



**Land at Whitelands Farm, South West Bicester**  
**Remediation Register**  
Countryside Properties Ltd

February 2010

Draft

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# QM

Issue/revision	Issue 1	Revision 1	Revision 2	Revision 3
Remarks	Draft			
Date	February 2010			
Prepared by	H Gardiner			
Signature				
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Project number	12370399/001			
Report Number	12370399/001/02			

Draft

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**Figure 1 Site Location Plan**

**Figure 2 Site Layout Plan**

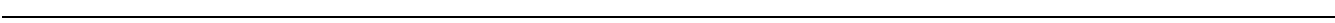
**Appendix A Exploratory Hole Location Plan – WSP Report 12370399/001 (2010)**

**Appendix B Exploratory Hole Location Plan – WSP Report 12370324/001 (2009)**

**Appendix C Exploratory Hole Location Plan – WSP Report 12370178/001 (2007)**

**Appendix D Exploratory Hole Location Plan – Pell Frischmann Report 410511/01 (2001)**

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# Confidentiality Statement

This report is addressed to and may be relied upon by the following party:-

1. Countryside Properties Ltd  
Countryside House  
The Drive  
Brentwood  
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CM13 3AT

This assessment has been prepared for the sole use and reliance of the above named party. This report shall not be relied upon and or transferred to any other parties without the express written authorisation of WSP Environmental Limited. No responsibility will be accepted where this report is used, either in its entirety or in part, by any other party

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# 1 Introduction

## 1.1 BACKGROUND, REASONS AND OBJECTIVES OF THIS REPORT

The site is of an irregular shape covering an area of approximately 188 hectares. The proposed site development comprises a combination of residential, commercial, local amenities, and open space end use. The planning conditions of this development pertinent to contamination issues are:

Condition 20;

*“No development shall commence until a remediation scheme has been submitted to deal with the identified areas of contamination and the submitted scheme has been approved in writing by the Local Planning Authority. The scheme shall be implemented in accordance with the approved details and a validation report shall thereafter be submitted confirming the works have been completed within 2 months of the works being carried out.” Cherwell District Council, application number 06/00967/OUT (2006)*

A number of site investigations and surveys have been undertaken for different parts of the Bicester site.

This report summaries the contamination issues established from the investigations and where necessary, approaches of remediation measures. In doing so, it sets out a coherent approach on how the planning conditions are addressed.

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## 2 The Site

### 2.1 SITE SETTING

Site details are presented in Table 1. The location of the site is indicated on 1.

Table 1 Site details

Site Address	Land at Whitelands Farm, Middleton Stoney Road, Southwest Bicester, Oxfordshire.
National Grid Reference	Centre of site: SP 566 219
Size	188 hectares

### 2.2 SITE DESCRIPTION

The site is of an irregular shape covering an area of approximately 188 hectares. The topography of the site slopes gently in an easterly direction. The site is bounded to the north by the B4.30 Middleton Stoney Road and residential properties beyond. To the east the site is bounded by the A41 Oxford Road and the edges of a service station in the north-eastern part of the site. To the southwest and south by the A4095 Howes Lane.

The site comprises a number of fields, most of which are covered in grass. Whitelands Farmhouse (now vacant), associated outbuildings and yard are situated almost at the centre of the site and are reached by a lane from the B4030. Whiteland Cottages are situated along the land approximately halfway between the Farmhouse and the B4030.

The edges of the fields are generally bounded by hedgerows and mature trees. A boggy area stretching west from the north-western corner of the site is overgrown by bog grasses either side of the shallow stream (Pingle Brook). The stream continues westwards into the adjacent field.

The site layout is presented in 2.

### 3 Remediation Register

The following table outlines the current remediation status of the site.

Table 2. Remediation status.

<b>SPECIFIC ISSUES FOUND ON SITE</b>						
Report Reference	Site Coverage	Contamination Status	Remediation strategy/ spec	Remediation/ validation	Remaining action for planning condition to be discharged	Planning Condition Discharged
1. WSP 12370399/001 (2010)	16.7 hectares (Appendix A)	To be confirmed.  No visual or olfactory signs of contamination during site works	Site investigation on- going. Remediation strategy to be confirmed	To be confirmed – investigation ongoing.	To be confirmed	Pending
2. WSP 12370324/001 (2009)	Primary School – 2.47 hectares  Secondary School – 6.5 hectares (Appendix B)	Arsenic within Cornbrash Formation within TP41 at 0.50m bgl.	Not required assuming clean topsoil is to be placed in the area as proposed.	Not required	No action	Pending
3. WSP 12370178/001 (2007)	188 hectares (Appendix C)	Arsenic within all natural soil across the site, and nickel within the Topsoil and Made Ground within Area A.  Made Ground within the northern corner of the site	Made Ground must be removed to a depth of 1m, and may not be used as engineered fill. Made Ground maybe suitable for used within noise bunds.	Not required  Since the investigation, published Soil Guideline Values have become less stringent for arsenic and nickel, and as a result, the majority of previously reported elevated levels are no	No action	Pending



				longer of concern. Elevated levels of arsenic and nickel still remain within TP61, however, given the depth of the sample (1.50m), and the removal of made ground, soils should be suitable for a residential end use.		
4. Pell Frischmann 410511/01 (2001)	188 hectares (Appendix D)	Immobile heavy metals within the north west corner of the site.	Not required provided a clean break layer is used in landscaped areas.	Not required	No action	Pending
<b>GENERAL ISSUES</b>						
Asbestos		N/A	Possibly within farmhouse buildings	Asbestos to be removed by a specialist contractor. Asbestos-containing materials should be either removed to landfill or safely placed within the formation of roads after seeking conformation with the relevant statutory body.	N/A	Pending
Unidentified areas of contaminations		N/A	Site-wide	Any areas of possible contamination (within landscaped areas) not previously identified during the site investigations	N/A	Pending





				<p>should be removed and replaced with clean certified topsoil. Alternatively, a break layer maybe put in place.</p> <p>In areas of proposed hardstanding, further action may not be required. This should be agreed with the local authority and Environment Agency.</p>		
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## 4 Information Available

### 4.1 PREVIOUS INVESTIGATIONS

In order to compile this document, the following reports have been reviewed:

- WSP Report Ref. 12370399/001/01 (2010) *Southwest Bicester Geo-Environmental and Geotechnical Interpretative Report* (In progress);
- WSP Report Ref. 12370324/001 (2009) *Southwest Bicester Schools Sites Geo-E-Environmental and Geotechnical Interpretative Report*;
- WSP Report Ref. 12370178/001 (2007), *Whitelands Farm, South West Bicester Geo-Environmental and Geotechnical Interpretative Report*; and,
- Pell Frischmann Report Ref, 410511/01 (2001), South West Bicester, Oxfordshire Ground Investigation, Factual and Interpretative Report.

### 4.2 SUMMARY OF PREVIOUS INVESTIGATIONS

The following sections outline the scope of each investigation.

#### 1. WSP REPORT REF. 12370399/001 (2010)

The scope of works consisted of the following:

- Sinking of 10 cable percussion boreholes to 10m bgl (below ground level);
- Mechanical excavation of 41 trial pits; and
- Sinking of 38 window sampler boreholes.

At the time of writing this report, the intrusive investigation has not been completed. The remediation status of the site is to be confirmed when the investigation is complete.

The exploratory hole location plans are presented in Appendix A.

#### 2. WSP REPORT REF. 12370324/001 (2009)

The scope of works consisted of the following:

- Mechanical excavation of 45 trial pits;
- Sinking of 6 window sampler boreholes;
- Testing of 43 soil and 5 water samples for a range of commonly occurring contaminants.

The exploratory hole location plan is presented in Appendix B.

#### 3. WSP REPORT REF. 12370178/001 (2007)

The scope of works consisted of the following:

- Mechanical excavation of 59 trial pits;
- Testing of 39 soil and 13 water samples for a range of commonly occurring contaminants.

The exploratory hole location plan is presented in Appendix C.



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#### **4. PELL FRISCHMANN REPORT REF, 410511/01 (2001)**

The scope of works consisted of the following:

- Mechanical excavation of 110 trial pits;
- Sinking of 11 cable percussion boreholes; and,
- Testing of 58 soil, 11 leachate and 11 water samples for a range of commonly occurring contaminants.

The exploratory hole location plan is presented in Appendix D.

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## 5 Summary of Findings from Previous Investigations

Table 3 shows the remediation status of the site.

Table 3. Remediation status of Land at Whitelands Farm, Southwest Bicester.

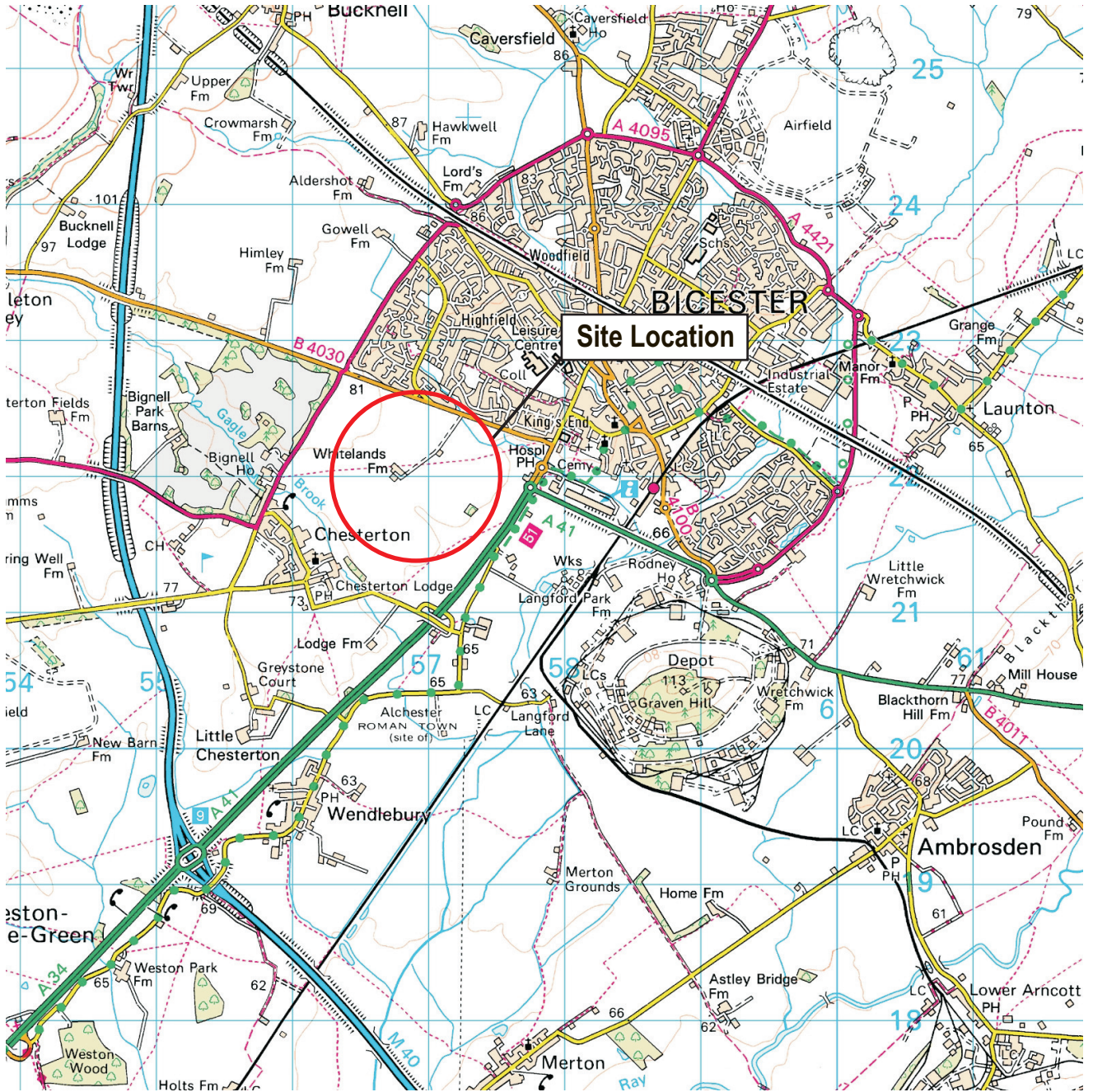
Remediation register at 01/02/2010			
Report Reference	Site Coverage	GI undertaken	Contamination Status
1. WSP 12370399/001 (2010)	16.7 hectares	January-February 2010	To be confirmed.  No visual or olfactory signs of contamination during site works
2. WSP 12370324/001 (2009)	Primary School – 2.47 hectares  Secondary School – 6.5 hectares	August 2009	Arsenic within Cornbrash Formation within TP41.
3. WSP 12370178/001 (2007)	188 hectares	April-May 2007	Arsenic and in a few locations, nickel.  Made Ground within the northern corner of the site
4. Pell Frischmann 410511/01 (2001)	188 hectares	August 2001	Immobile heavy metals within the north-west corner of the site.

**WSP ENVIRONMENTAL LIMITED**



# Figure 1 Site Location Plan

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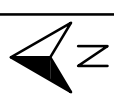
Reproduced from Ordnance Survey digital map data © Crown copyright 2006. All rights reserved. License number 100031673





## Figure 2 Site Layout Plan

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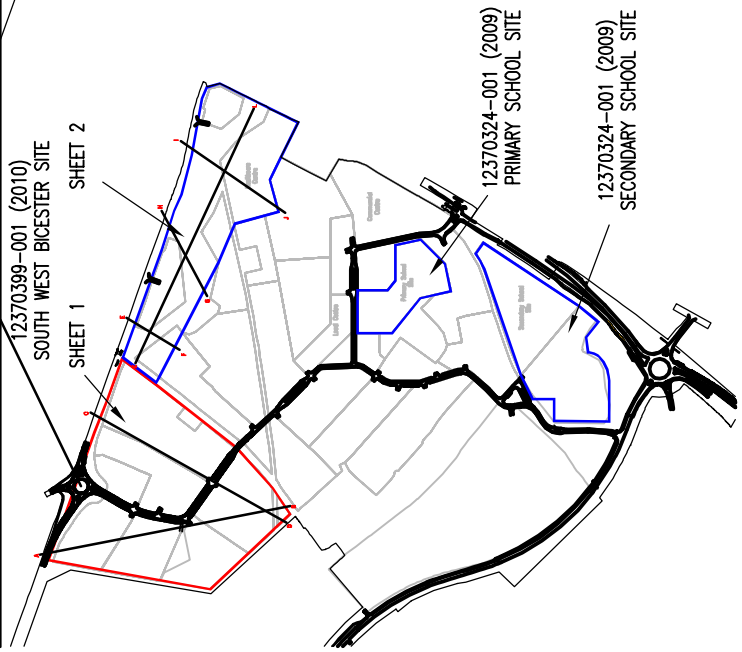
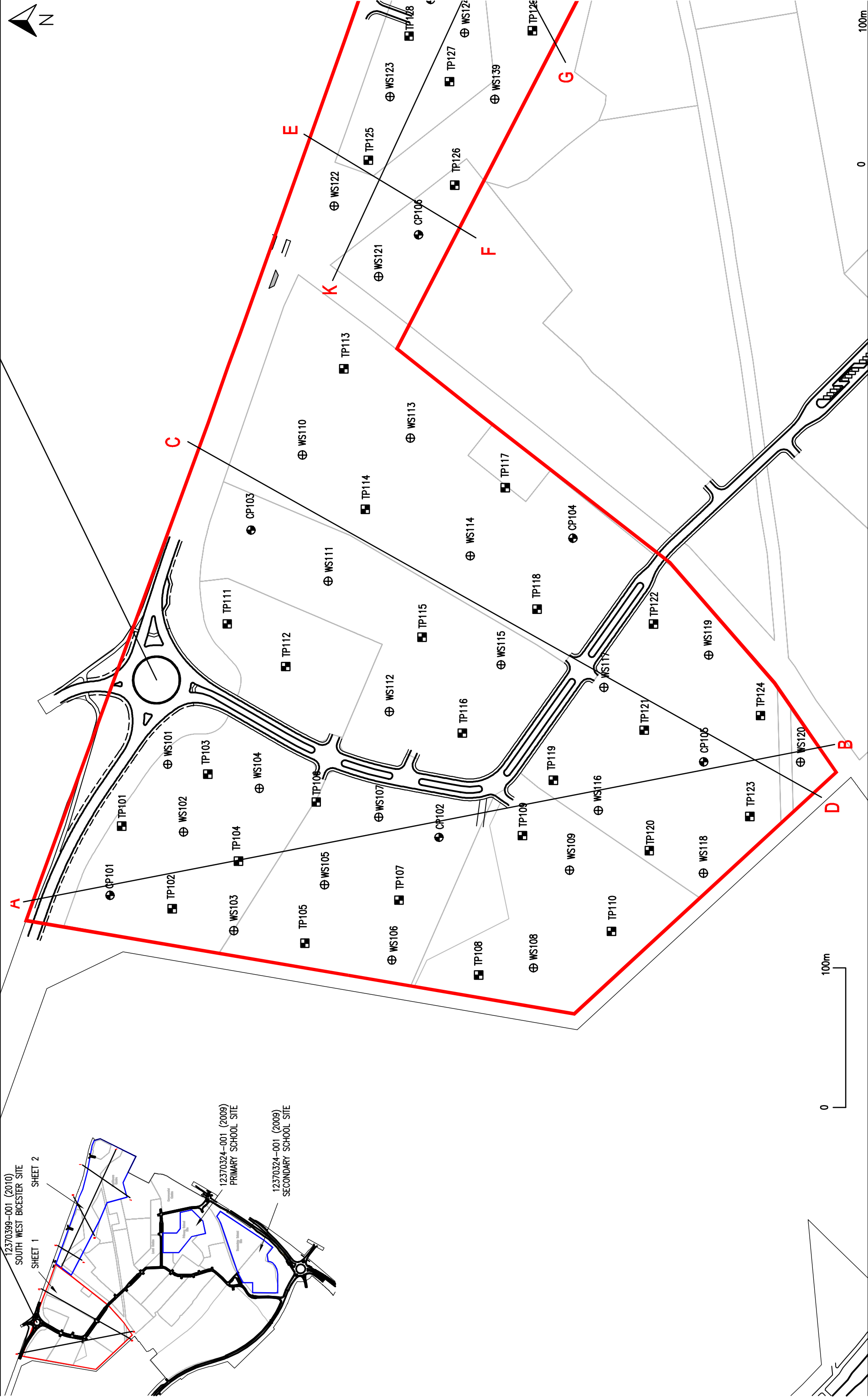




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Appendix A Exploratory Hole Location Plan –  
WSP Report 12370399/001 (2010)

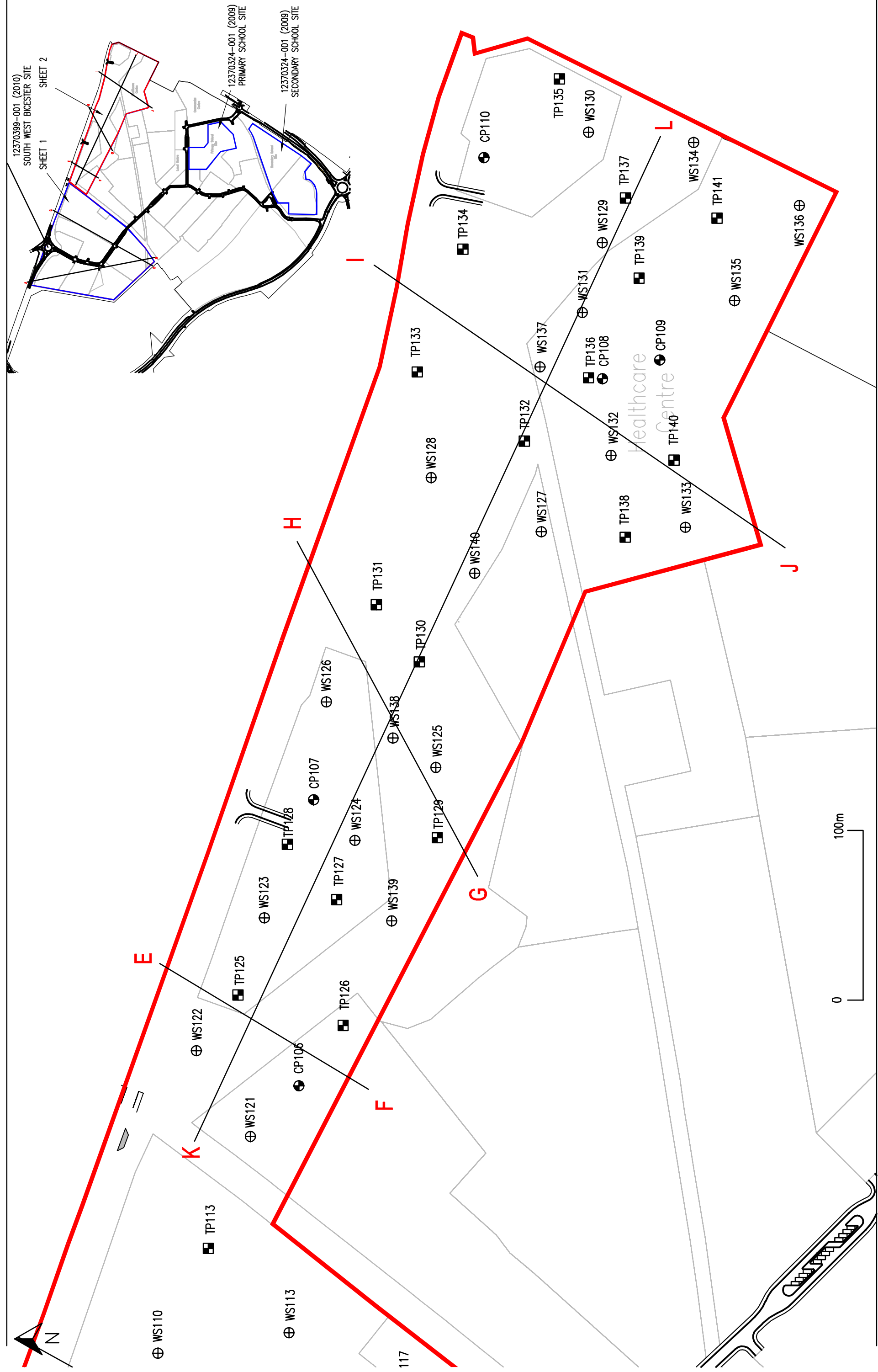
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 Approved : KCL  
 Drawn : HG  
 Date : February 2010

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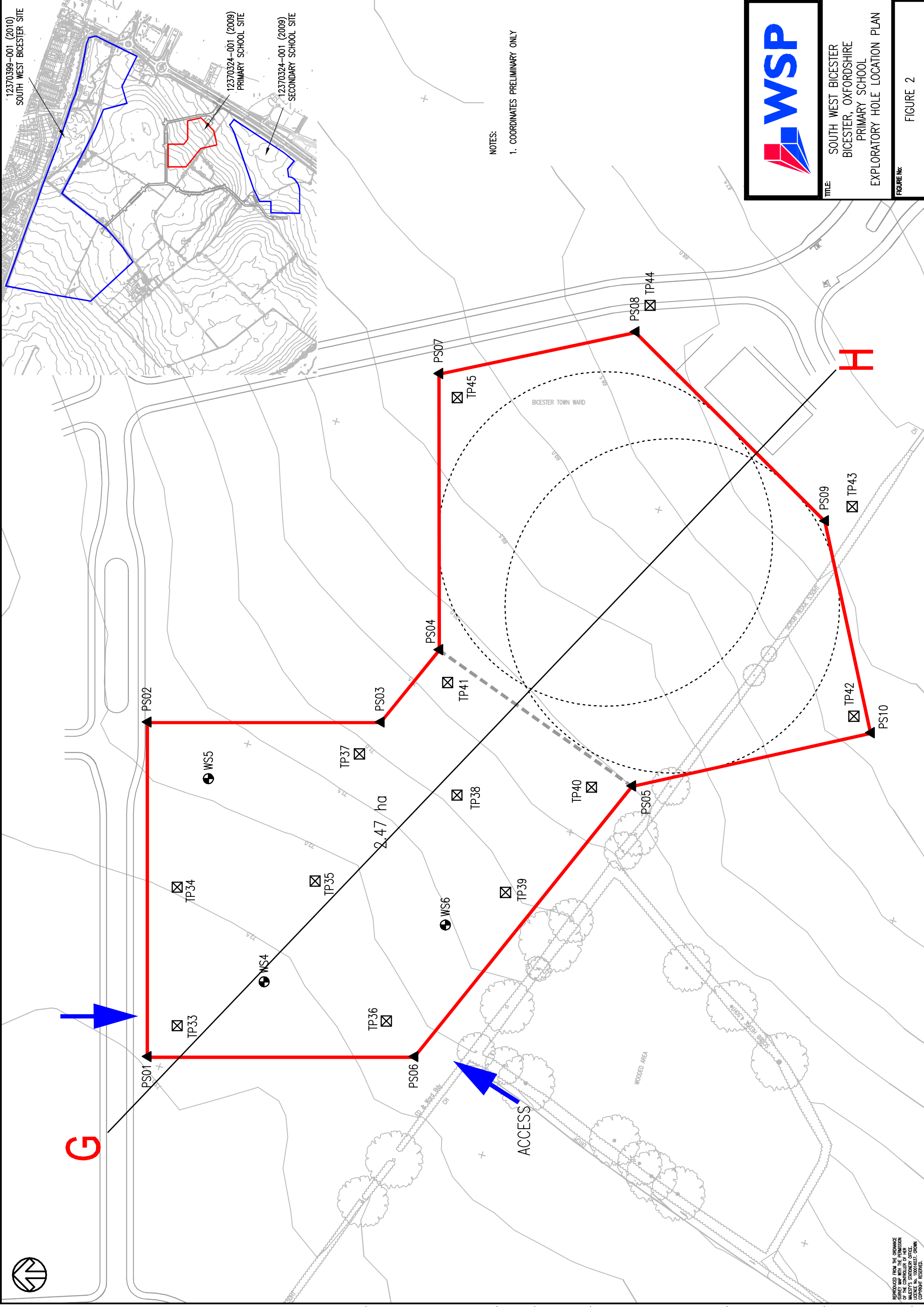


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Appendix B Exploratory Hole Location Plan –  
WSP Report 12370324/001 (2009)

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REPRODUCED FROM THE ORNANCE  
MAPS AND PLANS OF GREAT BRITAIN  
BY THE COMMISSIONERS OF  
HER MAJESTY'S STATIONERY OFFICE.  
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LONDON



NOTES:  
1. COORDINATES PRELIMINARY ONLY

**WSP**

TITLE:  
SOUTH WEST BICESTER  
BICESTER, OXFORDSHIRE  
PRIMARY SCHOOL  
EXPLORATORY HOLE LOCATION PLAN

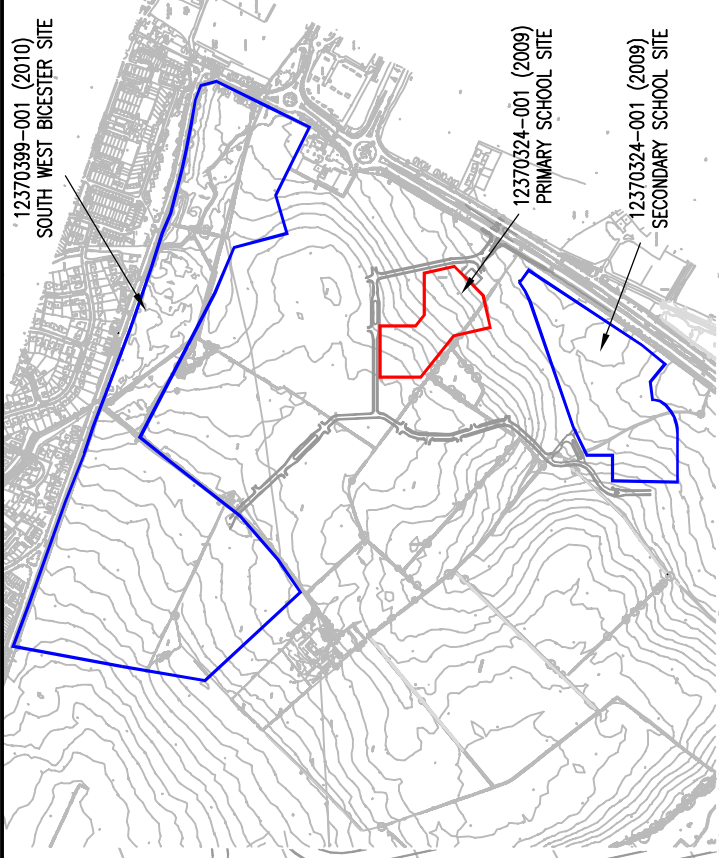
FIGURE No:  
FIGURE 2

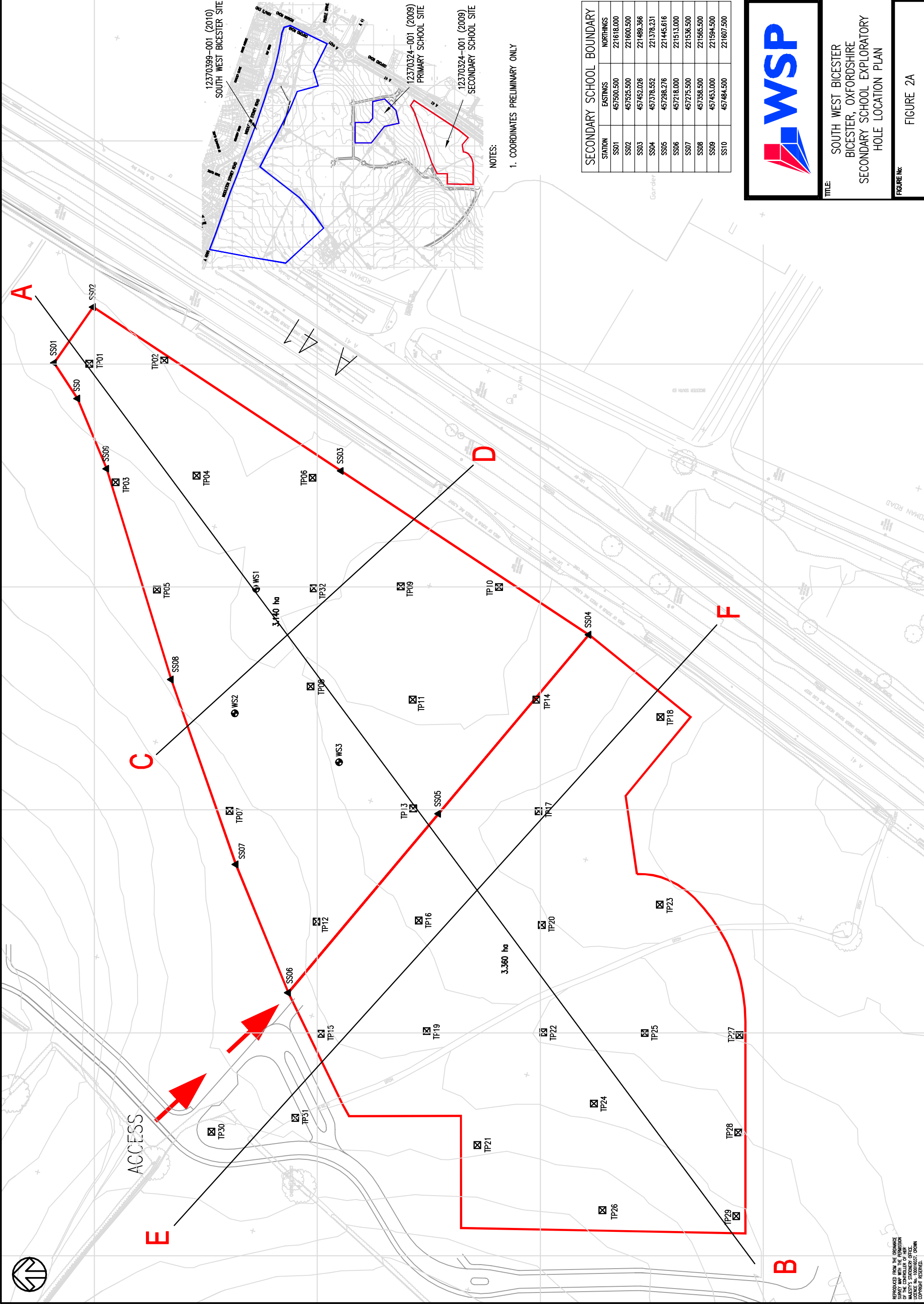
**G**

**H**

ACCESS

2.47 ha





STATION	EASTINGS	NORTHINGS
SS01	457500.500	221618.000
SS02	457925.500	221600.500
SS03	457452.026	221489.366
SS04	457378.552	221378.231
SS05	457298.276	221445.616
SS06	457218.000	221513.000
SS07	457275.500	221536.500
SS08	457358.500	221565.500
SS09	457453.000	221584.500
SS10	457484.500	221607.500

NOTES:  
1. COORDINATES PRELIMINARY ONLY

**WSP**

TITLE:  
SOUTH WEST BICESTER  
BICESTER, OXFORDSHIRE  
SECONDARY SCHOOL EXPLORATORY  
HOLE LOCATION PLAN

FIGURE No:  
FIGURE 2A



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Appendix C Exploratory Hole Location Plan –  
WSP Report 12370178/001 (2007)

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SETTING OUT		
REF	EASTING	NORTHING
STN553	1016.322	88.302
STN712	916.336	975.659
STN803	1924.877	1147.554
STN807	1022.797	1545.722
TP01	388.393	1564.488
TP02	363.364	1466.499
TP03	355.557	1367.362
TP04	366.391	1268.204
TP05	396.652	1172.631
TP06	444.601	1085.135
TP09	673.676	899.786
TP10	766.341	865.575
TP11	856.315	819.048
TP12	933.771	756.131
TP13	997.543	678.493
TP14	1046.649	592.161
TP16	1106.268	512.272
TP17	1180.499	445.232
TP18	1266.226	394.121
TP19	1360.011	360.419
TP20	1458.453	345.980
TP21	1555.672	323.017
TP22	1004.165	1524.450
TP23	981.908	1430.860
TP24	955.084	1336.341
TP25	1000.827	1259.248
TP26	1095.657	1227.510
TP27	1189.847	1194.407
TP28	1274.853	1141.739
TP29	1362.461	1093.588
TP30	1419.218	1020.134
TP31	1413.540	925.323
TP32	1427.248	830.193
TP33	1478.193	744.978
TP34	1440.593	654.276
TP35	1426.230	559.482
TP36	1419.821	469.609
TP37	1843.597	985.752
TP38	1753.826	1029.812
TP39	1662.457	1057.083
TP40	1565.986	1030.753
TP41	1469.514	1004.423
TP42	1787.374	871.368
TP43	1740.403	959.651
TP44	1504.859	388.797
TP45	1578.937	395.023
TP46	1630.783	453.766
TP48	1546.623	1409.303
TP49	1715.659	1455.161
TP50	1769.459	1456.982
TP51	1571.158	236.642
TP52	425.010	1576.912
TP53	1034.327	1526.320
TP54	1500.660	1496.156
TP55	1880.844	1486.160
TP56	1840.663	1393.754
TP60	1432.626	1434.561
TP61	1344.400	1197.679

SETTING OUT CO-ORDINATES TO NATIONWIDE SURVEYS LOCAL GRID

SETTING OUT		
REF	EASTING	NORTHING
TP61	396.639	1519.310
TP64	1726.697	798.937
TP65	1760.301	738.253

ANOMALY SETTING OUT		
REF	EASTING	NORTHING
GP01	1508.115	1349.799
GP02	1653.438	1179.620



REPRODUCED FROM THE ORDNANCE SURVEY MAP WITH THE PERMISSION OF THE CONTROLLER OF HER MAJESTY'S STATIONERY OFFICE LICENCE No. 100016037 CROWN COPYRIGHT RESERVED



DO NOT SCALE

NOTES

- KEY
- TP TRIAL PIT LOCATION.
- STN SURVEY STATION LOCATION (REFER TO NATIONWIDE SURVEYS DRAWING WSP0503 DATED JAN 2006)
- GP TRIAL PIT INVESTIGATION PIPE/ANOMALY. REFER TO GEOPHYSICAL SURVEY FROM ENVIRO STATEMENT FIG 5.4

REV	DATE	BY	DESCRIPTION	CHK	APP
F	09/07/07	PJ	TRIAL HOLES NO 07, 08, 47, 57, 58, 59, 62, 63 REMOVED.	JJA	JJA
E	01/05/07	GD	TRIAL HOLES ADDED FOR ANOMALY	JJA	JJA
D	20/04/07	GD	ARCHAEOLOGICAL SENSITIVE AREAS ADDED	JJA	JJA
C	12/04/07	GD	ADDITIONAL TRIAL PIT SETTING OUT ADDED	JJA	JJA
B	22/03/07	DAH	TRIAL PIT SETTING OUT ADDED	TFK	TFK
A	14/03/07	DAH	INITIAL ISSUE	TFK	TFK

FOR INFORMATION ONLY

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CUSTOMER:	COUNTRYSIDE PROPERTIES		
ARCHITECT:	SOUTH WEST BICESTER		
PROJECT:	SOUTH WEST BICESTER		
TITLE:	FIGURE 2: TRIAL PIT LOCATION PLAN		
SCALE @ A3:	AS SHOWN	CHECKED:	TFK
CAD FILE:	1546-SI-01	DESIGN-DRAWN:	DAH
PROJECT No:	11011546	DATE:	July 2007
DRAWING No:	1546/SI/01	REV:	F
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Appendix D Exploratory Hole Location Plan –  
Pell Frischmann Report 410511/01 (2001)

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