



AGRICULTURAL LAND CLASSIFICATION BILLINGHURST

CLIENT: KERNON COUNTRYSIDE CONSULTANTS

PROJECT: BILLINGHURST

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1. EXECUTIVE SUMMARY

- 1.1 This report assesses the Agricultural Land Classification (ALC) grading of 97.2Ha, of land at Billinghamurst.
- 1.2 The limiting factor found to be soil wetness, a combination of the climatic regime, soil water regime and texture of the top 25cm of the soil.
- 1.3 The land is graded as follows:

Grade 3b:	83.6 Ha
Woodland:	3.1 Ha
Non-Agricultural (sports pitches):	9.8 Ha
Urban:	0.7 Ha

2. INTRODUCTION

- 2.1 Amet Property Ltd have been instructed by Kernon Countryside Consultants to produce an Agricultural Land Classification (ALC) report on a 97.2-hectare site on land to the northwest of Billinghamurst. The ALC report is being prepared to accompany a planning application.
- 2.2 The report's author is James Fulton BSc (Hons) MRICS FAAV who has worked as a chartered surveyor, agricultural valuer, and agricultural consultant since 2004, has a degree in agriculture which included modules on soils and over 10 years' experience in advising farmers on soil structure and cultivation methods and in producing agricultural land classification reports. Additional information on authors experience is found at **appendix 1**.
- 2.3 The report is based on a site visit conducted by two surveyors on the 8th and 9th of December 2025, during which the conditions were overcast with light rain, and soils were found to be moist and wet in places.
- 2.4 The surveyed area extends to 97.2Ha of predominantly arable and grassland spread across 14 fields with areas that are woodland, urban and non-agricultural. The land is located to the northwest of Billinghamurst.
- 2.5 The site is described in literature as unlikely to have naturally calcareous soils. In order to confirm hydrochloric acid was used to test in field for a reaction that would indicate calcareous soils.
- 2.6 During the inspection 3 trial pits were dug to a depth of 120cm. In addition to the trial pits an auger was used to take approximately one sample per hectare on the proposed development site to a depth of 120cm with smaller trial pits at some of these locations to confirm soil structure and colour where it was not clear from the auger samples. A plan of auger points and trial pit locations can be found at **appendix 2**. The trial pit locations were selected as they were representative of the soils found on site. Where subsoils were inspected with a spade, descriptions of structure have been recorded based on the soil survey field handbook¹; where an auger has been used the structure is described as good, moderate or poor based on figure 9,10 and 11 in the MAFF² guidance. Colours are described using Munsell Colours³.
- 2.7 Further information has been obtained from the MAGIC website, the Soil Survey of England and Wales, the British Geological Survey, the Meteorological Office and 1:250,000 series Agricultural Land Classification maps.
- 2.8 The collected information has been judged against the Ministry of Agriculture Fisheries and Food Agricultural Land Classification of England and Wales revised guidelines and criteria for grading the quality of agricultural land.

¹ Hodgson, JM (1997) Soil Survey Field Handbook

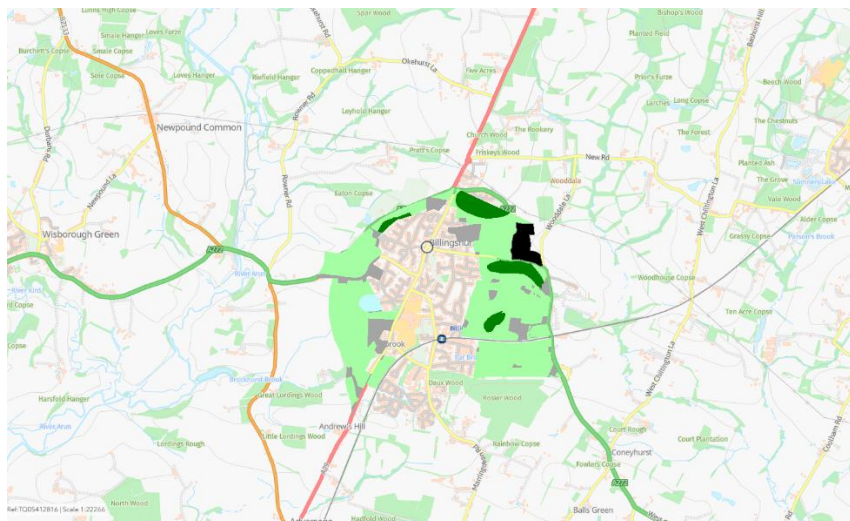
² MAFF (1988) - *Agricultural Land Classification of England and Wales. Revised guidelines and criteria for grading the quality of agricultural land*. MAFF Publications

³ Munsell Color (2009) Munsell Soil Color Charts

- 2.9 The principal factors influencing agricultural production are climate, site and soil and the interaction between them MAFF (1988) & Natural England (2012)⁴.
- 2.10 The report is prepared and formatted considering the latest BSSS guidance⁵.

3. PUBLISHED INFORMATION

- 3.1 The British Geological Survey 1:50,000 scale map shows the bedrock geology to be strips alternating between Weald Clay Formation – Mudstone and Weald Clay Formation – Sandstone.
- 3.2 The soils on the site are identified as being 711i WICKHAM 1 Association, slowly permeable seasonally waterlogged fine silty over clayey, fine loamy over clayey and clayey soils.
- 3.3 The 1:250,000 series Agricultural Land Classification maps show the land to be largely Grade 3, the western corner of the site is shown to be Grade 4. These plans are of strictly limited value, using an out-of-date methodology at a very small scale (low detail) level of survey. Further information on the limits of their use can be found in TIN049.
- 3.4 The MAGIC 1:250,000 series Post 1988 Agricultural Land Classification maps show that a very small part of the site and the areas directly southeast of the site, and surrounding Billingshurst have been surveyed and are shown to be Grade 3b with pockets of Grade 3a and a very small area of Grade 2.



⁴ MAFF (1988) - *Agricultural Land Classification of England and Wales. Revised guidelines and criteria for grading the quality of agricultural land*. MAFF Publications

Natural England (2012) - *Technical Information Note 049 - Agricultural Land Classification: protecting the best and most versatile agricultural land*, Second Edition

⁵ BSSS (2022) Working with Soil Guidance Note on Assessing Agricultural Land Classification Surveys in England and Wales

4. CLIMATE

- 4.1 Climate has a major, and in places overriding, influence on land quality affecting both the range of potential agricultural uses and the cost and level of production.
- 4.2 There is published agro-climatic data for England and Wales provided by the Meteorological Office, such data for the subject site is listed in the table below.

Agro-Climatic Data – Full details can be found at **appendix 3**

Grid Reference	508102,126263
Altitude (ALT)	26
Average Annual Rainfall (AAR)	786
Accumulated Temperature - Jan to June (ATO)	1505
Duration of Field Capacity (FCD)	165
Moisture Deficit Wheat	112
Moisture Deficit Potatoes	106

- 4.3 The main parameters used in assessing the climatic limitation are average annual rainfall (AAR), as a measure of overall wetness; and accumulated temperature (ATO), as a measure of the relative warmth of a locality.
- 4.4 The AAR and ATO provide climatic limitation to Grade 1.
- 4.5 The site is shown to be largely in flood zone 1 – areas with a less than 1 in 1000 annual chance of flooding. The western border of the site however is shown to be in flood zone 3 – areas with greater than 1 in 100 annual chance of flooding. There was flooding found in the western field to the east of the River Arun, this land was not accessible and could not have been assessed due to the conditions and is considered to be limited to Grade 3b by flooding.

5. STONINESS

- 5.1 The stones that were identified in the topsoil are not of sufficient size or quantity to limit land grade.

6. GRADIENT AND MICRORELIEF

- 6.1 The site is gently sloping with no gradient or microrelief that limits land grade.

7. SOILS

- 7.1 Full information on the sample points along with trial pit descriptions and photographs and lab test results can be found at **appendix 4**.
- 7.2 The topsoil was found to be dark greyish brown (10YR 4/2, 2.5Y 4/2), brown (10YR 4/3, 5/3) dark yellowish brown (10YR 4/4), grey (10YR 5/1), greyish brown (10YR 5/2, 2.5Y 5/2), yellowish brown (10YR 5/4), pink (7.5YR 7/3) or olive brown (2.5Y 4/3, 4/4), sandy silty loam, silty clay loam or clay loam.
- 7.3 The upper subsoils were found to have the texture of sandy silty loam, silty clay loam, clay loam or clay. The colours were found to be greyish brown (2.5Y 5/2), brown (10YR 5/3, 7.5YR 5/4), yellowish brown (10YR 5/4), grey (10YR 6/1, 2.5Y 6/1), light brownish grey (10YR 6/2), pale brown (10YR 6/3), light yellowish brown (10YR 6/4), light grey (10YR 7/2), strong brown (7.5YR 5/6), weak red (2.5YR 4/2), reddish brown (2.5YR 4/3), light brownish grey (2.5Y 6/2), light yellowish brown (2.5Y 6/3), lighter grey (2.5Y 7/1), light greenish grey (5GY 7/1), greenish grey (10Y 6/1), light greenish grey (10Y 7/1) or light bluish grey (10B 7/1). The subsoil had a poor or moderate structure.
- 7.4 Where a lower subsoil was found the texture was found to be clay, silty clay or clay loam. The colours were found to be grey (10YR 5/1), yellowish brown (10YR 5/6), light brownish grey (10YR 6/2), pale brown (10YR 6/3), light grey (10YR 7/2), very pale brown (10YR 7/3), light greenish grey (10Y 7/1, 5GY 7/1, 10GY 7/1, 10BG 7/1, 5PB 7/1), light bluish grey (10B 7/1, 8/1), reddish brown (2.5YR 4/3, 5/3) or brown (7.5YR 5/3). The subsoil had a poor or moderate structure and common to many ochreous mottles.

INTERACTIVE FACTORS

8. WETNESS

- 8.1 An assessment of the wetness class of each sample point was made based on the flow chart at Figure 6 and the graphs at figure 7 and 8 in the MAFF guidance.

Wetness class Assessment

Depth to gley	Depth to SPL	Coarse subsoil	Wetness Class
No gley	No SPL	N/A	I
40-70	No SPL	Yes	I
<40	No SPL	Yes	I
<40	No SPL	No	II
40-70	No SPL	No	I
40-70	>58	N/A	II
40-70	<58	N/A	III
<40	>72	N/A	II
<40	45-72	N/A	III
<40	<45	N/A	IV

- 8.2 The wetness class and topsoil texture were then assessed against Table 6 of the MAFF guidance to determine the ALC grade according to wetness. The wetness assessment can be found at **appendix 4**.
- 8.3 The whole of the site was found to be limited by soil wetness.

9. DROUGHTINESS

- 9.1 Droughtiness limits are defined in terms of moisture balance for wheat and potatoes using the formula:

$$MB \text{ (Wheat)} = AP \text{ (Wheat)} - MD \text{ (Wheat)}$$

and

$$MB \text{ (Potatoes)} = AP \text{ (Potatoes)} - MD \text{ (Potatoes)}$$

Where:

MB = Moisture Balance

AP = Crop Adjusted available water capacity

MD = Moisture deficit

- 9.2 Moisture deficit for wheat and potatoes can be found in the agro-climatic data and are as follows:

$$MD \text{ (Wheat)} = 112$$

$$MD \text{ (Potatoes)} = 106$$

- 9.3 Crop adjusted available water is calculated by reference to the total available water and easily available water which is calculated by reference to soil texture and structural condition and the stone content.
- 9.4 The moisture balance was calculated for all survey points; this assessment can be found at **appendix 4**.
- 9.5 Droughtiness was not found to be a limiting factor across the site.

10. AGRICULTURAL LAND CLASSIFICATION

- 10.1 The Agricultural Land Classification provides a framework for classifying land according to which its physical or chemical characteristics impose long-term limitations on agricultural use. The limitations can operate in one or more of four principal ways: they may affect the range of crops that can be grown, the level of yield, the consistency of yield and the cost of obtaining it.
- 10.2 The principal physical factors influencing agricultural production are climate, site and soil and the interactions between them which together form the basis for classifying land into one of 5 grades; Grade 1 being of excellent quality and Grade 5 being land of very poor quality. Grade 3 land, which constitutes approximately half of all agricultural land in the United Kingdom is divided into 2 subgrades – 3a and 3b. A full definition of all of the grades can be found at **appendix 5**.
- 10.3 This assessment sets out that the site is limited by soil wetness.
- 10.4 The breakdown of land by classification is:
- | | |
|------------------------------------|---------|
| Grade 3b: | 83.6 Ha |
| Woodland: | 3.1 Ha |
| Non-Agricultural (sports pitches): | 9.8 Ha |
| Urban: | 0.7 Ha |
- 10.5 A plan of the land grading can be found at **appendix 6**.

Appendix 1 – Details of the Authors Experience

James Fulton

Professional Education and Qualifications

BSc (Hons) Agriculture, University of Nottingham (2004)

Member of the Royal Institution of Chartered Surveyors (MRICS) (2008)

Fellow of the Central Association of Agricultural Valuers (FAAV) (2009)

Relevant Work Experience

While working for a regional firm from 2004 until 2016 as part of my work I provided advice to farmers on soils, cultivation techniques and cropping and was involved in field trials which assessed cropping and cultivation techniques and how they impacted soil structure. At the same time I worked alongside an experienced surveyor who produced Agricultural Land Classification reports and I received training in field survey techniques and the ALC process to the point where I was able to produce ALC reports.

In 2016 I left my employer and formed Amet Property Ltd providing development consultancy and other rural practice surveying services. Of all of the services that we provide Agricultural Land Classification reports is the single largest area of work accounting for approximately 70% of all of my working time.

While I am not a member of the BSSS I meet the minimum competencies set out by the BSSS in Document 1 *Foundation skills in field soil investigation, description and interpretation* and Document 2 *Agricultural Land Classification (England and Wales)*

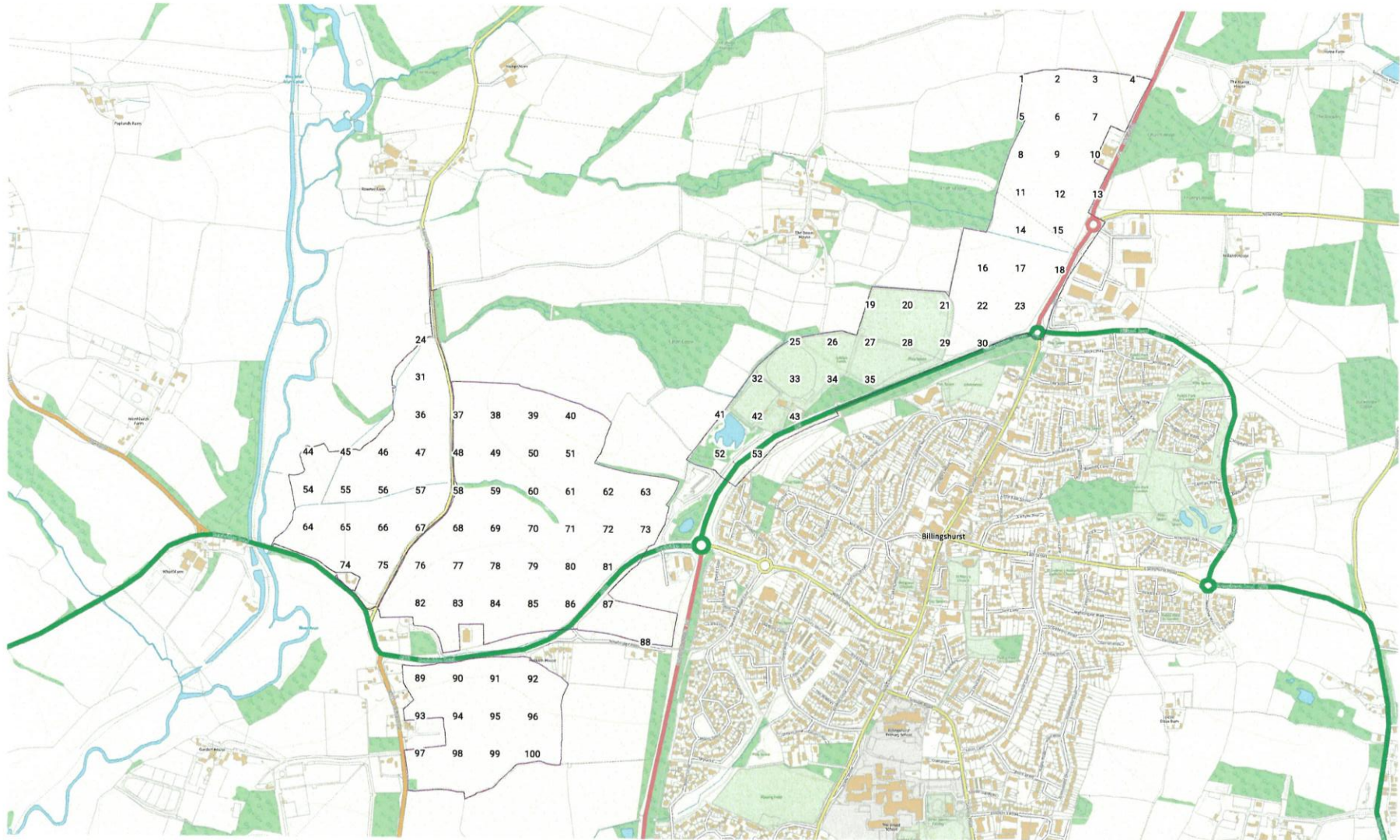
Professional Standards

As a member of the Royal Institution of Chartered Surveyors and Fellow of the Central Association of Agricultural Valuers I am bound by their professional standards and am only able to carry out work where I am suitably qualified and experienced to do so. Due to the formal and practical training that I have received I am able to competently produce Agricultural Land Classification reports.

Assistant Surveyors

All assistant surveyors have completed the BSSS working with soil course and have been trained to meet the requirements of BSSS Document 1 *Foundation skills in field soil investigation, description, and interpretation*.

Appendix 2 - Map of Survey Points



Appendix 3 - Climatic Data

Centre of the site	Easting	Northing	Mean
			Altitude
	508102	126263	26

Surrounding Climate Data

Grid Reference	ALT	AAR	LR_AAR	ASR	ATO	ATS	MDW	MDP	FCD
5050 1250	14	795	0.8	355	1521	2511	113	108	167
5050 1300	34	775	0.6	335	1496	2484	115	110	162
5100 1250	28	789	0.3	365	1504	2495	110	104	166
5100 1300	59	770	0.4	345	1466	2452	110	104	162

Altitude adjusted

Grid Reference	AAR	ATO	FCD	MDW	MDP	Proximity
						Adjustment
5050 1250	804.95	1506.82	168.44	111.03	105.40	23.41%
5050 1300	770.46	1504.62	161.34	116.09	111.44	11.13%
5100 1250	788.53	1505.78	165.93	110.19	104.26	50.52%
5100 1300	756.98	1503.12	160.12	114.25	109.63	14.95%

Altitude Adjusted Climate Data

AAR	786
ATO	1505
FCD	165
MDW	112
MDP	106

Appendix 4a - Sample Point Assessment

Sample No	Altitude	Topsoil		Calc	Colour	Stoniness			Upper Subsoil			Lower Subsoil			Wetness Assessment			Grade		Droughtiness Assessment		Grade		Most limiting							
		Depth	Texture			<2cm	2-6cm	>6cm	Mottles	Depth	Texture	Colour	Stoniness	Mottles	Structure	Gleyed	SPL	Depth	Texture	Colour	Stoniness	Mottles	Structure		Depth to Gleyed	SPL	Wetness Class	Wetness limit by	Wheat MB	Potato MB	Droughtiness limit by
1	45	0 - 25	HCL	N	7.5YR 4 / 3			25 - 40	HCL	10YR 5 / 4		FOB	Moderate	N	N	40 - 120	C	10Y 7 / 1		COB	Poor	40	40	IV	3b	19.35	1.87	2	3b		
2	47	0 - 25	HCL	N	7.5YR 4 / 3			25 - 40	HCL	10YR 5 / 3		FOB	Moderate	N	N	40 - 120	C	10GY 7 / 1		COB	Poor	40	40	IV	3b	19.35	1.87	2	3b		
3	49	0 - 30	HCL	N	7.5YR 4 / 3			30 - 40	C	2.5YR 4 / 3		FOB	Moderate	N	N	40 - 120	C	10B 7 / 1		MOB	Poor	40	40	IV	3b	20.35	2.87	2	3b		
4	52	0 - 30	HCL	N	7.5YR 4 / 3			30 - 40	C	2.5YR 4 / 3		FOB	Moderate	N	N	40 - 120	C	10B 7 / 1		COB	Poor	40	40	IV	3b	20.35	2.87	2	3b		
5	43	0 - 20	HCL	N	7.5YR 4 / 3			20 - 45	HCL	10YR 5 / 3		FOB	Moderate	N	N	45 - 120	C	10Y 7 / 1		MO	Poor	45	45	IV	3b	19.85	2.37	2	3b		
6	47	0 - 25	HCL	N	10YR 4 / 3			25 - 35	HCL	10YR 5 / 3		FOB	Moderate	N	N	35 - 120	C	10GY 7 / 1		COB	Poor	35	35	IV	3b	17.85	0.37	2	3b		
7	48	0 - 25	HCL	N	10YR 4 / 3			25 - 40	HCL	10YR 5 / 4		FOB	Moderate	N	N	40 - 120	C	10Y 7 / 1		COB	Poor	40	40	IV	3b	19.35	1.87	2	3b		
8	44	0 - 25	MCL	N	10YR 4 / 2			25 - 45	HCL	7.5YR 5 / 4		FOB	Moderate	N	N	45 - 120	C	10BG 7 / 1		MOB	Poor	45	45	III	3a	20.85	3.37	2	3a		
9	45	0 - 25	MCL	N	10YR 4 / 2			25 - 40	HCL	7.5YR 5 / 4		FOB	Moderate	N	N	40 - 120	C	10BG 7 / 1		MOB	Poor	40	40	IV	3b	19.35	1.87	2	3b		
10	46	0 - 25	MCL	N	10YR 4 / 2			25 - 40	HCL	10YR 5 / 3		FOB	Moderate	N	N	40 - 120	C	10GY 7 / 1		MOB	Poor	40	40	IV	3b	19.35	1.87	2	3b		
11	41	0 - 25	HCL	N	10YR 4 / 3			25 - 40	HCL	10YR 5 / 4		FOB	Moderate	N	N	40 - 120	C	10Y 7 / 1		COB	Poor	40	40	IV	3b	19.35	1.87	2	3b		
12	43	0 - 25	HCL	N	10YR 4 / 3			25 - 40	HCL	10YR 5 / 4		FOB	Moderate	N	N	40 - 120	C	10Y 7 / 1		COB	Poor	40	40	IV	3b	19.35	1.87	2	3b		
14	40	0 - 25	HCL	N	10YR 5 / 3			25 - 30	HCL	10YR 6 / 4		FOB	Moderate	N	N	30 - 120	C	10Y 7 / 1		COB	Poor	30	30	IV	3b	16.35	-1.13	2	3b		
15	43	0 - 25	HCL	N	10YR 5 / 3			25 - 35	HCL	10YR 6 / 4		COB	Moderate	Y	Y	35 - 120	C	10Y 7 / 1		COB	Poor	25	25	IV	3b	17.85	0.37	2	3b		
16	42	0 - 25	HCL	N	10YR 4 / 3			25 - 35	ZC	10YR 5 / 3		COB	Moderate	Y	Y	35 - 120	C	2.5YR 5 / 3		MOB	Poor	25	25	IV	3b	16.85	-0.63	2	3b		
17	43	0 - 20	HCL	N	10YR 4 / 3			20 - 35	ZC	10YR 5 / 4		COB	Moderate	Y	Y	35 - 120	C	2.5YR 5 / 3		MOB	Poor	20	20	IV	3b	15.35	-2.13	2	3b		
18	44	0 - 20	HCL	N	10YR 4 / 3			20 - 35	ZC	10YR 5 / 4		COB	Moderate	Y	Y	35 - 120	C	2.5YR 5 / 3		MOB	Poor	20	20	IV	3b	15.35	-2.13	2	3b		
19	37	Playing Fields																													
20	38	Playing Fields																													
21	40	Playing Fields																													
22	41	0 - 20	MCL	N	10YR 4 / 2			20 - 40	MCL	2.5Y 6 / 3		COB	Moderate	Y	Y	40 - 120	C	7.5YR 5 / 3		COB	Poor	20	20	IV	3b	18.35	0.87	2	3b		
23	43	0 - 20	MCL	N	10YR 4 / 2			20 - 40	MCL	2.5YR 4 / 2		COB	Moderate	Y	Y	40 - 120	MCL	2.5Y 6 / 1		MOB	Poor	20	20	IV	3b	17.35	-2.13	2	3b		
24	12	0 - 15	MCL	N	10YR 5 / 3			15 - 60	C	5GY 7 / 1		CO	Poor	Y	Y	60 - 120	C	5PB 7 / 1		MO	Poor	15	15	IV	3b	9.85	-7.63	2	3b		
25	29	Playing Fields																													
26	30	Playing Fields																													
27	33	Playing Fields																													
28	36	Playing Fields																													
29	38	Playing Fields																													
30	41	0 - 20	MCL	N	10YR 5 / 3			20 - 50	C	2.5Y 5 / 2		CO	Moderate	Y	Y	50 - 120	C	5GY 7 / 1		MO	Poor	20	20	IV	3b	21.35	3.87	2	3b		
31	15	0 - 30	MCL	N	10YR 4 / 3	5%		30 - 120	MCL	10YR 7 / 2		MO	Moderate	Y	Y	-	/	/				30	30	IV	3b	41.80	9.32	2	3b		
32	24	Playing Fields																													
33	27	Playing Fields																													

Sample No	Altitude	Topsoil			Calc	Colour	Stoniness			Upper Subsoil			Lower Subsoil							Wetness Assesment		Grade limit by	Droughtiness Assessment		Grade limit by	Most limiting Grade						
		Depth	Texture				<2cm	2-6cm	>6cm	Mottles	Depth	Texture	Colour	Stoniness	Mottles	Structure	Gleyed	SPL	Depth	Texture	Colour		Stoniness	Mottles			Structure	Depth to Gleyed	SPL	Wetness Class	Wheat	Potato
84	27	0	- 30	HCL	N	10YR 4 / 2				30	- 120	C	10Y 6 / 1		MOB	Poor	Y	Y	-	/			30	30	IV	3b	17.35	-0.13	2	3b		
85	24	0	- 35	HCL	N	10YR 4 / 2				35	- 120	C	10Y 6 / 1		MO	Poor	Y	Y	-	/			35	35	IV	3b	19.85	2.37	2	3b		
86	25	0	- 35	HCL	N	2.5Y 4 / 2				35	- 120	C	10Y 6 / 1		MO	Poor	Y	Y	-	/			35	35	IV	3b	19.85	2.37	2	3b		
87	27	0	- 35	MCL	N	2.5Y 5 / 2				35	- 70	HCL	2.5Y 7 / 1		MOB	Moderate	Y	Y	70 - 120	C	5PB 7 / 1		MOB	Poor	35	35	IV	3b	30.35	12.87	1	3b
88	29	0	- 40	MCL	N	10YR 5 / 2				40	- 60	HCL	10YR 5 / 3		COB	Moderate	Y	Y	60 - 120	C	5PB 7 / 1		MOB	Poor	40	40	IV	3b	28.35	10.87	2	3b
89	22	0	- 30	MCL	N	10YR 4 / 2				30	- 60	MCL	2.5Y 5 / 2		CO	Moderate	Y	Y	60 - 120	SCL	10YR 5 / 6		VMOB	Moderate	30	30	IV	3b	44.35	10.87	1	3b
90	22	0	- 25	MCL	N	2.5Y 4 / 3				25	- 60	MCL	2.5Y 6 / 2		FOB	Moderate	Y	Y	60 - 120	MCL	5GY 7 / 1		VMOB	Moderate	25	25	IV	3b	43.35	10.87	1	3b
91	23	0	- 25	MCL	N	2.5Y 4 / 3				25	- 60	MCL	2.5Y 5 / 2		CO	Moderate	Y	Y	60 - 120	MCL	2.5Y 6 / 4		MOB	Moderate	25	25	IV	3b	43.35	10.87	1	3b
92	22	0	- 25	MCL	N	2.5Y 4 / 3				25	- 60	MCL	2.5Y 5 / 2		CO	Moderate	Y	Y	60 - 120	MCL	2.5Y 6 / 4		MOB	Moderate	25	25	IV	3b	43.35	10.87	1	3b
93	18	0	- 30	MCL	N	10YR 4 / 2				30	- 50	C	10Y 7 / 1		MO	Poor	Y	Y	50 - 120	C	10YR 6 / 2		MO	Poor	30	30	IV	3b	17.35	-0.13	2	3b
94	19	0	- 30	MCL	N	10YR 4 / 2				30	- 50	C	10Y 7 / 1		MO	Poor	Y	Y	50 - 120	C	10YR 6 / 2		MO	Poor	30	30	IV	3b	17.35	-0.13	2	3b
95	20	0	- 30	MCL	N	10YR 4 / 3				30	- 50	C	10Y 7 / 1		MOB	Poor	Y	Y	50 - 120	C	10YR 6 / 2		MO	Poor	30	30	IV	3b	17.35	-0.13	2	3b
96	22	0	- 25	MCL	N	2.5Y 4 / 3				25	- 50	MCL	10YR 6 / 3		MOB	Moderate	Y	Y	50 - 120	MCL	10B 7 / 1		MOB	Moderate	25	25	IV	3b	43.35	10.87	1	3b
97	18	0	- 25	MCL	N	2.5Y 5 / 2				25	- 70	SCL	10YR 5 / 3		MOB	Moderate	Y	Y	70 - 120	C	10Y 7 / 1		VMOB	Poor	25	25	IV	3b	25.85	6.37	2	3b
98	18	0	- 30	MCL	N	2.5Y 4 / 3				30	- 120	SCL	10YR 5 / 3		MOB	Moderate	Y	Y	-					30	30	IV	3b	42.35	7.87	2	3b	
99	19	0	- 30	MCL	N	2.5Y 4 / 3				30	- 60	MCL	10YR 5 / 3		CO	Moderate	Y	Y	60 - 120	C	10Y 7 / 1		VMOB	Poor	30	30	IV	3b	26.35	8.87	2	3b
100	19	0	- 25	MCL	N	2.5Y 4 / 3				25	- 50	MCL	10YR 6 / 3		MOB	Moderate	Y	Y	50 - 120	MCL	10B 7 / 1		MOB	Moderate	25	25	IV	3b	43.35	10.87	1	3b
		26.44																														

26.44

Appendix 4b – Trial Pit Descriptions

Sample Point No. 9		
Horizon 1	0-25cm dark greyish brown (10YR 4/2) medium clay loam.	
Horizon 2	25-40cm brown (7.5YR 5/4) heavy clay loam, with a coarse angular blocky structure, friable consistence and few ochreous mottles.	
Horizon 3	40-120cm light greenish grey (10BG 7/1) clay, with a medium platy structure, friable consistence and many ochreous mottles.	
Pictures		
Horizon 1	Horizon 2	Horizon 3
		
Slowly permeable layer	Starts at 40cm – evidenced by friable medium platy structure with less than 0.5% biopores >0.5mm.	
Gleying	Starts at 40cm evidenced by greyish colours dominant in the matrix and at least 2% ochreous mottles.	
Wetness Class	IV	
Wetness limitation	3b	
MB Wheat	19.35	
MB potatoes	1.87	
Droughtiness Limitation	2	

Sample Point No. 51		
Horizon 1	0-30cm yellowish brown (10YR 5/4) medium clay loam.	
Horizon 2	30-50cm greyish brown (2.5Y 5/2) medium clay loam, with a coarse angular blocky structure, friable consistence, common ochreous mottles and 5% stone content.	
Horizon 3	50-120cm very pale brown (10YR 7/3) clay, with a massive structure, firm consistence and very many ochreous mottles.	
Pictures		
Horizon 2	Horizon 3	Horizon 3 (ribboning)
		
Slowly permeable layer	Starts at 30cm – evidenced by friable coarse angular blocky structure with less than 0.5% biopores >0.5mm.	
Gleying	Starts at 30cm evidenced by greyish colours dominant in the matrix and at least 2% ochreous mottles.	
Wetness Class	IV	
Wetness limitation	3b	
MB Wheat	21.85	
MB potatoes	4.37	
Droughtiness Limitation	2	

Sample Point No. 90		
Horizon 1		0-25cm olive brown (2.5Y 4/3) medium clay loam.
Horizon 2		25-60cm light brownish grey (2.5Y 6/2) medium clay loam, with a coarse prismatic structure, friable consistence and few ochreous mottles.
Horizon 3		60-120cm light greenish grey (5GY 7/1) medium clay loam, with a coarse massive structure, firm consistence and very many ochreous mottles.
Pictures		
Horizon 1	Horizon 2	Horizon 3
		
Slowly permeable layer		Starts at 25cm – evidenced by friable coarse prismatic structure with less than 0.5% biopores >0.5mm.
Gleying		Starts at 25cm evidenced by greyish colours dominant in the matrix and at least 2% ochreous mottles.
Wetness Class		IV
Wetness limitation		3b
MB Wheat		43.35
MB potatoes		10.87
Droughtiness Limitation		1

Appendix 4b – Core Photos



Survey Point 20 – core photo



Survey Point 22 – core photo



Survey Point 25 – core photo



Survey Point 47 – core photo



Survey Point 84 – core photo



Survey Point 96 – core photo



Survey Point 83 – Evidence of waterlogging



Survey Point 44, 54, 64 – Field that could not be accessed due to flooding



ANALYTICAL REPORT										
Report Number	34008-25	W250	AMET PROPERTY							
Date Received	18-DEC-2025		HENWICK BARN							
Date Reported	12-JAN-2026		BULWICK							
Project	KERNON		CORBY							
Reference	BILLINGHURST		NORTHANTS							
Order Number			NN17 3DU							
Laboratory Reference		SOIL778964	SOIL778965	SOIL778966	SOIL778967	SOIL778968	SOIL778969			
Sample Reference		B21	B83	B90	B90 SS2	B51	B9			
Determinand	Unit	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL			
Coarse Sand 2.00-0.63mm	% w/w	1	5	2	3	10	6			
Medium Sand 0.63-0.212mm	% w/w	5	4	11	15	6	7			
Fine Sand 0.212-0.063mm	% w/w	39	14	31	28	16	21			
Silt 0.063-0.002mm	% w/w	33	48	37	30	48	46			
Clay <0.002mm	% w/w	22	29	19	24	20	20			
Textural Class **		MCL	HCL	MCL	MCL	MCL	MCL			
Notes										
Analysis Notes		The sample submitted was of adequate size to complete all analysis requested. The results as reported relate only to the item(s) submitted for testing. The results are presented on a dry matter basis unless otherwise stipulated.								
Document Control		This test report shall not be reproduced, except in full, without the written approval of the laboratory.								
Reported by		** Please see the attached document for the definition of textural classes. <i>Teresa Clyne</i> Natural Resource Management, a trading division of Cawood Scientific Ltd. Coopers Bridge, Braziers Lane, Bracknell, Berkshire, RG42 6NS Tel: 01344 886338 Fax: 01344 890972 email: enquiries@nrm.uk.com								

ADAS (UK) Textural Class Abbreviations

The texture classes are denoted by the following abbreviations:

Class	Code
Sand	S
Loamy sand	LS
Sandy loam	SL
Sandy Silt loam	SZL
Silt loam	ZL
Sandy clay loam	SCL
Clay loam	CL
Silt clay loam	ZCL
Clay	C
Silty clay	ZC
Sandy clay	SC

For the *sand*, *loamy sand*, *sandy loam* and *sandy silt loam* classes the predominant size of sand fraction may be indicated by the use of prefixes, thus:

vf	Very Fine (more than 2/3's of sand less than 0.106 mm)
f	Fine (more than 2/3's of sand less than 0.212 mm)
c	Coarse (more than 1/3 of sand greater than 0.6 mm)
m	Medium (less than 2/3's fine sand and less than 1/3 coarse sand).

The subdivisions of *clay loam* and *silty clay loam* classes according to clay content are indicated as follows:

M	medium (less than 27% clay)
H	heavy (27-35% clay)

Organic soils i.e. those with an organic matter greater than 10% will be preceded with a letter O.

Peaty soils i.e. those with an organic matter greater than 20% will be preceded with a letter P.

Appendix 6 - Map of ALC Grade

