

M1 - A5 Link Road, Bedfordshire

ARCHAEOLOGICAL WATCHING BRIEF REPORT

CONTENTS

1	Summary.....	1
2	Introduction.....	1
	2.1 Location and scope of work.....	1
	2.2 Geology and topography.....	1
	2.3 Archaeological and historical background.....	1
3	Project Aims and Methodology.....	2
	3.1 Aims.....	2
	3.2 Methodology.....	3
4	Results.....	3
	4.1 Description of deposits.....	3
	4.2 Finds.....	5
	4.3 Palaeo-environmental remains.....	5
5	Discussion And Conclusions.....	5
6	Appendix 1 Archaeological Context Inventory.....	6
7	Appendix 2 Bibliography and References.....	7
8	Appendix 3 Summary of Site Details.....	7

LIST OF FIGURES

- Fig. 1 Site location
Fig. 2 & 3 Site plans showing test pit locations

Summary

In June 2005 Oxford Archaeology (OA) carried out an archaeological watching brief on the proposed Northern Route for a new M1 - A5 Link Road (NGR: TL 011 250, centred). The work was commissioned by Parsons Brinckerhoff and consisted of monitoring the excavation of 11 geotech pits. The watching brief revealed Roman and post Roman alluvial deposits but no significant archaeology.

1 INTRODUCTION

1.1 Location and scope of work

1.1.1 In June 2005 Oxford Archaeology (OA) carried out an archaeological watching brief during the excavation of geo-technical test pits on the proposed Northern Route for a new M1 - A5 Link Road (NGR: TL 011 250, centred). The work was commissioned by Parsons Brinckerhoff.

1.2 Geology and topography

1.2.1 The Study Corridor lies within the South Bedfordshire and North Luton Districts of Bedfordshire and crosses the ancient Parishes of Toddington, Tilsworth and Houghton Regis. The Study Corridor extends for about 2 km north to south and for about 5 km east to west and is 1 km wide. The southern boundary is formed by the urban edge of Houghton Regis, which lies on the lower Chiltern Scarp. To the west it is roughly defined by the London to Sheffield railway line, which runs nearly parallel with, and to the east of the M1 (NGR: TL 011 250 centred).

1.2.2 The majority of the Northern Route lies on the lower chalk formation below the lower Chiltern Scarp and crosses a line of Cretaceous Limestone formation, outcropping on the flank of the shallow valley between the Chalton Ridge and lower Chiltern Scarp. The proposed new Junction 11A on the M1 is situated on Quaternary Till deposits overlying lower Chalk and a Totternhoe stone outcrop (BGS 1992).

1.2.3 The Study Corridor is generally an open agricultural landscape in a shallow valley, with a high degree of intervisibility across it.

1.3 Archaeological and Historical Background

1.3.1 The study corridor is the subject of a detailed Environmental Assessment document (M1-A5 Link DMRB Stage 2 Environmental Assessment, OA, 2005). The relevant information is reproduced below.

1.3.2 The proposed route crosses an area of mixed archaeological potential, with the possibility that the proposed route contains multi-period remains. There is therefore a fairly well defined likelihood that any ground intrusive activities will affect previously unrecorded archaeological deposits, as well as those identified during the survey. North of the Luton/Dunstable conurbation is an area categorised by lighter

free draining calcareous soils overlying chalk (BGS 1992). This area has been identified as having a rich and diverse archaeological resource. The lighter, well-drained soils would have been attractive to early farmers and clearance for agriculture began in the Neolithic period. It was in this period that the Icknield Way became established as a route way.

- 1.3.3 The intensity of settlement increased through the Bronze Age with recognisable territorial divisions becoming established in the form of the Chiltern Cross Dykes and barrow cemeteries (Dyer, 1963). One such division has been identified east of the M1 in the vicinity of Galley and Warden Hill where a probable cross dyke (Dray's Ditches) is associated with Round Barrows and Ring Ditches. Extensive Bronze Age settlement evidence has also been identified from this area immediately north of Luton.
- 1.3.4 Settlement activity in this area continued to intensify in the Iron Age and Roman periods with the establishment of a pattern of settlement comprising scattered farmsteads with associated field systems. The settlement pattern generally continued to conform to that established during the Neolithic and Bronze Age periods. Settlement evidence dating to the Iron Age and Roman periods has been identified within the M1 study corridor. These sites are of importance as they span the transition between the Iron Age and Roman periods. Dunstable has been identified as *Durocobravis* in the second century Antonine Itinerary and stands astride the major arterial routeway *Watling Street*, the course of which is followed by the present A5. The Icknield way also remained in use during this period.
- 1.3.5 In the early Medieval period the intensity of settlement appears to have receded. There is a known hiatus in the archaeological record in the period immediately after the collapse of Romano British infrastructure. Settlement evidence for the early Medieval period has been recognised in the vicinity of the A5 - M1 corridor alongside Anglo Saxon cemeteries. Anglo Saxon cemetery distribution has also been shown to often conform to present parish boundaries (Bilikowski 1980).
- 1.3.6 Utilisation and settlement of this area recovered during the Later Medieval period with the probability that earlier medieval land divisions survived as parish boundaries into the later Medieval period. Medieval settlement generally conforms to the present settlement distribution though a number of settlements became deserted or shrunk. Extensive earthworks have been identified at Upper and Lower Sundon, Chalgrave, Tilsworth and at Wingfield.

2 PROJECT AIMS AND METHODOLOGY

2.1 Aims

- 2.1.1 To record the presence/absence, date, character, quality, significance and state of preservation of any archaeological remains within the areas of the site affected by the proposed link road.
- 2.1.2 To signal, before the destruction of the material in question, the discovery of a significant archaeological find, for which the resources allocated are not sufficient to support a treatment to a satisfactory and proper standard.
- 2.1.3 To make available the results of the archaeological investigation.

2.2 Methodology

- 2.2.1 The test pits measured approximately 4 m long by 0.75 m wide and excavated up to a depth of 5 m, were excavated by mechanical excavator (JCB) using a 0.8 m wide toothed bucket under archaeological supervision. Excavation proceeded in spits down to the depth required by the attending geologist.
- 2.2.2 A plan showing the location of the test pits was compiled at a scale of 1:1000 (Fig. 2). All recorded test pits were photographed using colour slide and black and white print film. A general photographic record of the work was made. Recording followed procedures detailed in the *OA Field Manual* (ed D Wilkinson, 1992).
- 2.2.3 The stratigraphy of the trenches were recorded even where no archaeological deposits could be identified. Spoil heaps were monitored to allow analysis of the spatial distribution of artefacts.
- 2.2.4 All features and deposits were issued with unique context numbers, and context recording was in accordance with established OA practice in *OAU Fieldwork Manual* (ed D Wilkinson, 1992).

3 RESULTS

3.1 Description of deposits

- 3.1.1 The results have been collated together within similar stratigraphic groups which broadly reflect the location of the pits.

Test pit 1

- 3.1.2 The base of this pit came down onto a natural deposit composed of blue grey sandy clay (104 and 106). This was overlain by silty clays (Layers 102, 103 and 105), of between 0.1 m and 0.4 m deep which represent alluvial deposits. The lowest of these layer (105) produced 3 sherds of grey ware Roman pottery. Sealing these was a layer of mid yellow brown clay silt subsoil (101) 0.15 m thick, overlain by 0.35 m of modern topsoil.

Test pit 2

- 3.1.3 Test pit 2 was excavated to a natural blue grey sandy clay (204) 2 m thick, it was encountered at 3 m below ground level. This was overlain by 2.25 m of a light grey clay silt (203) which was calcareous with yellowy orange ferrous inclusions, and was interpreted as of natural origin. Sealing this was first alluvial clayey silt (202) 0.3 m thick with charcoal flecks and snail shell inclusions, and then alluvial derived subsoil (201). Overlying this was modern topsoil (200).

Test pit 3

- 3.1.4 The natural, an orange yellow clay silt (302) was reached at a depth of 0.45 m below ground level. Below this excavation continued through an orangey grey silty clay (303) 2.95 m thick, which came overlay solid grey chalk (304) at 3.7 m below ground level. Sealing (302) was a clay silt subsoil (301) overlain by modern topsoil (300).

Test pit 4

- 3.1.5 The natural, comprising light grey calcareous clay silt (402), was reached at a depth of 0.8 m below current ground level. This was overlain by a 0.5 m thick layer of light yellow brown clay silt subsoil (401). A 0.3 m thick layer of topsoil, a clay loam (400) completes the stratigraphy.

Test pit 5

- 3.1.6 The natural, light grey weathered chalk (500), was reached at 0.3 m below ground level and continued for 4.7 m. This was overlain directly by a 0.3 m thick layer of modern topsoil.

Test pits 6, 7, 8, 9 and 11

- 3.1.7 All five of these test pits towards the eastern end of the proposed route have the same stratigraphy and will be dealt with together.
- 3.1.8 Natural consisting of weathered chalk in all these test pits (except test pit 8 where natural was a yellow orange sand with occasional chalk fragments and rounded flint pebbles) was encountered at between 0.5 and 0.8 m below current ground level. Sealing the natural was a subsoil of varying thickness, 0.15 - 0.4 m, a mid grey brown clay silt. This was overlain by the present day topsoil. No alluvium was present in these test pits.

Test pit 10

- 3.1.9 At 1.1 m below current ground level natural (1003) was encountered. This consisted of a degraded calcareous silt or marl. Natural (1003) was sealed by alluvium (1002) a compact mid brown silt with occasional shell fragments and charcoal flecks 0.3 m thick. This was overlain by subsoil (1001), a friable orange brown clay silt which merges into topsoil (1000) above.

3.2 Finds

3.2.1 The only finds from the site were recovered from alluvial layer (105) in test pit 1. These consisted of three sherds of Roman grey ware pottery and one fragment of burnt stone.

3.3 Palaeo-environmental remains

3.3.1 No archaeologically significant deposits were observed during the works so it was unnecessary to sample for environmental material.

4 DISCUSSION AND CONCLUSIONS

4.1.1 The stratigraphy observed the test pits to the west of the study area (Test pits 1, 2, 3, and 4) is indicative of limited agricultural activity overlying flood and alluvial deposits. To the east the remaining test pits, except for Test pit 10, show no evidence for alluviation, and natural is sealed directly by subsoil.

4.1.2 During the course of the watching brief no evidence for occupation or other activity, such as features cutting into the alluvium, however some residual finds of roman date were recovered from Test pit 1. As this test pit is located closest to the A5 and therefore the course of the Roman road, Watling Street it is not surprising.

4.1.3 The conclusion reached from the evidence available is that the development area has always been used for pasture or rough grazing with no significant archaeological activity noted.

APPENDICES

5 APPENDIX 1 ARCHAEOLOGICAL CONTEXT INVENTORY

<i>Test pit</i>	<i>Context</i>	<i>Type</i>	<i>Depth</i>	<i>Comments</i>	<i> Finds</i>	<i>Date</i>
1	100	Layer	0.35 m	Topsoil	-	-
	101	Layer	0.15 m	Subsoil	-	-
	102	Layer	0.1 m	Alluvial clay silt	-	-
	103	Layer	0.15 m	Alluvial clay silt	-	-
	104	Layer	2.35 m	Natural clay	-	-
	105	Layer	0.4 m	Alluvial clay silt	Pot, burnt stone	Roman
	106	Layer	>0.6 m	Natural clay	-	-
2	200	Layer	0.25 m	Topsoil	-	-
	201	Layer	0.2 m	Subsoil	-	-
	202	Layer	0.3 m	Alluvial clay silt	-	-
	203	Layer	2.25 m	Alluvial clay silt	-	-
	204	Layer	> 2 m	Natural clay	-	-
3	300	Layer	0.3 m	Topsoil	-	-
	301	Layer	0.15 m	Subsoil	-	-
	302	Layer	0.3 m	Natural chalky clay	-	-
	303	Layer	2.95 m	Natural chalky clay	-	-
	304	Layer	1.3 m	Natural chalk	-	-
4	400	Layer	0.3 m	Topsoil	-	-
	401	Layer	0.5 m	Subsoil	-	-
	402	Layer	1.20 m	Natural chalky clay	-	-
	403	Layer	3 m	Natural chalk	-	-
5	500	Layer	0.3 m	Topsoil		
	501	Layer	4.7 m	Natural chalk	-	-
6	600	Layer	0.3 m	Topsoil	-	-
	601	Layer	0.25 m	Chalky clay	-	-

	602	Layer	4.45 m	Natural chalk	-	-
7	700	Layer	0.3 m	Topsoil	-	-
	701	Layer	0.15 m	Subsoil	-	-
	702	Layer	4.55 m	Natural chalk	-	-
8	800	Layer	0.35 m	Topsoil	-	-
	801	Layer	0.3 m	Subsoil	-	-
	802	Layer	4.35 m	Natural sand, chalk and flint	-	-
9	900	Layer	0.4 m	Topsoil	-	-
	901	Layer	0.4 m	Subsoil	-	-
	902	Layer	4.2 m	Natural chalk	-	-
10	1000	Layer	0.4 m	Topsoil	-	-
	1001	Layer	0.8 m	Subsoil	-	-
	1002	Layer	0.3 m	Natural chalk	-	-
	1003	Layer	3.9 m	Natural calcareous silt	-	-
11	1100	Layer	0.3 m	Topsoil	-	-
	1101	Layer	0.35 m	Subsoil	-	-
	1102	Layer	4.35 m	Natural calcareous silt	-	-

6 APPENDIX 2 BIBLIOGRAPHY AND REFERENCES

IFA, 1992 *Standard and Guidance for Archaeological Watching Briefs*

OAU, 1992 *Field Manual (ed. Wilkinson D)*

7 APPENDIX 3 SUMMARY OF SITE DETAILS

Site name: A5 - M1 Link Road, Bedfordshire

Site code: HRM ILR 05

Grid reference: TL 011 250

Type of watching brief: 11 machine dug geo-technical pits

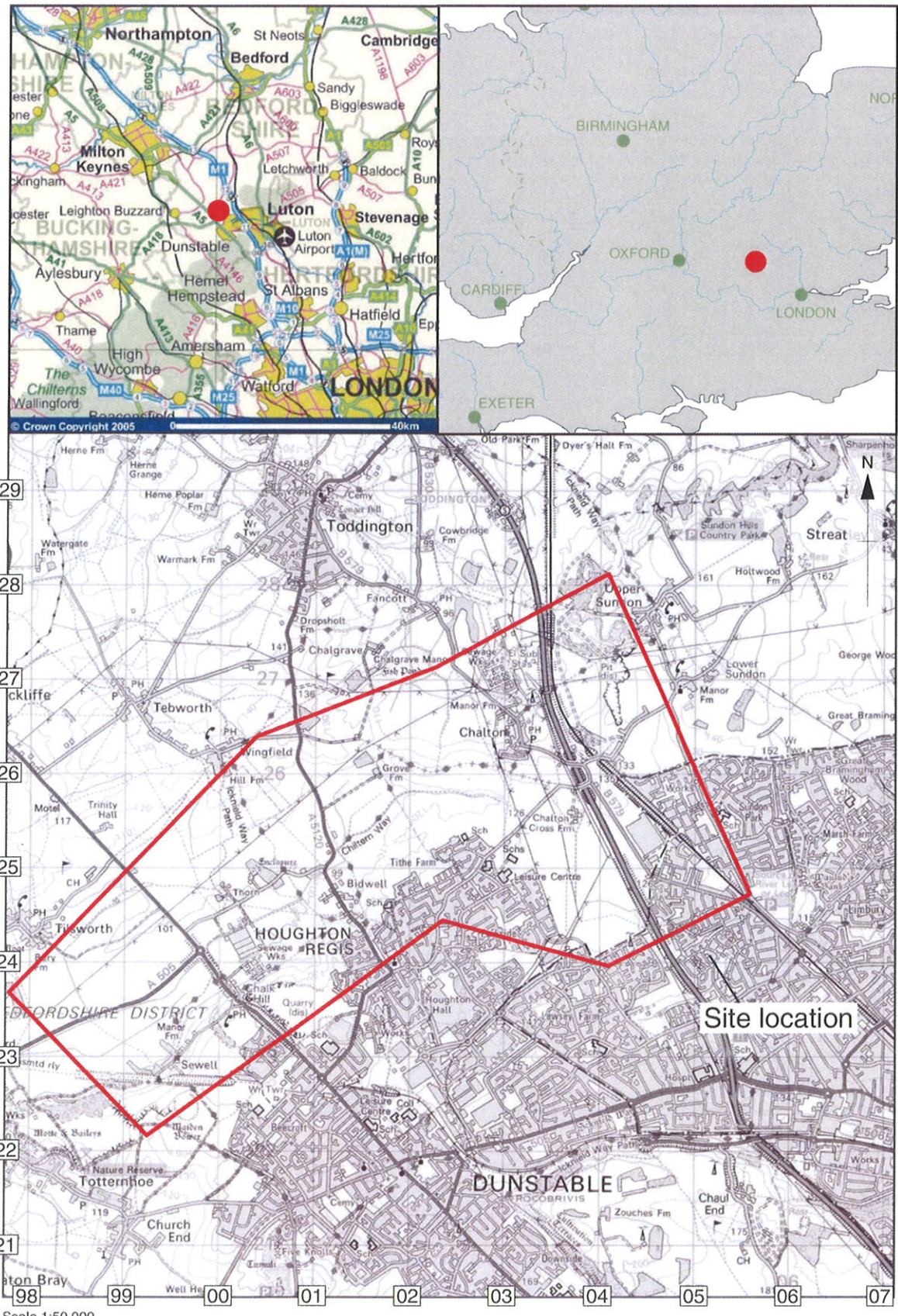
Date and duration of project: 1st - 10th June 2005, Seven days

Area of site: c. 175 hectares

Summary of results: Agricultural soils overlying alluvial deposits

Location of archive: The archive is currently held at OA, Janus House, Osney Mead, Oxford, OX2 0ES, and will be deposited with Cambridge Museum in due course.

Server 10:/oapubs/_litroq/M1.A5C02*M1-A5 Link Roads*AH*07.04.05

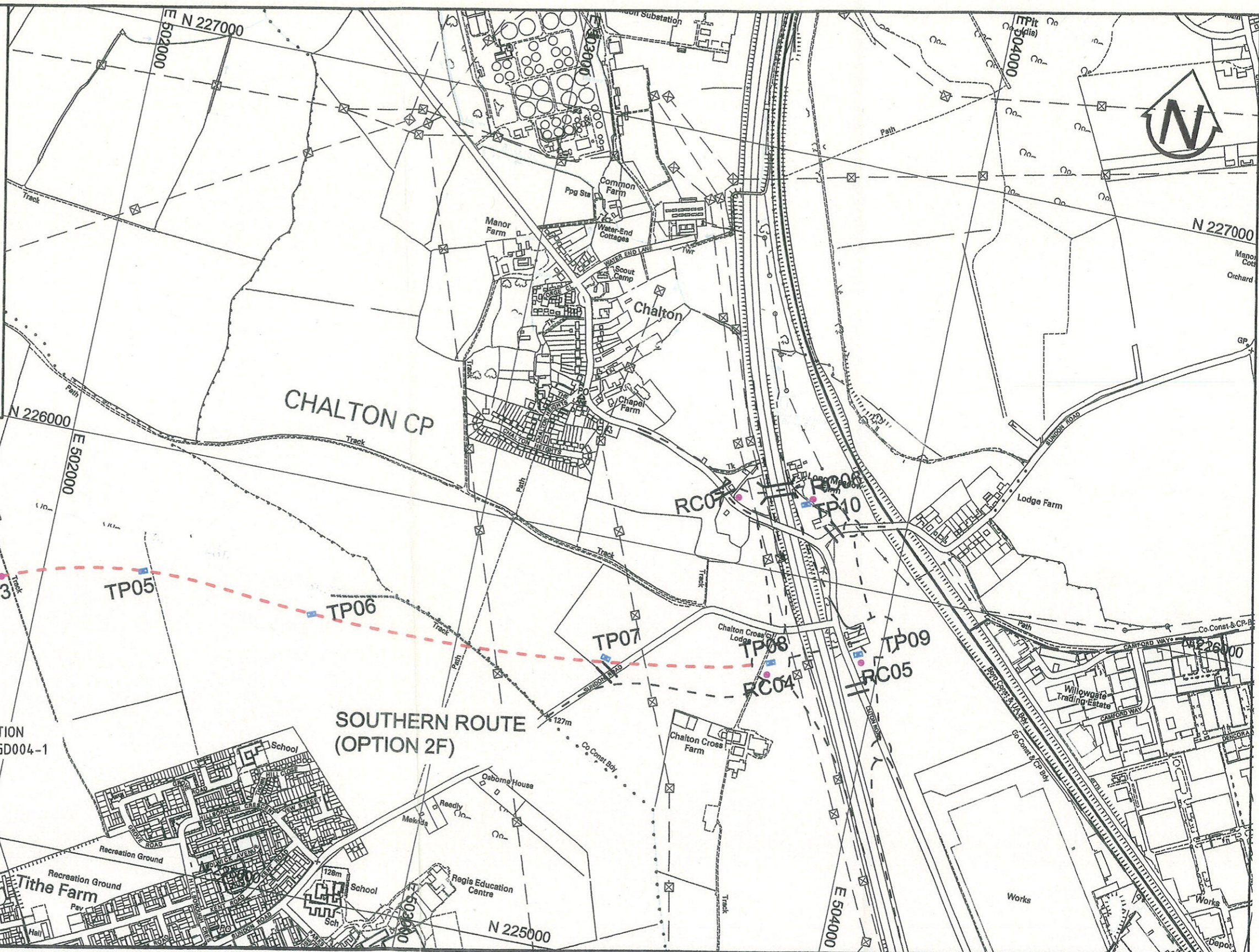


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Figure 1: Site location

EXPLORATORY HOLE DEPTHS

Rotary Hole No.	Minimum Diameter	Proposed Depth	Special Requirements
	(mm)	(m)	
RC 01	92	15.0	Standpipe Piezometer
RC 02	92	20.0	Standpipe Piezometer
RC 03	92	15.0	Standpipe Piezometer
RC 04	92	20.0	Standpipe Piezometer
RC 05	92	20.0	Standpipe Piezometer
RC 06	92	20.0	Standpipe Piezometer
RC 07	92	20.0	Standpipe Piezometer
Trial Pit No.	Minimum Area	Proposed Depth	Special Requirements
	(m ²)	(m)	
TP 01	4.0	6.0	N/A
TP 02	4.0	6.0	N/A
TP 03	4.0	6.0	N/A
TP 04	4.0	6.0	N/A
TP 05	4.0	6.0	N/A
TP 06	4.0	6.0	N/A
TP 07	4.0	6.0	N/A
TP 08	4.0	6.0	N/A
TP 09	4.0	6.0	N/A
TP 10	4.0	6.0	N/A



FOR CONTINUATION
SEE DRAWING GD004-1

REV	DATE	ISSUED FOR COMMENT	BY	CHKD
A	07-02-05	ISSUED FOR COMMENT	PJR	ORS
B	16/03/05	NORTHERN ROUTE/TPs REMOVED ISSUED TO HA FOR TASK ORDER		

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LEGEND

	TRIAL PIT LOCATION
	BOREHOLE LOCATION



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CLIENT/PROJECT
M1 - A5 LINK ROAD
PHASE 1
GROUND INVESTIGATION

TITLE
FIGURE 3
PLAN OF
EXPLORATORY HOLES

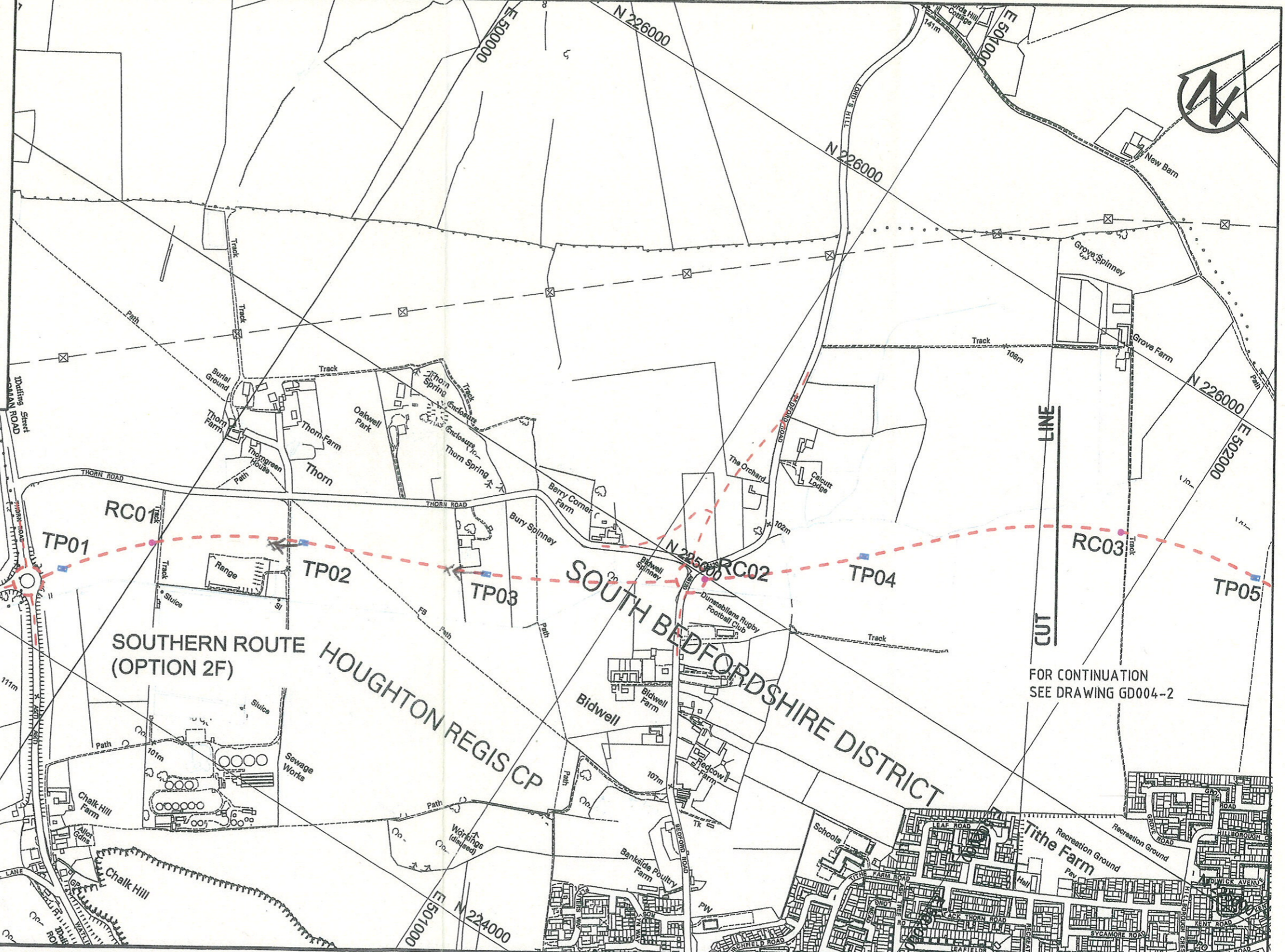
DATE	FEB. 2005	PRODUCED BY	PJR
SCALE	1 : 10 000	CHECKED	ORS
CAD REF.		APPROVED	DAM
DRAWING NUMBER	GD004-2		

FIGURE 3 PLAN OF EXPLORATORY HOLES

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EXPLORATORY HOLE DEPTHS			
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RC 06	92	20.0	Standpipe Piezometer
RC 07	92	20.0	Standpipe Piezometer
Trial Pit No.	Minimum Area	Proposed Depth	Special Requirements
	(m ²)	(m)	
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TP 03	4.0	6.0	N/A
TP 04	4.0	6.0	N/A
TP 05	4.0	6.0	N/A
TP 06	4.0	6.0	N/A
TP 07	4.0	6.0	N/A
TP 08	4.0	6.0	N/A
TP 09	4.0	6.0	N/A
TP 10	4.0	6.0	N/A



REV DATE
 A 07-02-05 ISSUED FOR COMMENT
 B 16/03/05 NORTHERN ROUTE/TPs REMOVED
 ISSUED TO HA FOR TASK ORDER

BY CHKD
 PJR ORS

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 M1 - A5 LINK ROAD
 PHASE 1
 GROUND INVESTIGATION

TITLE
 FIGURE 2
 PLAN OF
 EXPLORATORY HOLES

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 SCALE 1: 10 000
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