

**LAND NORTH OF
NORMANDY WAY,
HINCKLEY**

**AGRICULTURAL LAND
CLASSIFICATION AND
CONSIDERATIONS**

February 2024





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1 INTRODUCTION

1.1 This report considers the agricultural land quality of a parcel of land extending to 15.9 ha to the north of Normandy Way, Hinckley.

1.2 The Site comprises a number of fields, which are shown edged in red on the aerial image below.

Insert 1. The Site (boundary approx.)



1.3 A detailed Agricultural Land Classification has been carried out over the site. The Site is recorded as a mixture of Grade 2, Subgrade 3a and Subgrade 3b together with some non-agricultural land.

1.4 This report:

- (i) reviews the relevant planning policy in section 2;
- (ii) describes the Site and the ALC survey findings in section 3;
- (iii) assesses the findings against policy in section 4; and
- (iv) ends with a summary and conclusions in section 5.

1.5 This report has been prepared by Kernon Countryside Consultants Ltd. We specialise in assessing the effects of development proposals on agricultural land and businesses.

2 RELEVANT PLANNING POLICY AND GUIDANCE

National Planning Policy Framework

- 2.1 The National Planning Policy Framework (NPPF) (2023), paragraph 180 notes that planning policies and decisions should contribute to enhance the natural and local environment by, inter alia, recognising **“the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land”**.
- 2.2 The best and most versatile (BMV) agricultural land is defined in Annex 2 of the NPPF as land which is of Grade 1, 2 and Subgrade 3a of the Agricultural Land Classification.
- 2.3 Paragraph 181 of the NPPF discusses plan making. It requires plan to, inter alia, allocate land with the least environmental or amenity value, where consistent with other policies in the Framework. Footnote 62 of the NPPF identifies that **“where significant development of agricultural land is demonstrated to be necessary, areas of poorer quality land should be preferred to those of a higher quality”**.
- 2.4 There is no definition of what constitutes “significant” development. However, the “Guide to assessing development proposals on agricultural land” (Natural England, February 2021) advises local planning authorities to **“take account of smaller losses (under 20 ha) if they’re significant when making your decision”**, suggesting that 20 ha is a suitable threshold for defining “significant” in many cases.
- 2.5 The December 2023 amendments to the NPPF added the requirement to consider the availability of land for food production to the plan-making policy 180, via an expanded footnote 62.

Local Plan and Evidence

- 2.6 Site Allocations and Development Policies DPD (July 2016) policy DM4 replaces policy NE5 of the Local Plan (2001), but does not refer to agricultural land. The Core Strategy (2009) does not contain a policy relating to agricultural land.
- 2.7 In 2020 the Council published an Agricultural Land Survey. This set out the results of a semi-detailed or estimated ALC survey by Land Research Associates. The relevant area north of Hinckley is reproduced in **Appendix KCC1**.

Guidance

- 2.8 Natural England's "Guide to Assessing Development Proposals on Agricultural Land" (February 2021) describes the ALC process and sets out guidance on managing soils. It advises on the consultation process where more than 20 ha of BMV land is involved.
- 2.9 The Institute of Environmental Management and Assessment (IEMA) produced a Guide "A New Perspective on Land and Soil in Environmental Impact Assessment" in February 2022. Whilst this refers to EA development, it identifies in table 3 (page 49) the magnitude of the impacts on soil resources. Losses of between 5 and 20 ha are defined as moderate magnitude losses.

3 AGRICULTURAL LAND QUALITY OF THE SITE

The ALC System

- 3.1 The Agricultural Land Classification (ALC) system provides a framework for classifying land according to the extent to which its physical or chemical characteristics impose long term limitations on the agricultural use of the site. The ALC system divides agricultural land into five grades. Grade 1 of the ALC is described as being of excellent quality and Grade 5, at the other end of the scale, is described as being of very poor quality. The current guidelines and criteria for the ALC were published by the Ministry of Agriculture, Fisheries and Food (MAFF) in 1988.
- 3.2 The ALC system is further described in Natural England's Technical Information Note 049 which can be found reproduced in **Appendix KCC2**.

Land Survey

- 3.3 The Council's Agricultural Land Survey, at semi-detailed level, identified the site to be mostly Grade 2 with some areas of Grades 3a and 3b. The survey was at a semi-detailed level and the auger results are not available. The plan is set out in **Appendix KCC1**.
- 3.4 The report notes that, for planning applications, detailed survey is recommended.

Detailed ALC Survey Results

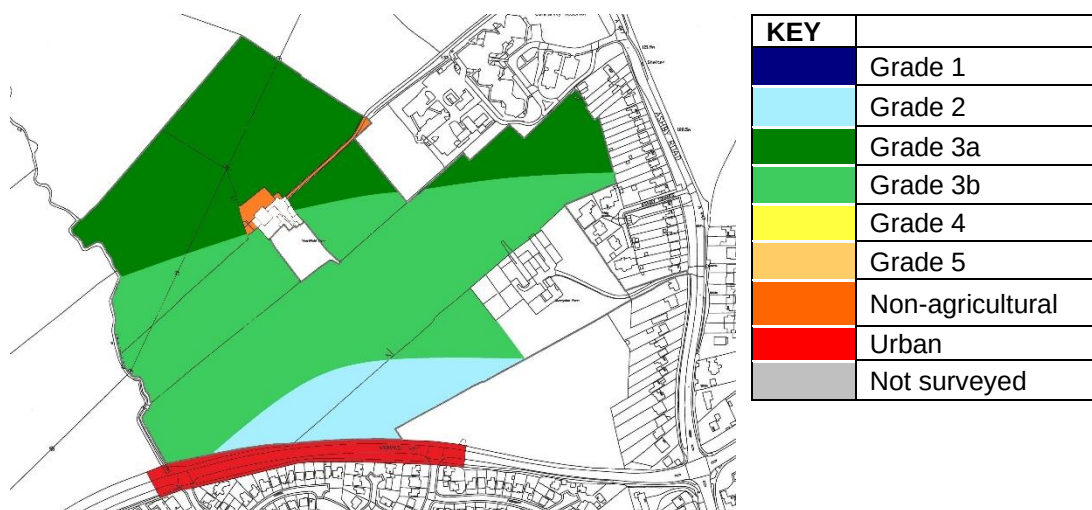
- 3.5 Accordingly a detailed ALC survey was carried out in November 2023. 15 auger point inspection sites were examined on a regular 100m grid, using a spade and soil auger to a maximum depth of 120cm where possible.
- 3.6 One soil pit was dug to measure the stoniness and to better describe the soil profiles. One sample was sent for laboratory analysis for the fractions of sand, silt and clay.
- 3.7 A detailed ALC report is set out in **Appendix KCC3**.
- 3.8 The results of the survey are presented in the table below.

Table 1. KCC1 ALC Results

ALC Grade	Description	Area (ha)	Proportion (%)
Grade 2	Very Good	1.6	10
Subgrade 3a	Good	5.0	31
Subgrade 3b	Moderate	8.3	52
Non-Agricultural	-	0.2	2
Urban	-	0.8	5
Total	-	15.9	100.0

- 3.9 The distribution of grading can be seen on the extract of the ALC plan below. The full plan can be found at the end of this report.

Insert 2. Extract of the ALC Plan



- 3.10 It can be seen that the Site is Grade 2, Subgrade 3a, Subgrade 3b, non-agricultural and urban thus containing a proportion (6.6 ha) of BMV quality land. BMV land represents 41% of the Site, and is divided by a belt of poorer-quality land through the central part of the Site.

4 POLICY ASSESSMENT

- 4.1 The NPPF (2023) requires that the economic and other benefits of BMV land be recognised. In plan making terms the NPPF requires that, where significant development of agricultural land is involved, poorer quality land should be used in preference. Therefore we consider the economic and other benefits then go on to consider the plan-making considerations.

Economic Benefits

- 4.2 The NPPF (2023) does not prevent development of BMV land. It requires only that the economic and other benefits of BMV land be recognised.
- 4.3 There is no research available that we are aware of that seeks to analyse the productive economic advantages of BMV to non-BMV land.
- 4.4 In the absence of any empirical data, an economic assessment is inevitably crude. Taking standard budgeting textbooks, such as the John Nix Pocketbook for Farm Management (extracts which have been reproduced in **Appendix KCC4**), it is possible to show the difference between moderate and high yields as an illustration between non-BMV and BMV land, but given the number of variables this is a crude measurement.
- 4.5 Taking that crude measure and applying it to winter wheat and oilseed rape, the differences are shown below.

Table 2. Assessment of Economic of Farmed Land

Item	Winter Wheat		Oilseed Rape	
	Average	High	Average	High
Yield (t/ha)	8.6t/ha	10.0t/ha	3.5t/ha	4.0t/ha
Output (£)	£1,813/ha	£2,086/ha	£1,523/ha	£1,740/ha
Gross Margin (£)	£1,116/ha	£1,389/ha	£944/ha	£1,161/ha
Uplift (£)	-	£273/ha	-	£217/ha

John Nix Pocketbook for Farm Management, September 2023

- 4.6 Based on this, the economic benefits of the 6.6 ha of BMV land to non-BMV land would be under £2,000 per annum (£1,430 - £1,800 based on 2023 budgets). Hence the economic benefits of a land parcel of this size are limited. In terms of yield, were all the land used for growing wheat, the benefit would be of the order of 9.2 tonnes. In 2022 the UK produced over 24 million tonnes of cereals, so the benefit is negligible. The 2023 production estimate is about 10% less (cereal and oilseed production in the UK 2023, Defra (21 December 2023)).

- 4.7 In practice the BMV land is mostly in parts of fields including Subgrade 3b, hence a mixed ALC field. The ability to farm the Grade 2 or Subgrade 3a is affected by the poorer quality land within the field. The land is suited to cereals and combinable break crops, or grassland, and the economic and other benefits are limited. Only one small field falls wholly into a single ALC grade.

Whether this is “Significant” Development

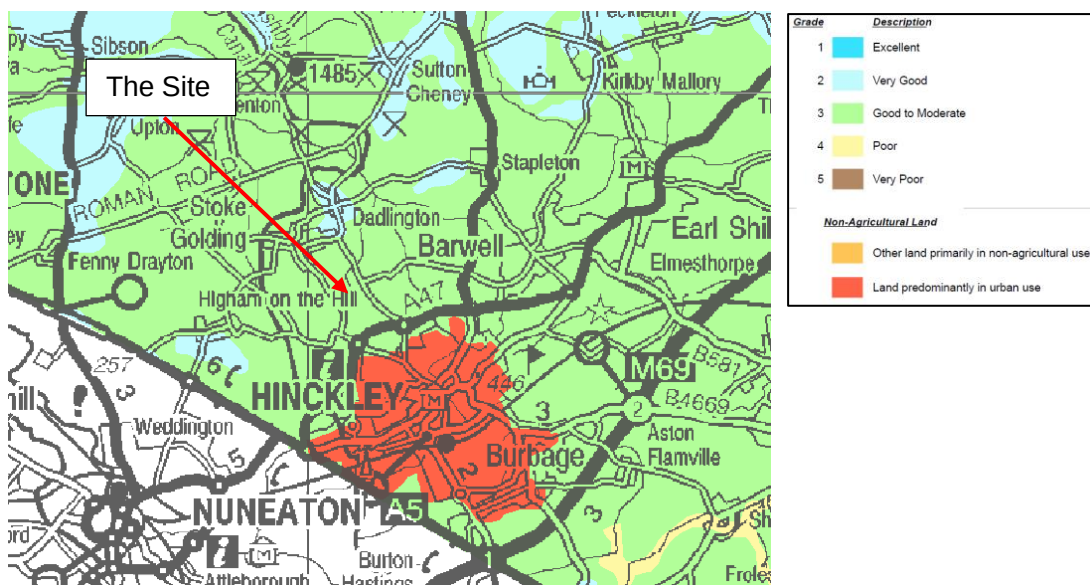
- 4.8 This proposal is not considered to be “significant” development of agricultural land in the context of the NPPF, were this relevant (it being a plan making policy).
- 4.9 Footnote 62 to paragraph 180 of the NPPF considers whether poorer quality land is available. This footnote is to a plan making policy paragraph. Setting that aside, the trigger for an assessment of poorer quality land is that the proposal involves **“significant development of agricultural land”**. **“Significant Development”** is not defined in the NPPF. One threshold for determination of what is significant is the threshold for consultation with Natural England, which is set at the loss of 20 ha or more of BMV land (as can be seen in the TIN049 in **Appendix KCC2**). This has been the threshold for consultation with MAFF since 1987.
- 4.10 At 6.6 ha the quantum of BMV within the Site is only 32% of the threshold for consultation with Natural England. Therefore, this quantum is not “significant development”.
- 4.11 The “Guide to assessing development proposals on agricultural land” (Natural England, 5th February 2021) (**Appendix KCC5**) does not define a threshold but does provide some guidance. This adds to our view that 20 ha is a reasonable threshold for defining what is significant development:
- paragraph 6 states **“you should take account of smaller losses (under 20 ha) if they are significant when making your decision”**, which suggests that losses of under 20 ha would not be significant unless there are particular local circumstances. What those particular local circumstances are, is not defined but it would be reasonable consider that the loss of 20 ha may be significant in an area where BMV land is rare, for example. That is not the case at this Site, where the predictive maps have a large proportion of the area as >60% BMV quality; and
 - paragraph 7.1 states that you can use Natural England’s chargeable discretionary advice system **“if your proposal is large, for example 20 ha or more, and requires more detailed advice”**. The definition of large as being more than 20 ha suggests that a site under 20 ha is considered small, and hence, not significant.

- 4.12 This is not significant development of BMV land. Therefore, the requirement to consider if poorer quality land is available, under footnote 62, is not triggered. For completeness, however, we now turn to assess that.

Land Quality in the Area Generally and Whether Poorer Quality Land is Available

- 4.13 The significance of development involving agricultural land needs to be considered in context. Across England it is estimated that 42% of farmland is of Grade 1, 2 and 3a quality (see TIN049, **Appendix KCC2**).
- 4.14 The Utilised Agricultural Area (UAA) of England, which is less than the total amount of agricultural land, was 8.8 million hectares in June 2023 (Agricultural Land Use in England on 1 June 2023, DEFRA, 28 September 2023). This suggests that about 3.7 million hectares of BMV land is in active agricultural use.
- 4.15 Statistically about 40% of Grade 3 land falls within Subgrade 3a. However, in parts of the country the proportion of Subgrade 3a is expected to be much higher.
- 4.16 Therefore, it is not considered that BMV quality is a rare resource.
- 4.17 On the published “provisional” ALC maps from the 1970’s the land is shown as undifferentiated Grade 3.

Insert 3. Provisional ALC Map

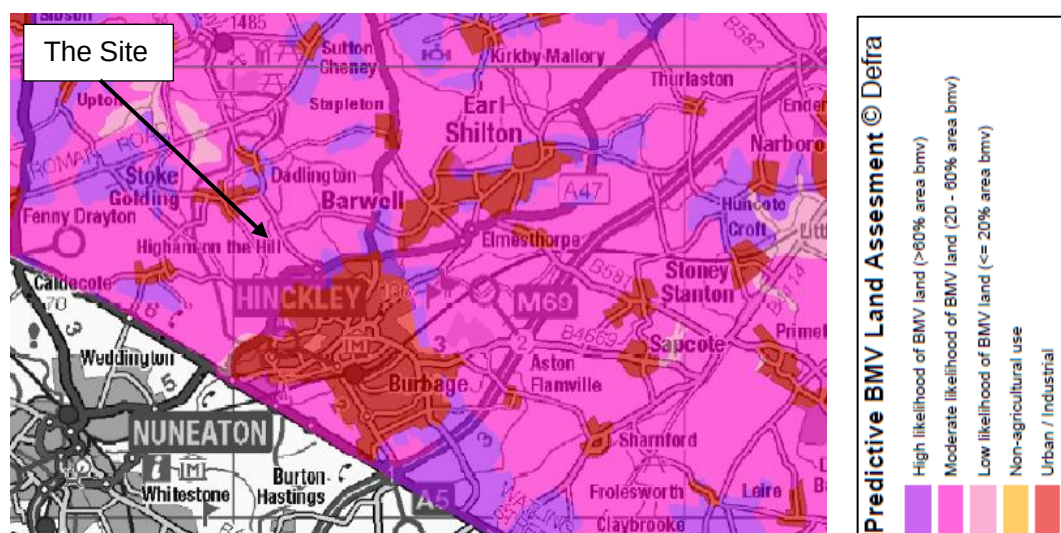


- 4.18 There are limitations with the “provisional” maps, which are described in TIN049 (**Appendix KCC2**). In 2017 Natural England produced predictive best and most versatile maps. These estimate the proportion of land within an area that is of BMV quality. There are three

categories which are low (<20% area BMV), moderate (20-60% area BMV), and high (>60% area BMV). For this area the map shows the Site as moderate likelihood of BMV land.

- 4.19 The predictive BMV likelihood maps predict that the land is of a moderate likelihood of BMV land (20-60%), in common with most of the land in the wider area.

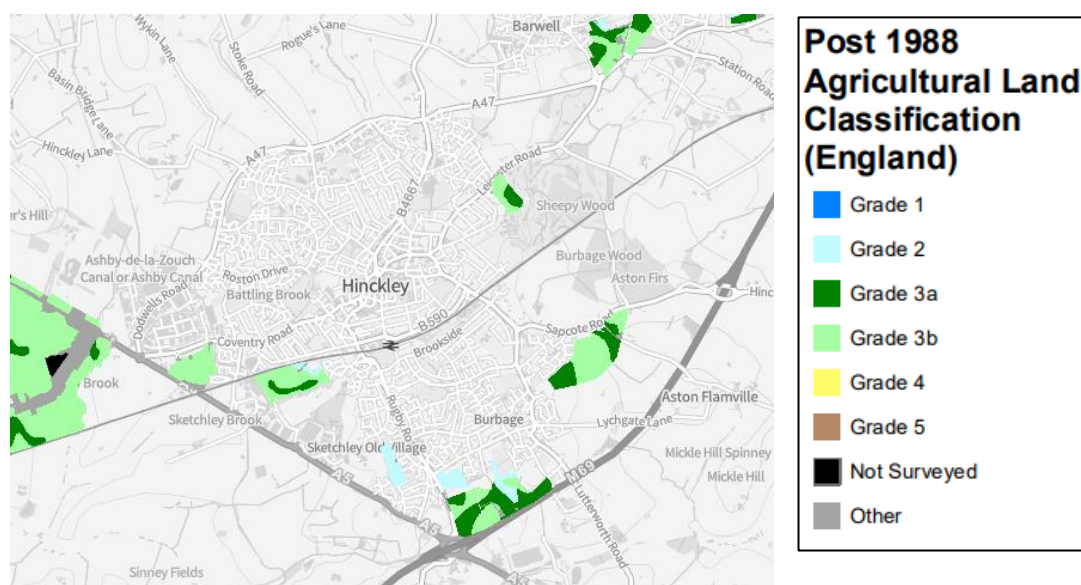
Insert 4. Predictive BMV Map



- 4.20 Based on the maps it is noted that land around Hinckley is of medium likelihood of BMV, with land to the northeast, east and southeast of high likelihood of BMV. Therefore within the immediate vicinity, all land is shown as having a high or moderate likelihood of being of BMV land quality.

- 4.21 Available surveys by MAFF are shown below, and cover part of the periphery of, in particular, Burbage.

Insert 5: Available Surveys (www.magic.gov.uk)



4.22 The land quality as assessed at semi-detailed or estimated level by LRA (see **Appendix KCC1**) is shown below.

Insert 6: LRA Semi-Detailed



4.23 The Site is mostly Subgrade 3b, but with some BMV land north and south of the Subgrade 3b. Most of the land around Hinkley and Burbage is a similar mix of subgrades, with small areas of Grade 2.

5 SUMMARY AND CONCLUSIONS

- 5.1 The Proposed Development Site extends to 15.9 ha.
- 5.2 The land has been classified as comprising 1.6 ha (10%) of Grade 2, 5.0 ha (31%) Subgrade 3a, 8.3 ha (52%) Subgrade 3b, 0.2 ha (2%) of non-agricultural land and 0.8 ha (5%) of urban land. Therefore, this Site contains only 6.6 ha of the best and most versatile agricultural land.
- 5.3 The NPPF requires that economic and other benefits of BMV land be considered. The economic benefits of the Site are modest at under £2,000 per annum.
- 5.4 In terms of the NPPF, this is not significant development of agricultural land. Accordingly, poorer quality land does not need to be considered in preference.
- 5.5 Accordingly based on the small amount of BMV quality land that has been found it is concluded that only limited weight should be given to the loss of this small area of BMV agricultural land.

Appendix KCC1
Extracts from LRA Report (2020)

**AGRICULTURAL QUALITY OF LAND
SURROUNDING SETTLEMENTS IN THE
HINCKLEY & BOSWORTH DISTRICT**

Report 1454/2

7th May, 2020

Land
Research
ASSOCIATES
www.lra.co.uk

**AGRICULTURAL QUALITY OF LAND SURROUNDING SETTLEMENTS
IN THE HINCKLEY & BOSWORTH DISTRICT**

L Thomas BSc, MSc

Report 1454/2
Land Research Associates Ltd
Lockington Hall,
Lockington,
Derby
DE74 2RH
www.lra.co.uk

7th May, 2020

1.0 Introduction

- 1.1 Land Research Associates have been commissioned by the Hinckley and Bosworth Borough Council (HBBC) to provide details on the agricultural quality of land across the District. This study addresses land quality surrounding fourteen settlements in the District (see Map 1 at the end of this Section):

Bagworth	Hinckley
Barlestone	Market Bosworth
Barwell	Markfield
Burbage	Newbold Verdon
Desford	Ratby
Earl Shilton	Stoke Golding
Grobby	Thornton

- 1.2 Information from this report and the desk study (see report 1454/1) will be reviewed in a non-technical report (see report 1454/3).

AGRICULTURAL LAND CLASSIFICATION

- 1.3 Agricultural Land Classification (ALC) is a system used in England and Wales to grade the quality of land for agricultural use, according to the extent by which physical or chemical characteristics impose long-term limitations. The ALC system¹ classifies land into five grades numbered 1 to 5, with grade 3 divided into two sub-grades (3a and 3b). Best and most versatile (BMV) land is considered land grades 1, 2 and subgrade 3a; this land is of high agricultural quality and protected in National Planning Policy. The system was devised and introduced in the 1960s and revised in 1988.

NATIONAL PLANNING POLICY

- 1.4 This piece of work will act as an evidence base to allow the Council, where possible, to guide development away from best and most versatile land in line with National Planning Policy. The applicable legislative framework is summarised as follows from the National Planning Policy Framework (NPPF, 2019):

"Planning policies and decisions should contribute to and enhance the natural and local

¹Agricultural Land Classification for England and Wales: Guidelines and Criteria for Grading the Quality of Agricultural Land. MAFF, 1988.

environment by:

"a) ...protecting and enhancing... soils (in a manner commensurate with their... identified quality in the development plan)

b)...recognising the economic and other benefits of the best and most versatile agricultural land"

"Plans should:...allocate land with the least environmental...value, where consistent with other policies in this Framework...Where significant development of agricultural land is demonstrated to be necessary, areas of poorer quality land should be preferred to those of a higher quality."

METHODOLOGY

- 1.5 The ALC survey was carried out on foot and based on shallow soil pits and augerings to 1 m depth (where not stopped by impenetrable layers) at each observation point, located using GPS. Observations were conducted at alternate intersects of a 100 m grid, providing a sampling density of one observation every two hectares. Survey was conducted strictly in accordance with the Agricultural Land Classification for England and Wales (1988).
- 1.6 The survey was carried out between October 2018 and March 2019 with the permissions of landowners and tenant farmers for access. Where land access was not obtained (landowner not identified or access not granted), ALC grades were interpolated using nearby observations and published soils and geological information.

LIMITATIONS OF THE SURVEY

- 1.7 The observation density of the ALC survey provides semi-detailed land quality information. While this gives a useful overview of broad land grades for directing development towards lower quality land, Natural England recommend detailed (1 observation per hectare) ALC mapping for LPAs to base their final planning decisions.
- 1.8 Estimated grading should not be assumed to meet the required degree of accuracy required for planning applications and in all cases detailed survey to Natural England guidelines is recommended.

9.0 Agricultural land quality around Hinckley

SURVEY RESULTS

- 9.1. The agricultural quality of the land is determined by wetness or droughtiness. Land of grades 2 and 3 has been identified: see Map 9 at the end of this Section for their distribution.

Grade 2

- 9.2. Land of this agricultural quality is mainly found in the east of the site. Where the land has sandy clay loam soils, their moderate clay content causes slight wetness constraints which restricts access with machinery for the cultivation/harvesting of winter crops in wet years.
- 9.3. Land with sandy loam or loamy sand subsoils also forms grade 2 land. The moderately high sand content of the subsoils means they have a limited moisture storage capacity that will lead to slightly reduced crop yields in dry years under the local climate.

Subgrade 3a

- 9.4. Land of this quality is mainly found where sandy clay loams overlie slowly permeable clay at depth (around 50 cm). The moderate clay content of the topsoil in combination with the impeded drainage of the lower subsoil restricts access of machinery to land in spring during wet years.

Subgrade 3b

- 9.5. Land of subgrade 3b agricultural quality is mainly found in the centre and south of the area, where heavy slowly permeable soils are present. The combination of high clay content topsoil and impeded drainage means access with farm machinery is restricted, with spring cropping rarely possible and arable use mainly limited to autumn sowings.

ESTIMATED LAND GRADES

Estimated Grade 2

- 9.6. A small area of grade 2 is predicted in the south of the area, where the recorded sand and gravel deposits are likely to give freely-draining soils with slight droughtiness limitations.

Estimated Subgrade 3a

- 9.7. This land grade was encountered in the area where Oadby till is mapped and is also estimated where similar geology is recorded in the south of the site near Wykin Hall Farm.

Estimated Subgrade 3b

- 9.8. Subgrade 3b land is predicted over recorded Bosworth Clay Member in the centre of the site, which mainly gives heavy clay soils with significant wetness limitations.

Table 8: Areas occupied by the different land grades surrounding Hinckley

<i>Grade/subgrade</i>	<i>Area (ha)</i>		<i>% of the land</i>	
	Surveyed land	Surveyed and estimated land	Surveyed land	Surveyed and estimated land
Grade 1	0	0	0	0
Grade 2	39.6	40.6	32	25
Subgrade 3a	16.6	33.7	14	21
BMV land total	56.2	74.3	46	46
Subgrade 3b	65.9	85.3	54	54
Total land area	122.1	159.6	100	100

Appendix KCC2
Natural England's Technical Information
Note TIN049

Agricultural Land Classification: protecting the best and most versatile agricultural land

Most of our land area is in agricultural use. How this important natural resource is used is vital to sustainable development. This includes taking the right decisions about protecting it from inappropriate development.

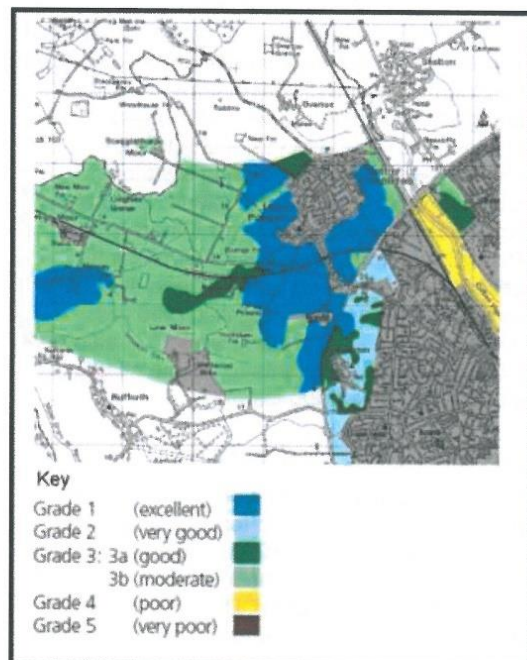
Policy to protect agricultural land

Government policy for England is set out in the National Planning Policy Framework (NPPF) published in March 2012 (paragraph 112). Decisions rest with the relevant planning authorities who should take into account the economic and other benefits of the best and most versatile agricultural land. Where significant development of agricultural land is demonstrated to be necessary, local planning authorities should seek to use areas of poorer quality land in preference to that of higher quality. The Government has also re-affirmed the importance of protecting our soils and the services they provide in the Natural Environment White Paper The Natural Choice:securing the value of nature (June 2011), including the protection of best and most versatile agricultural land (paragraph 2.35).

The ALC system: purpose & uses

Land quality varies from place to place. The Agricultural Land Classification (ALC) provides a method for assessing the quality of farmland to enable informed choices to be made about its future use within the planning system. It helps

underpin the principles of sustainable development.



Agricultural Land Classification - map and key

Agricultural Land Classification: protecting the best and most versatile agricultural land

The ALC system classifies land into five grades, with Grade 3 subdivided into Subgrades 3a and 3b. The best and most versatile land is defined as Grades 1, 2 and 3a by policy guidance (see Annex 2 of NPPF). This is the land which is most flexible, productive and efficient in response to inputs and which can best deliver future crops for food and non food uses such as biomass, fibres and pharmaceuticals. Current estimates are that Grades 1 and 2 together form about 21% of all farmland in England; Subgrade 3a also covers about 21%.

The ALC system is used by Natural England and others to give advice to planning authorities, developers and the public if development is proposed on agricultural land or other greenfield sites that could potentially grow crops. The Town and Country Planning (Development Management Procedure) (England) Order 2010 (as amended) refers to the best and most versatile land policy in requiring statutory consultations with Natural England. Natural England is also responsible for Minerals and Waste Consultations where reclamation to agriculture is proposed under Schedule 5 of the Town and Country Planning Act 1990 (as amended). The ALC grading system is also used by commercial consultants to advise clients on land uses and planning issues.

Criteria and guidelines

The Classification is based on the long term physical limitations of land for agricultural use. Factors affecting the grade are climate, site and soil characteristics, and the important interactions between them. Detailed guidance for classifying land can be found in: *Agricultural Land Classification of England and Wales: revised guidelines and criteria for grading the quality of agricultural land* (MAFF, 1988):

- **Climate:** temperature and rainfall, aspect, exposure and frost risk.
- **Site:** gradient, micro-relief and flood risk.
- **Soil:** texture, structure, depth and stoniness, chemical properties which cannot be corrected.

The combination of climate and soil factors determines soil wetness and droughtiness.

Wetness and droughtiness influence the choice of crops grown and the level and consistency of yields, as well as use of land for grazing livestock. The Classification is concerned with the inherent potential of land under a range of farming systems. The current agricultural use, or intensity of use, does not affect the ALC grade.

Versatility and yield

The physical limitations of land have four main effects on the way land is farmed. These are:

- the range of crops which can be grown;
- the level of yield;
- the consistency of yield; and
- the cost of obtaining the crop.

The ALC gives a high grading to land which allows more flexibility in the range of crops that can be grown (its 'versatility') and which requires lower inputs, but also takes into account ability to produce consistently high yields of a narrower range of crops.

Availability of ALC information

After the introduction of the ALC system in 1966 the whole of England and Wales was mapped from reconnaissance field surveys, to provide general strategic guidance on land quality for planners. This Provisional Series of maps was published on an Ordnance Survey base at a scale of One Inch to One Mile in the period 1967 to 1974. These maps are not sufficiently accurate for use in assessment of individual fields or development sites, and should not be used other than as general guidance. They show only five grades: their preparation preceded the subdivision of Grade 3 and the refinement of criteria, which occurred after 1976. They have not been updated and are out of print. A 1:250 000 scale map series based on the same information is available. These are more appropriate for the strategic use originally intended and can be downloaded from the Natural England [website](http://magic.defra.gov.uk/). This data is also available on 'Magic', an interactive, geographical information website <http://magic.defra.gov.uk/>.

Since 1976, selected areas have been re-surveyed in greater detail and to revised

Agricultural Land Classification: protecting the best and most versatile agricultural land

guidelines and criteria. Information based on detailed ALC field surveys in accordance with current guidelines (MAFF, 1988) is the most definitive source. Data from the former Ministry of Agriculture, Fisheries and Food (MAFF) archive of more detailed ALC survey information (from 1988) is also available on <http://magic.defra.gov.uk/>. Revisions to the ALC guidelines and criteria have been limited and kept to the original principles, but some assessments made prior to the most recent revision in 1988 need to be checked against current criteria. More recently, strategic scale maps showing the likely occurrence of best and most versatile land have been prepared. Mapped information of all types is available from Natural England (see *Further information* below).

New field survey

Digital mapping and geographical information systems have been introduced to facilitate the provision of up-to-date information. ALC surveys are undertaken, according to the published Guidelines, by field surveyors using handheld augers to examine soils to a depth of 1.2 metres, at a frequency of one boring per hectare for a detailed assessment. This is usually supplemented by digging occasional small pits (usually by hand) to inspect the soil profile. Information obtained by these methods is combined with climatic and other data to produce an ALC map and report. ALC maps are normally produced on an Ordnance Survey base at varying scales from 1:10,000 for detailed work to 1:50 000 for reconnaissance survey

There is no comprehensive programme to survey all areas in detail. Private consultants may survey land where it is under consideration for development, especially around the edge of towns, to allow comparisons between areas and to inform environmental assessments. ALC field surveys are usually time consuming and should be initiated well in advance of planning decisions. Planning authorities should ensure that sufficient detailed site specific ALC survey data is available to inform decision making.

Consultations

Natural England is consulted by planning authorities on the preparation of all development

plans as part of its remit for the natural environment. For planning applications, specific consultations with Natural England are required under the Development Management Procedure Order in relation to best and most versatile agricultural land. These are for non agricultural development proposals that are not consistent with an adopted local plan and involve the loss of twenty hectares or more of the best and most versatile land. The land protection policy is relevant to all planning applications, including those on smaller areas, but it is for the planning authority to decide how significant the agricultural land issues are, and the need for field information. The planning authority may contact Natural England if it needs technical information or advice.

Consultations with Natural England are required on all applications for mineral working or waste disposal if the proposed afteruse is for agriculture or where the loss of best and most versatile agricultural land agricultural land will be 20 ha or more. Non-agricultural afteruse, for example for nature conservation or amenity, can be acceptable even on better quality land if soil resources are conserved and the long term potential of best and most versatile land is safeguarded by careful land restoration and aftercare.

Other factors

The ALC is a basis for assessing how development proposals affect agricultural land within the planning system, but it is not the sole consideration. Planning authorities are guided by the National Planning Policy Framework to protect and enhance soils more widely. This could include, for example, conserving soil resources during mineral working or construction, not granting permission for peat extraction from new or extended mineral sites, or preventing soil from being adversely affected by pollution. For information on the application of ALC in Wales, please see below.

Agricultural Land Classification: protecting the best and most versatile agricultural land

Further information

Details of the system of grading can be found in: *Agricultural Land Classification of England and Wales: revised guidelines and criteria for grading the quality of agricultural land* (MAFF, 1988).

Please note that planning authorities should send all planning related consultations and enquiries to Natural England by e-mail to consultations@naturalengland.org.uk. If it is not possible to consult us electronically then consultations should be sent to the following postal address:

Natural England
Consultation Service
Hornbeam House
Electra Way
Crewe Business Park
CREWE
Cheshire
CW1 6GJ

ALC information for Wales is held by Welsh Government. Detailed information and advice is available on request from Ian Rugg (ian.rugg@wales.gsi.gov.uk) or David Martyn (david.martyn@wales.gsi.gov.uk). If it is not possible to consult us electronically then consultations should be sent to the following postal address:

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Appendix KCC3
Agricultural Land Classification
Report

Background

- 1 This section of the report sets out the findings of a detailed Agricultural Land Classification (ALC). It is based on a desktop study of relevant published information on climate, topography, geology, and soil, in conjunction with a soil survey. The approximately 17.9-hectare (ha) Study Area is shown in **Plan KCC3530/01**.

Methodology

- 2 The work has been carried out by a Chartered Scientist (CSci), who is a Fellow (F. I. Soil Sci) of the British Society of Soil Science (BSSS). This ALC survey has been carried out by a soil scientist who meets the BSSS Professional Competency Standard (PSC) scheme requirements for ALC (see BSSS PCS Document 2 '*Agricultural Land Classification of England and Wales*'¹). The BSSS PSC scheme is endorsed, amongst others, by the Department for Environment, Food and Rural Affairs (Defra), Natural England, the Science Council, and the Institute of Environmental Assessment and Management (IEMA).
- 3 This assessment is based upon the findings of a study of published information on climate, geology and soil in combination with a soil investigation carried out in accordance with the Ministry of Agriculture, Fisheries and Food (MAFF) ² '*Agricultural Land Classification of England and Wales: Revised Guidelines and Criteria for Grading the Quality of Agricultural Land*', October 1988 (henceforth referred to as the 'the ALC Guidelines').
- 4 The ALC system provides a framework for classifying land according to the extent to which its physical or chemical characteristics impose long-term limitations on agricultural use. The ALC system divides agricultural land into five grades (Grade 1 'Excellent' to Grade 5 'Very Poor'), with Grade 3 subdivided into Subgrade 3a 'Good' and Subgrade 3b 'Moderate'. Agricultural land classified as Grade 1, 2 and Subgrade 3a falls in the '*best and most versatile*' category in Paragraphs 174 and 175 of the National Planning Policy Framework (NPPF), revised on the 5th of September 2023. Further details of the ALC system and national planning policy implications are set out in Natural England's '*Guide to assessing development proposals on agricultural land*' online³.
- 5 A detailed ALC survey of the Study Area was carried out on the 13th of November 2023. The ALC survey involved the examination of the soil's physical properties at 15 auger bores within the Study Area at a density of one auger bore per hectare (ha) of agricultural land in

¹ British Society of Soil Science. Professional Competency Scheme Document 2 '*Agricultural Land Classification of England and Wales*'. Available online @ <https://www.soils.org.uk/sites/default/files/events/flyers/ipss-competency-doc2.pdf> Last accessed December 2023

² The Ministry of Agriculture, Fisheries and Food (MAFF) was incorporated within the Department for Environment, Food and Rural Affairs (Defra) in November 2001

³ Natural England (2022) '*Guide to assessing development proposals on agricultural land*'. Available online at <https://www.gov.uk/government/publications/agricultural-land-assess-proposals-for-development/guide-to-assessing-development-proposals-on-agricultural-land> Last accessed December 2023

the Study Area. One soil pit, i.e., Pit 1 located near auger bore 8, was excavated with a spade to examine certain soil physical properties, such as stone content and subsoil structure, in more detail. See **Plan KCC3530/01** for the location of auger bores and soil pits.

- 6 The sample locations were located using a hand-held Garmin E-Trec Geographic Information System (GIS) to enable the sample locations to be relocated for verification, if necessary.
- 7 The soil profile at each sample location was examined to a maximum depth of approximately 1.2 m by hand with the use of a 5 cm diameter Dutch (Edleman) soil auger. The soil profile at each sample location was described using the '*Soil Survey Field Handbook: Describing and Sampling Soil Profiles*' (Ed. J.M. Hodgson, Cranfield University, 1997). Each soil profile was ascribed a grade following the ALC Guidelines. A log of the soil profiles examined and described on site are given **Attachment 1**, and a description of the soil pit is given in **Attachment 2**.
- 8 A sample of topsoil was collected at auger bore location 8 (Pit 1), as shown in **Plan KCC3573/01**. The samples were sent to an accredited laboratory for particle size analysis, i.e., the proportions of sand, silt, and clay. This is to determine the definitive texture class of the topsoil, especially with regard to distinguishing between medium clay loams (i.e., <27% clay) and heavy clay loams (27% to 35% clay). The results of the laboratory particle size (texture) analysis are given in Section 3.0, and a laboratory report is given in **Attachment 3**.
- 9 As described in the ALC Guidelines, the main physical factors influencing agricultural land quality are:
 - climate;
 - site;
 - soil; and
 - interactive limitations.
- 10 These factors are considered in turn below.

Climate

- 11 Interpolated climate data relevant to the determination of the ALC grade of land at the Site is given in Table 1 below.

Table 1: ALC Climate Data for Hinckley, Leics

Climate Parameter	Grid Ref: SP427959
Average Altitude (m)	118
Average Annual Rainfall (mm)	663
Accumulated Temperature above 0°C (January – June)	1341
Field Capacity Days (FCD)	152
Moisture Deficit (mm) Wheat	97
Moisture Deficit (mm) Potatoes	86
Grade according to climate	1

12 Agricultural land quality within the Study Area has no climate limitation with reference to Figure 1 ‘Grade according to climate’ on page 6 of the ALC Guidelines. In this case, agricultural land at the Site could be classified as high as Grade 1 in the absence of any other overriding limitation.

13 The soil profiles across the Study Area are predicted to be at field capacity (i.e., the amount of soil moisture or water content held in the soil after excess water has drained away) for approximately 152 Field Capacity Days (FCD) per year, mainly over the late autumn, winter and early spring. The climate interacts with soil physical properties, i.e., soil texture and wetness class, and can limit agricultural land quality due to soil wetness as per Table 6 of the ALC Guideline ‘Grade according to soil wetness’. It should be noted that the number of FCD at this Site just falls in the FCD category 151-175 for determining the grade according to wetness.

Site

14 As shown in **Plan KCC3530/01**, the Study Area is located on the northern urban fringe of Hinckley, to the north of the A47 and west of Ashby Road. The approximate centre of the Site is located at British National Grid (BNG) reference SP427959. At the time of the ALC survey, the land was under improved grassland.

15 With regard to the ALC Guidelines, agricultural land quality can be limited by one or more of three main site factors as follows:

- gradient;
- micro-relief (i.e., complex change in slope angle over short distances); and
- risk of flooding.

- 16 **Gradient and Micro-Relief.** The Study Area is located on a southwest-facing slope at an altitude of approximately 125 metres (m) Above Ordnance Datum (AOD) in the northeast near auger bore 6 (see Figure 1), and approximately 108mAOD along the western boundary.
- 17 The quality of agricultural land within the Study Area is not limited by gradient, which does not exceed 7° (refer to Table 1 of ALC Guidelines). Likewise, the quality of agricultural land in the Study Area is not limited by micro-relief, i.e., where complex changes in slope angle and direction over short distances, or the presence of boulders or rock outcrops, even on level ground or gentle slopes, can severely limit the use of agricultural machinery.
- 18 **Risk of Flooding.** According to the Government Flood Map for Planning website⁴, the land in the Study Area is at a low risk of flooding. The MAFF ALC Guidelines (1988) take account of the frequency, duration, and timing of flooding in the summer and winter (re Table 2 '*Grade according to flood risk in summer*' and/or Table 3 '*Grade according to flood risk in winter*'). There is no evidence the grade of agricultural land in the Study Area is limited by flood risk during the summer or winter following the ALC Guidelines.

Soil

- 19 **Geology/Soil Parent Material.** British Geological Survey (BGS) information available online⁵ has been utilised to identify the Bedrock underlying the Study Area and any Superficial (Drift) Deposits over the Bedrock. This information helps to determine the parent material⁶ from and within which a soil has formed.
- 20 From the BGS information, the Study Area is underlain by bedrock of mudstone in the Mercia Mudstone Group.
- 21 The bedrock is covered by several superficial deposits, as follows:
- (i) Dunsmore Gravel (sand and gravel) on the highest ground in the northeast (near auger bore 6, See Figure 1);
 - (ii) Glacial till (Oadby Member – Diamicton) on the upper slopes (auger bore 1, 3, 4, 10, 11);
 - (iii) Wolston Sand and Gravel (sand and gravel) on the lower slope (auger bores 2, 8, 9, 14, 15); and

⁴ Government/Environment Agency. 'Get flood risk information for planning in England'. Available online at <https://flood-map-for-planning.service.gov.uk/> Last accessed December 2023

⁵ British Geological Survey 'Geology of Britain Viewer'. Available online @ <http://www.bgs.ac.uk/discoveringGeology/geologyOfBritain/viewer.html> Last accessed December 2023

⁶ British Geological Survey. A 'parent material' is a soil-science name for a weathered rock or deposit from and within which a soil has formed. In the UK, parent materials provide the basic foundations and building blocks of the soil, influencing their texture, structure, drainage and chemistry. Available online @ [Soil Parent Material Model - British Geological Survey \(bgs.ac.uk\)](http://www.bgs.ac.uk/SoilParentMaterialModel/) Last accessed December 2023

- (iv) Bosworth Clay Member (clay and silt) on the lowest ground along the western edge (auger bore 7, 12 and 13).
- 22 **Published Information on Soil.** Soil information on the National Soil Map⁷ indicates that land in the Study Area is covered by two types of soil, namely the Flint association on the higher ground and upper slope in the eastern half of the Study Area, and (ii) the Beccles 3 association on the lower slope in the western half of the Study Area.
- 23 As described by the Soil Survey of England and Wales (SSEW)⁸, the Flint association consists mainly of stagnogleyic argillic brown earths in thick reddish drift. The principal soils belong to the fine loamy over clayey Flint and the fine loamy Salwick series, both with slowly permeable subsoils which impede downward water movement. The association is widespread in the region particularly in Lancashire and also occurs in Wales, and Northern England. The parent material is till or Head derived largely from Triassic mudstone. Coarse, often sandy, outwash deposits on the Lancashire plain give associate coarse loamy over fine loamy soils (Salwick, Nupend, Clifton and Claverley series) and some that are coarse loamy throughout (Wick and Arrow series) as well as Flint and Salop soils. Dense slowly permeable subsoils cause some degree of waterlogging in most soils. In climates with more than 125 field capacity days, drainage measures can alleviate conditions in surface horizons, but seasonal waterlogging remains (Wetness Class III).
- 24 The SSEW describes how the Beccles 3 association consists mainly of typical stagnogley soils of the Beccles series and similar stagnogleyic argillic brown earths of the Ashley series. Clayey and calcareous Hanslope series, typical calcareous pelosols, is a common associate locally. All three soils have slowly permeable subsoils and are extensive on chalky till in Eastern England and the Midlands. Hanslope soils are uncommon but calcareous fine loamy over clayey Eyeworth soils are present locally. Where the till thins along the Fen edge some Wickham soils on Jurassic clay shales are included. North of Sleaford the association occurs on broken ground as isolated caps to small interfluves. In mid-Suffolk between Hadleigh and Stowmarket it covers 88 km² on a broad plateau at about 75 m O.D. Here Beccles and Ashley soils are co-dominant. Hanslope soils are restricted to convex eroded slopes mainly at the edges of the plateau. West of the river Lea in Hertfordshire the association occurs on a narrow ridge and small patches are found between Theydon Bois and Chigwell. All the soils have slowly permeable subsoils which cause waterlogging for much of the winter (Wetness Class III and IV). Because of this they

⁷ Cranfield University (2023) Soil site report, Soil Report for location 438349E, 212271N, 1km x 1km, Cranfield University.

⁸ Soil Survey of England and Wales, National Soil Resource Institute, Cranfield University (2023). *The Soils Guide*. Available online at https://www.landis.org.uk/soilsguide/mapunit_list.cfm Last accessed December 2023

have a limited winter rainfall acceptance potential and most surplus water is shed laterally as surface run-off.

Soil Survey

- 25 The soil profiles recorded at each auger-bore location are given in **Attachment 1**. A detailed description of Soil Pit 1 is given in **Attachment 2**.
- 26 **Topsoil Particle Size Analysis.** To substantiate topsoil texture determined during the ALC survey by hand-texturing, a sample of topsoil was collected at auger bore location 8 (Pit 1), see **Plan KCC3530/01**. The samples of topsoil were sent to an accredited laboratory for analysis of particle size distribution (PSD), based on the British Standard Institution particle size grades. The certificate of analysis is provided as **Attachment 3**. The findings of the PSD analysis are shown in Table 2 below:

Table 2: Topsoil Particle Size Analysis

Topsoil Sample Location (See Fig. 1)	% sand 0.063- 2.0 mm	% silt 0.002- 0.063 mm	% clay <0.002 mm	ALC Soil Texture Class
8 (Pit 1)	32	50	18	Medium Clay Loam/ Sandy Silt Loam

Interactive Limitations

- 27 From the information above, together with the findings of the detailed soil survey (see Soil Profile Log given as **Attachment 1**), it has been determined that the quality of agricultural land in the Study Area is limited mainly by soil wetness, as described below.
- 28 **Soil Wetness.** From the ALC Guidelines, a soil wetness limitation exists where '*the soil water regime adversely affects plant growth or imposes restrictions on cultivations or grazing by livestock*'. Agricultural land quality at the Site is limited by soil wetness as per Table 3 below (based on Table 6 'Grade According to Soil Wetness – Mineral Soils' in the ALC Guidelines).

Table 3: ALC Grade According to Soil Wetness

Wetness Class	Texture of the Top 25 cm	151-175 Field Capacity Days
I	Sand, Loamy Sand, Sandy Loam, Sandy Silt Loam	1
	Sandy Clay Loam/Medium Silty Clay Loam /Medium Clay Loam*	1
	Heavy Silty Clay Loam/Heavy Clay Loam**	2
	Sandy Clay/Silty Clay/Clay	3a
II	Sand, Loamy Sand, Sandy Loam, Sandy Silt Loam	1
	Sandy Clay Loam/Medium Silty Clay Loam /Medium Clay Loam*	2
	Heavy Silty Clay Loam/Heavy Clay Loam**	3a
	Sandy Clay/Silty Clay/Clay	3b
III	Sand, Loamy Sand, Sandy Loam, Sandy Silt Loam	2
	Sandy Clay Loam/Medium Silty Clay Loam /Medium Clay Loam*	3a
	Heavy Silty Clay Loam/Heavy Clay Loam**	3b
	Sandy Clay/Silty Clay/Clay	3b
IV	Sand, Loamy Sand, Sandy Loam, Sandy Silt Loam	3a
	Sandy Clay Loam/Medium Silty Clay Loam /Medium Clay Loam*	3b
	Heavy Silty Clay Loam/Heavy Clay Loam**	3b
	Sandy Clay/Silty Clay/Clay	3b
Key: * 18% to <27% clay; and ** 27% to 35% clay		

- 29 In a climate area with 152 FCD, profiles with medium clay loam topsoil are limited by soil wetness to (i) Grade 2 for profiles in Wetness Class II, (ii) Subgrade 3a for profiles in Wetness Class III), and (iii) Subgrade 3b for profiles in Wetness Class IV).

ALC Grading at the Site

- 30 By detailed ALC survey, it has been determined that the quality of agricultural land at the Site is limited by a number of limiting factors as follows:
- (i) soil wetness to Subgrade 3b (Wetness Class IV) where the topsoil is medium clay loam;
 - (ii) soil wetness to Subgrade 3a (Wetness Class III) where the topsoil is medium clay loam; and
 - (iii) soil wetness to Grade 2 (Wetness Class II) where the topsoil is medium clay loam.
- 31 Farm buildings and roads at Westfields Farm in the northwest, and Sunnyside Farm in the southeast, are classified as non-agricultural/other land.

- 32 The area and proportion of agricultural land in each ALC grade have been measured from an ALC map given in **Plan KCC3530/02A**. The findings are reported in Table 4 below.

Table 4: Agricultural Land Classification – Hinckley, Leicestershire

ALC Grade	Area (Ha)	Area (% of Total Site)
Grade 1 (Excellent)	0	0
Grade 2 (Very Good)	1.6	10
Subgrade 3a (Good)	5.0	31
Subgrade 3b (Moderate)	8.3	52
Grade 4 (Poor)	0	0
Grade 5 (Very Poor)	0	0
Non-agricultural / Other land	0.3	2
Urban	0.8	5
Total	17.9	100

Attachment 1
Soil Profile Log

Point	Grid ref.			Alt (m)	Slope °	Aspect	Land use	Depth (cm)			Matrix Munsell colour	Ochreous Mottles		Grey Mottles		Gley	Texture	Stones - type 1				Stones - type 2			Ped			SUBS STR	CaCO3	Mn C	SPL	Drought			Wet		Final ALC		
	NGR	X	Y					Top	Btm	Thick		Form	Form	Munsell colour	%			> 2cm	> 6cm	Type	%	> 2cm	> 6cm	Type	Strength	Size	Shape					MBw	MBp	Gd	WC	Gw	Limitation 1	Limitation 2	Limitation 3
1	SP 42600	96100	442600	296100	118	≤7	Level	LEY	0 35 45 80	35 45 80 120	35 10 35 40	10YR4/3 10YR5/4 7.5YR5/3 5YR4/4	CD - Common Distinct	7.5YR5/6		No No Yes No	MCL - Clay loam (medium) MCL - Clay loam (medium) C - Clay C - Clay	2 2 2 2	HR - All hard rocks or stones (i.e. those which cannot be scratched with a finger nail) HR - All hard rocks or stones (i.e. those which cannot be scratched with a finger nail) HR - All hard rocks or stones (i.e. those which cannot be scratched with a finger nail) HR - All hard rocks or stones (i.e. those which cannot be scratched with a finger nail)							Moderate Poor Poor	NON - Non-calcareous (<0.5% CaCO3) NON - Non-calcareous (<0.5% CaCO3) NON - Non-calcareous (<0.5% CaCO3) NON - Non-calcareous (<0.5% CaCO3)	No Yes Yes Yes	Yes Yes Yes Yes	35 23 1	WC III 3a	Wetness					3a		
2	SP 42500	96000	442500	296000	112	≤7	Level	LEY	0 30 60 70 105 120	30 60 70 105 120	30 30 30 35 15	10YR4/2 10YR5/4 10YR5/4 5YR5/5 7.5YR5/4			No No No No No	SCL - Sandy clay loam SCL - Sandy clay loam SC - Sandy clay SC - Sandy clay C - Clay	5 15 20 10 0	HR - All hard rocks or stones (i.e. those which cannot be scratched with a finger nail) HR - All hard rocks or stones (i.e. those which cannot be scratched with a finger nail) HR - All hard rocks or stones (i.e. those which cannot be scratched with a finger nail) HR - All hard rocks or stones (i.e. those which cannot be scratched with a finger nail) HR - All hard rocks or stones (i.e. those which cannot be scratched with a finger nail)							Moderate Poor Poor Poor	NON - Non-calcareous (<0.5% CaCO3) NON - Non-calcareous (<0.5% CaCO3) NON - Non-calcareous (<0.5% CaCO3) NON - Non-calcareous (<0.5% CaCO3) NON - Non-calcareous (<0.5% CaCO3)	Yes No No No Yes	No No No No No	28 12 2	WC I 1	Droughtiness					2			
3	SP 42700	96000	442700	296000	118	≤7	Level	LEY	0 34	34 120	34 86	10YR4/2 10YR5/3	CD - Common Distinct	10YR5/6	CD - Common Distinct	2.5Y6/2	Yes	MCL - Clay loam (medium) C - Clay	2 2	HR - All hard rocks or stones (i.e. those which cannot be scratched with a finger nail) HR - All hard rocks or stones (i.e. those which cannot be scratched with a finger nail)							Poor	NON - Non-calcareous (<0.5% CaCO3) NON - Non-calcareous (<0.5% CaCO3)	Yes	Yes	32 20	1	WC IV 3b	Wetness					3b
4	SP 42800	96000	442800	296000	122	≤7	Level	LEY	0 15 35 55	15 35 55 120	15 20 20 65	10YR3/2 2.5Y5/3 2.5Y6/3 2.5Y5/3	CP - Common Prominent CP - Common Prominent CP - Common Prominent	10YR5/6 10YR5/6 10YR5/6	CD - Common Distinct	2.5Y6/1	Yes Yes Yes	MCL - Clay loam (medium) HCL - Clay loam (heavy) C - Clay C - Clay	1 1 1 1	HR - All hard rocks or stones (i.e. those which cannot be scratched with a finger nail) HR - All hard rocks or stones (i.e. those which cannot be scratched with a finger nail) HR - All hard rocks or stones (i.e. those which cannot be scratched with a finger nail) HR - All hard rocks or stones (i.e. those which cannot be scratched with a finger nail)	1 1 1 1	CH - Chalk or chalk stones				Moderate Poor Poor	NON - Non-calcareous (<0.5% CaCO3) NON - Non-calcareous (<0.5% CaCO3) NON - Non-calcareous (<0.5% CaCO3) MC - Moderately calcareous (5 - 10% CaCO3)	No Yes Yes Yes	Yes Yes Yes Yes	29 17 2	WC IV 3b	Wetness					3b		
5	SP 42900	96000	442900	296000	128	≤7	Level	LEY	0 25 35	25 35 120	25 10 85	10YR4/3 2.5Y5/3 2.5Y5/3	CP - Common Prominent CP - Common Prominent	10YR5/6 10YR5/6		Yes Yes Yes	MCL - Clay loam (medium) HCL - Clay loam (heavy) C - Clay	1 1 1	HR - All hard rocks or stones (i.e. those which cannot be scratched with a finger nail) HR - All hard rocks or stones (i.e. those which cannot be scratched with a finger nail) HR - All hard rocks or stones (i.e. those which cannot be scratched with a finger nail)							Moderate Poor	NON - Non-calcareous (<0.5% CaCO3) NON - Non-calcareous (<0.5% CaCO3) NON - Non-calcareous (<0.5% CaCO3)	No Yes	Yes	31 20	1	WC IV 3b	Wetness					3b	
6	SP 42961	96075	442961	296075	126	≤7	Level	LEY	0 28 45	28 45 120	28 17 75	10YR3/2 10YR4/4 10YR5/3	CF - Common Faint	10YR5/6		No Yes	MCL - Clay loam (medium) HCL - Clay loam (heavy) C - Clay	2 2 1	HR - All hard rocks or stones (i.e. those which cannot be scratched with a finger nail) HR - All hard rocks or stones (i.e. those which cannot be scratched with a finger nail) HR - All hard rocks or stones (i.e. those which cannot be scratched with a finger nail)							Moderate Poor	NON - Non-calcareous (<0.5% CaCO3) NON - Non-calcareous (<0.5% CaCO3) NON - Non-calcareous (<0.5% CaCO3)	No Yes	Yes	34 22	1	WC III 3a	Wetness					3a	
7	SP 42500	95900	442500	295900	112	≤7	Level	LEY	0 30	30 120	30 90	10YR4/3 2.5Y5/2	CD - Common Distinct	10YR5/6		Yes	MCL - Clay loam (medium) C - Clay	1 0	HR - All hard rocks or stones (i.e. those which cannot be scratched with a finger nail) HR - All hard rocks or stones (i.e. those which cannot be scratched with a finger nail)							Poor	NON - Non-calcareous (<0.5% CaCO3) NON - Non-calcareous (<0.5% CaCO3)	Yes	Yes	31 19	1	WC IV 3b	Wetness					3b	
8	SP 42600	95900	442600	295900	112	≤7	Level	LEY	0 28	28 120	28 92	10YR3/2 10YR5/3	CD - Common Distinct	10YR5/6	CD - Common Distinct	10YR6/1	Yes	MCL - Clay loam (medium) C - Clay	3 1	HR - All hard rocks or stones (i.e. those which cannot be scratched with a finger nail) HR - All hard rocks or stones (i.e. those which cannot be scratched with a finger nail)							Poor	NON - Non-calcareous (<0.5% CaCO3) NON - Non-calcareous (<0.5% CaCO3)	Yes	Yes	29 17	2	WC IV 3b	Wetness					3b
9	SP 42700	95900	442700	295900	118	≤7	Level	LEY	0 15 40	15 40 120	15 25 80	10YR4/2 10YR5/2 2.5Y5/3	CP - Common Prominent CP - Common Prominent	7.5YR5/6 10YR5/6		Yes Yes	MCL - Clay loam (medium) MCL - Clay loam (medium) C - Clay	1 1 2	HR - All hard rocks or stones (i.e. those which cannot be scratched with a finger nail) HR - All hard rocks or stones (i.e. those which cannot be scratched with a finger nail) HR - All hard rocks or stones (i.e. those which cannot be scratched with a finger nail)							Moderate Poor	NON - Non-calcareous (<0.5% CaCO3) NON - Non-calcareous (<0.5% CaCO3) NON - Non-calcareous (<0.5% CaCO3)	No Yes	Yes	30 19	1	WC IV 3b	Wetness					3b	
10	SP 42800	95900	442800	295900	122	≤7	Level	LEY	0 25 36	25 36 120	25 11 84	10YR4/3 10YR4/4 5YR5/4			No	MCL - Clay loam (medium) HCL - Clay loam (heavy) C - Clay	2 2 2	HR - All hard rocks or stones (i.e. those which cannot be scratched with a finger nail) HR - All hard rocks or stones (i.e. those which cannot be scratched with a finger nail) HR - All hard rocks or stones (i.e. those which cannot be scratched with a finger nail)							Moderate Poor	NON - Non-calcareous (<0.5% CaCO3) NON - Non-calcareous (<0.5% CaCO3) NON - Non-calcareous (<0.5% CaCO3)	No Yes	Yes	30 19	1	WC IV 3b	Wetness					3b		
12	SP 42500	95800	442500	295800	112	≤7	Level	LEY	0 15 28 35	15 28 35 120	15 13 7 85	10YR3/2 10YR4/2 10YR5/3 10YR5/3	CP - Common Prominent CP - Common Prominent	7.5YR5/6 7.5YR5/6		No Yes Yes	C - Clay C - Clay HCL - Clay loam (heavy) C - Clay	1 0 0 0	HR - All hard rocks or stones (i.e. those which cannot be scratched with a finger nail) HR - All hard rocks or stones (i.e. those which cannot be scratched with a finger nail) HR - All hard rocks or stones (i.e. those which cannot be scratched with a finger nail) HR - All hard rocks or stones (i.e. those which cannot be scratched with a finger nail)							Moderate Moderate Poor	NON - Non-calcareous (<0.5% CaCO3) NON - Non-calcareous (<0.5% CaCO3) NON - Non-calcareous (<0.5% CaCO3) NON - Non-calcareous (<0.5% CaCO3)	No No No Yes	No No Yes Yes	29 17 2	WC IV 3b	Wetness					3b		
13	SP 42600	95800	442600	295800	112	≤7	Level	LEY	0 20 30 30 38	20 30 30 8 120	20 10 10 8 82	10YR3/2 10YR4/3 10YR5/3 10YR5/3	CD - Common Distinct CP - Common Prominent	10YR5/6 7.5YR5/6		No Yes Yes	MCL - Clay loam (medium) MCL - Clay loam (medium) MCL - Clay loam (medium) C - Clay	1 1 1 1	HR - All hard rocks or stones (i.e. those which cannot be scratched with a finger nail) HR - All hard rocks or stones (i.e. those which cannot be scratched with a finger nail) HR - All hard rocks or stones (i.e. those which cannot be scratched with a finger nail) HR - All hard rocks or stones (i.e. those which cannot be scratched with a finger nail)							Moderate Moderate Poor	NON - Non-calcareous (<0.5% CaCO3) NON - Non-calcareous (<0.5% CaCO3) NON - Non-calcareous (<0.5% CaCO3) NON - Non-calcareous (<0.5% CaCO3)	No No No Yes	No No Yes Yes	31 19 1	WC IV 3b	Wetness					3b		
14	SP 42700	95800	442700	295800	118	≤7	Level	LEY	0 20 40 40 70 90	20 30 20 30 90 120	20 20 30 30 20 30	10YR4/2 10YR5/2 7.5YR5/4 10YR5/3 7.5YR5/4	CP - Common Prominent CP - Common Prominent CP - Common Prominent	7.5YR4/6 7.5YR5/6 7.5YR5/6		Yes Yes No Yes No	MCL - Clay loam (medium) HCL - Clay loam (heavy) FSL - Fine sandy loam HCL - Clay loam (heavy) LFS - Loamy fine sand	2 2 2 2 2	HR - All hard rocks or stones (i.e. those which cannot be scratched with a finger nail) HR - All hard rocks or stones (i.e. those which cannot be scratched with a finger nail) HR - All hard rocks or stones (i.e. those which cannot be scratched with a finger nail) HR - All hard rocks or stones (i.e. those which cannot be scratched with a finger nail) HR - All hard rocks or stones (i.e. those which cannot be scratched with a finger nail)						Moderate Moderate Moderate Moderate	NON - Non-calcareous (<0.5% CaCO3) NON - Non-calcareous (<0.5% CaCO3) NON - Non-calcareous (<0.5% CaCO3) NON - Non-calcareous (<0.5% CaCO3) NON - Non-calcareous (<0.5% CaCO3)	No No No No No	No No No No No	71 34 1	WC II 2	Wetness					2			
15	SP 42800	95800	442800	295800	122	≤7	Level	LEY	0 30 60 60 80	30 60 80 20 120	30 30 40 40	10YR4/3 10YR4/4 10YR5/4 7.5YR5/4			No No No No	MSL - Medium sandy loam MSL - Medium sandy loam LMS - Loamy medium sand MS - Medium Sand	5 5 5 10	HR - All hard rocks or stones (i.e. those which cannot be scratched with a finger nail) HR - All hard rocks or stones (i.e. those which cannot be scratched with a finger nail) HR - All hard rocks or stones (i.e. those which cannot be scratched with a finger nail) HR - All hard rocks or stones (i.e. those which cannot be scratched with a finger nail)						Moderate Moderate Moderate	NON - Non-calcareous (<0.5% CaCO3) NON - Non-calcareous (<0.5% CaCO3) NON - Non-calcareous (<0.5% CaCO3) NON - Non-calcareous (<0.5% CaCO3)	No No No No	No No No No	14 12 2	WC I 1	Droughtiness					2				
END																																							

Attachment 2
Soil Pit Description

Project	Location	Date	Surveyor(s)	Company
C1034	KCC3530 Hinckley, Leics	13-Nov-23	AR	Askew Land and Soil

Pit	WC	Grade	Limitation(s)	Notes
Pit 1	IV	3b	Wetness and Workability	

Grid Ref.			Altitude	Nearest point	Topography				Flora		Weather and conditions			
Square	East	North			Gradient	Aspect	Slope form	Surface	Cultivation type	Vegetation types	Temp	Sky	Wind	Precipitation
5P	42599	95900		at AB8	3	SW			Permanent pasture	Grass				

Horizon	Depth		Matrix			Gleying			Mottles			Stone content					Calc.	Mn	C	Ped/soil structure				Horizon boundary		Biopores	SP
	Top	Bttm	Texture	Colour	Munsell	Gley	Colour	Munsell	Form	Colour	Munsell	%	H	Type	S	Type				Dev.	Size	Structure	Strength	Distinct	Form		
1	0	28	MCL		10YR3/2							3		HR			NC		Strong	Fine	SAB	Friable					
2	28	55	Clay		10YR5/3			10YR5/3			10YR5/6	1			HR		NC	Yes	Mod	Coarse	AB	Firm	Clear	Wavy	<0.5	Yes	

Pit	WC	Grade	Limitation(s)	Notes

Grid Ref.			Altitude	Nearest point	Topography				Flora		Weather and conditions			
Square	East	North			Gradient	Aspect	Slope form	Surface	Cultivation type	Vegetation types	Temp	Sky	Wind	Precipitation

Horizon	Depth		Matrix			Gleying			Mottles			Stone content					Calc.	Mn C	Ped/soil structure				Horizon boundary		Biopores	SP
	Top	Bttm	Texture	Colour	Munsell	Gley	Colour	Munsell	Form	Colour	Munsell	%	H	Type	S	Type			Dev.	Size	Structure	Strength	Distinct	Form		

Attachment 3
Certificate of Analysis



TEST REPORT
ISSUED BY SOIL PROPERTY TESTING LTD
DATE ISSUED: 08/12/2023



Contract	Hinckley
Serial No.	43894_1
Client: Askew Land and Soil Ltd The Old Stables Upexe Exeter EX5 5ND	
Soil Property Testing Ltd 15, 16, 18 Halcyon Court, St Margaret's Way, Stukeley Meadows, Huntingdon, Cambridgeshire, PE29 6DG Tel: 01480 455579 Email: enquiries@soilpropertytesting.com Website: www.soilpropertytesting.com	
Samples Submitted By: Askew Land and Soil Ltd Samples Labelled: Hinckley	Approved Signatories: ☒ J.C. Garner B.Eng (Hons) FGS Technical Director & Quality Manager ☐ W. Johnstone Materials Lab Manager 
Date Received: 05/12/2023	Samples Tested Between: 05/12/2023 and 08/12/2023
Remarks: For the attention of Robert Askew Your Reference No: C1034	
Notes: 1 All remaining samples or remnants from this contract will be disposed of after 21 days from today, unless we are notified to the contrary. 2 Opinions and interpretations expressed herein are outside the scope of UKAS accreditation. 3 Tests marked "NOT UKAS ACCREDITED" in this test report are not included in the UKAS Accreditation Schedule for this testing laboratory. 4 This test report may not be reproduced other than in full except with the prior written approval of the issuing laboratory. 5 The results within this report only relate to the items tested or sampled.	

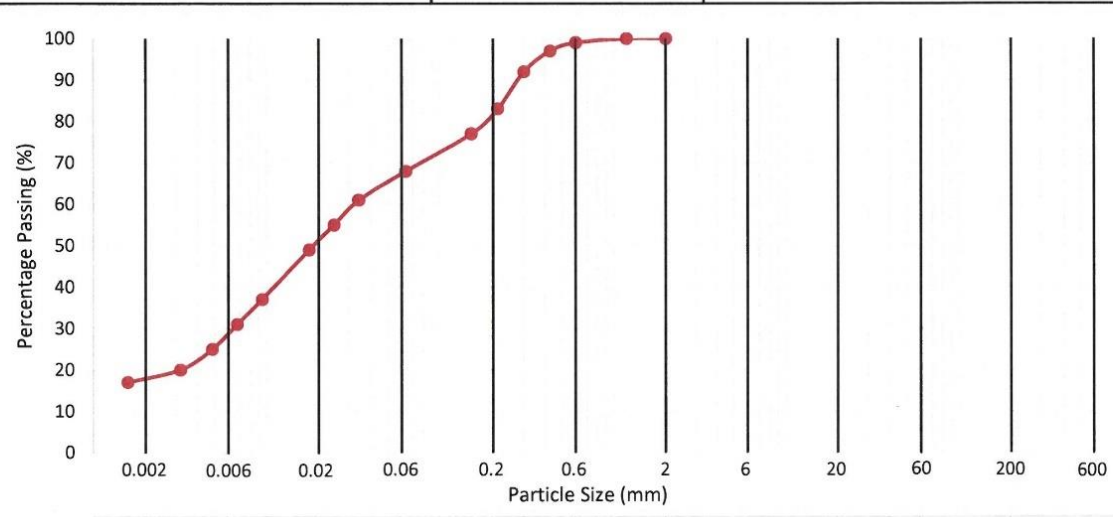
[illegible]



TEST REPORT

ISSUED BY SOIL PROPERTY TESTING LTD
DATE ISSUED: 08/12/2023



Contract	Hinckley																																																																																				
Serial No.	43894_1																																																																																				
DETERMINATION OF PARTICLE SIZE DISTRIBUTION																																																																																					
Borehole / Pit No.	Depth (m)	Sample Type	Sample Reference	Description	Remarks																																																																																
C1034	0.00 - 0.25	AB	8	Dark yellowish brown locally dark greyish brown slightly sandy silty CLAY with frequent recently active roots	Material greater than 2mm removed before test																																																																																
Method of Test:		Hydrometer + Pre-sieve		Method of Pretreatment:	Not required																																																																																
																																																																																					
<table border="1"><thead><tr><th>CLAY</th><th>Fine</th><th>Medium</th><th>Coarse</th><th>Fine</th><th>Medium</th><th>Coarse</th><th>Fine</th><th>Medium</th><th>Coarse</th><th>COBBLES</th><th>BOULDERS</th></tr></thead><tbody><tr><td colspan="3">SILT</td><td colspan="3">SAND</td><td colspan="3">GRAVEL</td><td colspan="2"></td></tr></tbody></table>						CLAY	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	COBBLES	BOULDERS	SILT			SAND			GRAVEL																																																													
CLAY	Fine	Medium	Coarse	Fine	Medium	Coarse	Fine	Medium	Coarse	COBBLES	BOULDERS																																																																										
SILT			SAND			GRAVEL																																																																															
<table border="1"><thead><tr><th rowspan="8">H y d r o m e t e r</th><th>Particle Size (mm)</th><th>Passing (%)</th><th>Silt by Dry Mass (%)</th></tr></thead><tbody><tr><td>0.0338</td><td>61</td><td rowspan="4">50</td></tr><tr><td>0.0244</td><td>55</td></tr><tr><td>0.0175</td><td>49</td></tr><tr><td>0.0094</td><td>37</td></tr><tr><td>0.0067</td><td>31</td><th rowspan="4">Clay by Dry Mass (%)</th></tr><tr><td>0.0048</td><td>25</td></tr><tr><td>0.0032</td><td>20</td></tr><tr><td>0.0016</td><td>17</td></tr><tr><td colspan="2"></td><td colspan="2">18</td></tr></tbody></table> <table border="1"><thead><tr><th>Sieve Size (mm)</th><th>Passing (%)</th><th>Sand By Dry Mass (%)</th></tr></thead><tbody><tr><td>2.00</td><td>100</td><td rowspan="8">32</td></tr><tr><td>1.18</td><td>100</td></tr><tr><td>0.600</td><td>99</td></tr><tr><td>0.425</td><td>97</td></tr><tr><td>0.300</td><td>92</td></tr><tr><td>0.212</td><td>83</td></tr><tr><td>0.150</td><td>77</td></tr><tr><td>0.063</td><td>68</td></tr><tr><td colspan="2">Fines By Dry Mass (%)</td><td></td></tr><tr><td colspan="2"><0.063mm</td><td>68</td></tr></tbody></table> <table border="1"><thead><tr><th>Sieve Size (mm)</th><th>Passing (%)</th><th>2mm+ By Dry Mass (%)</th></tr></thead><tbody><tr><td>300</td><td></td><td rowspan="12">0</td></tr><tr><td>125</td><td></td></tr><tr><td>90</td><td></td></tr><tr><td>63</td><td></td></tr><tr><td>50</td><td></td></tr><tr><td>37.5</td><td></td></tr><tr><td>28</td><td></td></tr><tr><td>20</td><td></td></tr><tr><td>14</td><td></td></tr><tr><td>10</td><td></td></tr><tr><td>6.3</td><td></td></tr><tr><td>5</td><td></td></tr></tbody></table>						H y d r o m e t e r	Particle Size (mm)	Passing (%)	Silt by Dry Mass (%)	0.0338	61	50	0.0244	55	0.0175	49	0.0094	37	0.0067	31	Clay by Dry Mass (%)	0.0048	25	0.0032	20	0.0016	17			18		Sieve Size (mm)	Passing (%)	Sand By Dry Mass (%)	2.00	100	32	1.18	100	0.600	99	0.425	97	0.300	92	0.212	83	0.150	77	0.063	68	Fines By Dry Mass (%)			<0.063mm		68	Sieve Size (mm)	Passing (%)	2mm+ By Dry Mass (%)	300		0	125		90		63		50		37.5		28		20		14		10		6.3		5	
H y d r o m e t e r	Particle Size (mm)	Passing (%)	Silt by Dry Mass (%)																																																																																		
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Method of Preparation: BS1377: Part 1: 2016: 8.3 & 8.4.5 Method of test: BS1377: Part 2: 1990: 9.2,9.5 Type of Sample Key: U=Undisturbed, B=Bulk, D=Disturbed, J=Jar, W=Water, SPT=Split Spoon Sample, C=Core Cutter Comments:																																																																																					

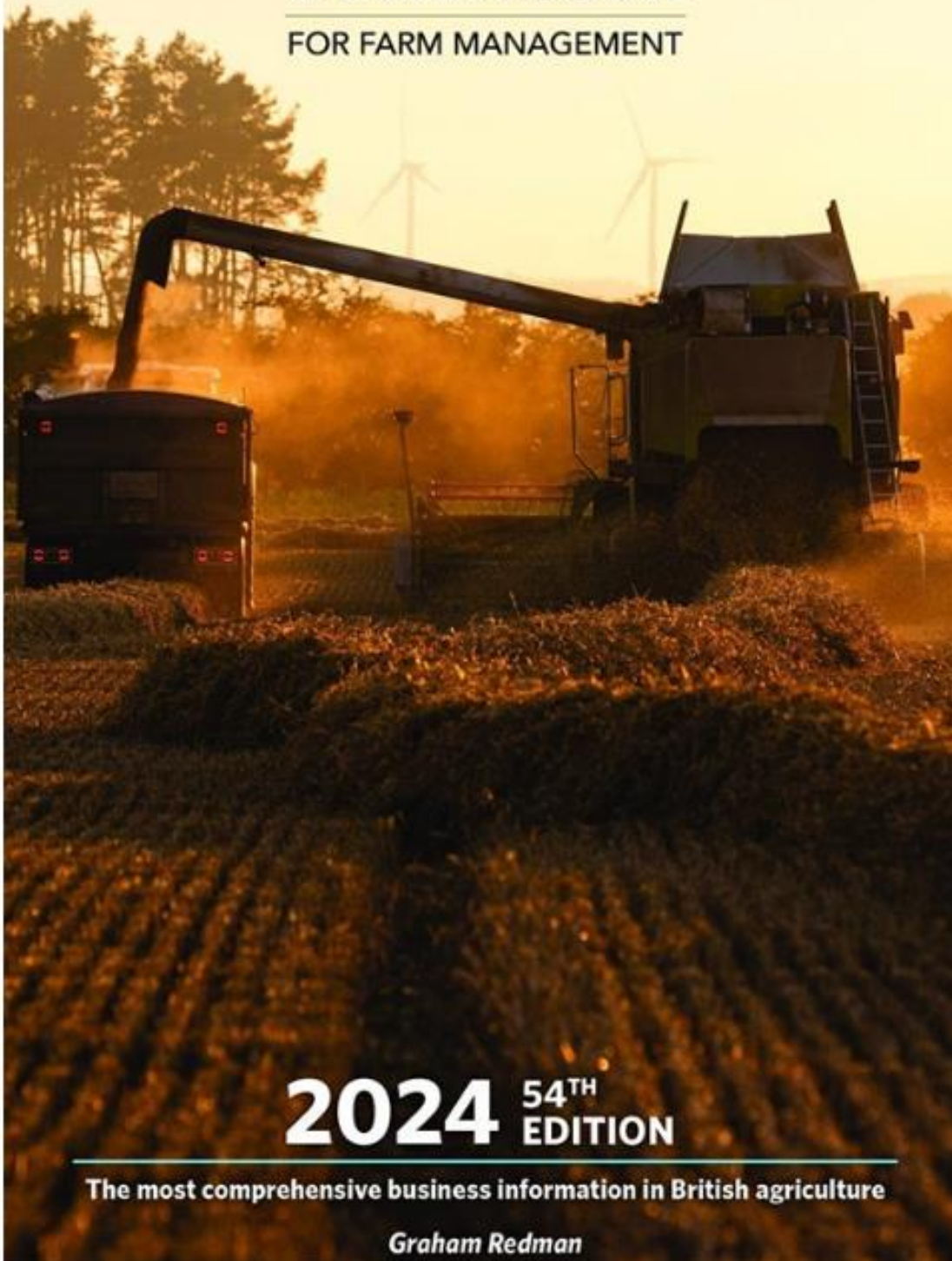
Appendix KCC4

**Extract from John Nix Pocketbook for
Farm Management**



John Nix Pocketbook

FOR FARM MANAGEMENT



2024 54TH
EDITION

The most comprehensive business information in British agriculture

Graham Redman

WHEAT

Feed Winter Wheat

Production level	Low	Average	High	
Yield: t/ha (t/ac)	7.25 (2.9)	8.60 (3.5)	10.00 (4.1)	
	£	£	£	£/t
Grain at £195/t	1,414	1,677 (679)	1,950 (790)	
Straw in Swath	136 (55)	136 (55)	136 (55)	
Total Output	1,550 (628)	1,813 (734)	2,086 (845)	211
Variable Costs £/ha (£/ac) :				
Seed.....		81 (33)		9
Fertiliser.....		324 (131)		38
Sprays.....		292 (118)		34
Total Variable Costs		697 (282)		81
Gross Margin £/ha (ac)	852 (345)	1116 (452)	1,389 (562)	130

Fertiliser Basis 8.6t/ha				Seed:	Sprays £/ha:	
Nutrient	Kg/t	Kg/Ha	£/Ha	£/t C2	£510	Herbicides £127
N	22	190	£198	Kg/Ha	175	Fungicides £116
P	7.0	60	£59	% HSS	30%	Insecticides £3
K	10.5	90	£68	£/t HSS	£352	PGRs £17
						Other £29

1. *Yields.* The average yield is for all winter feed wheat, i.e. all varieties and 1st and subsequent wheats. See over for First and Second Wheats. The yield used for feed and milling wheats including spring varieties is 8.4t/ha.

The table below offers a weighted estimate of yield variations according to wheat type based on a national yield of 8.41t/ha. Percentages compare yield categories with 'all wheat'. These yields are used in the gross margins.

Calculation of spread of 'average yields depending on wheat type –

		Winter	1st WW	2nd WW	spring	Total
t/ha		101%	102%	93%	85%	
Total	100%	8.49	8.63	7.82		8.41
Feed	101%	8.58	8.71	7.90		8.49
Bread	93%	7.90	8.02	7.27	6.18	7.82
Biscuit	99%	8.41	8.54	7.74		8.32

2. *Straw* is sold in the swath. Fertiliser accounts for mineral depletion at £55/t.
3. *Seed* is costed with a single purpose dressing. Up to a third of growers require additional seed treatments, specifically to suppress BYDV. This can add £160/t of seed (£28/ha). This has not been added in the gross margins so should be considered.
4. This schedule does not account for severe *grass weed infestations* such as Black Grass or Sterile Brome. Costs associated with managing such problems can amount to up to £180/hectare additional agrochemical costs. Yield losses increase as infestation rises:

OILSEED RAPE

Winter Oilseed Rape

Production level	Low	Average	High	
Yield: t/ha (t/ac)	3.00 (1.2)	3.50 (1.4)	4.00 (1.6)	
	£	£	£	£/t
Output at £435/t	1305 (529)	1,523 (617)	1,740 (705)	435
Variable Costs £/ha (£/ac) :				
Seed.....		70 (28)		20
Fertiliser.....		244 (99)		70
Sprays.....		265 (107)		76
Total Variable Costs		579 (234)		165
Gross Margin £/ha (ac)	726 (294)	944 (382)	1,161 (470)	270

Fertiliser Basis 3.5t/ha				Seed:		Sprays:	
Nutrient	Kg/t	Kg/Ha	£/Ha	£/Ha C	42	Herbicides	£131
N	46	160	£167	£/Ha Hy	85	Fungicides	£72
P	14	49	£48	£/Ha HSS	28	Insecticides	£17
K	11	39	£29	C:Hy:HSS	20:20:60	PGRs	£0
	Seed write-off	7%		Kg/Ha	5.5	Other	£46

1. *Prices.* The price used is £410/t plus oil bonuses at 44% oil content making £435/. The bonus is paid on the percentage of oil over 40%, at 1.5 times the sale value of the crop and an equal but opposite penalty below 40%. For example, in this case, the bonus is on 4% oil x £410 x 1.5 = £25.

Spring Oilseed Rape

Production level	Low	Average	High	
Yield: t/ha (t/ac)	2.00 (0.8)	2.28 (0.9)	2.50 (1.0)	
	£	£	£	£/t
Output at £435/t	870 (352)	990 (401)	1,088 (441)	435
Variable Costs £/ha (£/ac) :				
Seed.....		67 (27)		29
Fertiliser.....		123 (50)		54
Sprays.....		138 (56)		61
Total Variable Costs		328 (133)		144
Gross Margin £/ha (ac)	542 (219)	661 (268)	760 (308)	291

2. *Inputs:* Seed as per WOSR, but 45% conventional, 5% HSS, 50% hybrid. *Fertiliser:* N/P/K at 80/32/25 kg/ha. *Sprays,* Herbicides. £53, Fungicides, £43, Insecticides £13, and Others £29/ha
3. *Winter Versus Spring:* As little as 8,000 hectares of spring OSR are grown in the UK which is 2.5% of the entire crop. As can be seen, the financial reward is slim compared

Appendix KCC5

**Natural England's "Guide to assessing
development proposals on agricultural
land" (2021)**



(<https://www.gov.uk/government/organisations/natural-england>)

Guidance

Guide to assessing development proposals on agricultural land

Updated 5 February 2021

Applies to England

Contents

1. Policies to protect agricultural land and soil
2. LPAs: consult Natural England
3. LPAs: how to use agricultural land classification (ALC)
4. About ALC grades
5. LPAs: carry out ALC assessments to support your planning decisions
6. Use ALC to support your planning decisions
7. Developers: check if your proposal affects agricultural land



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Where we have identified any third party copyright information you will need to obtain permission from the copyright holders concerned.

This publication is available at <https://www.gov.uk/government/publications/agricultural-land-assess-proposals-for-development/guide-to-assessing-development-proposals-on-agricultural-land>

1. Policies to protect agricultural land and soil

Developers and local planning authorities (LPAs) should refer to the following government policies and legislation when considering development proposals that affect agricultural land and soils. They aim to protect:

- the best and most versatile (BMV) agricultural land from significant, inappropriate or unsustainable development proposals
- all soils by managing them in a sustainable way

Natural England uses these policies to advise on development proposals as a [statutory consultee](https://www.gov.uk/guidance/consultation-and-pre-decision-matters#Statutory-consultees) (<https://www.gov.uk/guidance/consultation-and-pre-decision-matters#Statutory-consultees>) in the planning process.

1.1 A Green Future: Our 25 Year Plan to improve the Environment 2018

[A Green Future: Our 25 Year Plan to Improve the Environment](https://www.gov.uk/government/publications/25-year-environment-plan) (<https://www.gov.uk/government/publications/25-year-environment-plan>) sets out the government's 25-year plan to improve the health of the environment by using natural resources more sustainably and efficiently. It plans to:

- protect the best agricultural land
- put a value on soils as part of our natural capital
- manage soils in a sustainable way by 2030
- restore and protect peatland

1.2 National Planning Policy Framework (NPPF)

LPAs should use the NPPF to make decisions about the natural and local environment to:

- protect and enhance landscapes, biodiversity, geology and soils
- recognise soils as a natural capital asset that provide important ecosystem services
- consider the economic and other benefits of BMV agricultural land, and try to use areas of poorer quality land instead of higher quality land
- prevent soil, air, water, or noise pollution, or land instability from new and existing development

Read [Chapter 15: Conserving and enhancing the natural environment](https://www.gov.uk/guidance/national-planning-policy-framework/15-conserving-and-enhancing-the-natural-environment) (<https://www.gov.uk/guidance/national-planning-policy-framework/15-conserving-and-enhancing-the-natural-environment>) for full details.

1.3 Town and Country Planning (Development Management Procedure (England) Order) (DMPO) 2015

Planning authorities must consult Natural England on all non-agricultural applications that result in the loss of more than 20 hectares (ha) of BMV land if the land is not included in a [development plan](https://www.gov.uk/guidance/national-planning-policy-framework/3-plan-making) (<https://www.gov.uk/guidance/national-planning-policy-framework/3-plan-making>). For example, this includes the likely cumulative loss of BMV land from the proposed development if it's part of a phased development.

This is required by [schedule 4\(y\) of the Order](http://www.legislation.gov.uk/uksi/2015/595/schedule/4/made) (<http://www.legislation.gov.uk/uksi/2015/595/schedule/4/made>).

1.4 Planning Practice Guidance for the Natural Environment

[Paragraphs 001 and 002: Planning Practice Guidance for the Natural Environment](https://www.gov.uk/guidance/natural-environment#brownfield-land-soils-and-agricultural-land) (<https://www.gov.uk/guidance/natural-environment#brownfield-land-soils-and-agricultural-land>) explain why planning decisions should take account of the value of soils and [agricultural land classification \(ALC\)](#) to enable informed choices on the future use of agricultural land within the planning system.

2. LPAs: consult Natural England

You must consult Natural England for development proposals that are both:

- likely to cause the loss (or likely cumulative loss) of 20ha or more of BMV land
- not in accordance with an approved development plan

Natural England will advise you on the level of impact the proposal may have on BMV agricultural land. Natural England will take into account the type of development and its likely long-term effects.

Email consultations@naturalengland.org.uk or write to:

Natural England consultation service
Hornbeam House
Electra Way
Crewe Business Park
Crewe
Cheshire
CW1 6GJ

3. LPAs: how to use agricultural land classification (ALC)

You can use ALC to help inform decisions on the appropriate sustainable development of land.

ALC uses a grading system to enable you to assess and compare the quality of agricultural land in England and Wales.

A combination of climate, topography and soil characteristics and their unique interaction determines the limitation and grade of the land. These affect the:

- range of crops that can be grown
- yield of crop
- consistency of yield
- cost of producing the crop

4. About ALC grades

ALC is graded from 1 to 5.

The highest grade goes to land that:

- gives a high yield or output
- has the widest range and versatility of use
- produces the most consistent yield
- requires less input

BMV agricultural land is graded 1 to 3a.

4.1 Grade 1 – excellent quality agricultural land

Land with no or very minor limitations. A very wide range of agricultural and horticultural crops can be grown and commonly includes:

- top fruit, for example tree fruit such as apples and pears
- soft fruit, such as raspberries and blackberries
- salad crops
- winter harvested vegetables

Yields are high and less variable than on land of lower quality.

4.2 Grade 2 – very good quality agricultural land

Land with minor limitations that affect crop yield, cultivations or harvesting. A wide range of agricultural and horticultural crops can usually be grown. On some land in the grade there may be reduced flexibility due to difficulties with the production of the more demanding crops, such as winter harvested vegetables and arable root crops. The level of yield is generally high but may be lower or more variable than grade 1.

4.3 Grade 3 – good to moderate quality agricultural land

Land with moderate limitations that affect the choice of crops, timing and type of cultivation, harvesting or the level of yield. Where more demanding crops are grown yields are generally lower or more variable than on land in grades 1 and 2.

4.4 Subgrade 3a – good quality agricultural land

Land capable of consistently producing moderate to high yields of a narrow range of arable crops, especially cereals, or moderate yields of crops including:

- cereals
- grass
- oilseed rape
- potatoes
- sugar beet
- less demanding horticultural crops

4.5 Subgrade 3b – moderate quality agricultural land

Land capable of producing moderate yields of a narrow range of crops, principally:

- cereals and grass
- lower yields of a wider range of crops
- high yields of grass which can be grazed or harvested over most of the year

4.6 Grade 4 – poor quality agricultural land

Land with severe limitations which significantly restrict the range of crops or level of yields. It is mainly suited to grass with occasional arable crops (for example cereals and forage crops) the yields of which are variable. In moist climates, yields of grass may be moderate to high but there may be difficulties using the land. The grade also includes arable land that is very dry because of drought.

4.7 Grade 5 – very poor quality agricultural land

Land with very severe limitations that restrict use to permanent pasture or rough grazing, except for occasional pioneer forage crops.

5. LPAs: carry out ALC assessments to support your planning decisions

For an overview of ALC use:

- [1:250,000 scale regional ALC maps](http://publications.naturalengland.org.uk/category/5954148537204736) (<http://publications.naturalengland.org.uk/category/5954148537204736>) (grade 3 land is not divided into subgrades 3a and 3b)
- [1:250,000 scale regional maps predicting the likelihood of BMV agricultural land](http://publications.naturalengland.org.uk/category/5208993007403008) (<http://publications.naturalengland.org.uk/category/5208993007403008>)

These maps are not at a scale suitable or accurate for assessment of individual fields or sites.

You can assess if a development proposal is likely to affect BMV agricultural land by using the [post 1988 ALC Magic map](http://magic.defra.gov.uk/MagicMap.aspx?chosenLayers=dudleystampIndex,backdropDIndex,backdropIndex,europeIndex,vmlBWIndex,25kBWIndex,50kBWIndex,250kBWIndex,miniscaleBWIndex,baseIndex&box=449447:459357:467834:470294&useDefaultbackgroundMapping=false) (<http://magic.defra.gov.uk/MagicMap.aspx?chosenLayers=dudleystampIndex,backdropDIndex,backdropIndex,europeIndex,vmlBWIndex,25kBWIndex,50kBWIndex,250kBWIndex,miniscaleBWIndex,baseIndex&box=449447:459357:467834:470294&useDefaultbackgroundMapping=false>) and [detailed site survey reports](http://publications.naturalengland.org.uk/category/6249382855835648) (<http://publications.naturalengland.org.uk/category/6249382855835648>).

If no site survey reports are available, a [new detailed survey](#) may be necessary.

6. Use ALC to support your planning decisions

Use ALC survey data to assess the loss of land or quality of land from a proposed development. You should take account of smaller losses (under 20ha) if they're significant when making your decision. Your decision should avoid unnecessary loss of BMV land.

6.1 Protect soil

You should make sure development proposals include plans to:

- [manage soils in a sustainable way during construction](https://www.gov.uk/government/publications/code-of-practice-for-the-sustainable-use-of-soils-on-construction-sites) (<https://www.gov.uk/government/publications/code-of-practice-for-the-sustainable-use-of-soils-on-construction-sites>)

- avoid peat extraction
- protect soils from contamination
- [reclaim land after mineral working or landfilling](https://www.gov.uk/government/publications/reclaim-minerals-extraction-and-landfill-sites-to-agriculture)
(<https://www.gov.uk/government/publications/reclaim-minerals-extraction-and-landfill-sites-to-agriculture>)

6.2 Carry out new surveys

If there's not enough information from previous data, you may need to have a new field survey to plan for development or to inform a planning decision. You should use soil scientists or experienced soil specialists to carry out new surveys. They should be:

- members of the British Society of Soil Science, the British Institute of Agricultural Consultants or similar professional body
- knowledgeable about the [ALC 1988 guidelines](http://publications.naturalengland.org.uk/publication/6257050620264448)
(<http://publications.naturalengland.org.uk/publication/6257050620264448>)
- experienced in soil description and ALC assessments

6.3 Survey requirements

For a detailed ALC assessment, a soil specialist should normally make boreholes:

- every hectare on a regular grid on agricultural land in the proposed development area
- up to 1.2m deep using a hand-held auger

They should:

- dig small inspection pits by hand to a minimum depth of 1m to add supporting evidence to the borehole data
- dig pits where there's a change in main soil type and ALC grade to provide a good depiction of the site
- combine the survey results with local climate and site data to plot on an Ordnance Survey (OS) base map
- use a base map at an appropriate scale for detailed work, such as 1:10,000 scale

7. Developers: check if your proposal affects agricultural land

Use the [post 1988 ALC Magic map](http://magic.defra.gov.uk/MagicMap.aspx?chosenLayers=dudleystampIndex,backdropDIndex,backdropIndex,europeIndex,vmlBWIndex,25kBWIndex,50kBWIndex,250kBWIndex,miniscaleBWIndex,baseIndex&box=449447:459357:467834:470294&useDefaultbackgroundMapping=false) (<http://magic.defra.gov.uk/MagicMap.aspx?chosenLayers=dudleystampIndex,backdropDIndex,backdropIndex,europeIndex,vmlBWIndex,25kBWIndex,50kBWIndex,250kBWIndex,miniscaleBWIndex,baseIndex&box=449447:459357:467834:470294&useDefaultbackgroundMapping=false>) and detailed [site survey reports](http://publications.naturalengland.org.uk/category/6249382855835648) (<http://publications.naturalengland.org.uk/category/6249382855835648>) to help you assess whether a development proposal is likely to affect BMV agricultural land. If no suitable data exists, you may need to carry out a [detailed survey](#) to support your planning application.

7.1 Free and chargeable advice

Natural England offers advice for proposals. Some initial advice is free. More [detailed advice is chargeable](https://www.gov.uk/guidance/developers-get-environmental-advice-on-your-planning-proposals#when-you-can-pay-for-agency-advice) (<https://www.gov.uk/guidance/developers-get-environmental-advice-on-your-planning-proposals#when-you-can-pay-for-agency-advice>), for example if your proposal is 20ha or more and requires more detailed advice.

Email: consultations@naturalengland.org.uk

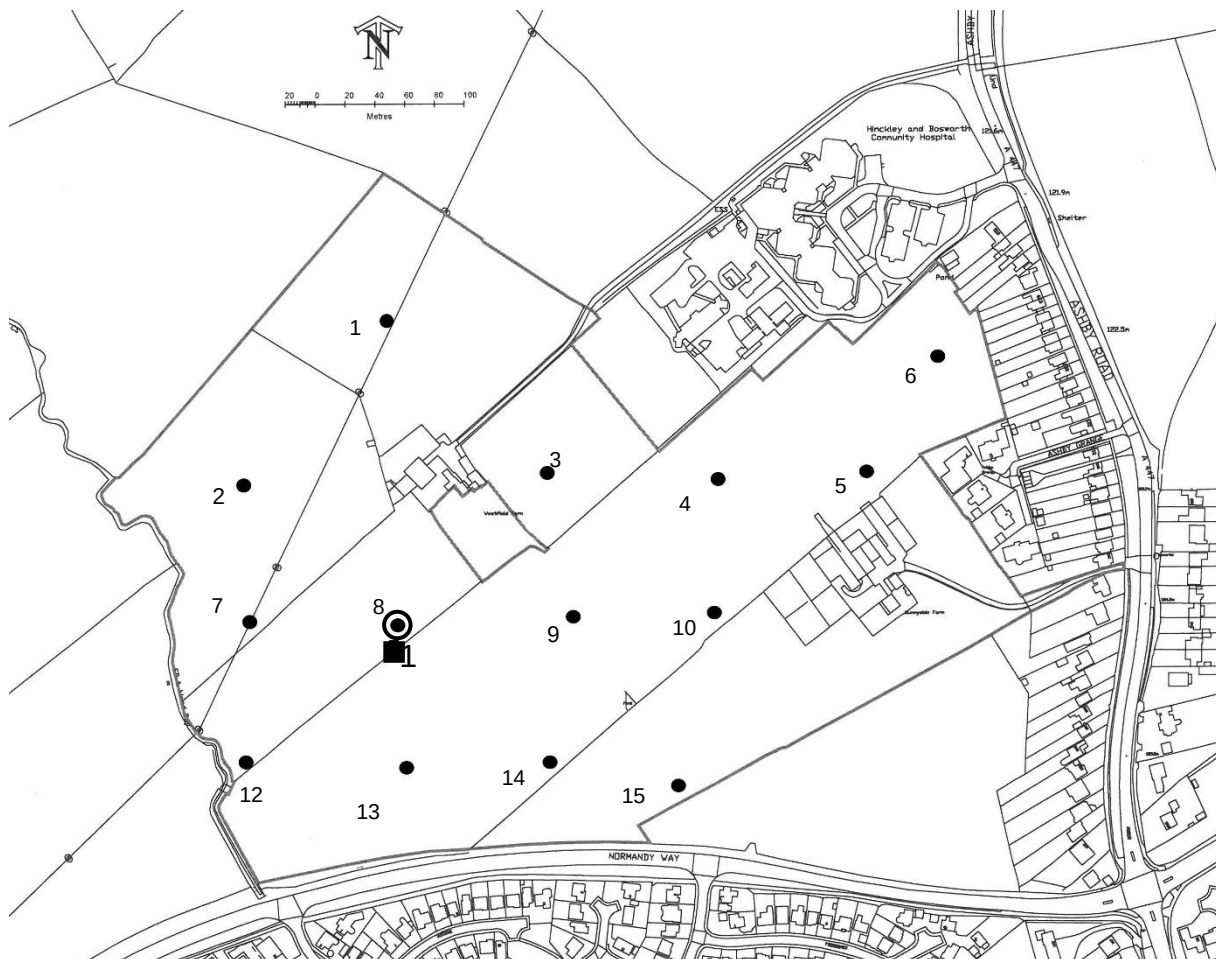
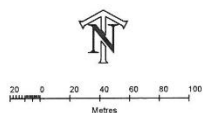
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Plan KCC3530/01
Auger Point Plan



KEY

- Auger sample location
- Topsoil texture sample
- Soil Pit

PLAN	KCC3530/01		
TITLE	Auger Points Plan		
SITE	Hinckley North		
CLIENT	Richborough Estates Ltd		
NUMBER	KCC3530/01 02/24hr		
DATE	February 2024	SCALE	NTS
KERNON COUNTRYSIDE CONSULTANTS LTD GREENACRES BARN, PURTON STOKE, SWINDON, WILTSHIRE SN5 4LL Tel 01793 771 333 Email: info@kernon.co.uk This plan is reproduced from the Ordnance Survey under copyright license 100015226			

Plan KCC3530/02A
Agricultural Land Classification Plan



KEY		Ha	%	PLAN	KCC3530/02			
	Grade 1			TITLE	Agricultural Land Classification			
	Grade 2	1.6	10	SITE	Hinckley North			
	Grade 3a	5.0	31	CLIENT	Richborough Estates Ltd			
	Grade 3b	8.3	52	NUMBER	KCC3530/02 02/24hr			
	Grade 4			DATE	February 2024	SCALE	NTS	
	Grade 5			KERNON COUNTRYSIDE CONSULTANTS LTD GREENACRES BARN, PURTON STOKE, SWINDON, WILTSHIRE, SN5 4LL Tel 01793 771 333 Email: info@kernon.co.uk This plan is reproduced from the Ordnance Survey under copyright license 100015226				
	Non-agricultural	0.2	2					
	Urban	0.8	5					
	Not surveyed							



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