



University of Leicester

Archaeological Services

**An Archaeological Evaluation of land at
MIRA Technology Park (proposed
MAB3 building), Higham on the Hill,
Leicestershire**

(SP 36821 96192)

Mathew Morris



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**An Archaeological Evaluation
of land at MIRA Technology Park (proposed MAB3 building)
Higham on the Hill, Leicestershire
(SP 36821 96192)**

Mathew Morris

For: *MIRA Ltd.*

Checked by Project Manager

Signed:



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An Archaeological Evaluation of land at MIRA Technology Park (proposed MAB3 building), Higham on the Hill, Leicestershire (SP 36821 96192)

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Summary

An archaeological field evaluation by trial trenching was carried out on land at the proposed MAB3 building, MIRA Technology Park, Higham on the Hill, Leicestershire (SP 36821 96192) by University of Leicester Archaeological Services (ULAS) between 17-18 June, 2015. Work was undertaken for MIRA Ltd. in order to establish the nature, extent, date and significance of any archaeological deposits which may be present, in order that an assessment may be made of the impact of any proposed development on the buried remains. Five 30m x 1.6m trenches were excavated within the proposed development area, sampling c.5% of the area of the planned MAB3 building and associated car park. Slight traces of medieval ridge and furrow, modern field drains and two undated tree throw feature were recorded but overall the investigation was negative for archaeologically significant substrata, features or artefacts.

The project archive will be held by Leicestershire Museum Service under the accession number X.A67.2015.

Introduction

In June, 2015 University of Leicester Archaeological Services (ULAS) carried out a small archaeological evaluation of land at the proposed MAB3 building, MIRA Technology Park, Higham on the Hill, Leicestershire (SP 36821 96192 - Figure 1). The work was undertaken for MIRA Ltd. in order to establish the nature, extent, date and significance of any archaeological deposits which might be present, in order that an assessment may be made of the impact of any proposed development on the buried remains.

The work constitutes a pre-planning application inquiry, carried out in accordance with National Planning Policy Framework (NPPF) Section 12: Conserving and Enhancing the Historic Environment (DCLG 2012). Work was carried out on the advice of the Senior Planning Archaeologist for Leicestershire County Council acting in their capacity as archaeological advisor to the local planning authority Hinckley and Bosworth Borough Council, who requested that any planning application be accompanied by information regarding the archaeological potential of the proposed development area.

Archaeological fieldwork took place between 17-18 June, 2015 and this report presents the final results of the archaeological investigation.

Site Location, Geology and Topography

The MIRA Technology Park lies in the parish of Higham on the Hill, Leicestershire, approximately 5 miles north-west of Hinckley and 5 miles south-east of Atherstone (Figure 1). The Technology Park is bordered by the A5 (Watling Street) to the south, which is the border with Warwickshire. The dismantled Ashby and Nuneaton Joint Railway runs to the south-east of the site and to the north-west and north-east lie fields and local roads.

The proposed development area lies on the north-west side of the Technology Park, centred on SP 36821 96192. The site comprises a roughly rectangular plot of open ground covering c.1 hectare in area. The western boundary of the site is formed by the access road running along the western side of the park, the northern by currently undeveloped land covered with

vegetation, the southern by buildings of the MIRA complex and the eastern by the track of the MIRA testing circuit (Figure 2 & Figure 3).

The British Geological Survey of Great Britain shows that the underlying geology is predominately superficial deposits of Pleistocene diamicton of the Thrussington Member) overlying bedrock deposits of Triassic mudstone belonging to the Mercia Mudstone Group (BGS OpenGeoscience).

Topographically, the site is flat at c.97.5m aOD (above Ordnance Datum). A substantial soil bund is present along the western edge of the site and the northern third is still covered with mature vegetation. The southern two-thirds of the site are covered by grassland.

Archaeological and Historical Background

The application area lies within a landscape rich in multi-period archaeological activity. A desk-based assessment undertaken to evaluate the archaeological and cultural potential within the MIRA Technology Park (Hunt & Speed 2010) has confirmed that there are known sites of archaeological interest within the locality of the proposed MAB3 building, including c.1km to the south, the line of the Roman road Watling Street. The site also lies close to the former medieval hamlet of Rowden and the deserted medieval village of Lindley, and is situated within the area of Nuneaton Airfield, a Second World War RAF airfield built in 1943 and taken over by MIRA in 1946 and renamed the Lindley Proving Ground.

Previous archaeological investigation to the north, during the development of MIRA Building 4, revealed evidence of medieval plough furrows but no definite features or artefacts of archaeological significance (Baker 2014).

Archaeological Objectives

The principle aims of the archaeological excavation were:

- To identify the presence/absence of archaeological deposits
- To establish the character, extent, survival and date range for any archaeological deposits, artefacts and ecofacts to be affected by the proposed ground works.
- To appropriately record any archaeological deposits to be affected by the ground works.
- To produce an archive and report of any results.

The results of the investigation have been considered in light of the East Midlands Research Agenda (Cooper 2006) and updated Agenda and Strategy (Knight *et. al* 2012) as well as targeting national research aims highlighted by English Heritage.

The Roman Period: There are several Roman sites close to the area, including enclosures and a major Roman road. The investigation may contribute to knowledge of Iron Age/Roman transitions in rural settlement, landscape and society. Artefacts may identify trade links and economy.

The Medieval Period: The investigation lies close to the medieval settlements of Lindley and Rowden and may contribute to the study of rural medieval settlement.

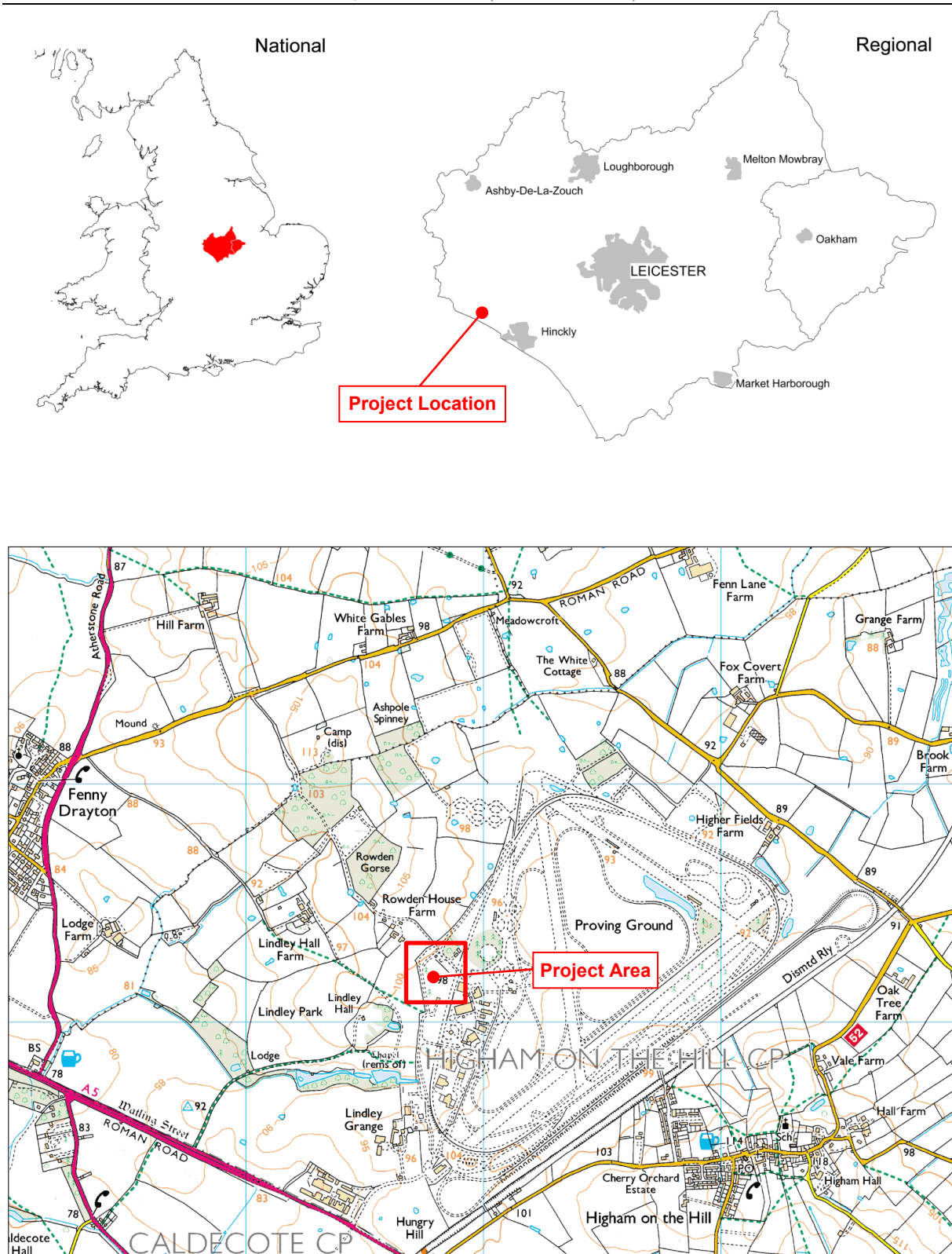


Figure 1: Location Plans with project area highlighted.

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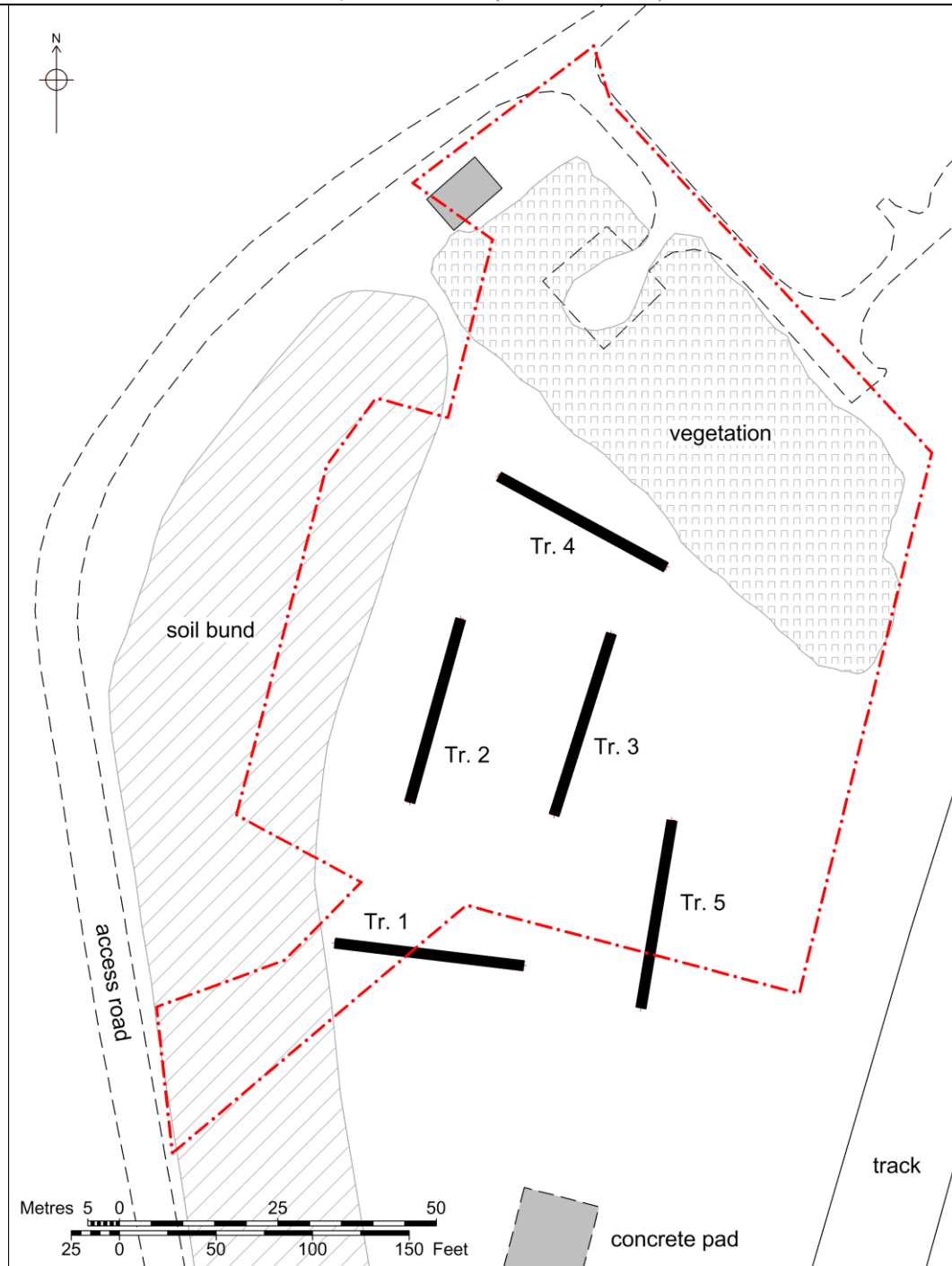


Figure 2: Plan of project area showing trench locations.

Methodology

During the evaluation, the soil overburden was removed in level spits under continuous archaeological supervision down to the uppermost archaeological deposits or the natural substratum, depending on which was reached first. This was carried out with a JCB 3CX mechanical digger using a 1.6m wide, toothless ditching bucket.

All trenches, open areas, exposed sections and spoil heaps were visually inspected for features and finds. Features were hand cleaned, planned, photographed and sample excavated as appropriate. Field notes were recorded on pro-forma ULAS trench recording forms whilst stratigraphic units were to be given a unique context number and recorded on pro-forma ULAS context sheets.

Trench and feature plans/sections were drawn at appropriate scales and tied into the National Grid using appropriate methods. A photographic record of the excavation was prepared, illustrating in both detail and general context the principal features and finds discovered. Colour digital photographs were taken throughout the excavation. The photographic record also includes 'working shots' to illustrate more generally the nature of the archaeological operation mounted.

All work followed the approved written scheme of investigation (Clay 2014) and the Chartered Institute for Archaeologists (CIfA) *Code of Conduct* and adhered to their *Standard and Guidance for Archaeological Field Evaluation* (2014).



Figure 3: The application area during work, looking south-west towards trenches 5 (left), 3 (right) and 1 (rear)

Results

The written scheme of investigation (Clay 2015) specified the investigation of a c.5% sample (250 sq. m) of the c.0.5 hectare site of the proposed MAB3 building and associated car park, the equivalent of five 30m x 1.6m trenches. The proposed building and car park constitute approximately 50% of the total development area, the rest of the space being devoted to access roads and landscaping.

Due to unforeseen topographical site constraints – ie. the soil bund to the west, mature vegetation across the northern third of the site and live electrical and water services to the east – the trenches were moved further south than their original proposed locations to accommodate the required sample area.

Trench 1

Length (m)	Width (m)		Area (sq. m)		Min. depth (m)		Max. depth (m)	
30	1.6		48		0.3		0.34	
Interval (m) from W	0	5	10	15	20	25	30	to E end
Topsoil depth	0.32	0.30	0.30	0.32	0.30	0.31	0.30	

Subsoil depth	-	-	-	-	-	-	-	
Top of natural substratum	0.32	0.30	0.30	0.32	0.30	0.31	0.30	
Base of trench	0.32	0.34	0.32	0.33	0.30	0.31	0.30	

Trench 1 was located in the south-western corner of the site, broadly orientated east to west to assess an area of proposed access road. The mechanical digger removed c.0.3-0.34m of turf and greyish-brown silty-clay topsoil, to reveal natural substratum of mottled greyish-yellow, greyish-orange and greyish-blue clay mixed with frequent pebbles and occasional sand inclusions (Plate 1).

A series of regularly spaced field drains, backfilled with pinkish-red clay, were recorded cutting the natural substratum at the base of the trench. These were all orientated north-west to south-east. In the north-eastern corner of the trench, part of a small irregular shaped feature filled with dark grey silty-clay was also noted cutting the natural substratum at the base of the trench. Excavation revealed it to have diffuse irregular sides and an uneven base and it is probably the remains of a tree throw feature.

Otherwise, no archaeological substrata, features or artefacts were identified.

Trench 2

Length (m)	Width (m)		Area (sq. m)		Min. depth (m)		Max. depth (m)	
30	1.6		48		0.28		0.37	
Interval (m) from SW	0	5	10	15	20	25	30	to NE end
Overburden depth	0.34	0.30	0.31	0.28	0.37	0.34	0.32	
Subsoil depth	-	-	-	-	-	-	-	
Top of Natural substratum	0.34	0.30	0.31	0.28	0.37	0.34	0.32	
Base of trench	0.34	0.30	0.33	0.28	0.37	0.34	0.32	

Trench 2 was located on the western side of the site, broadly orientated north to south to assess an area of proposed car park. The mechanical digger removed c.0.28-0.37m of turf and greyish-brown silty-clay topsoil, to reveal natural substratum of mottled greyish-yellow, greyish-orange and greyish-blue clay mixed with frequent pebbles and occasional sand inclusions (Plate 2).

A series of regularly spaced field drains, backfilled with pinkish-red clay, were recorded at the base of the trench. These were orientated north-west to south-east. Predating the field drains, also orientated north-west to south-east, were spreads of yellowish-grey silty-clay filling shallow concave depressions in the natural substratum. Two areas were observed, c.6m wide and c.0.1m deep, spaced c.6m apart. These are probably the remains of medieval ridge and furrow.

Otherwise, no archaeological substrata, features or artefacts were identified.

Trench 3

Length (m)	Width (m)		Area (sq. m)		Min. depth (m)		Max. depth (m)	
30	1.6		48		0.34		0.39	
Interval (m) from SW	0	5	10	15	20	25	30	to NE end
Overburden depth	0.31	0.33	0.31	0.36	0.34	0.37	0.39	
Subsoil depth	-	-	-	-	-	-	-	
Top of Natural substratum	0.31	0.33	0.31	0.36	0.34	0.37	0.39	
Base of trench	0.34	0.33	0.38	0.36	0.39	0.37	0.39	

Trench 3 was located in the centre of the site, broadly orientated north to south to assess the area of the proposed MAB3 building. The mechanical digger removed *c.*0.34-0.39m of turf and greyish-brown silty-clay topsoil, to reveal natural substratum of mottled greyish-yellow, greyish-orange and greyish-blue clay mixed with frequent pebbles and occasional sand inclusions (Plate 3).

A series of regularly spaced field drains, backfilled with pinkish-red clay, were recorded at the base of the trench. These were orientated north-west to south-east. Predating the field drains, also orientated north-west to south-east, were areas of yellowish-grey silty-clay filling shallow concave depressions in the natural substratum. Three areas were observed, *c.*4m wide and *c.*0.1m deep, spaced *c.*3-4m apart. These are probably the remains of medieval ridge and furrow cultivation.

Otherwise, no archaeological substrata, features or artefacts were identified.

Trench 4

Length (m)	Width (m)		Area (sq. m)		Min. depth (m)		Max. depth (m)	
30	1.6		48		0.30		0.44	
Interval (m) from SW	0	5	10	15	20	25	30	to NE end
Overburden depth	0.30	0.32	0.34	0.33	0.40	0.38	0.36	
Subsoil depth	-	-	-	-	-	-	-	
Top of Natural substratum	0.30	0.32	0.34	0.33	0.40	0.38	0.36	
Base of trench	0.30	0.32	0.34	0.33	0.40	0.38	0.44	

Trench 4 was located along the northern side of the site, broadly orientated west-north-west to east-south-east to assess the area of the proposed MAB3 building. The mechanical digger removed *c.*0.3-0.44m of turf and greyish-brown silty-clay topsoil, to reveal natural substratum

of mottled greyish-yellow, greyish-orange, greyish-blue and pinkish-red clay mixed with frequent pebbles and occasional sand inclusions (Plate 4).

A field drains, backfilled with pinkish-red clay, were recorded at the base of the trench, in its south-eastern half. This was orientated north-west to south-east. Predating the field drain, also orientated north-west to south-east, was an area of yellowish-grey silty-clay filling a shallow concave depression in the natural substratum. This is probably the remains of medieval ridge and furrow. In the north-western half of the trench a series of linear, north to south orientated streaks of topsoil impressed into the base of the trench (none deeper than 50mm) are probably evidence of modern plough scars.

Otherwise, no archaeological substrata, features or artefacts were identified.

Trench 5

Length (m)	Width (m)		Area (sq. m)		Min. depth (m)		Max. depth (m)	
30	1.6		48		0.30		0.40	
Interval (m) from SW	0	5	10	15	20	25	30	to NE end
Overburden depth	0.40	0.31	0.33	0.34	0.30	0.33	0.33	
Subsoil depth	-	-	-	-	-	-	-	
Top of Natural substratum	0.40	0.31	0.33	0.34	0.30	0.33	0.33	
Base of trench	0.40	0.34	0.38	0.34	0.30	0.33	0.33	

Trench 5 was located along the eastern side of the site, broadly orientated north to south to assess an area of proposed service yards. The mechanical digger removed c.0.3-0.4m of turf and greyish-brown silty-clay topsoil, to reveal natural substratum of mottled greyish-yellow, greyish-orange, greyish-blue and pinkish-red clay mixed with frequent pebbles and occasional sand inclusions (Plate 7).

A series of regularly spaced field drains, backfilled with pinkish-red clay, were recorded cutting the natural substratum at the base of the trench. At the northern end of the trench, these were orientated north-west to south-east. At the southern end of the trench they were orientated north-east to south-west. At the northern corner of the trench was a curvilinear gully [1], c.0.54m wide and c.0.24m deep (Figure 4). The gully was present for c.2.6m in the trench, terminating at its northern end and curving away to the south-west. Excavation revealed that the gully had irregular sides, the eastern shallow and the western vertical and slightly undercut. Two fills were present; the primary fill (3), was pale orangeish-grey silty-clay mixed with occasional pebbles, probably deposited through natural accumulation. The secondary fill (2) was organic dark grey silty-clay, possibly decay wood. The diffuse irregular sides and an uneven base suggests that it is probably the remains of a tree throw feature.

Otherwise, no archaeological substrata, features or artefacts were identified.



Figure 4: Gully [1], probably the remains of a tree throw feature , looking south

Discussion

Overall, the results of the investigation were negative for archaeologically significant substrata, features or artefacts. Subsoil was non-existent across the site, with topsoil resting directly on the natural substratum. This may be because topsoil and subsoil were indistinguishable but to the casual observer, the site appeared un-naturally flat and may have been deliberately levelled sometime in the past, perhaps during its tenure as an airfield during the Second World War or the seventy years it has been the MIRA Proving Ground.

Faint traces of ridge and furrow were recorded in three trenches (2-4) and undated tree throws were recorded in two (1 and 5); whilst field drains were recorded in all five. The field drains clearly post-dated the ridge and furrow. Both ridge and furrow and field drains were orientated north-west to south-east, the same orientation as similar features recorded during a recent evaluation to the north for MIRA Building 4 (Baker 2014). Pre-airfield land use across the proposed development area appears to have been agrarian for a long period of time. This fits with historic Ordnance Survey mapping for the area, which shows the site located in fields close to Lindley Park and Rowden House Farm

Archive

The site archive consists of five trench record sheets, two context sheets, one sheet of permatrace with site drawings, one sheet of annotated notes and eight digital photographs. The archive will be held by Leicestershire Museum Service under the accession number X.A67.2015

Publication

Since 2004 ULAS has reported the results of all archaeological work to the *Online Access to the Index of archaeological investigations* (OASIS) database held by the Archaeological Data Service (ADS) at the University of York (see Table 1).

Table 1: Summary of OASIS information

Project OASIS no.	universi1-215078
Project Name	Land at MIRA Ltd. (proposed MAB3 building), Higham on the Hill, Leicestershire
Project Type	Evaluation by trial trenching
Project Manager	Patrick Clay
Project Supervisor	Mathew Morris
Previous/Future work	No/Unknown
Current Land Use	Grassland
Development Type	Industrial
Reason for Investigation	NPPF
Position in the Planning Process	Pre-condition
Site Co-ordinates	SP 36821 96192
Start/end dates of field work	17/06/2015 – 18/06/2015
Archive Recipient	Leicestershire Museums Service
Study Area	10,552 sq m

A summary of the work will also be submitted for publication in an appropriate local archaeological journal in due course.

Acknowledgements

ULAS would like to extend its thanks to Nigel Chalkley of MIRA Ltd. for his assistance and co-operation throughout the project; to Scott Croot of Planters Ltd. for operating the mechanical excavator; and also to Teresa Hawtin, Senior Planning Archaeologist for Leicestershire County Council, for her advice and support. Fieldwork was carried out, and this report written by Mathew Morris. The project was managed for ULAS by Dr Patrick Clay.

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22-06-2015

Appendix One: Site photos



Plate 1: Trench 1 post-excavation, looking west



Plate 2: Trench 2 post-excavation, looking north



Plate 3: Trench 3 post-excavation, looking north



Plate 4: Trench 4 post-excavation, looking north-west



Plate 5: General view of the site, looking south-west



Plate 6: General view of the site, looking west



Plate 7: Trench 5 post-excavation, looking south



Plate 8: View of tree throw feature [1] in Trench 5, looking south

Table 2: Index of project photographs

Photo No.	B&W?	Area	Description	Looking	Initials	Date
1	X	1	Trench 1 post-excavation	W	MM	17/06/2015
2	X	2	Trench 2 post-excavation	N	MM	17/06/2015
3	X	3	Trench 3 post-excavation	N	MM	17/06/2015
4	X	4	Trench 4 post-excavation	NW	MM	17/06/2015
5	X	-	General view of the site	NW	MM	17/06/2015
6	X	-	General view of the site	W	MM	17/06/2015
7	X	5	Trench 5 post-excavation	S	MM	17/06/2015
8	X	5	View of gully [1] in Trench 5	S	MM	18/06/2015

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