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A1(M) REDHOUSE TO FERRYBRIDGE IMPROVEMENT (REVISED ROUTE NORTH OF WENT VALLEY)

ARCHAEOLOGICAL STUDY

STAGE 1 REPORT

AUGUST 1994

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ENVIRONMENTAL PLANNERS
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SUMMARY

This Stage 1 report has been produced in response to the revised eastern bypass proposal, north of the Went Valley, and forms a stand-alone document for that section of the proposed A1(M) improvement.

Additional archaeological information has been incorporated into the report, in particular where the route veers eastwards into the area of Stapleton Park.

Local and national policies for the protection of the cultural heritage are summarised and the archaeological background to the study area is explained.

The archaeological implications of the proposal are examined, by reference to the data presented.

Areas where uncertainty exists, regarding the age, extent or significance of the archaeological evidence, are indicated.

The route passes through, or close to, a number of archaeological sites, mainly cropmark complexes revealed by aerial photography. While it is possible to date sites tentatively, only work on the ground will enable an accurate assessment of the form, function and extent of preservation of such features.

It is concluded, therefore, that a programme of further survey work should be initiated, in order to define future mitigation requirements.

1 INTRODUCTION

1.1 This report has been produced by RPS Clouston on instructions from Owen Williams, Consulting Engineers to the Department of Transport for the A1(M) Redhouse to Ferrybridge Improvement. It provides an initial assessment of the archaeological impact of the revised section of the route option from north of Went Bridge to the link with the Ferrybridge to Hook Moor section.

1.2 The scope of this report is based upon an initial study of the archaeology carried out by RPS Clouston in 1992 and revised in 1994, comprising a survey of existing information available from national and local sources. The data was collected from:

- o RCHM(E) National Library of Air Photographs;
- o Cambridge University Aerial Photographic Committee;
- o English Heritage Scheduled Monuments (SMs) Lists;
- o North Yorkshire and West Yorkshire County Councils' Sites and Monuments Records (SMRs) (Table 1)
- o Geotechnical trial pit observation
- o Aerial Photographs held by Owen Williams (Table 2)

General recommendations for further work based upon this study are set out in Section 8 in accordance with the Department of Transport's *Design Manual for Roads and Bridges, Vol 11 (DMRB)*, issued 1993.

1.3 On the basis of these studies the following elements are reported on here:-

- o identification from the SMR and Aerial photographs (AP) of archaeological sites which may be affected by the route under consideration;
- o geotechnical Trial Pit (TP) information
- o an assessment of the possible effects, direct and indirect, of the route

- o geotechnical Trial Pit (TP) information
- o an assessment of the possible effects, direct and indirect, of the route on the archaeology;
- o recommendations for further action.

1.4 A walkover survey of the revised route was not undertaken because of the state of the crops at the time.

2 NATIONAL POLICIES

Scheduled Monuments (SMs)

2.1 Statutory protection for archaeology is principally enshrined in the Ancient Monuments and Archaeological Areas Act of 1979, amended in 1983 by the National Heritage Act. Nationally important sites are listed in a Schedule of Ancient Monuments which is maintained by the Secretary of State for National Heritage. There are currently some 12,750 SMs in England, but a 10 year review (the Monuments Protection Programme) is in progress which will lead to a substantial increase, possibly 5 fold, in the total. The works which require the consent of the Secretary of State are any which would have the effect of demolishing, destroying, damaging, removing, repairing, altering, adding to, flooding or covering up the monument or its setting.

2.2 Proposals which would affect SMs or their settings must be approved by the Secretary of State prior to works commencing. The Historic Buildings and Monuments Commission for England, known as English Heritage (EH), advises the Secretary of State on scheduling and other archaeological and historic building matters.

2.3 There are no SMs on the revised route north of the Went Bridge.

English Heritage

2.4 English Heritage (EH) is the official body incorporated by the National Heritage Act 1983 with responsibility

> **"so far as is practicable to secure the preservation of ancient monuments and historic buildings in England".**

2.5 EH advises the Secretary of State upon SM consent applications. EH may also be called upon to advise on archaeological matters even if they do not affect SMs, and it monitors the working of the 1979 Act and the Planning Policy Guidance on Archaeology and Planning (PPG 16 see para. 2.8-2.13). It would expect to be consulted on the impact of the present scheme.

2.6 EH published Roads for Prosperity: The Archaeological Impact in September 1990, in response to the Government's White Papers Roads for Prosperity published in 1989 and Trunk Roads, England: Into the 1990's, published in February 1990.

2.7 Although it has no statutory or mandatory force Roads for Prosperity: the Archaeological Impact is a succinct statement of EH thinking in relation to road construction. The study summarises its conclusions concerning the national road programme as follows:

a) **based on existing knowledge, the trunk roads programme is likely to impact on over 800 known archaeological sites.**

b) **the full extent of impact is likely to be significantly greater, by a large factor, when the potential for further discoveries prior to and during development is taken into account.**

c) **the potential costs for archaeological recording of such an impact would be in excess of £70 million at 1990 prices, and the true costs in the light of the potential for further discoveries would undoubtedly be much higher.**

d) **the environmental impact must be fully assessed in advance of route selection to allow for the consideration of the possibilities for mitigation of impact and the reduction of possible recording costs.**

e) **it is, therefore, necessary to give greater weight to the archaeological implications of trunk road development and to integrate fully such considerations into the process of assessment required for all such Developments.**

The A1(M) Redhouse to Ferrybridge programme of archaeological study to date is part of the work recommended in (d) above.

DoE Planning Policy Guidance (PPG 16)

2.8 The Planning Policy Guidance on Archaeology and Planning (PPG 16) published by the DoE in November 1990 consolidated advice to local authorities, on the treatment of archaeology in the planning process. PPG 16 emphasises the importance of archaeology (paras 3-14) particularly in terms of the irreplaceability of the archaeological resource and its variety.

2.9 PPG 16 also outlines the interaction of central government, EH and local authorities and the importance of the latter is emphasised. Development plans are identified as providing the policy framework for the protection, enhancement and preservation of sites of archaeological interest and their settings. The County Sites and Monuments Record (SMR) is the primary source of data on such constraints. Applicants for planning permission are advised to consult the SMR and county archaeological officer at the earliest opportunity to make an assessment of the archaeological impact and put forward proposals for its mitigation prior to the determination of the application. This may require an evaluation of the site prior to determination to provide sufficient information to enable an informed decision to be made.

2.10 Conditions may be attached to the consent which require the applicant to "preserve by record" (excavate) sites which are not to be preserved *in situ*. These conditions should be fair, reasonable and practicable (DoE Circular 1/85).

2.11 The discovery of unsuspected archaeological remains in the course of development is considered to be a matter for informal agreement between the developers and archaeologists and attention is drawn to the British Archaeologists' and Developers' Liaison Group and EH as possible sources of advice.

2.12 The procedure adopted for the A1(M) Redhouse to Ferrybridge Improvement is in accordance with the advice in PPG 16.

Department of Transport (DOT)

2.13 The need to consider archaeological sites in the planning of certain developments follows from the European Community Directive (85/337) **"on the assessment of the effects of certain public and private projects on the environment"**. The aspects of the environment to be considered include **"material assets, including the architectural heritage, landscape and the inter-relationship between the [listed] factors"** (Annex iii, 85/337). Parliament accommodated these requirements in the Town and Country Planning Act (General Development Order) 1988 no1199.

2.14 The statutory framework for the DOT environmental studies is set out in the **Highways Act 1980**, sub-section 105 A(2). The requirements were published in **Statutory Instrument 1988/124** which states that the Secretary of State:

> **"shall publish not later than the date of publication of details of the project an environmental statement ... to the extent that he considers ... that (having regard in particular to current knowledge and methods of assessment) the information may reasonably be gathered"** (105A(2))

2.15 The Government's policies for trunk roads were set out in Trunk Roads, England; into the 1990's published in February 1990. Paragraph 1.8 emphasises that

> **"the requirements for road travel are met in as environmentally friendly a way as possible".**

The paper goes on to point out that

> **"a great deal of effort already goes into assessing the environmental impact of potential schemes and designing them to fit as sympathetically as possible into the road programme and the Government intends to do even more".**

Paragraph 4.6 notes that it has been standard practice to undertake an environmental assessment of trunk road schemes since the Leitch report in 1977.

DoE Circular Departmental Standard HD 18/88

2.16 This Standard defines the trunk road schemes requiring an environmental assessment in accordance with Part V A of the Highways Act 1980 and the composition of the Environmental Statements (ES) to be published with Draft Orders. Motorway

construction is listed in Annex I of projects which automatically require an environmental assessment in the EEC Directive 85/337. Note is made of the requirement for the inclusion of data on the subjects listed in Annex III which may be significantly affected (para.2.7.2).

Department of Transport *Design Manual for Roads and Bridges*

2.17 The DOT *Design Manual for Roads and Bridges, vol 11 (DMRB)*, was issued in 1993. Three stages of archaeological survey are described in the *DMRB*, each corresponding to the progress of the road proposals. They are as follows:

Stage 1 which is the collection of the available information over a wide study area at the Initial Study phase;

Stage 2 which is the checking of the Stage 1 data, a desk-top study, walkover survey if appropriate, and a review of potential impacts related to alternative options, including a view from English Heritage on the study; and

Stage 3 which is the collection of any further data (through the use of field evaluation techniques if necessary) which might be required to establish the impact of the preferred route option and to enable mitigation measures to be proposed.

2.18 The *Design Manual for Roads and Bridges*, Volume 11, Section 3 incorporates the precepts of PPG 16.

2,19 This report constitutes a Stage 1 assessment as recommended by the *DMRB*.

3 LOCAL POLICY CONTEXT

North Yorkshire County Council (NYCC)

3.1 The most recent approved North Yorkshire County Structure Plan is The Written Statement dated 1990. It includes the following relevant policy:-

Policy E5 Development proposals which could result in damage to, or the destruction of, sites of archaeological importance will normally be refused

3.2 The County Archaeological department has been consulted since the initial involvement of RPS Clouston and discussions concerning the processes and procedures to be followed have been carried out.

West Yorkshire

3.3 West Yorkshire Archaeology Service (WYAS) has been consulted since before the initial involvement of RPS Clouston in early 1992. In October 1990 the WYAS produced a document called A1(M) Redhouse to Ferrybridge, Preliminary Archaeological Evaluation. This was a review of the known archaeological features in the road corridor listed in the WY SMR. The summary contained in the WYAS letter is reproduced below:-

A1(M) REDHOUSE - FERRYBRIDGE, Preliminary Archaeological Evaluation by West Yorkshire Archaeology Service [extract].

8. SUMMARY

A preliminary archaeological assessment of the A1(M) Redhouse to Ferrybridge corridor (West Yorkshire section) has led to the identification of:

i) a number of sites which require further investigation by excavation if they are to be disturbed

ii) a requirement for further brief field evaluation of possible and certain upstanding monuments in areas to be disturbed; this could result in a need for further investigation either by detailed survey or excavation as required

iii) a requirement for further field evaluation of levelled areas by fieldwalking and geophysical survey in areas to be disturbed; this also could result in a need for further investigation by excavation and record.

It is a clearly established principle that any onus for justifiable archaeological work ahead of development should lie with the developer. In particular, in this case where the full evaluation may not be accomplished until after the submission of an environmental assessment, any requirement for justifiable archaeological work resulting from the evaluation should be accepted in full by the developer.

4 THE ARCHAEOLOGY OF THE STUDY AREA

Geology and Topography

4.1 The known archaeology is related to the geology and topography of the area for two reasons: firstly, certain soils and relief patterns are more or less attractive economically, particularly to human settlement and exploitation; and secondly, some ground conditions and land uses are more conducive to preserving and revealing traces of human activity than others. Intensive woodland clearance of heavy wet clay areas probably took place during the prehistoric period although the scale of this is difficult to determine. It is likely that the lighter soils of the limestone upland would have been cleared and occupied earlier in the prehistoric period.

4.2 As to the visibility and survival of remains, the heavily ploughed limestone areas are likely to have lost most earthworks, but the same destructive ploughing has revealed soil- and crop-marks, particularly to aerial photographic survey. In addition the ploughsoil can be fieldwalked for artefacts. The situation on the heavier clay soils will tend to favour the preservation of earthwork sites in the unploughed pasture found on such geology, but aerial photography may be less rewarding, and artefact collection more random and restricted in scope. These two factors tend to favour a pattern of known sites which is weighted towards the lighter, limestone based upland areas, particularly for the prehistoric periods.

4.3 The region is divided topographically by a change in the geology east and west of a Magnesian Limestone ridge which runs roughly north - south. To the west are the Coal Measures while to the east are the Bunter and Keuper sandstones and marls. The solid geology of the study area is principally the Magnesian Limestone of the Permian, with a drift geology of Boulder Clay patches on upland areas and a little Alluvium in the valley of the River Went.

There are areas of Middle Permian Marl north of Darrington. This geological situation means that for most of the route the conditions both for early occupation, and the visibility of the evidence as crop marks, are reasonably good, and this is borne out by the results of this initial survey. The absence of crop-mark or soil-mark sites does not necessarily mean that there is no archaeology in such areas, however, and the possibility that season, farming regime and weather conditions may not have been favourable at the time of any particular aerial photography flight has been borne in mind in assessing AP results.

4.4 The topography has also had an effect on settlement. For instance, waterlogged valley bottoms and windswept heights are generally only settled if more favourable locations are unavailable, or dangerous. In the Study Area the topography is mainly a gently rolling plateau, with one river, the Went, occupying a steep valley. Other than this valley the route line is over attractive farming land. The Boulder Clay patches are less tractable to arable farming, and are likely to have been wooded, or used for pasture in earlier periods, although they are now mainly under plough.

Archaeological review

4.5 The following summary is a very brief review of the current archaeological situation in the study area. It has been complied from a study of the county SMRs and a brief review of published accounts, in particular the WYAS volumes West Yorkshire: an Archaeological Survey to AD 1500 (1981) edited by Faull and Moorhouse. There is no comparable up-to-date survey of North Yorkshire archaeology, but the general situation related to the proposals is assumed to be very similar.

4.6 **Palaeolithic (up to c. 8,000 BC).** The glacial history of the area makes it possible that some palaeolithic material may survive *in situ* in the Study Area. Upper Palaeolithic hunters (c. 11,000 - 8,000 BC) may have moved into the Magnesian uplands, and the valley of the Went offers similar conditions to those found further south around Cresswell Crags where copious evidence of palaeolithic occupation has been found. There is no evidence of this yet, however, from the Study Area.

4.7 **Mesolithic (c. 8,000 BC - c. 4,000 BC).** Most of the flints characteristic of the hunter-gatherers of this period have been collected from the highlands to the west of the Study Area. There are, however, some finds in lowland locations from the Methley and Calder terraces and the terraces of the Aire at Thorpe Stapleton, Shiply and from Ferry Fryston, just to the north of the Study Area. There is little known mesolithic evidence on the Magnesian Limestone areas, which probably reflects a lack of activity there in this period. There is, however, a high potential for mesolithic sites on gravel terraces and along small streams dissecting the limestone.

4.8 **Neolithic (c. 4,000 BC - c. 2,000 BC).** There is dearth of neolithic material from the Magnesian Limestone generally. Flint artefacts are, however, known from west of the area, which may be evidence of extensive woodland clearance for farming. The Magnesian Limestone, despite its attractiveness to arable farmers has produced only limited indication of settlement although pottery of the period has been found at Methley and Rombald's Moor. Neolithic features such as small pits or gullies have, however, proved extremely difficult to locate from cropmarks. Immediately north of the Study Area is a major ritual monument at Ferrybridge, but occupation sites related to it have not been identified.

4.9 **Bronze Age (c. 2,000 BC - c. 600 BC).** Ritual sites are the best known features of this period. The henge at Ferrybridge probably persisted into the early bronze age, and it is apparently surrounded by a ritual "zone" of some kind, in which a number of barrows were constructed. A possible barrow cemetery is known from Kirk Smeaton south of the proposal. Recent work north of Ledston north of the Study Area has identified possible bronze age ditched enclosures and barrows on the Magnesian Limestone, and this may turn out to be a widespread pattern in similar situations in the Study Area. The henge monument at Ferrybridge is likely to have been related to nearby settlements, and some of the complex cropmarks to the south of the monument within the Study Area may represent occupation in the bronze age.

4.10 **Iron Age (c. 600 BC - AD 71).** The iron age seems to have ushered in a period of intense agricultural activity in the Magnesian Limestone area. Many of the extensive cropmark sites visible on APs are interpreted as evidence of fields, enclosures and probable small settlements. Recent excavations near Ledston to the north have revealed a major iron-age settlement identified initially from APs. Excavated features included a burial, four-post structures, ditched enclosures and storage pits. Similar activities were probably widespread over the Magnesian Limestone in the iron age. The Ledston excavations also indicated the erosion of prehistoric features by subsequent agricultural use, and this could mean that evidence in some areas, the tops and flanks of hills for instance, may have been destroyed. On the southern extremity of the Study Area, at Castle Hill overlooking Brockdale, is the only known hillfort in the vicinity, one of only four in West Yorkshire.

4.11 **Roman (AD 71 - c. AD 400).** In the early stages of the Roman occupation, the local tribe, the Brigantes, were apparently used by the Romans as a buffer between themselves and the northern tribes. The fort at Castleford may be a testament to this early strategy. Excavation has provided details of its history, and the ancillary *vicus* (an associated civilian settlement). No other Roman

urban settlements are known in the Study Area, although Pontefract appears to have been a centre of activity. In the countryside the villa was the main administrative unit, but only 4 are known from West Yorkshire, none in or near the Study Area. Known native settlements - farmsteads - are hardly more numerous in the Study Area, but there is evidence of a settlement on the edge of the Study Area at Ferry Fryston. Two buildings, ditches, coins and pottery suggest occupation from the early second to late fourth century AD. The Roman road from Doncaster (*Danum*) to Castleford (*Lagentium*) can be observed as a causeway in places from Adwick Le Street to Barnsdale Bar where it diverges from the A1 corridor.

4.12 **British Post-Roman (c. AD 400 - 617).** Part of Yorkshire was included in the British kingdom of Elmet, whose borders in the 7th century were near that of modern West and North Yorkshire in the Study Area. To the east was the English (Anglo-Saxon) kingdom of Deira, to the west was another British kingdom - Craven. The Study Area appears to have been border country, with the Magnesian Limestone forming a defensible ridge between the British and the English. A battle was fought at *Winwaed* in AD654. Micklefield to the north of the Study Area is described as "in-Elmet", implying the need to establish its relationship with a nearby border. A district within Elmet was called "Loidis", which is preserved in the names Leeds, Ledston and Ledsham. The defensive dykes at Aberford north of the Study Area are thought to date, in part at least, to this period. There are no finds of the period in West Yorkshire except two coins.

4.13 **Early Anglo-Saxon (AD 617-867).** The defeat of the British of Elmet by the English of Deira at Catterick in 617 spelt the end of the British kingdom, as Celtic speaking people were forced west, or, more likely, taken over, by the English speaking Saxons. The area was disputed between the kingdoms of Northumbria in the north and Mercia to the south, finally being incorporated into Northumbria after the defeat of King Penda in 654. Place names such as

Knottingley (- inga/ingas = the place of) and Ledsham (- ham = homestead) indicate settlement by Saxons. Burials of this date are known from Pontefract and Ferry Fryston, the latter from a barrow on the site where the power station stands today. Very few artefacts of this date are known in the region, however.

4.14 **Pre-Norman Conquest (AD 867-1066).** The history of the area before the Norman Conquest is very turbulent, with incursions from the Danish settlers to the east, and rapidly fluctuating political fortunes. Very little material has been found related to this period, but a fine gold ring belonging to Queen Aethelswith of Mercia was found at Aberford. The Great North Road (the A1) was the principle north-south route, and in 948 there was a battle between the armies of Eadred, the Saxon king of Northumbria, and Eric Bloodaxe, the Danish King of York, at Castleford, as Eadred made his way home from campaigning. Tanshelf (Pontefract) was apparently a royal estate, and a pagan burial from a sand pit there suggests settlement at least as early as the 7th century. Place names indicate Scandinavian settlers moving into an Anglo-Saxon speaking area, such as Skellow where the Danish *sk* sound replaces the Anglo-Saxon *sh*. The settlers seem to have occupied the prime land in an already fully exploited landscape.

4.15 **Medieval (AD 1066-1500).** The medieval *vill*, or township, contained sufficient woodland, common and pasture, to sustain a balanced local economy. The light soils of the Magnesian Limestone would have encouraged a basically agrarian regime, with large fields set out around the hamlets, subdivided to provide strips in each field for the inhabitants. The hamlet locations in the Study Area do not seem to have moved significantly since they were recorded in Domesday Book in 1086 or other early medieval documents. The townships along the route are Darrington, Little Smeaton, Thorpe Audlin, Stapleton. Pontefract was a major town with a feudal castle, lying close to the Great North Road. Two smaller castles survive at Castle Hill, Hampole, and

Cromwells Battery, Adwick Le Street. A deserted village appears on APs east of Skelbrooke. Medieval boundaries were often ditches and banks, and documentary references indicate that ditches and banks were frequently created and levelled again, an activity which should leave traces in the archaeological record, particularly on APs. This should be borne in mind when interpreting AP evidence. A medieval deer park may have existed north east of Darrington.

4.16 **Post-Medieval (AD 1500 onwards).** A major post-medieval development in the landscape is the establishment of parks. There were none in the Study Area but Fryston Park, Pontefract Park and Cridling Park are the nearest to the road corridor. Quarrying, a long established industry, became more extensive in the post-medieval period. Some new settlements have been built, and many medieval villages have been extended, such as Skellow and Adwick Le Street. The major routeway through the area remains, in effect, the Great North Road, now the A1.

5 THE ARCHAEOLOGY OF THE ROUTE OPTION

The route corridor

5.1 On a spur to the east of the Wentbridge Viaduct, outside the route corridor, is an iron age defended enclosure (50). The Went Valley itself is a potential palaeolithic site (51), in parallel with sites in Derbyshire in comparable situations. To the west of the viaduct are the sites of a mill (52) and a chapel (53). On the north bank the proposed route corridor diverges to the east of the present A1, impinging on part of an extensive prehistoric landscape (55 - 59).

5.2 The route corridor veers north-eastwards at this point, passing through an enclosure with linear ditches (57) and close by other associated sites (58, 59 and AP 023), abutting Kirkdyke Plantation.

5.3 Two further cropmark enclosures, north-west of Stapleton Park, lie close to the route (63, 64) where it crosses into North Yorkshire. A similar farmstead site (71), is left to the west. Aerial photography shows numerous other features to the south and east of these enclosures and indicates an extensive and complex settlement pattern in this area.

5.4 Crossing Bank Wood Road, the route turns back towards the north-west, just missing cropmark site 71, but impinging upon the Ridge and Furrow (AP 011) at Hodge Wood. The enclosure (83) lies directly in the route west of Hodge Wood Farm.

5.5 Finally, the route and ancillary works pass through a number of field system elements (82, 010, 049) before joining up with the Ferrybridge - Hook Moor section.

6 GEOTECHNICAL TRIAL PITS

6.1 The geotechnical ground survey was carried out in June and July 1992. Following a meeting with representatives of the Department of Transport the county authorities requested that certain trial pits in sensitive areas should be observed by archaeologists in order to establish depths of soils and to check for any archaeological material. The trial pits specified were in the following area:

6.2 **TPs 278, 279, 280, 282, Romano-British rectangular enclosure (57)**

There were no archaeological features observed in these pits.

6.3 The trial pits did not reveal any new information about the archaeological features seen on APs in their vicinity. They did show the variability of the soil depths and composition, and the presence of natural hollows and channels in the rock. The 1992 APs taken for Owen Williams show extensive areas of geological features interpreted as gullies, solution channels, etc.

7 DISCUSSION

7.1 This section describes the known and potential archaeological features which would be, or could be encountered along the option considered here. The data from the SMRs, walk over survey and geotechnical trial pit observations are combined to produce this assessment. Where data is inconclusive or incomplete an assessment has been of the likely presence, type and extent of potential archaeological features.

7.2 An assessment has also been made of the significance of the archaeological features. This is based upon the EH criteria used to assess monuments for SM designation. The features considered here are not necessarily of the quality which would qualify them as SMs but the criteria are useful guidelines for assessing the significance of any site using professional judgement. The EH criteria are:

i) **Period: all types of monuments that characterise a category or period should be considered for preservation.**

ii) **Rarity: there are some monument categories which in certain periods are so scarce that all surviving examples which still retain some archaeological potential, should be preserved. In general, however, a selection must be made which portrays the typical and commonplace as well as the rare. This process should take account of all aspects of the distribution of a particular class of monument, both in a national and regional context.**

iii) **Documentation: the significance of a monument may be enhanced by the existence of records of previous investigation or, in the case of more recent monuments, by the supporting evidence of contemporary written records.**

iv) Group Value: the value of a single monument (such as a field system) may be greatly enhanced by its association with related contemporary monuments of different periods. In some cases, it is preferable to protect the complete group of monuments, including associated and adjacent land, rather than to protect isolated monuments within the group.

v) Survival Condition: the survival of a monument's archaeological potential both above and below ground is a particularly important consideration and should be reassessed in relation to its present condition and surviving features.

vi) Fragility/Vulnerability: highly important archaeological evidence from some field monuments can be destroyed by a single ploughing or unsympathetic treatment; vulnerable monuments of this nature would particularly benefit from the statutory protection which scheduling confers. There are also standing structures of particular form or complexity whose value can again be severely reduced by neglect or careless treatment and which are similarly well suited to protection by scheduled monument legislation, even if these structure are already listed historic buildings.

vii) Diversity: some monuments may be selected for scheduling because they possess a combination of high quality features, others because of a single important attribute.

viii) Potential: on occasion, the nature of the evidence cannot be specified precisely, but it may still be possible to document reasons anticipating its existence and importance and so to demonstrate the justification for scheduling. This is usually confined to sites rather than upstanding monuments.

These criteria have been used to prioritise the archaeological features as of low, medium or high importance. It is not possible in many cases to arrive at a final judgement of priority as further evaluation is required of some sites. Constraints have been judged as severe, moderate or slight, in the light of the likely procedures which could be employed to mitigate any adverse effects.

7.3 This assessment considers each area where archaeology is known or could be reasonably expected, commencing at the south. The reference numbers are those used in the RPS Clouston Gazetteer (Table 1), where cross references are given to County SMR numbers, and Table 2 (sites identified from SOWP Aerial Photographs). The level of importance and the degree of the constraint each site imposes is indicated. As with 'importance', further work will be required to confirm these judgements.

7.4 **Wentbridge mill, site of, (52).**

The precise site of the mill is unclear, but the proposed viaduct widening works would not affect it.

Medium importance.
No constraint.

7.5 **Potential palaeolithic sites (51).**

The valley sides and floor were thought to be possible areas of palaeolithic occupation, but recent geophysical survey has shown that there is little potential here.

Medium importance.
No constraint.

7.6 **Ditched rectangular enclosure (57).**

The enclosure and trackways suggest that this may be a settlement site. It partly lies in the path of the proposals. There are similar features on both sides of the proposed route alignment.

Medium/High importance.
Moderate constraint.

7.7 **Linear Ditch with associated small rectangular enclosure (58, 023).**

Possible extrapolation of 57. Minimal effect from proposal.

Low importance.
Slight constraint.

7.8 **Part of sub-rectangular enclosure and associated rectangular enclosures and linear ditches (59, 023).**

Minimal effect from proposal.

Low importance.
Slight constraint.

7.9 **Enclosure (63).**

Iron Age/Romano-British enclosure, visible from air photographs. One of a number of such features in the Stapleton Park area. These are all likely to be interconnected (see sites 87-91 and associated cropmark features [RPS 2]).

Medium importance.
Moderate constraint.

7.10 **Enclosure (64).**

As 63 above.

Medium/high importance.
Moderate constraint.

7.11 **Linear ditches, small square enclosure of uncertain nature (71).**

The proposal should not affect this site.

Low importance.
No constraint.

7.12 **Field system/enclosure (76)**

The route corridor would partially affect this AP trace which may possibly indicate an occupation site.

Medium importance.
Slight constraint.

7.13 Field system (82, 010, 049)

The northern edge of the extensive field system might impinge on the route corridor.

Low/Medium importance.
Slight constraint.

7.14 Small sub-rectangular enclosure (83).

Lies in centre of proposed route corridor.

Medium/High importance.
Moderate constraint.

8 CONCLUSIONS

8.1 The sites of the known archaeological features have been established, through the study of available records, APs, the observation of selected geotechnical trial pits and the results of previous work.

8.2 There remains some uncertainty concerning the extent, date, status and survival of the known sites, and there is the possibility that the pre-iron age and iron age/R-B remains are more extensive than is apparent from APs.

8.3 It is recommended that further survey work is undertaken to establish these aspects sufficiently for a programme of mitigation to be worked out.

8.4 The techniques for such an evaluation are progressive. This report (Stage 1) constitutes the preliminary desk top study. It should be followed by a more detailed documentary study and non-destructive survey techniques to refine and confirm the conclusions (Stage 2). These would include the geophysical survey (probably magnetometery) of targeted areas of sensitivity or potential. Certain areas may require systematic field walking. Using the results of these studies it may be necessary to carry out trial trenching, although this entails ground disturbance and is not normally required in order to make a choice of routes.

APPENDIX 1

ABBREVIATIONS

Abbreviations

AP	Aerial Photography
RCHM(E)	Royal Commission on Historical Monuments (England)
SMR	Sites and Monuments Record
TP	Trial Pit
SM	Scheduled Monument
EH	English Heritage (Historic Buildings & Monuments Commission)
DoE	Department of the Environment
DOT	Department of Transport
PPG16	DoE Planning Policy Guidance no. 16 on Planning and Archaeology November 1990
ES	Environmental Statement
NYCC	North Yorkshire County Council
SDC	Selby District Council
WYAS	West Yorkshire Archaeology Service
R-B	Romano-British
IA	Iron Age
BC	Before Christ
AD	Anno Domini

TABLE 1: GAZETTEER OF SITES IN STUDY AREA

MAP NO	SITE NO (in black)	SMR/COUNTY REFERENCE NO	DESCRIPTION	AFFECTED BY ROUTE
RPS 2	50	9164/5000	Castle Hill enclosure.	No
RPS 2	51	-	Magnesian Limestone gorge, poss. palaeolithic sites	Yes
RPS 2	52	0037 (West Yorks)	Site of Wentbridge Mill and associated waterworks (dam, leat, etc) documented from 13th century	No
RPS 2	53	0036 (West Yorks)	Site of former chapel of Wentbridge	No
RPS 2	54	28 (West Yorks)	Two concentric ring ditches, probable round barrow. This form unique in West Yorkshire (BA)	No
RPS 2	55	25 (West Yorks)	D-shaped enclosure and associated linear ditch (? IA/R-B)	No
RPS 2	56	24 (West Yorks)	Part of small rectangular enclosure (? IA/R-B)	No
RPS 2	57	26 (West Yorks)	Multiple ditched square enclosure with associated linear ditches (IA/R-B)	Yes
RPS 2	58	27 (West Yorks)	Linear ditch with associated small rectangular enclosure (IA/R-B)	No
RPS 2	59	21 (West Yorks)	Part of sub-rectangular enclosure and ? associated rectangular enclosures and linear ditches (? IA/R-B)	No
RPS 5	60	23 (West Yorks)	Part of two rectangular enclosures; associated linear fields with small curvilinear enclosure and tracks, much Roman pottery and quern fragments from western enclosure (Roman)	No
RPS 5	61	22 (West Yorks)	Sub-rectangular enclosure complex (IA/R-B)	No

MAP NO	SITE NO (in black)	SMR/COUNTY REFERENCE NO	DESCRIPTION	AFFECTED BY ROUTE
RPS 5	62	20 (West Yorks)	Track, part of field system and three associated small enclosures (IA/R-B)	No
RPS 2	63	916500000 (North Yorks)	Enclosure (IA/RB)	?No
RPS 52	64	916600000 (North Yorks)	Enclosure (IA/RB)	?No
RPS 2	65	18 (West Yorks)	Irregular enclosure with part of associated rectilinear field system (prehistoric)	No
RPS 2	66	17 (West Yorks)	Rectilinear ditches with associated small enclosure (IA/R-B)	No
RPS 2 & 3	67	15 (West Yorks)	Two adjoining sub-rectangular enclosures with associated linear ditches (prehistoric)	No
RPS 2 & 3	68	16 (West Yorks)	Rectilinear ditches with associated small curvilinear enclosure (? IA/R-B)	No
RPS 2 & 3	69	14 (West Yorks)	Small ring ditch, possible round barrow (BA) Large sub-rectangular enclosure with associated linear ditches (IA/R-B)	No
RPS 2 & 3	70	13 (West Yorks)	Small sub rectangular enclosure with associated lane and part of field system (IA/R-B)	No
RPS 2 & 3	71	11 (West Yorks)	Linear ditches small square ? enclosure of uncertain nature (IA/R-B)	No
RPS 3	72	35 (West Yorks)	Curtilage of Darrington Hall, possible former manorial site	No
RPS 3	73	32 (West Yorks)	Darrington church and churchyard, church in existence 1086	No
RPS 3	74	33 (West Yorks)	Field name 'Kirk Dyke'	No

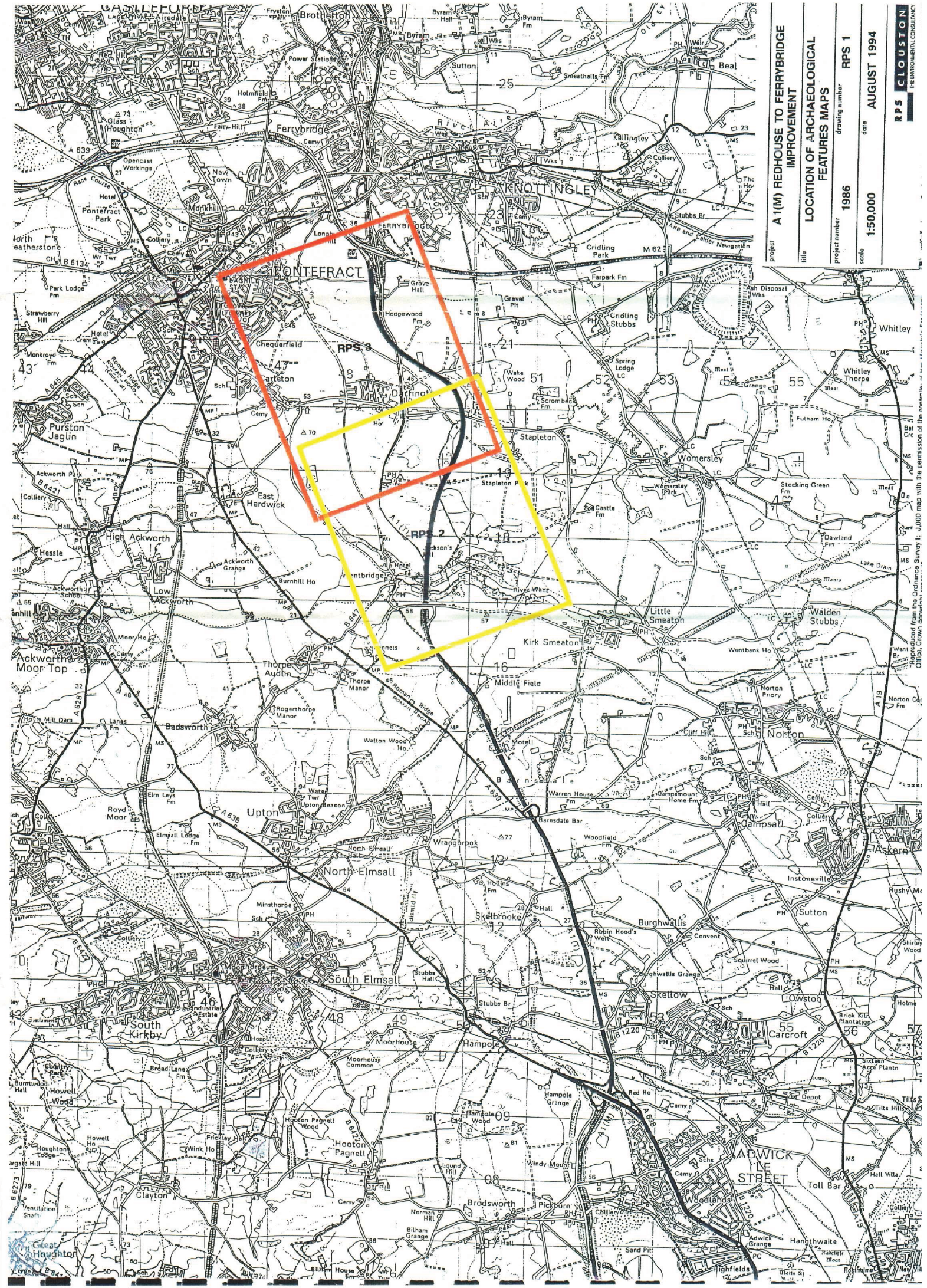
MAP NO	SITE NO (in black)	SMR/COUNTY REFERENCE NO	DESCRIPTION	AFFECTED BY ROUTE
RPS 3	75	8 (West Yorks)	Small ring ditch, possible round barrow (BA)	No
RPS 3	76	9 (West Yorks)	Part of field system containing rectangular enclosure (IA/R-B)	Yes
RPS 3	77	10 (West Yorks)	Square enclosure with ? associated small paddocks, linear ditches and lane (? IA/R-B)	No
RPS 3	78	5 (West Yorks)	Irregular enclosure complex with track and associated linear ditches (IA/R-B)	No
RPS 3	79	6 (West Yorks)	Sub-rectangular enclosure, part double-ditched and associated ditches (IA/R-B)	No
RPS 3	80	7 (West Yorks)	Sub-rectangular enclosure abutting lane (IA/R-B)	No
RPS 3	81	4 (West Yorks)	Complex of small sub-rectangular enclosures at junction of tracks, extensive field system to east (IA/R-B)	No
RPS 3	82	2 (West Yorks)	Two adjoining sub-rectangular enclosures associated linear ditches and track (IA/R-B)	No
RPS 3	83	3 (West Yorks)	Small sub-rectangular enclosure (? IA/R-B)	Yes
RPS 3	84	3 (West Yorks)	Group of field names in 'park' outlined of medieval or later park. Solid outline refers to field name 'dyke', referring to either a natural stream line or possible park pale	? No

MAP NO	SITE NO (in black)	SMR/COUNTY REFERENCE NO	DESCRIPTION	AFFECTED BY ROUTE
RPS 3	85	1 (West Yorks)	Double ditched, sub-rectangular enclosure (? IA/R-B)	No
RPS 3	86	30 (West Yorks)	Medieval hospital of Foulsnap, probably located within area shown	No
RPS 3	87	6054900000 (North Yorks)	Irregular enclosure	?No
RPS 3	88	North Yorks	Field system/?periglacial features	No
RPS 3	89	916500001 (North Yorks)	Unclassified	No
RPS 3	90	919402500 (North Yorks)	Enclosure	No
RPS 3	91	6055300000 (North Yorks)	Enclosures and trackway	No

TABLE 2: OWEN WILLIAMS AP SITES IN STUDY AREA, MAPPED FROM SOUTH TO NORTH

Map No.	AP Site No. (in red)	Description	Affected by Route
2	023	Rectilinear enclosures, field boundaries	Yes
2	038	Trackway, field boundaries	No
2	040	Field boundaries, rectangular and circular enclosure	No
2	018	Rectilinear boundary ?enclosure, circular enclosure, ridge and furrow	No
2	042	Field boundaries, small square enclosure	No
2	043	Trackways, field boundaries, enclosures (round and irregular)	No
3	013	Field boundaries	No
3	011	Ridge and furrow square enclosure	Yes
3	049 048 010	Extensive field system with trackways and irregular enclosures and double enclosures	Yes No Yes
3	054	Field boundaries	?Yes
3	004	Trackways and boundaries	No
3	057	Field boundaries, ridge and furrow	No

PLANS



project: A1(M) REDHOUSE TO FERRYBRIDGE IMPROVEMENT

title: LOCATION OF ARCHAEOLOGICAL FEATURES MAPS

project number: 1986

drawing number: RPS 1

scale: 1:50,000

date: AUGUST 1994

RPS CLOUSTON THE ENVIRONMENTAL CONSULTANCY

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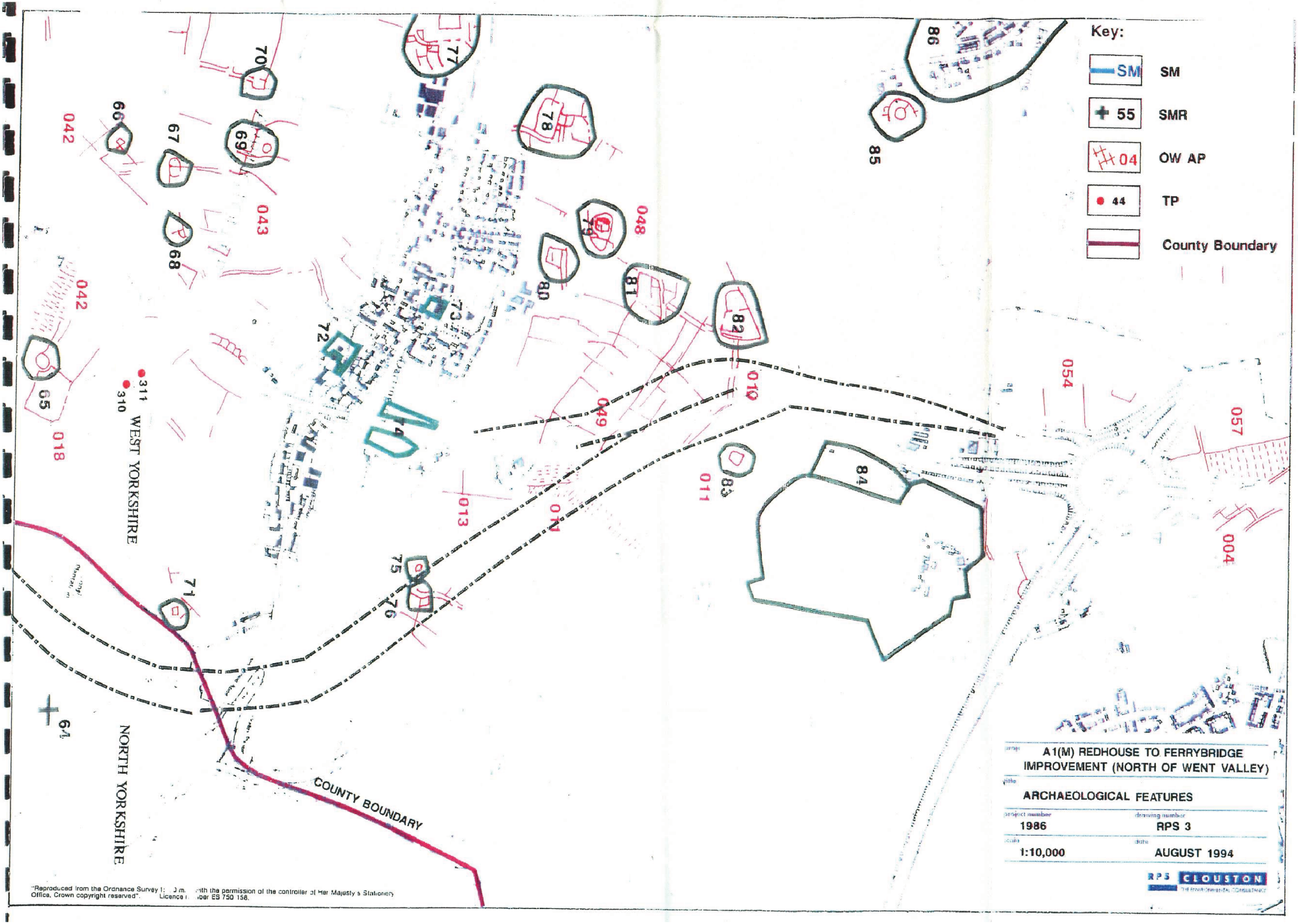

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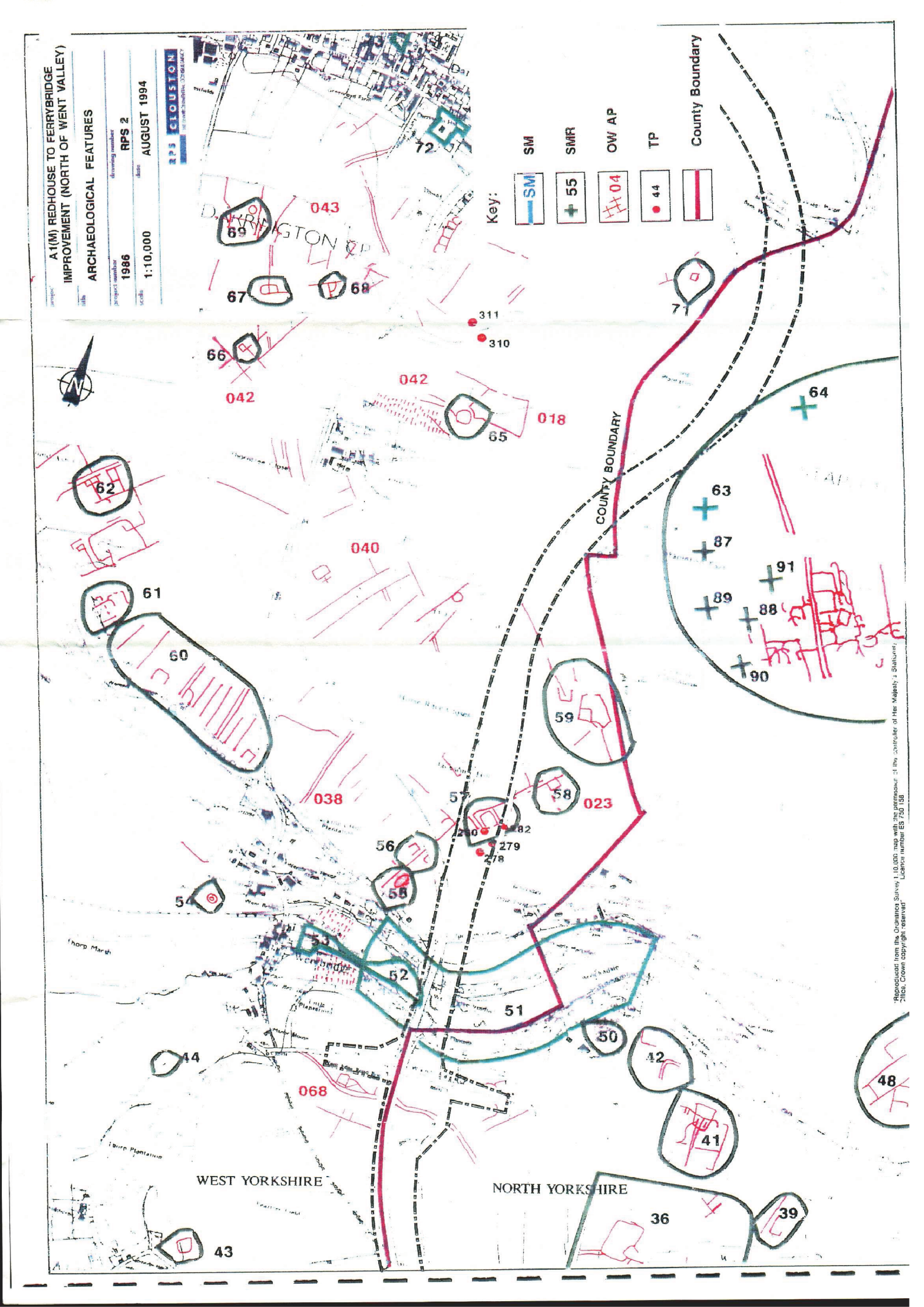
A1(M) REDHOUSE TO FERRYBRIDGE IMPROVEMENT (NORTH OF WENT VALLEY)
ARCHAEOLOGICAL FEATURES
1986
RPS 2
1:10,000
AUGUST 1994
RPS CLOUSTON
Key:
SM
SMR
OW AP
TP
County Boundary
COUNTY BOUNDARY
WEST YORKSHIRE
NORTH YORKSHIRE
Thorp Marsh
Thorp Plantation
043
042
042
018
040
038
023
068
311
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