Trent & Peak
Archaeological
Trust

2840

Fosse Way Project
Research Design.

A 46 FOSS WAY

NEWARK TO LINCOLN ROAD IMPROVEMENT SCHEME.

RESEARCH DESIGN.....FOSS WAY PROJECT.....1990/1991
From.....Trent and Peak Archaeological Trust.
To.....HBMCE.
Date.....07/06/90

THE FOSS WAY PROJECT.
INTRODUCTORY REMARKS.

It is intended by the Department of Transport (DoT) to turn 26 miles of the A 46 from Widmerpool, Notts. to the outskirts of Lincoln into a dual carriageway.
The A 46 follows the line of the Foss Way a major Roman road created in the first century A.D. It appears that with the advent of this road that there was a major change or re-orientation of the previous Iron Age landscape and its associated settlement pattern. Three Roman walled settlements, whose origins may have been military, are threatened with large scale destruction by the new road. These settlements appear to develop into urban centres representative of a new organic market economy and its associated changes in the exploitation of the landscape. At the end of the Roman period the road and its associated sites contin-ued to serve, in an interesting variety of ways, as focii for latter land division, economic activity and communications.
THE A46 developments are on of the very few cases where a proposed linear threat corresponds exactly with a major archaeological feature.
The initial design of the Newark to Lincoln section of the improved road will destroy 116 acres of land and involve a cutting right through one of the walled settlements (Brough-CROCOCOLANA). This road section is the DoT's highest priority in the East Midland region.

This initial project is intended to;-

1. Deal with the evaluation of the threat posed by the Newark to Lincoln route.
2. Propose steps to mitigate damage along that section.
3. Identify appropriate academic priorities for any work undertaken along the whole route where damage is unavoidable.

A 46
NEWARK TO LINCOLN
RESEARCH DESIGN 1990/91

I OBJECTIVES

The objectives of the project are:-

I.1 Identify the nature, extent and quality of any archaeological remains that lie within 100 metres of the improvement line proposed by DoT. Report on same by November 1990.

I.2 Using existing sources establish the full extent of knowledge about any archaeological remains that lie within 1,000 metres of the line of the existing A46. Report on same by March 1991.

I.3 Identify methods or options for preserving from destruction by road construction such archaeological remains as are identified under 1.1 and 1.2 above along the Newark to Lincoln section.

I.4 Establish the archaeological priorities to be considered in any "rescue" work that may arise from road construction alond the A 46 from Newark to Lincoln. Such priorities shall consider the contribution of any proposed work to:-

I.4.1 An understanding of the development of the man-made landscape.

I.4.2 An understanding of the nature of, and changes affecting, the past environment.

I.4.3 An understanding of the past economy or economic mechanisms that were current in the area affected.

I.4.4 The contribution any such work would make to the fulfilment of the academic priorities promoted by the period societies.

I.5 In the light of I.4 above attempt to establish the potential of any remains affected in terms of:-

I.5.1 Their usefulness as sources of environmental evidence.

I.5.2 Their usefulness as evidence of landscape division.

I.5.3 Their usefulness as evidences of continuity, or change, in landscape development between the major archaeological periods.

I.5.4 Their usefulness as sources of information on economic, subsistence or exploitative practices current in the past.

2 METHODOLOGY

2.I The following techniques shall be used for acheiving objective I.I:-

2.I.I Contour survey transects.

2.I.2 Field visits and observations.

2.I.3 Fieldwalking transects.

2.I.4 Narrow transect resistivity surveys.

2.I.5 Rapid trial trenching at the sites identified by 2.I.I to 2.I.4 above.

2.2 The following sources shall be consulted to acheive objective I.2 (Desk Top Review):-

2.2.I Nottinghamshire and Lincolnshire S.M.Rs.

2.2.2 Existing aerial photographic collections.

2.2.3 First edition O.S. maps and such other early maps as are available.

2.2.4 Such printed articles as exist in archaeological journals that are relevant.

2.2.5 Archaeologists who have particular knowledge of the area or material concerned.

2.3 Material arising from 2.I and 2.2 above shall be recorded using the systems devised for Derby Little Chester and the Brickwork Plan project. A report aimed at satisfying objectives I.3,I.4 and I.5 shall contained plots of the results to the same scale as that used by DoT.

2.4 Methods for physically preserving such remains as maybe affected (Objective I.3) shall be identified by consultation with:-

2.4.I DoT

2.4.2 HBMCE

2.4.3 Archaeologists who have had suitable experience with such problems.

The results of such consultations shall be presented to HBMCE in the form of a report prior to their consultations over the final route.

2.5 The demands of Objectives I.4 and I.5 shall be met by the methods used above and by the taking and processing of samples for evaluation of deposits environmental evidence potential, when appropriate.

3 RESOURCES

3.I Time:

3.I.I Desk Top Review, fieldwork and preservation option reports c 20 wks

3.I.2 Desk Top Review final report and report on academic priorities c 40 wks.

3.2 Capital and accomodation:

3.2.I TPAT premises at Brew House Yard Museum, Nottingham.

3.2.2 Newly purchased EDM using Leicestershire's proven system £9500

3.2.3 Newly purchased resistivity meter using proven TPAT system £5250.

3.2.4 The Library and the archaeological collections from the A 46 held or in the University of Nottingham.

3.3 Support Costs.

3.3.1 Directing and administration.....£7I00

3.3.2 Travel.....£4750

3.3.3 Materials.....£I900

3.4 Labour for project.

3.4.I 40 weeks of Field Officer.

3.4.2 40 weeks of Asst. Field Officer.

3.4.3 I0^{3} weeks of field labour.

3.5 The allocated resorces are just sufficent to ensure the completion of the project and reach the desired abjectives the total cost being equivalent to an expenditure of £7I95 per mile or £496 per acre.

3.6 An additional £I,500 is being sought to use for compensation payments to farmers (see 4.I).

4 TIMETABLE

4.I This project is controlled by the need to make an appropriate response to the proposed DoT route by October I990. Such a response is dependent upon the successful completion of suitable ground investigations these are in turn upon the farming regime. There is, given the intensive nature of the farming regime in the area, little chance that all the ground works can take place whilst land lies fallow. £I,500 is therefore available to compensate landowners where damage is unavoidable. The level of compensation shall be commensurate with that paid under the Set Aside scheme.

4.2 The project shall proceed in the following stages:-

STAGE I	Commence Desk Top Review (2.2).
	Field Visits (2.I.2)
	Contact landowners to establish access.
STAGE 2	Continue Desk Top Review.
	Commence, where possible, fieldwalking and resistivity (2.I.3/4).
STAGE 3	Continue Desk Top Review.
	Commencement field trenching (2.I.5).
	Consultations commence (2.4).
	Samples taken (2.5).
STAGE 4	Commence report on Desk Top Review (I.2).
	Commence report on fieldwork (I.I).
	Commence report on options (I.3).
STAGE 5	Presentation of reports on objectives I.I, I.2 and I.3 to HBMCE.
	Commencement of work on objectives I.4 and I.5.
STAGE 6	Presentation of reports on objectives I.4 and I.5 to HBMCE.

4.3 The time available to complete objectives I.I, I.2 and I.3 is now very short. DoT require observations on the proposed route by October. Given, however, that the DoT consultants have advised that only a corridor 200mts wide need be considered and that the route is n not formally fixed until Spring I99I it could be concluded that;-

a) There is little room for changing the line of the route only its nature.
b) The October deadline has been set as an encouragement to progress that reflects the Ministerial desire to see this road open as soon as possible.

SCHEDULE OF OPERATIONS

1990

JUNE Resource and recruit
Commence Stage I.

JULY Complete Stage I.

AUG. Commence Stage 2.
Commence Stage 3.

SEPT Commence Stage 4.

OCT. Complete Stage 2.
Complete Stage 3.
Complete Stage 4.

NOV. Complete Stage 5.
Commence Stage 6.

DEC. Continue work on objectives I.2, I.4, I.5.

1991

JAN. As Dec.

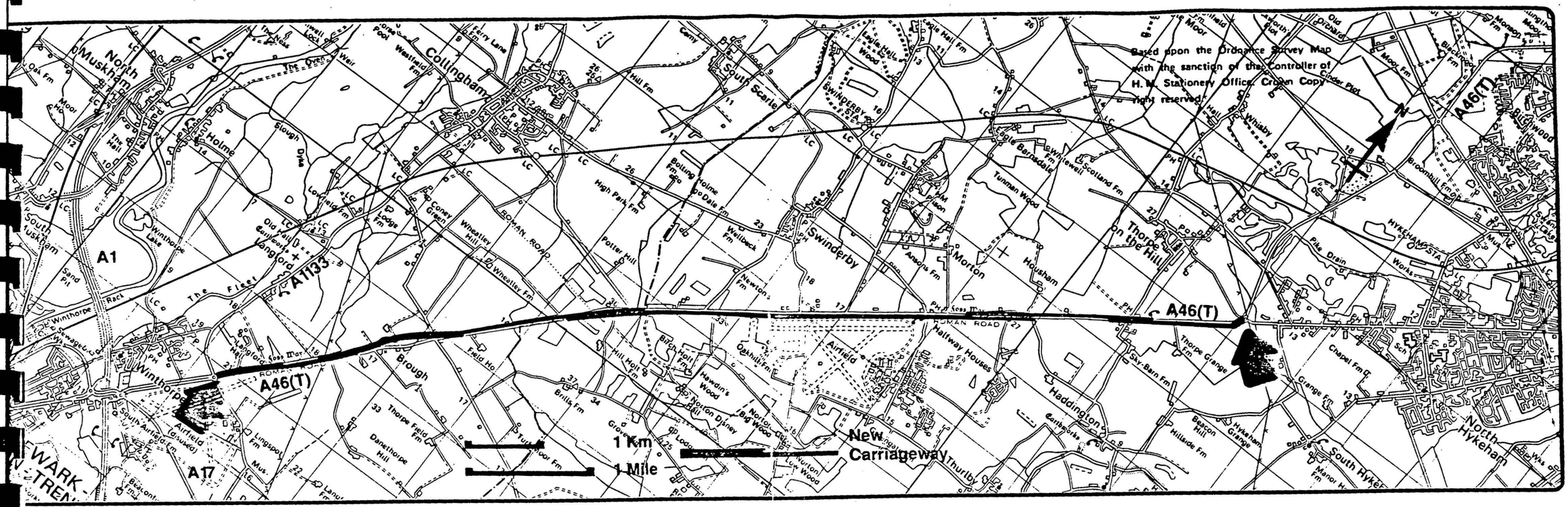
FEB. As Dec.

MAR. Complete Stage 6.

NOTE.

This research design is the result of discussions with HBMCE arising from the TPAT draft discussion document. That document should be read in conjunction with this design.
That document outlines the preservation and academic issues that are involved.
This project should be seen as a first step in solving the immediate and long-term problems posed by the A 46 improvements.

JW/TPAT/07/06/90



The solution

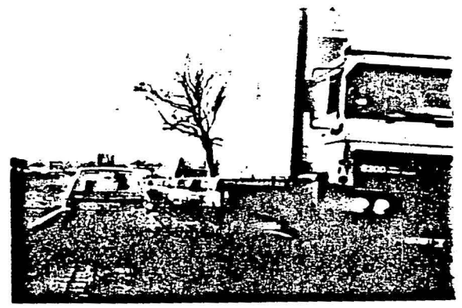
The Department has considered ways of improving the flow of traffic and reducing accidents along the route. The best and most economic solution is to add an additional carriageway alongside the existing one for much of its length thus making the road a dual carriageway. It is not always practicable to simply add a new carriageway. Restraints such as residential premises near to the existing road or the poor alignment of part of it means that in some places a whole new dual carriageway is required away from the present A46. This is particularly so at Brough village where a bypass is proposed to the north of the village. To build a bypass south of the village would create worse land severance than to the north and would have a serious effect on the remains of the old Roman camp, known as Crococolana. A bypass to the north would also allow better junction and access arrangements to the village.

The environment

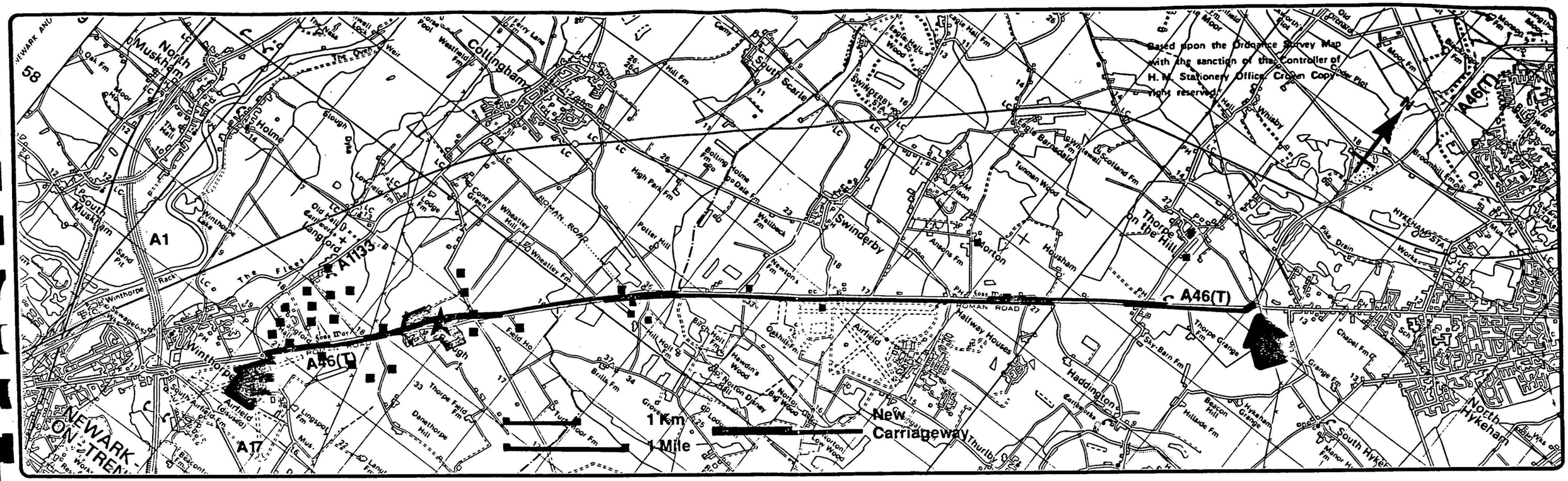
There are always advantages as well as disadvantages when building new roads. Improvements and bypasses can relieve towns and villages of traffic particularly heavy goods vehicles. They provide a safer and better route for the motorist. Delays and congestion are eased. On the other hand the effects of road traffic can be either increased or felt where there was none previously. This can involve the loss of agricultural land and also visual and noise intrusion to residential properties. Short-term disadvantages are the delay and disruption when the improvement is being constructed. However, this is offset in the longer term because of the ease by which future road maintenance operations can be carried out on the new dual carriageway. The major features of the scheme are shown opposite.

Features of the scheme

- Cost: £16.1 million
- Length: 13 kilometre (8 miles)
  Dual two-lane carriageway
- Approximate land take: 47 hectares (116 acres)
- Good value for money on economic assessment
- Disturbance to archaeologist sites would be kept to a minimum
- Some unavoidable disruption to farming and business interests would occur
- There would be only moderate delays to traffic during construction
- Existing trees and hedgerows would be preserved wherever possible
- The improvement would create a degree of visual intrusion but landscaping measures would be taken to lessen the impact as much as possible



- Number of properties within 50m of the existing road: 28
- Number of properties within 50m of the new road: 18
- NO properties would be demolished
- Journey times for travellers would be reduced
- The scheme is expected to reduce accidents and improve road safety
- The road may be lit



■ SITES ON NOTTS S.M.R.

■ SITES ON LINCS S.M.R.

★ CROCOCALANA

DESK TOP REVIEW

Elements

Review area 1Km along road. 2.5Km around Brough

Plotted:

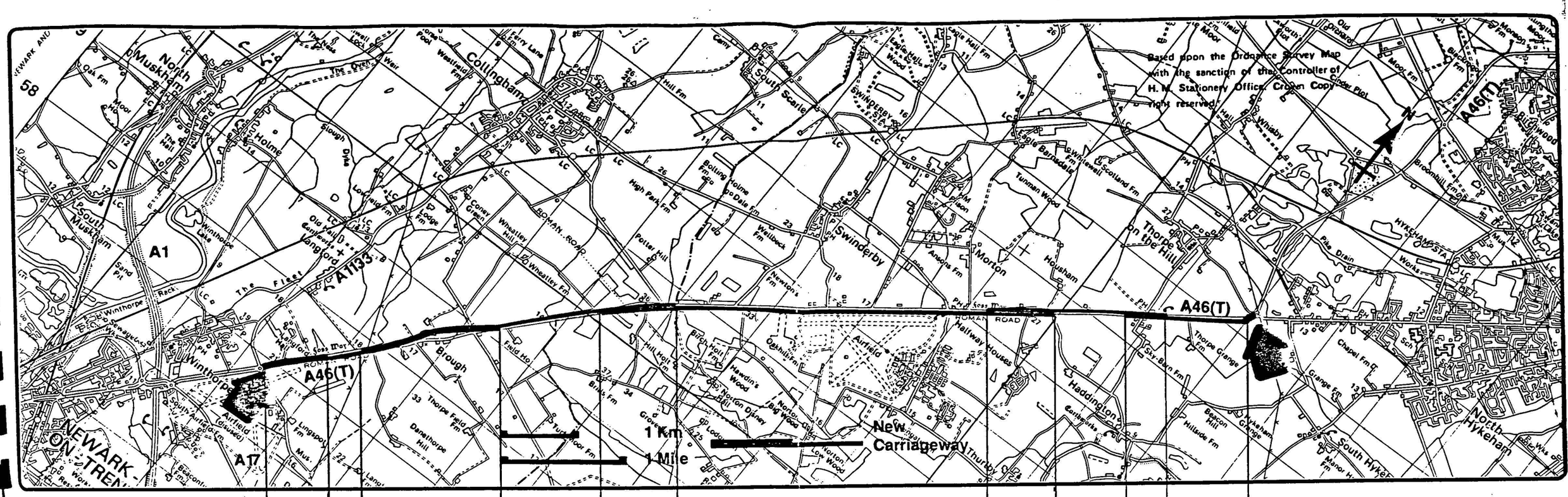
- Verticals
- Obliques
- Soil survey
- Drift Geology
- SMR data

Consulted:

- County Journals
- 1st. Ed. O. S.
- County SMR's

Field Observation:

- Rapid visit each main site
- Rapid visit each woodland



ASSESSMENT WITHIN ROUTE

	New	Ex	New	Expan	New	Expansion	New	Exp	New	Exp
Full fieldwalk/observation	-------		----------	----------	----------	----------	----------	----------	----------	----------
Fieldwalk/observation at 5m		-----		----------		----------		----------		----------
Resistivity at 5m 2m wide		-----		----------		----------		----------		----------
Full resistivity	-------		----------		----------		----------		----------	

Machine Trenches
width 3.5 m
siting at known anomalies