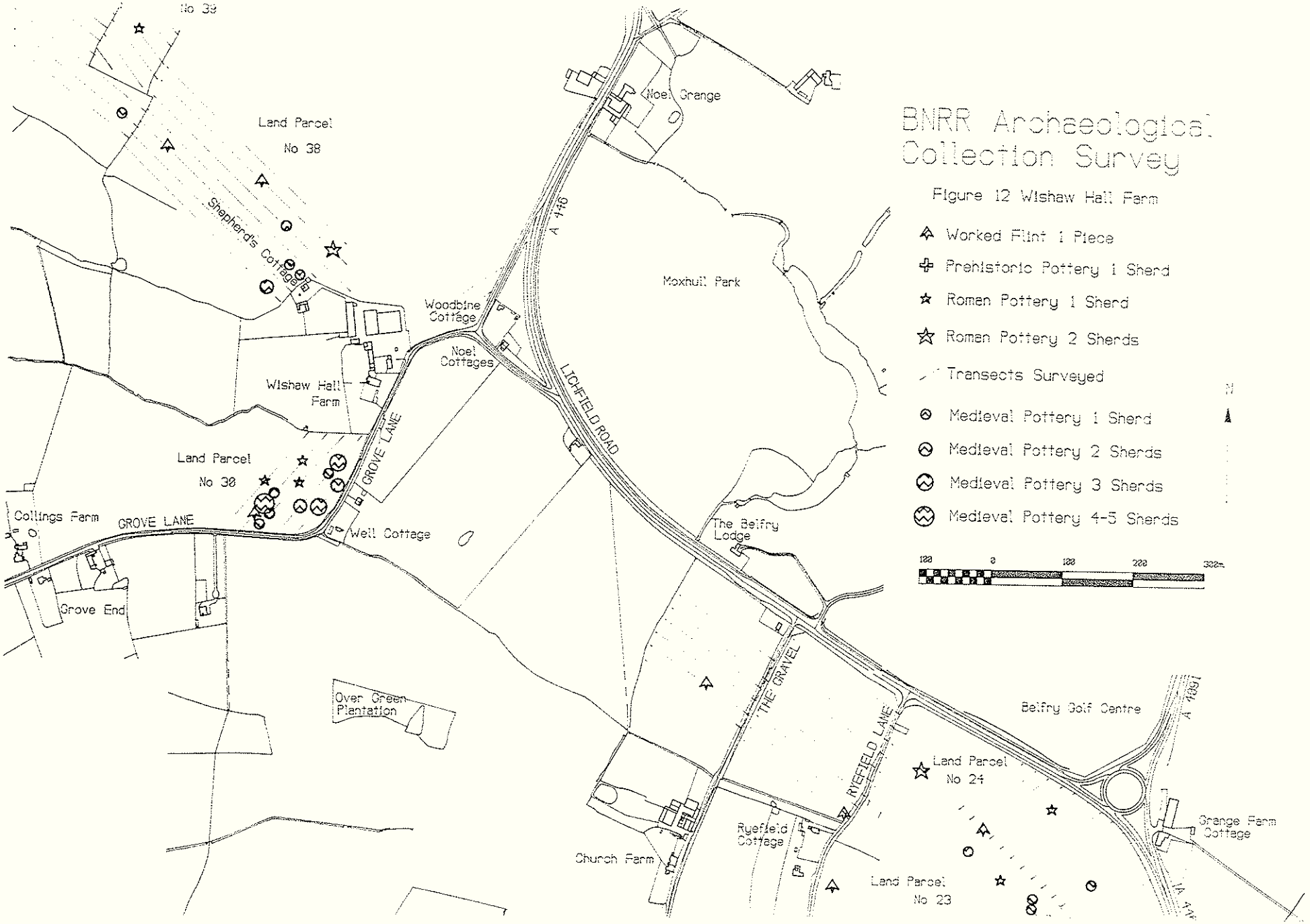


Figure 10 Collets Brook

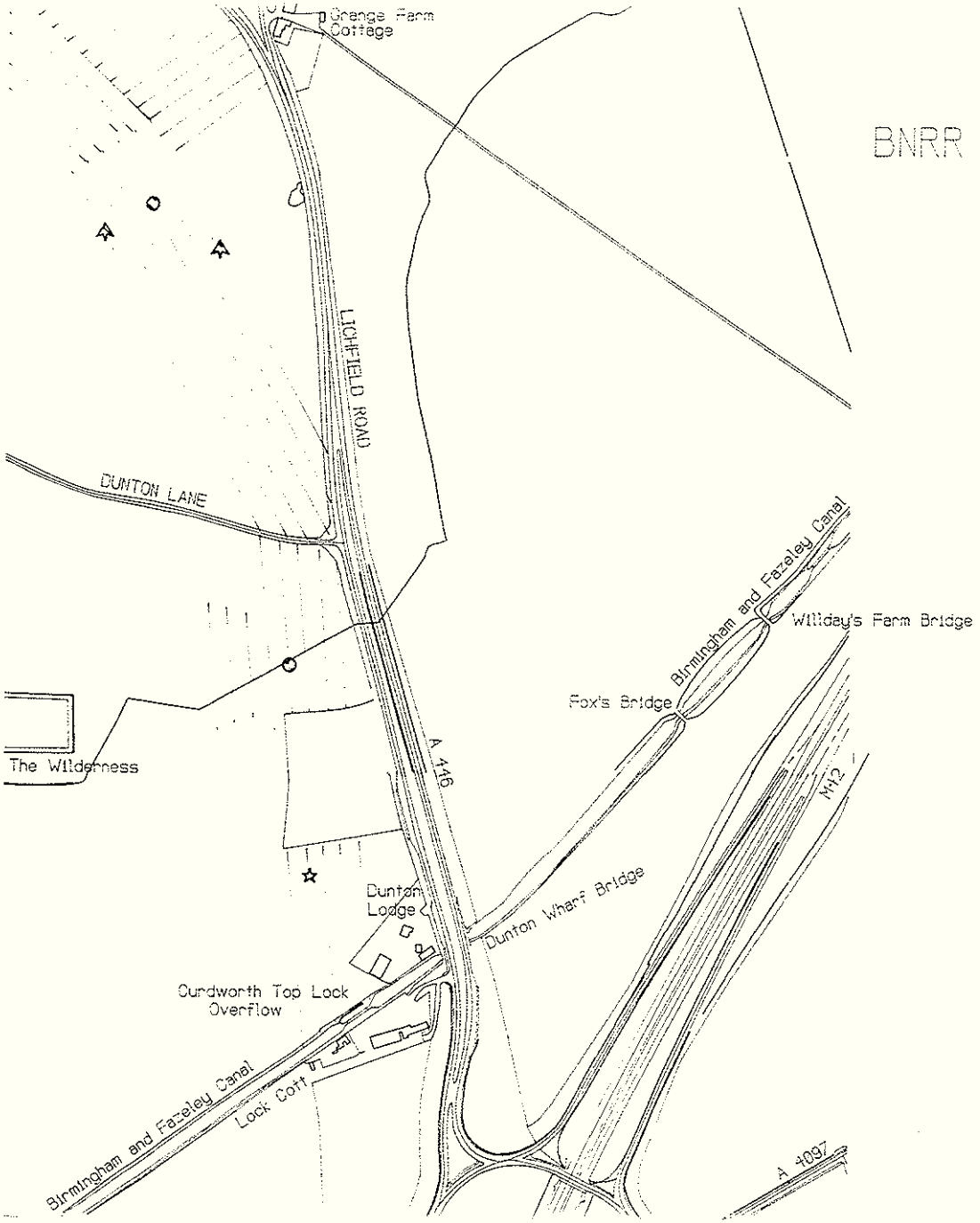
- Worked Flint 1 Piece
- Prehistoric Pottery 1 Sherd
- Roman Pottery 1 Sherd
- Roman Pottery 2 Sherds
- Transects Surveyed
- Medieval Pottery 1 Sherd
- Medieval Pottery 2 Sherds
- Medieval Pottery 3 Sherds
- Medieval Pottery 4-5 Sherds


BNRR Archaeological Collection Survey
Figure 11 Moxhull to Wishaw Hall Farm
100 0 100 200 300m
N
Langley Mill Farm
A 446
A 38
Land Parcel No 49
Land Parcel No 46
Land Parcel No 47
Langley Pool (Fish Pond)
Langley Brook
Langley Mill Cottages
Brockhurst Farm
LINDRIDGE ROAD
Land Parcel No 44
Land Parcel No 43
LONDON ROAD
Allen End Farm
Allen End
MIDDLETON LANE
Land Parcel No 42
LICHFIELD ROAD
Moxhull Wood Cottage
HOLLY LANE
Moxhull Hall
Land Parcel No 40
Worked Flint 1 Piece
Prehistoric Pottery 1 Sherd
Roman Pottery 1 Sherd
Roman Pottery 2 Sherds
Transects Surveyed
Medieval Pottery 1 Sherd
Medieval Pottery 2 Sherds
Medieval Pottery 3 Sherds
Medieval Pottery 4-5 Sherds


No 39
Land Parcel
No 38
Shepherd's Cottage
Noel Grange
A 446
Moxhull Park
Woodbine Cottage
Noel Cottages
Wishaw Hall Farm
LICHFIELD ROAD
GROVE LANE
Land Parcel
No 30
Collings Farm
GROVE LANE
Well Cottage
The Belfry Lodge
Grove End
Over Green Plantation
THE GRAVEL
RYEFIELD LANE
Belfry Golf Centre
A 4091
Land Parcel
No 24
Grange Farm Cottage
Ryefield Cottage
Church Farm
Land Parcel
No 23
BNRR Archaeological Collection Survey
Figure 12 Wishaw Hall Farm
Worked Flint 1 Piece
Prehistoric Pottery 1 Sherd
Roman Pottery 1 Sherd
Roman Pottery 2 Sherds
Transects Surveyed
Medieval Pottery 1 Sherd
Medieval Pottery 2 Sherds
Medieval Pottery 3 Sherds
Medieval Pottery 4-5 Sherds
N
122
0
122
222
322m

BNRR Archaeological Collection Survey

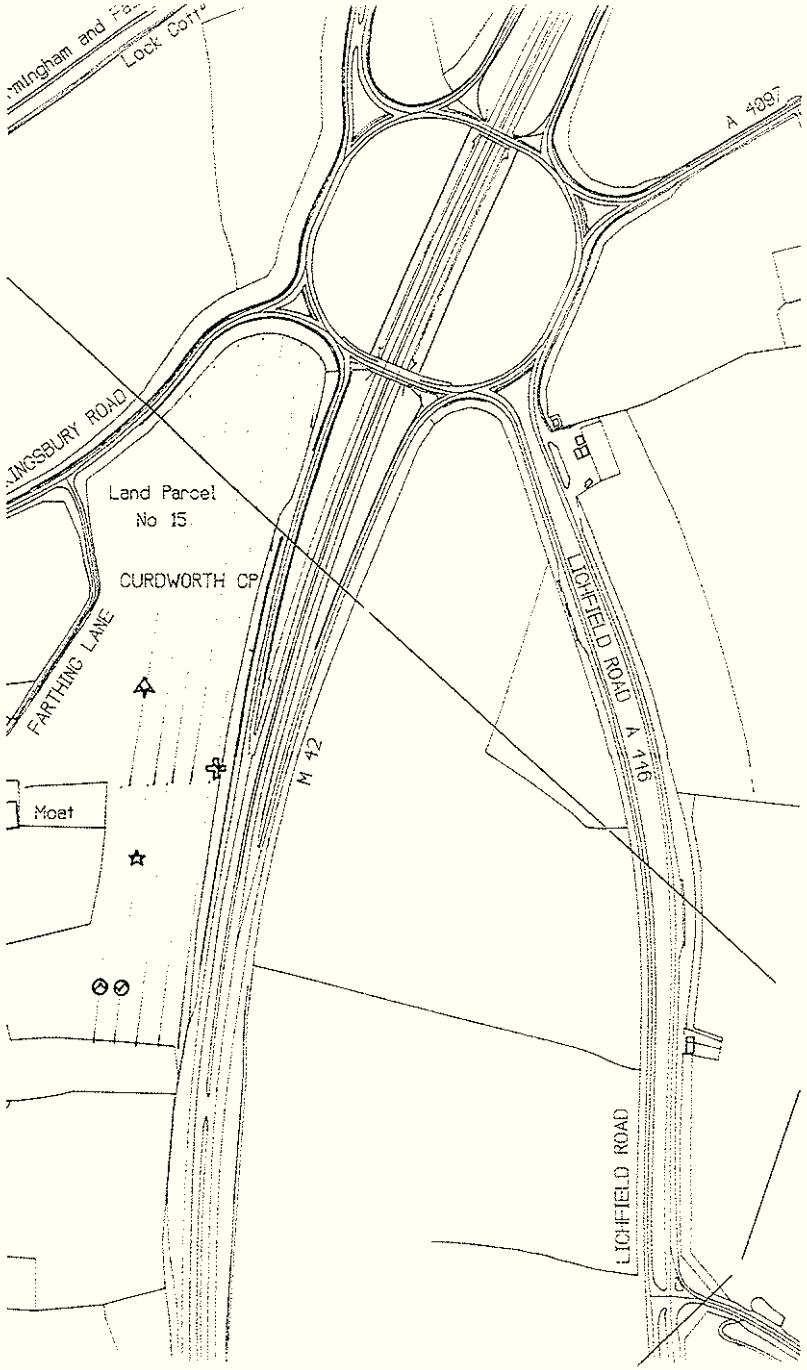
Figure 13 Rye Farm to Dunton Wharf



- Worked Flint 1 Piece
- Prehistoric Pottery 1 Sherd
- Roman Pottery 1 Sherd
- Roman Pottery 2 Sherds
- Transects Surveyed
- Medieval Pottery 1 Sherd
- Medieval Pottery 2 Sherds
- Medieval Pottery 3 Sherds
- Medieval Pottery 4-5 Sherds

N

100 0 100 200 300m.



BNRR Archaeological Collection Survey

Figure 14 Curdworth

- Worked Flint 1 Piece
- Prehistoric Pottery 1 Sherd
- Roman Pottery 1 Sherd
- Roman Pottery 2 Sherds
- Transects Surveyed
- Medieval Pottery 1 Sherd
- Medieval Pottery 2 Sherds
- Medieval Pottery 3 Sherds
- Medieval Pottery 4-5 Sherds

N

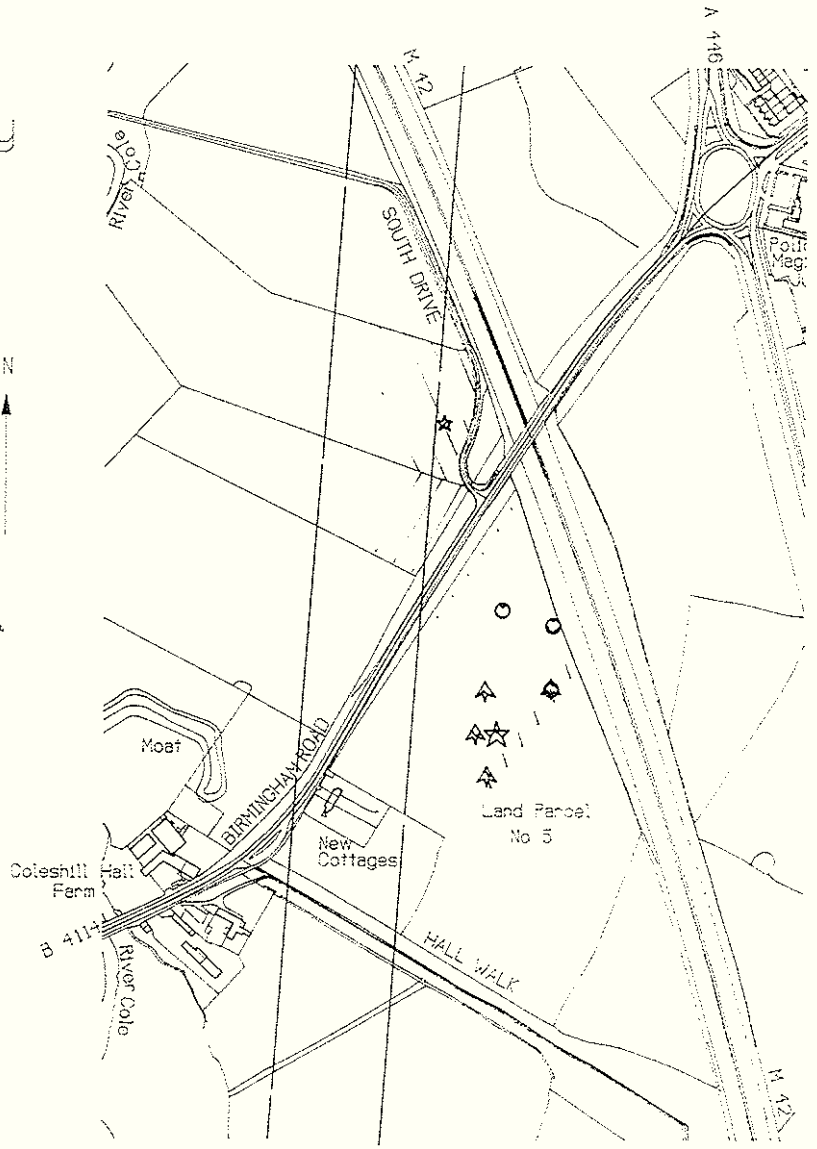
100 0 100 200 300m

BNRR Archaeological Collection Survey

Figure 15 Coleshill North

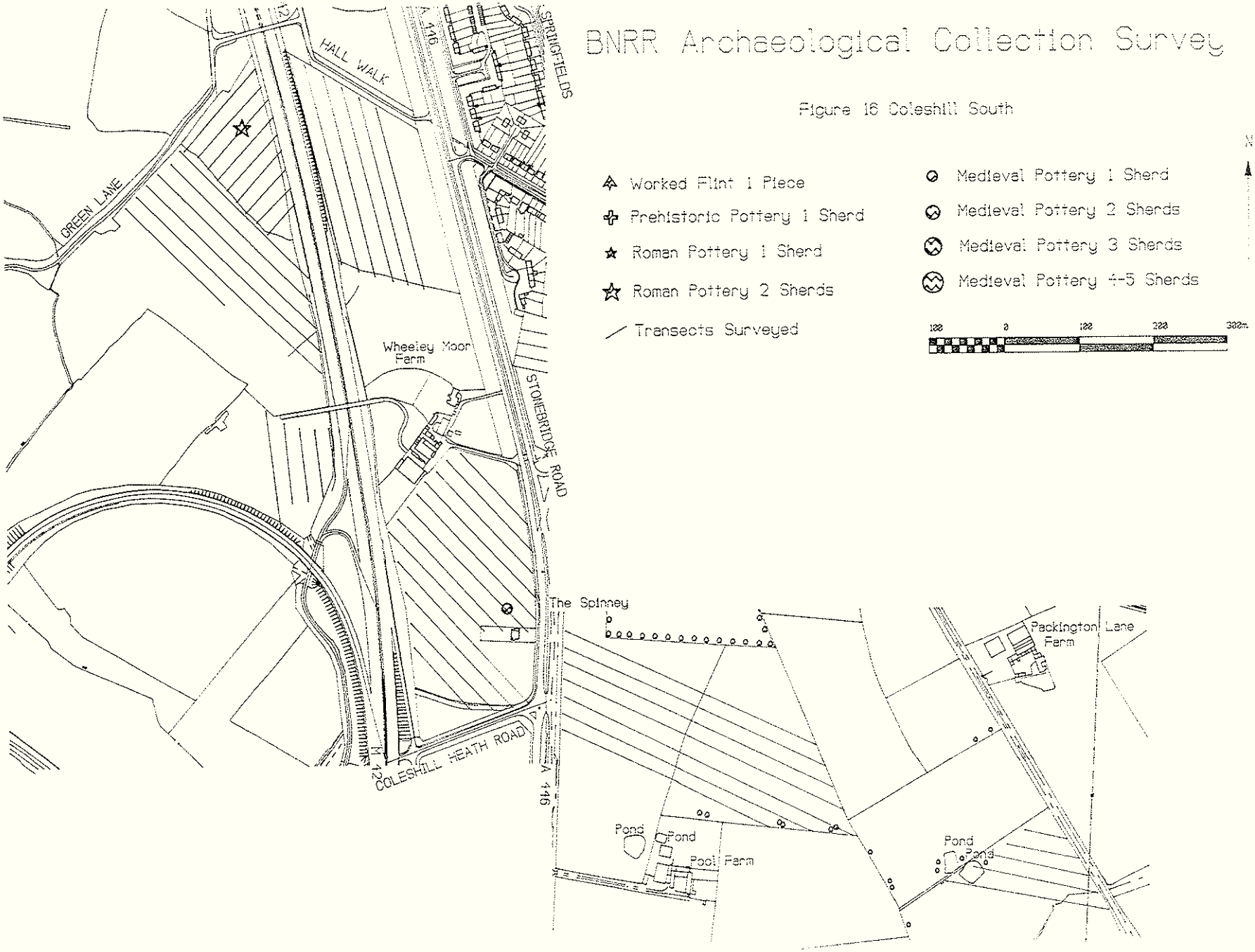
- Worked Flint 1 Piece
- Prehistoric Pottery 1 Sherd
- Roman Pottery 1 Sherd
- Roman Pottery 2 Sherds
- Transects Surveyed
- Medieval Pottery 1 Sherd
- Medieval Pottery 2 Sherds
- Medieval Pottery 3 Sherds
- Medieval Pottery 4-5 Sherds

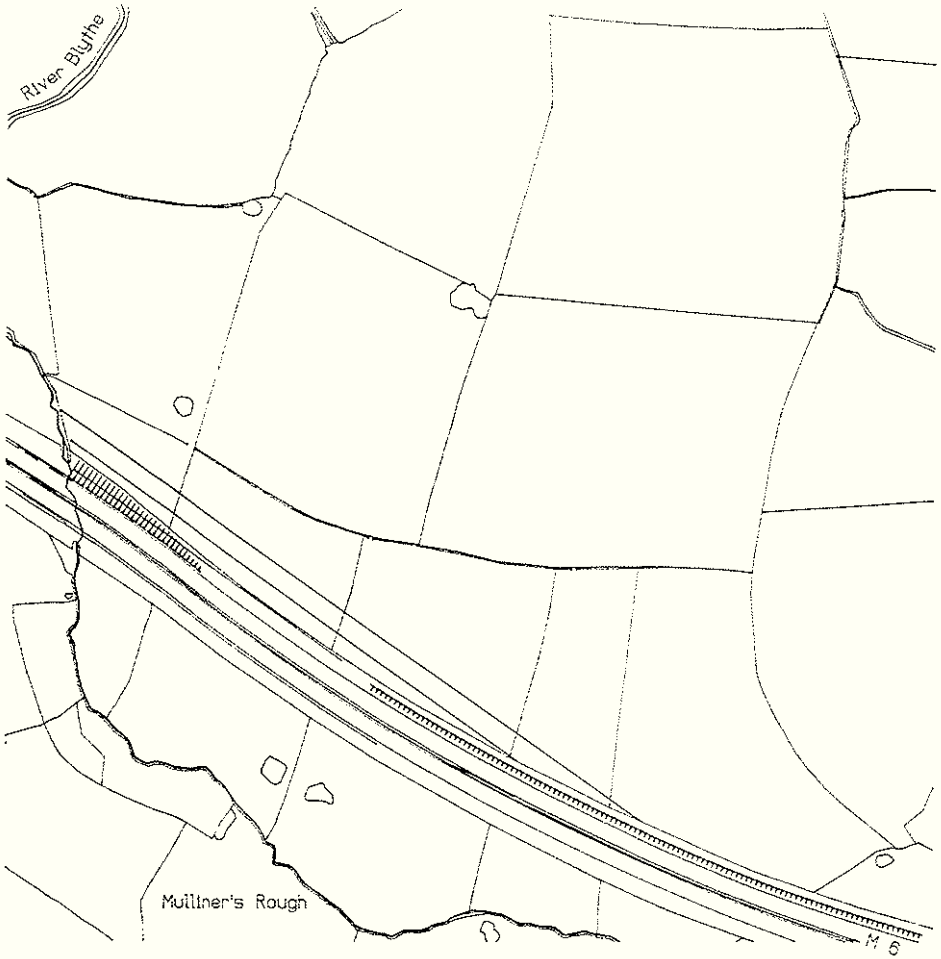
N



BNRR Archaeological Collection Survey

Figure 16 Coleshill South





BNRR Archaeological Collection Survey

Figure 17 Maxstoke

- Worked Flint 1 Piece
- Prehistoric Pottery 1 Sherd
- Roman Pottery 1 Sherd
- Roman Pottery 2 Sherds
- Transects Surveyed
- Medieval Pottery 1 Sherd
- Medieval Pottery 2 Sherds
- Medieval Pottery 3 Sherds
- Medieval Pottery 4-5 Sherds

N

APPENDIX 4

Additional Description of Hatherton Canal Complex

Appendix 4 Additional Description of Hatherton Canal Complex

A4.1 The Hatherton branch of the Stafford and Worcestershire Canal was built in c. 1840 to provide a transport link for the growing coal industry and other commercial interests, including the Walk Mill, a large flour mill which was in existence by 1775. The BNRR route affects the eastern end of the canal, where the line of the canal itself has largely been lost, but visible remains of its main feeder reservoir and less apparent remnants of two basins with wharfage and an undistinguished connecting aqueduct survive.

A4.2 Immediately west of Walkmill Lane, south of Wyrley Brook, lies the site of the two acre Hawkins Canal Basin and aqueduct (1121), now virtually invisible having been filled with colliery spoil. (No detailed records appear to have been made at the time). The basin was 95m long by 35m wide, and was connected by a short aqueduct over the Wyrley Brook to the canal (1135) (Lichfield and Hatherton Canal Trust 1990). The line of the canal itself has largely been infilled or lost in the section crossed by the BNRR due to commercial development.

A4.3 The 'aqueduct' is now visible only as a pair of low brick arches, supporting high sides forming the ends of a long culvert carrying the Wyrley Brook under Walkmill Lane. The First Edition Ordnance Survey 25" map shows Walkmill Lane, a tramway and the aqueduct for the canal link to Hawkins Basin, together with part of the wharfage around the basin, sharing the 36m wide space over the culvert. Another basin, a flight of locks, a lift bridge, the canal itself, the Walk Mill and mill leat were further elements of the complex, on the other side of the Wyrley Brook, which have now been built upon.

A4.4 Immediately east of Walkmill Lane, lies Hatherton Reservoir (1122), constructed c.1837-40 as a feeder for the Hatherton Branch of the Staffordshire and Worcestershire Canal (Lichfield and Hatherton Canal Trust 1990). The reservoir fed water into the canal probably via a sluice which is no longer visible at its north west corner, which presumably channelled water into the Hawkins Basin and thence into the canal. The reservoir was formed on the side of the small valley of the Wash Brook by building a dam running parallel to the side of the valley where the Wash Brook was joined by a small tributary stream running into the brook. The top of the dam (a well used footpath) is now approximately 3m above water level, and there is a 40m long section towards its western end which has been lowered for a concrete spillway. The extent of the reservoir was greater on 6" and 25" Ordnance Survey maps of the 1880's, indicating that originally the water level was only a metre or two below the top of the dam (approximately 119m AOD). It covered an area of approximately 5ha. The site is well screened from surrounding industrial development by vegetation. The dam provides an attractive walk around the reservoir, which is a popular local amenity owned and promoted by the local authority and is managed as a nature reserve. The reservoir as a whole is one of the few substantial surviving visible features of this particular branch canal, and was a key part of its infrastructure, but is now a relatively isolated remnant.

A4.5 The original eastern end of the Hatherton canal was close to the Church Bridge where Watling Street (the A5(T)) crossed the Wash Brook. From the 17th century coal was being dug at Wyrley, and by the 1830's when the first edition 1 inch OS map was produced, there was a colliery tramway, built to take coal from the Wyrley coal works to the Walsall to Cannock road near its junction with Watling Street at the Church Bridge, where William Gilpins and Sons' edge-tool factory, established by 1817, was not finally demolished until 1992. A mill leat serving the Walk Mill had already been built diverging from the Wash Brook at the Church Bridge. The Hatherton branch canal initially extended as far as this, to serve the colliery and tool factory. The branch of the South Staffordshire Railway was open to Cannock Station by 1858, and was soon followed by the Churchbridge extension of the Hatherton canal, built in 1860 as a link to the Cannock extension of the Wyrley and Essington, via the Churchbridge flight of 13 locks. The locks climbed the hill north of the Church Bridge, but have been destroyed by open cast mining. At its foot there was a basin and wharf served by another tramway for the Gilpins' colliery and factory. These works involved a diversion of the Wash Brook and mill leat to allow direct interchange between the tramway, canal and main road. A fine double railway bridge for the South Staffs railway with an accommodation bridge parallel to it on the west spanned both the canal and the Wash Brook, which was diverted down a brick-lined overflow channel alongside the track beside the railway. The site of the Gilpins basin and wharf is overgrown with scrub. The basin retains shallow water and about a metre of the brick facing of its southern side is just visible. Of the wharf the stone bases of the little bridge for the tramway over the diverted Wash Brook and a cast iron pillar probably part of a small crane standing on the site of the wharf are visible.

APPENDIX 5

Additional Description of Archaeological Remains at Wall

Appendix 5 Additional Description of Archaeological Remains at Wall

A5.1 The main features in the Wall complex relevant to this assessment, described along the route of the BNRR from west to east are as follows:

A5.1.1 Cropmark of a curving ditch apparently forming part of a large oval enclosure (1052) of unknown purpose. The south west side is still reflected in extant field boundary along the stream and the Tithe map and 1st edition OS 6" map show the eastern side of the oval as a boundary, probably no more than an unusually shaped field. Trial trenching located this feature but did not provide any dating evidence (see Appendix 6). A linear ditch (1081) is also probably a ploughed out 19th century field boundary.

A5.1.2 In approximately the same location as the oval field boundaries the curving corner of an older enclosure or part of a field system has been discovered by trial trenching on the slight hill west of the Crane Brook. The ditch was broad and shallow with a poorly preserved peat layer at its base. Limited dating evidence suggests that it may be Roman or possibly earlier. A few small pits and post holes were found in the area which would be within the enclosure, but with no dating evidence. The area has generally been deeply disturbed by cultivation.

A5.1.3 Widely spaced parallel ditches running SSE-NNW, (part of 1052 and 1158). Separately seen on different air photographs the two groups of features appear to be similar and may actually be aligned. With both the northern and southern halves one side may correspond to boundary on Tithe and OS maps. At the NW end they appear to stop at a NE-SW ditch linked to ? part of the oval enclosure. They are of unknown date and significance, but may correspond to the long rectangular strip fields still extant, and once much more apparent elsewhere at Wall. Trial trenching located a wide linear hollow running NW-SE on the line of the western of the pair of ditches 1158. It may be a track or hollow way. The upper fill contained 19th and 20th century pottery, but the lower fills produced no dating evidence.

A5.1.4 N-S trackway with field boundaries at right angles (1082). This feature is roughly aligned on an extant track north of the A5, but is actually a cropmark in the adjacent field. Where it crosses the A5, Oswald observed a strip of metalling c 4 m wide during road improvements in 1965 (Oswald 1966-7). He did not observe the side ditches or apparently recover dating evidence. These features do not correspond to any shown on historic maps and could be part of a Roman field system. Trial trenching did not confirm the presence of these ditches, though undated features on a different alignment (trench 4 feature 3) or possibly different character (trench 3 feature 5) were found in about the right positions.

A5.1.5 Area of wetland (1179) with potential peat deposits suggesting possible existence of good environmental deposits and good stratigraphic preservation, identified from soil survey information by the Lancashire Archaeological Unit for the North West Wetlands Project in 1988. The results of recent geotechnical trial pits and archaeological trenches south east of site 1110, however, suggest that there may be little or no extensive subsoil peat horizons or vertical stratigraphy. However, this