

Markfield Commercial Development Markfield Leicestershire

Ridge and Furrow Assessment

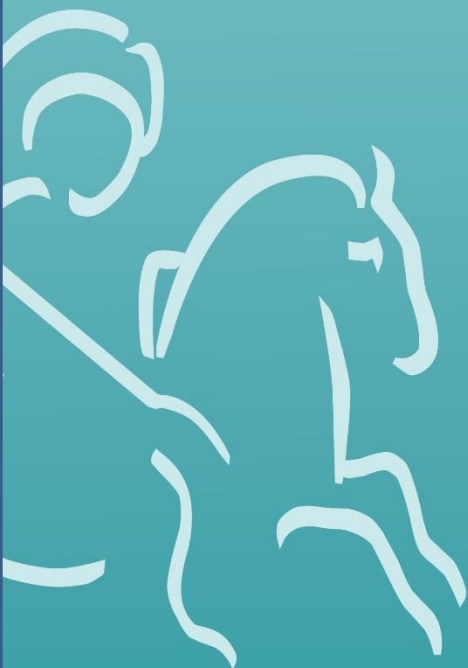


Report prepared for:
Caddick Developments Ltd
(Wetherby)

CA Project: MK1189

CA Report: MK1189_1

November 2024



Markfield Commercial Development Markfield Leicestershire

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date	November 2024
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date	November 2024
issue	1

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SUMMARY

Project Name: Markfield Commercial Development

Location: Markfield, Leicestershire

NGR: 448056, 311348

In November 2024 Cotswold Archaeology were commissioned by Caddick Developments Ltd (Wetherby) to undertake an assessment of ridge and furrow earthworks at Markfield Commercial Development, Markfield, Leicestershire. An assessment of the heritage significance of the ridge and furrow earthworks is considered necessary to support a planning application to convert the agricultural fields that form the Site to commercial warehousing and associated infrastructure.

The earthworks have been assessed in accordance with the methodology recommended in *Turning the Plough* (Northamptonshire County Council 2001). The parish of Markfield would be very unlikely to be identified as a potential 'priority township' under the criteria set out in *Turning the Plough*, and the earthworks specifically within the Site are considered to be of limited heritage significance, representing the isolated earthworks remains of a now fragmented example of medieval to early post-medieval open field system agriculture. The earthworks score poorly against the assessment criteria (a total of 10 out of a possible 63), and are well documented by existing 1m resolution LiDAR Imagery.

The proposals to convert the Site to commercial use will result in the loss of c.2.7ha of very eroded, poorly preserved remnant ridge and furrow earthworks, out of a recorded c.44.5ha of surviving ridge and furrow within the parish of Markfield recorded by the HER and LiDAR Imagery. The ridge and furrow earthworks within the parish of Markfield are considered to be of very limited archaeological and historic significance, and the loss of the earthworks would not comprise a significant effect on the historic environment. On this basis, the ridge and furrow are not of sufficient significance to represent a constraint to the proposed commercial development of the Site.

1. INTRODUCTION

- 1.1. In November 2024 Cotswold Archaeology was commissioned by Caddick Developments Ltd (Wetherby) to undertake an assessment of ridge and furrow earthworks at Markfield Commercial Development, Markfield, Leicestershire, in support of a recently completed historic environment desk-based assessment for the Site (Cotswold Archaeology 2024). The Site is c.26.4ha in extent, and the eroded earthworks of former ridge and furrow agricultural activity are present within the southernmost part of the Site. An assessment of the heritage significance of the ridge and furrow earthworks is considered necessary to support a planning application to convert the agricultural fields that presently form the Site to commercial warehousing and associated infrastructure (NGR: 448056, 311348; Fig. 1).

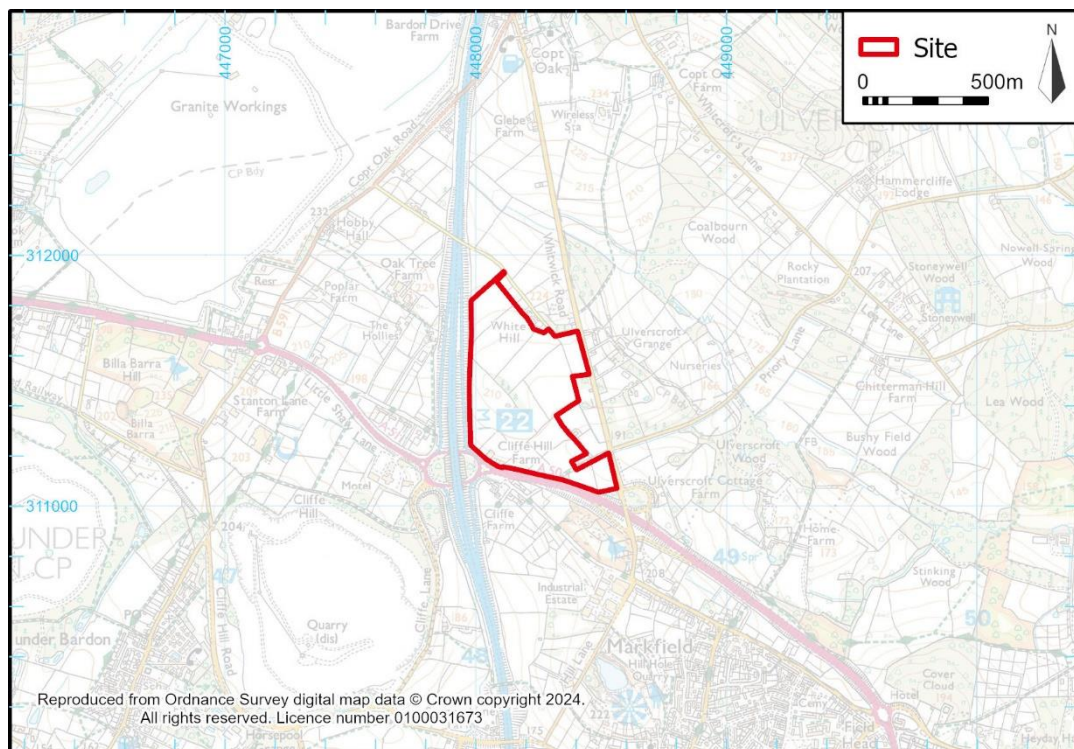


Fig. 1 Site location plan

- 1.2. Ridge and furrow earthworks are a series of long, narrow ridges, separated by depressions, lying parallel to each other and usually arranged in rectangular blocks (Taylor 1987, 78). These resulted from arable cultivation, specifically the repeated ploughing of strips of land in the same direction using a heavy plough (one that overturned sods). These often, though not exclusively, formed in the large open fields cultivated from medieval times until Enclosure, where the cultivation of strips of land under individual ownership resulted in the formation of such earthworks. Hence, the

blocks of ridge and furrow can be seen as relating to the furlongs of the open fields (Taylor 1987, 79; Hall 1982).

- 1.3. A large proportion of surviving ridge and furrow has the form in plan of a reverse S-shape (Taylor 1987, 82). This formed as a result of the team of oxen, believed in some parts of the UK to have been 6 or 8 strong, and yoked in pairs one behind the other, starting and finishing at right angles to the ridges in order not to stretch beyond the headlands. This meant they started out turning slightly as they went and likewise began to turn just before the end of the strip, resulting in the strips being reverse S-shape in plan. Ridge and furrow earthworks survive well only where the land has ceased to be in arable cultivation and has reverted to land use or uses that preserve the earthworks, such as pasture. Where land has remained in arable cultivation, such earthworks have usually been completely removed or substantially eroded by modern ploughing.

Consultation

- 1.4. A pre-application response was received from William Kelly, Archaeological Advisor at Leicestershire County Council, on 30/07/2024 for application 24/10103/PREMAJ with particular reference to the ridge and furrow within the Site, where he noted that:

The other issue relating to the site is that it contains an area of ridge and furrow earthworks, which are extant on the 2022 LiDAR data (HER Ref.: MLE28870). This has been identified as a non-designated heritage asset within the Neighbourhood Plan (Map 11). The submitted masterplan makes no allowance for preservation of the surviving features, as such these historic earthworks will be significantly truncated. We would therefore welcome the opportunity to review the DBA to help us better understand the context of the ridge and furrow monument. Of particular significance is the condition and character of the remains and how well supported they are by the documentary record, as well as any documentation that could illustrate the monument's historical significance. Maps of the ridge and furrow (e.g. any available estate maps) should be included as part of this assessment. The condition and historical importance of the monument would subsequently affect its significance when we make our assessment.

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- 1.5. The historical significance of the ridge and furrow relating to the above comment is discussed within the 'significance of surviving earthworks' section of this assessment, under the 'Documentation (historical)' criteria.

2. METHODOLOGY

2.1. The methodology employed for this Assessment has been informed by professional guidance including *Conservation Principles* (Historic England 2008) and the *Standard and guidance for historic environment desk-based assessment* (CIFA 2020). The assessment has been informed by desk-based analysis and a site visit on 08 /11/24, and considered the following data sources:

- Historic England's National Heritage List for statutory designated heritage assets (including scheduled monuments, registered parks and gardens, battlefields and world heritage sites);
- The Leicestershire Historic Environment Record for details of previously completed archaeological works and recorded heritage assets in the study area;
- Leicestershire Historic Landscape Character Assessment data;
- Digital Terrain Model (DTM) LiDAR data (1m resolution);
- Historic Ordnance Survey mapping;
- A recently completed Historic Environment Desk-Based Assessment of the Site (Cotswold Archaeology 2024); and
- Published sources including *Turning the Plough* (Northamptonshire County Council 2001) and *Turning the Plough Update Assessment 2012* (Gloucestershire County Council 2012).

2.2. The methodology set out in *Turning the Plough* (Northamptonshire County Council 2001) is the only published methodology specifically for the evaluation of the significance of ridge and furrow earthworks. The criteria against which ridge and furrow earthworks are assessed in *Turning the Plough* is based on the appropriate criteria for designation, comprising:

- Group value (association);
- Survival;
- Potential;
- Documentation (archaeological);
- Documentation (historical);

-
- Diversity (features); and,
 - Amenity value.

2.3. These categories have been utilised, as appropriate, to assist in understanding the heritage significance of the ridge and furrow earthworks within the Site (see Section 3 below).

LiDAR imagery

2.4. Existing Environment Agency data was analysed with the specific aim of clarifying the extent any potential archaeological remains.

2.5. National LiDAR Programme DTM and DSM tiles (2022) were obtained from the Defra portal. The data was available at 1m resolution, for the extent of the study area. DTM and DSM tiles were downloaded as .TIFF files.

2.6. The associated TFW files use British National Grid as the “native” coordinate reference system.

2.7. Where necessary, the tiles were combined into a mosaic raster dataset and clipped to the study area using Esri ArcPRO 3.1.3 and exported as a .TIFF.

2.8. The resulting .TIFF was then processed using Relief Visualisation Toolbox (RVT) (Kokalj *et al.* 2019 and Zakšek *et al.* 2011) to create a number of visualisations including a hillshade, positive and negative openness, multi-hillshade and local relief model following Historic England guidelines (Historic England 2010) and guidance in Airborne Laser Scanning Raster Visualisation: A guide to good practice (Kokalj and Hesse 2017). The parameters were set to those appropriate for the topography of the area.

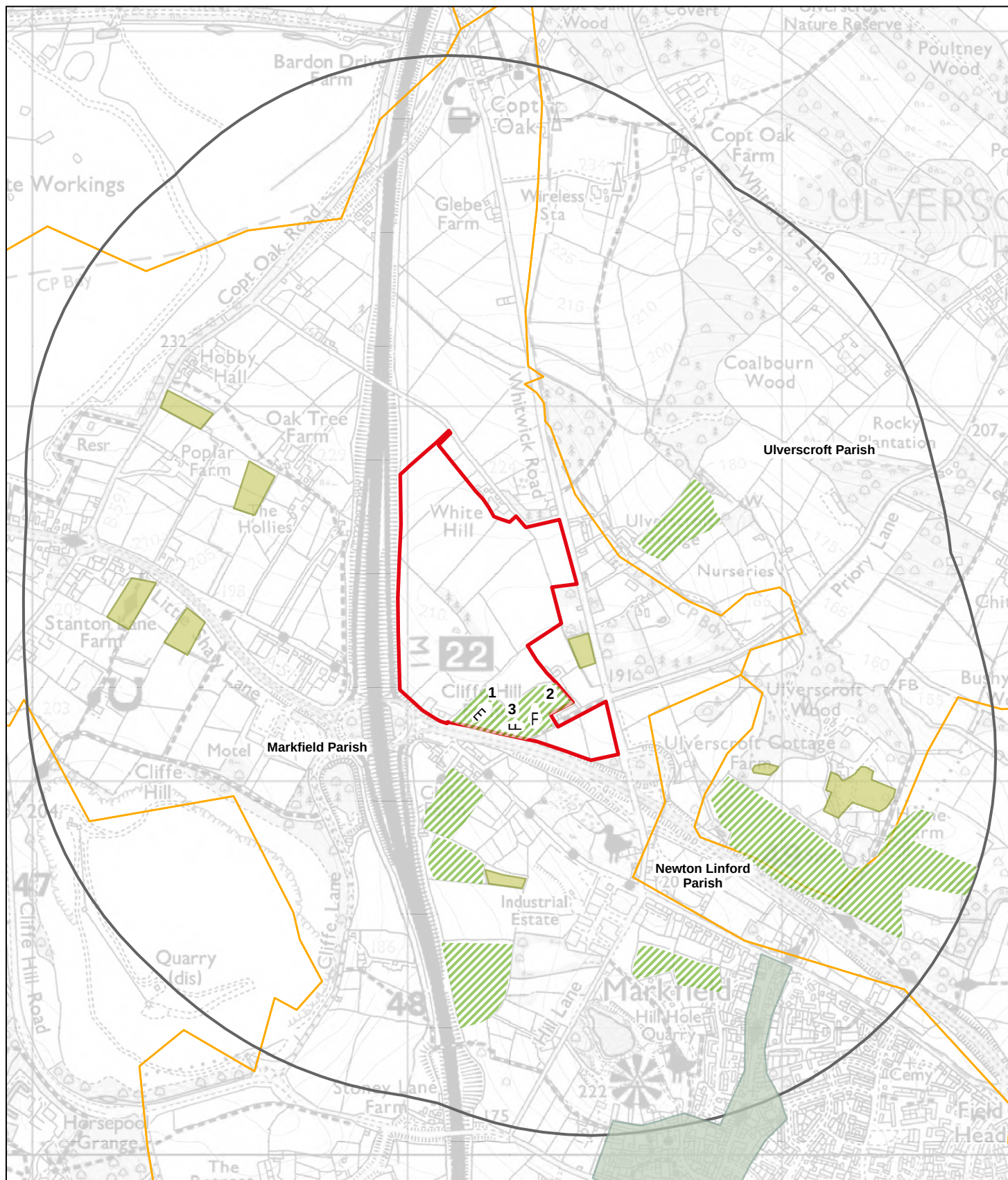
2.9. The output images from the RVT software were then imported into the ArcMap 10.8.2 where further settings manipulation was undertaken to enhance the visualization for archaeological feature detection.

2.10. Both DTM and DSM tiles were assessed, but DTM tiles formed the basis within the desk-based assessment and is illustrated on Fig. 3.

3. RIDGE AND FURROW ASSESSMENT

Historic landscape context

- 3.1. The Site lies within the parish of Markfield and is c.1km to the north-west of the historic settlement core (Fig. 2). The historic settlement of Markfield likely originates in the Anglo-Saxon period (Cotswold 2024). The settlement is documented in the Domesday Survey of 1086 as ‘*Merchenefeld*’, with the name in Old English meaning ‘open land of the Mercians’ (Mills 2011). The Survey records Markfield as having a population of two households, putting it in the smallest 20% of settlements at the time, along with six acres of woodland and four furlongs (Powell-Smith 2024).
- 3.2. After the Conquest, the land was given to Hugh de Grentmesnil, a Norman general at the Battle of Hastings and afterwards a great landowner in Leicestershire. The Domesday Survey records that the land at Markfield, in the Hundred of Guthlaxton, was worth ten shillings under Countess Judith and Hugh de Grentmesnil (Powell-Smith 2024).
- 3.3. The Site appears to have formed part of the agricultural land that supported the medieval settlement of Markfield, as suggested from the evidence of typically medieval reverse S-shape ridge and furrow visible within particular areas of the parish c.320m to the south of the Site (Fig. 3).
- 3.4. There is evidence of surviving ridge and furrow of medieval origin within the south-east of the Site (Fig. 2) identified on the Leicestershire HER. This field system is also identified in the Markfield Neighbourhood Development Plan (Hinckley and Bosworth Borough Council 2021) as a non-designated heritage asset and is also evident on the LiDAR (Fig. 3). These earthwork ridge and buried furrow remains, and others in the wider study area (see Fig. 2 and 3) likely represent a partial survival of the agricultural open field system associated with contemporary medieval Markfield. They are most likely of medieval origin on the basis that the, albeit very eroded earthworks, exhibit a typical ‘reverse-S’ morphology typical of the period, as opposed to the typically straighter aligned post-medieval examples (Northamptonshire County Council 2001).



- ▬ Site
- Study Area
- Ridge and furrow recorded by HER
- Ridge and furrow recorded on LiDAR
- Markfield Medieval Settlement
- Historic Parish Boundary
- ⋈ Photograph Location



0 500m

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PROJECT TITLE

Markfield Commercial Development
Hinckley, Leicestershire

FIGURE TITLE

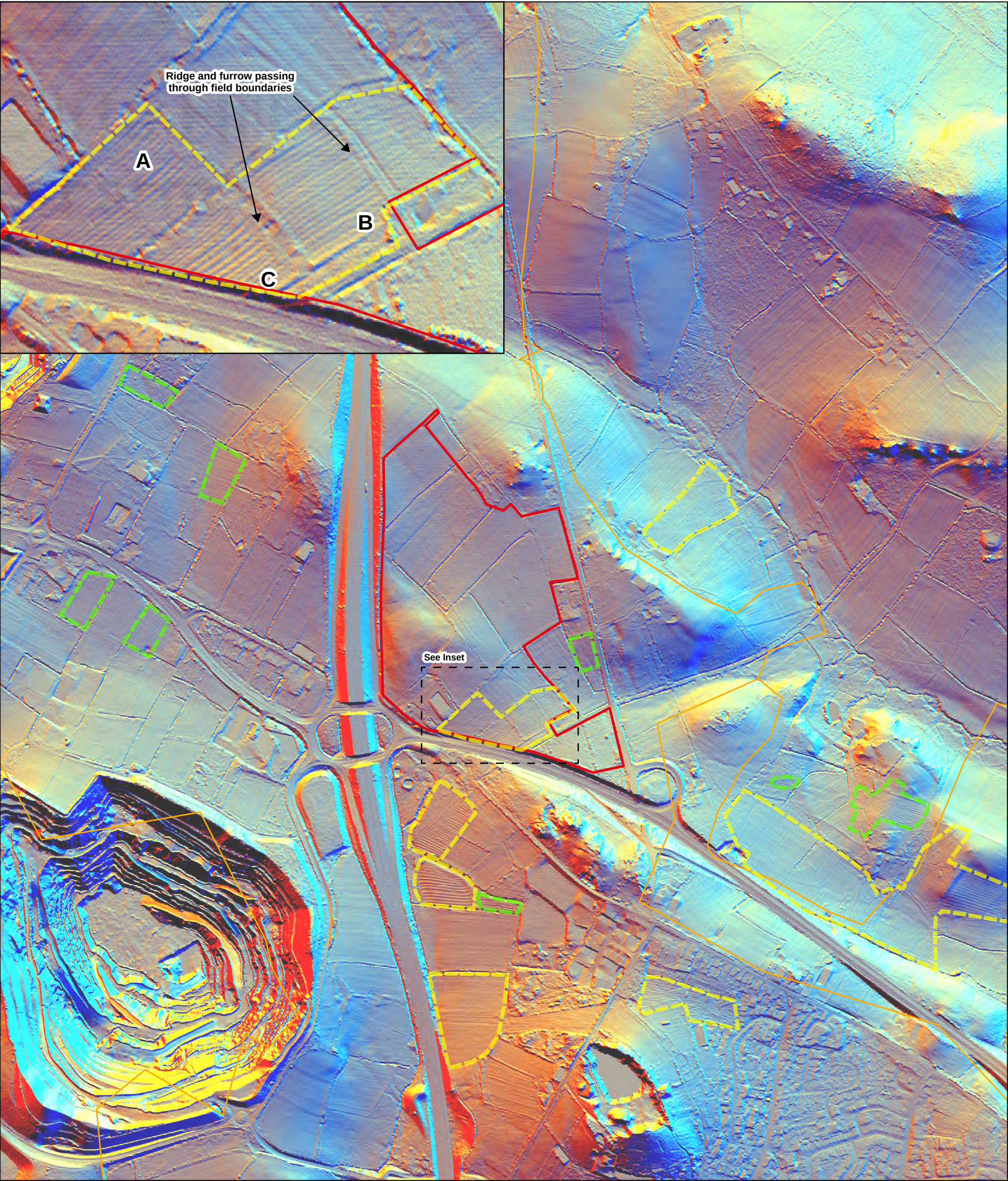
Recorded Ridge and Furrow

DRAWN BY JXS
CHECKED BY MH
APPROVED BY MH

PROJECT NO MK1189
DATE 22/11/2024
SCALE@A4 1:14,000

FIGURE NO.

2



- Site
- Ridge and furrow recorded by HER
- Ridge and furrow recorded on LiDAR



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PROJECT TITLE
Markfield Commercial Development
Hinckley, Leicestershire

FIGURE TITLE
LiDAR Imagery and
Ridge and Furrow

DRAWN BY JXS
CHECKED BY MH
APPROVED BY MH
PROJECT NO MK1189
DATE 27/11/2024
SCALE@A4 1:9,000

FIGURE NO.
3

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- 3.5. The HER records numerous areas of ridge and furrow within the landscape surrounding Markfield (Figs. 2 and 3) and these areas of recorded ridge and furrow correspond with evidence of ridge and furrow depicted on the LiDAR Imagery, although only one of these is recorded within the Site. Additional areas of ridge and furrow discussed here have been identified within the Site on LiDAR imagery (Figs 2 and 3) and during the site visit, that were not recorded by the HER. The overall extent of survival of ridge and furrow earthworks within the landscape is low, with many former areas likely to have removed or substantially eroded as a result of modern agricultural practices.

LiDAR Imagery

- 3.6. The LiDAR data utilised for this assessment was collected in 2022. This identifies clear areas of ridge and furrow within the southern part of the Site, corresponding with the area recorded by Leicestershire HER. The earthworks visible on the LiDAR and current aerial imagery are well-defined (Fig. 3).
- 3.7. The LiDAR data and aerial imagery (Fig. 3) suggest that the ridge and furrow within the Site runs on the same north-east / south-west alignment, apparently respecting existing and former field boundaries. The ridge and furrow also appear to respect the fields that are depicted on the 1846 Markfield Parish Tithe map. The earthworks visible in the LiDAR data indicate areas of intensive cultivation, with their survival suggesting that these areas have experienced less ploughing in the modern period in comparison to other parts of the parish.

Description of surviving earthworks

- 3.8. The site visit carried out on 08/11/2024 assessed ridge and furrow earthworks within fields in the southern area of the Site, corresponding with the areas identified on the LiDAR and those recorded by the Leicestershire HER. The ground conditions at the time of the site visit were good, comprising generally low-level grass pasture maintained by intermittently by grazing horses. The ridge and furrow lies within c.2.7ha of the Site, which currently forms part of the potential surviving medieval and/or post-medieval fields within the parish of Markfield (which is c.44.5ha in extent across the parish). The ridge and furrow that survives best is located within Area C of the Site (Fig. 3), with remains of ridge and furrow being almost entirely eroded away in Area A and remains eroded but also obscured by vegetation in Area B (Fig. 3).

- 3.9. The earthworks here extended across the lengths of the fields and could be seen to exhibit a slightly curved morphology (indicative of a medieval origin), albeit they were very eroded, shallow and difficult to discern during the site visit. That being said, the LiDAR Imagery (Fig. 3) indicates that the ridge and furrow are tightly spaced, with ridges measuring between 3m and 6m in width. These measurements correspond to both medieval and post-medieval ridge and furrow widths. The ridge and furrow within the Site is aligned north-east / south-west and appears to continue through the present tree-lined field boundaries that are present (Fig. 3). This could also suggest that they are medieval in date, when the open field system prevailed, or at least probably pre-date the implementation of the present field boundaries.



Photo 1. Ridge and furrow within the Site that has been grazed in Area A



Photo 2. Ridge and furrow within the Site within an overgrown area in Area B

- 3.10. During the site visit it was noted that the surviving ridge and furrow within the Site had significantly eroded over time with the majority of the earthworks at a height between 0.2m and 0.3m in height and were typically difficult to discern visually. Within one area of the Site the ridge and furrow is more visible due to horses having recently grazed the field plot (Photo 3: Area C). However, other areas of the earthworks were far less visible due to the vegetation coverage (Photo 2; Area B) and those remains almost being entirely eroded away, perhaps due to trampling by horses (Photo 1; Area A). This distinction also illustrates the extent to which the remaining earthworks within the Site have been eroded over time. No doubt, should they have been better preserved earthworks would have been better defined even in conditions of taller vegetation.



Photo 3. Ridge and furrow within the Site that has been grazed in Area C

- 3.11. The areas of ridge and furrow that are present within Markfield Parish are noted within the *Markfield Parish Neighbourhood Plan* (Hinckley and Bosworth Borough Council 2021), where it also notes that very little ridge and furrow survives within the parish.
- 3.12. A review of the Leicestershire Historic Landscape Characterisation records the area of ridge and furrow within the Site as 'piecemeal enclosure'. 'Piecemeal enclosure' within Leicestershire will typically date from the late 16th and early 17th centuries. Where 'piecemeal enclosure' has remained in permanent pasture for a significant period the potential is likely to be higher that ridge and furrow may overlay earlier buried archaeological remains (Leicestershire County Council 2010). Therefore, based on the Historic Landscape Characterisation interpretation, the ridge and furrow remains within the Site could date to the early post-medieval period.

Significance of surviving earthworks

- 3.13. The criteria recommended by the *Turning the Plough* (Northamptonshire County Council 2001) have been utilised to assess the significance of the earthwork remains within the Site. While the criteria were designed to assess the significance of individual open fields as a whole, those criteria are also considered applicable to individual areas of ridge and furrow (i.e. the remains within the Site). The earthworks have been scored against each of the criteria on the basis of the sources consulted as part of this assessment only. Each of the criteria is scored on a three-point system.

Group Value (Association)

- 3.14. The Group Value is defined by the association of ridge and furrow with other monuments, most importantly any associated settlement earthworks. The physical relationship between ridge and furrow and other monuments can provide a chronological depth that adds value.

1. **Low:** with a single monument or feature (excluding the settlement), or none at all;
2. **Medium:** two or three associated features (excluding the settlement); and,
3. **High:** settlement earthworks and any other features associated with the fields.

- 3.15. The ridge and furrow earthworks within the Site are located c.1km to the north-west of the medieval core of Markfield (Fig. 2), and a turnpike road located c.90m to the south. Perhaps in part due to their distance from Markfield, there are no other known features which illustrate a direct relationship between the earthworks and the settlement, such as hollow ways providing access between the fields and the settlement.

- 3.16. On this basis, the *Group Value* of the earthworks is considered to be **Low** (score point 1).

Survival

- 3.17. The survival of ridge and furrow is expressed as a percentage of the original field system. This is based on the area of the Township, with deductions made for significant amounts of wood, meadow, fen or heath.

1. **Poor:** field systems extending to less than 0-10% of the township and/or having some post-enclosure plough damage;

-
2. **Medium:** field systems extending to 11-18% and/or having some post-enclosure plough damage; and,
 3. **Good:** field systems extending to more than 18% of the township with no later plough damage.

- 3.18. The ridge and furrow extends across c.2.7ha of the Site, which currently forms part of the potential surviving medieval and/or post-medieval fields of Markfield, which is c.44.5ha in extent across the parish, recorded by the HER and the LiDAR Imagery. The ridge and furrow within the Site equates to c.6% of the total (c.44.5ha) surviving ridge and furrow within the parish.
- 3.19. Further areas of ridge and furrow are recorded within the landscape to the east, south and west of the Site by the HER and on LiDAR Imagery (Figs. 2 and 3), although these mainly seem to comprise discrete areas indicating fragmentary survival across the parish of Markfield. While the overall survival of ridge and furrow within the parish as a whole has not been assessed in detail, from a review of available LiDAR data alongside ridge and furrow recorded by the HER (Fig. 2), the total area of surviving ridge and furrow within the Site extends across less than 10% of the parish.
- 3.20. On this basis, the *Survival* of the ridge and furrow earthworks is judged to be **Low** (score point 1).

Potential

- 3.21. Scores for potential are based upon the presence of wet features/light soil (associated with general potential for Saxon settlement), the degree of below ground destruction in the form of urban areas or quarrying, and the presence of settlement earthworks.
1. **Low:** divorced from wet features and not lying on light soil. Has a significant proportion of urbanisation and quarrying;
 2. **Medium:** lies on light soil or has wet features adjacent; remainder of the township is intact; and,
 3. **High:** lies next to settlement earthworks, preferably with nearby wet features and light soil and the remainder of the township is intact.
- 3.22. There are no wet features within the vicinity of the ridge and furrow earthworks within the Site, nor are there any wet features such as former ponds noted on 19th or 20th century historic mapping within the Site. The Site comprises a combination of slowly

permeable, seasonally wet, slightly acid but base-rich loamy and clayey soils and soils with impeded drainage (BGS 2024), and is not likely to have been a favoured location for early settlement. There is no potential for reorientation of the open field system within the Site.

- 3.23. The *Potential* of the ridge and furrow earthworks within the Site is considered to be **Low** (score point 1).

Documentation (archaeological)

- 3.24. Archaeological documentation includes aerial photographs and plans. The criteria in *Turning the Plough* (Northamptonshire County Council 2001) are:

1. **Low**: no plans and only poor photographs;
2. **Medium**: good photographs or adequate plans; and,
3. **High**: good photographs and plans with profiles.

- 3.25. The emergence of, and widespread availability of LiDAR data since the *Turning the Plough* criteria were established (i.e. 2001) means that for many areas of ridge and furrow it is possible to produce detailed plans of the earthworks, depicting the curvatures of the earthworks. This is the case in relation to the earthworks within the Site especially as the available LiDAR data dates to 2022. It is therefore an accurate representation of the current state of the survival of the earthworks. Whilst the data is only available at 1m resolution and smaller features may not be determinable on the LiDAR data, this is not considered to be a significant limitation of the documentation for this Site as ridge and furrow earthworks are generally easier to discern and are depicted well on the LiDAR data (Fig. 3).

- 3.26. As such, its *Documentation (archaeological)* score is **Medium** (score point 2).

Documentation (historical)

- 3.27. Historical documentation is scored by reference to contemporary maps, field books, terriers, court rolls, accounts, estate records and other medieval information.

1. **Low**: no open field records other than a late terrier;
2. **Medium**: map or terrier plus any of the other items next listed; and,
3. **High**: map and field book, terriers, court rolls, accounts, estate records and other medieval information.

-
- 3.28. While Markfield is recorded in the Domesday Survey of 1086 and is known to have held associated ploughlands (furlongs), though there is no specific reference made to the land within the Site (Powell-Smith 2024). There are also no known surviving estate or manorial records.
- 3.29. There are only limited surviving historical records relating to Markfield, and there do not appear to be any cartographic sources relating to the Site pre-dating the 1846 Markfield Parish Tithe map, which provide any detail with regard to land-use. The earliest map available is the 1815 Ordnance Survey of Leicester and Loughborough¹. This map does not depict the Site in detail, other than likely indicating that the Site was agricultural in character at the time.
- 3.30. The 1846 Markfield Parish Tithe map indicates that the surviving ridge and furrow within the Site covered four individual fields (plots 506, 507, 509 and 511). These plots were owned by Thomas Pares and occupied by Samuel Spriggs (who likely lived in a dwelling recorded within Plot 506) and William Taberner (who occupied the former Wellington Public House adjacent to Plot 509 which was demolished as part of the M1 construction). Plot 506 was recorded as arable in use, and Plots 507, 509 and 511 were used as pasture.
- 3.31. The *Documentation (historical)* value of the earthworks is therefore **Low** (score point 1).

Diversity (features)

- 3.32. The diversity score is based upon the presence of furlongs of different sizes and orientations, headlands, joints (furlong boundaries with a double row of heads) and balk (grassed over lands), etc.
1. **Low:** examples with 0-2 of the features;
 2. **Medium:** examples with 3-4 features; and,
 3. **High:** over 4 features.
- 3.33. The earthworks within the Site appear to relate one furlong, or perhaps two furlongs. As the individual 'lands' are all orientated north-east / south-west, it can be assumed that the ridge and furrow are likely attributed to one furlong. There is the possibility

¹ [1815 Leicester and Loughborough Ordnance Survey](#)

that headlands survive at the ends of the lands, but these were not evident on the LiDAR Imagery (Fig. 3) or during the site visit.

- 3.34. The features of the ridge and furrow comprise furlongs and headlands. No further features indicative of the open field system were identified during the site visit or from available sources. On this basis the diversity score is **Low** (score point 1).

Amenity value

- 3.35. Amenity is scored on the level of access available, and the presence of enhancing features such as of hedges and trees.

1. **Low:** an inaccessible and small area of fields;
2. **Medium:** some access is available; or the fields are enhanced by the additional interest of later features; and,
3. **High:** good access to extensive clear samples of fields with additional interest.

- 3.36. The Site contains no public rights of way and is therefore not easily accessible by the public. The ridge and furrow can only be experienced and appreciated from the privately owned farm that the fields are associated with. The only public route that runs past the ridge and furrow within the Site is the busy A50, which is bordered by earth banks topped by tall mature hedgerows. Views from the A50 into the Site are entirely blocked by these features.

- 3.37. During the site visit it was noted that the surviving ridge and furrow within the Site had been eroded over time with the majority of the earthworks at a height between 0.2m and 0.3m. The ridge and furrow that survives best is located within Area C of the Site (Fig. 3), with remains of ridge and furrow being almost eroded away by grazing horses in Area A, and remains being obscured by vegetation in Area B (Fig. 3).

- 3.38. On this basis, the ridge and furrow is not easily accessible or cannot be readily experienced, therefore the *Amenity* value of the earthworks is scored as **Low** (score point 1).

Overall score

- 3.39. Each criterion is scored on a three-point system, and the *Turning the Plough* methodology recommends **squaring** each score before totalling (Northamptonshire County Council 2001, 57). The earthworks score the following, and the square of each score is provided in brackets:

Group Value (Association)	1 (1)
Survival	1 (1)
Potential	1 (1)
Documentation (archaeological)	2 (4)
Documentation (historical)	1 (1)
Diversity (features)	1 (1)
Amenity value	1 (1)
Total	10 (out of a potential 63)

- 3.40. On the basis of the above, the earthworks score poorly against the defined criteria. The highest score being 4 out of a maximum of 9 against each individual criterion.

Summary of significance

- 3.41. The ridge and furrow earthworks within the Site have been assessed following the methodology recommended in *Turning the Plough* (Northamptonshire County Council 2001). The results total a score of **10 out of a possible 63**. This is a low score and reflects the overall limited heritage value of the earthworks. One of the criteria scored 4, which was the highest attained score, even so this is a low score out of a possible 9.
- 3.42. The loss of ridge and furrow within the Site would result in the loss of a proportion of the examples of ridge and furrow that are present within the parish of Markfield. A clear and readily accessible documentary record of the ridge and furrow to be lost within the Site would remain present in the form of aerial photography and LiDAR data.
- 3.43. Overall, the ridge and furrow within the Site is a very modest example of an element of the former open field system, of medieval to early post-medieval origin, within the parish of Markfield. These earthwork features, however, are substantially eroded and expressed as very shallow ridges and furrows and also cannot be experienced or readily appreciated from publicly accessible locations. The earthworks are of limited interest; however, it is appropriate to define them as non-designated heritage assets.

Effect of the proposals

- 3.44. The conversion of the Site to commercial warehousing and associated infrastructure would result in the complete loss of the ridge and furrow earthworks within the Site through the process of development earthworks, landscaping, stripping of the topsoil and subsoil, and construction of commercial units and access roads. This would result in a loss of c.2.7ha of ridge and furrow earthworks, which currently form part of the potential surviving medieval and/or post-medieval fields of the parish of Markfield (which is c.44.5ha in extent across the parish). The earthwork remains within the Site are relatively isolated, being c.1km to the north-west of the medieval core of Markfield, and the integrity of the former open field system of Markfield parish has largely been lost through the modern agricultural practices (ploughing) that have resulted in the loss of the majority of the parish's ridge and furrow earthworks.
- 3.45. As such, the loss of the earthworks would equate to the loss of a small proportion of the original open field system of Markfield parish, albeit a poorly surviving element. Whilst this would result in very limited harm to the heritage significance of the ridge and furrow remains of Markfield parish, on current information, the earthworks are not of sufficient significance to warrant preservation and the proposed development of the Site reflects the continuing evolution of this part of the landscape at the junction of the M1 and A50, within the parish. Its removal would not comprise a significant effect on the historic environment.

4. CONCLUSIONS

- 4.1. In conclusion, the heritage significance of the ridge and furrow earthworks within the Site has been assessed using the methodology most appropriate to the nature of the heritage asset and the geographical area. The earthworks are located within a township (parish) that would not be considered to have sufficient significance to warrant classification as a Priority Township, as defined within *Turning the Plough* (Northamptonshire County Council 2001). Nonetheless, there are recognisable features within the Site, albeit substantially eroded, and these do serve to illustrate, to a limited extent, the historical relationship between Markfield and its agricultural hinterland. The development of the Site as proposed would result in the loss of an area of c.2.7ha of very eroded and poorly preserved remnant ridge and furrow earthworks, which equates to c.6% of the total c.44.5ha of ridge and furrow present within the Parish of Markfield, recorded on both the HER and the LiDAR Imagery. However, the ridge and furrow earthworks within the parish of Markfield are considered to be a heritage asset of limited archaeological and historic significance, and their loss should not represent a constraint on the proposed development.

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