AGRICULTURAL LAND CLASSIFICATION AND PHYSICAL CHARACTERISTICS PROPOSED EXTENSION TO HARTLEBURY QUARRY, WHITLENGE LANE, HARTLEBURY

Resource Planning Team
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schartle/aug/mp

AGRICULTURAL LAND CLASSIFICATION AND PHYSICAL CHARACTERISTICS REPORT FOR PROPOSED EXTENSION TO HARTLEBURY QUARRY

1. SUMMARY

1.1 The Agricultural Land Classification (ALC) Survey for this site shows that the following proportions of ALC grades are present:-

Grade 1	0.6 ha	(22% of the site)
Grade 2	0.8 ha	(30% of the site)
Sub-grade 3b	1.3 ha	(48% of the site)

1.2 The main limitation to the agricultural use of land in Grade 2 is soil wetness.

1.3 The main limitation to the agricultural use of land in sub-grade 3b is gradient.

2. INTRODUCTION

2.1 The site was surveyed by the Resource Planning Team in August 1993. An Agricultural Land Classification (ALC) Survey was undertaken according to the guidelines laid down in the "Agricultural Land Classification of England and Wales - Revised Guidelines and Criteria for Grading the Quality of Land" (MAFF 1988).

2.2 The 2.7 ha site is situated to the east of Hartlebury. The land immediately to the north and east of the site is in agricultural use while the land immediately south and west of the site is currently being quarried.

2.3 The survey was requested by MAFF in connection with a proposed extension of the adjacent Hartlebury quarry.

2.4 At LUPU's request this was a "detailed grid survey" at 1:10000 with a minimum auger boring density of 1 per hectare. Additional borings were carried out as necessary. The attached map is only accurate at the base map scale and any enlargement would be misleading.

2.3 At the time of survey the site was under grass.

3. CLIMATE

3.1 The following interpolated data are relevant for the site:-

Average Annual Rainfall	650	mm
Accumulated Temperatures above 0°C January to June	1431	day °C
Field Capacity Days	143	days
Moisture Deficit Wheat	107	mm
Moisture Deficit Potatoes	98	mm

3.2 There is no overall climatic limitation on the site.

4. SITE

4.1 The assessment of site factors is primarily concerned with the way in which topography influences the use of agricultural machinery. These include gradient, microrelief and flooding.

4.2 Gradient is limiting on this site in the northern field where the angle of slope is about 9°, limiting this area to sub-grade 3b. Microrelief and flooding do not impose any limitations on the agricultural use of the land.

5. GEOLOGY AND SOILS

5.1 The solid geology of the area is comprised of Keuper Mark - British Geological Survey Sheet 182 Droitwich 1:50000 scale.

5.2 The underlying geology influences the soils which have a clay texture over the whole of the site.

6. AGRICULTURAL LAND CLASSIFICATION

6.1 Grade 1 - occupies 0.6 ha (22%) of the survey area and is found along the western edge of the site on the low lying land.

6.1.1 These soils typically have a medium clay loam topsoil overlying sandy clay loam and clay to depth with few or no stones within the profile.

6.1.2 There are no limitations to the agricultural use of this land.

6.2 Grade 2 - occupies 0.8 ha (30%) of the survey area and is found mainly in the southern field adjacent to the public footpath.

6.2.1 The soil has a medium clay loam topsoil over clay to depth, with few or no stones present within the profile.

6.2.2 The main limitation to agricultural use is soil wetness.

6.3 Sub-grade 3b - occupies 1.3 ha (48%) of the survey area and is found in the northern field.

6.3.1 The soil typically has medium clay loam topsoil overlying clay to depth, with few or no stones present within the profile.

6.3.2 The main limitation to agricultural use is gradient.

6.4 SUMMARY OF AGRICULTURAL LAND CLASSIFICATION GRADES

Grade	Area in Hectares	% of Survey Area	% of Agricultural Land
1	0.6	22	22
2	0.8	30	30
3b	1.3	48	48
TOTALS	2.7	100	100

7. SOIL UNITS

7.1 The area is underlain by similar soils and one soil unit has been identified.

7.1.1 Unit 1

Unit 1 is mapped over the whole of the site. Typically 22-32 cm of dark brown (7.5YR4/3) medium clay loam topsoil overlies (7.5YR5/4) medium clay loam sub-soil to depths between 49 and 60 cm. Reddish brown (0.5YR5/3 to 5/4) clay occurs below this depth over most of the site with the exception of the western edge where the clay is at a depth of 90 cm.

7.1.2 A soil pit dug in the central area of the site showed the sub-soils to be moderately developed and slightly porous with a prismatic structure. Plant roots were evident to at least 20 cm. The soils contained less than 1% stones.

7.1.3 TYPICAL SOIL DESCRIPTION

Unit	Depth (cm)	Texture	% Stones
Unit 1 (Central)	0-27	MCL	<1%
	27-55	MCL	<1%
	55-100	C	<1%
Unit 1 (Western)	0-28	MCL	<1%
	28-90	MCL	<1%
	90-100	C	<1%