

AGRICULTURAL LAND CLASSIFICATION REPORT FOR COLTON FARM, NR RUGELEY

1. Summary

1.1 The Agricultural Land Classification (ALC) Survey for this site revealed the following proportions of ALC Grades:

Grade 2	3.7 ha	(5.7% of the site)
Grade 3a	19.7 ha	(30.6% of the site)
Grade 3b	37.5 ha	(58.4% of the site)
Grade 4	2.8 ha	(4.3% of the site)
Woodland	0.3 ha	(0.5% of the site)
Urban	0.2 ha	(0.3% of the site)
Open Water	0.1 ha	(0.2% of the site)

These soils are limited in the main by wetness, with a few profiles in the west near Parchfield Farm being limited by droughtiness.

2. Introduction

- 2.1 The site was visited by the Resource Planning Team in April and May 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 the Land" (MAFF 1988).
- 2.2 The 61 ha site is situated to the north east of Rugeley at NGR SK 054 296. The survey was requested by Lichfield District Council in connection with an ad-hoc development for a golf course. This request for new survey data stems from the fact that there was only "Provisional ALC 1inch Grades 2, 3 and 4" (Sheet 120, 1962) available for the area.
- 2.3 At LUPU's request this was a "detailed grid survey" at 1:10000 with a minimum auger boring density of 1 per hectare. Supplementary borings to help *define grade boundaries* were used as necessary. It should be stressed that the attached map is only accurate at the base map scale, any enlargement would be misleading.
- 2.4 At the time of the survey the site was under permanent grazing, spring oilseed rape and cereals. Surrounding land was also predominantly in agricultural use.

3. Climate

- 3.1 "Climate has a major, and in places overriding influence on land quality irrespective of favourable soil or site conditions" (MAFF 1988) Therefore climate should be considered first.

- 3.2 We used "Metdata" computer programs to obtain climatic data for the site. These programs carry out the same functions as the LandIS climatic interpolations. The following information was obtained for the site:

Average Annual Rainfall (AAR)	733mm
Accumulated Temperature above 0°C January to June	1379 day °C
Field Capacity Days (FCD)	180 days
Moisture Deficit Wheat	93mm
Moisture Deficit Potatoes	80mm

- 3.3 From this information it can be established that there is no overall climatic limitation.

4. Site Limitations

- 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 There is no limitation imposed by site factors.

5. Geology and Soils

- 5.1 The solid geology of this site consists of Mercia Mudstone (Keuper Marl) and Bromsgrove Sandstone (BGS Sheet 140 1:50000 1982).
- 5.2 The solid geology is overlain in places with a drift geology consisting of Boulder Clay. Alluvium and First River Terrace deposits (BGS Sheet 140 1:50000 1982).
- 5.3 All of these factors have contributed to soils which are in the main clay rich, ie the Whimple and Brockhurst Series. However, there are some lighter soils in the Southern half of the site that are of a more sandier nature.

6. Agricultural Land Classification

- 6.1 Grade 2: This grade occupies 3.7 ha (5.7%) of the survey area. It is found in the southern part of the site, East of Parchfield Farm.
- 6.1.1. Typical profiles within this grade are of a medium clay loam/sandy clay loam topsoil over sandy loam, loamy sand, sandy loam and clay subsoil to depth. These profiles have few or no stones and are limited by a combination of the wetness class and topsoil texture.
- 6.1.2 It is of note that the day before a visit to this site the area had received a high amount of rainfall from a localised thunderstorm which induced erosion on a poorly managed field adjacent to the site. The net effect is that a small proportion of this grade was subject to the deposition of

eroded fine sediment. However, it was felt that this incident did not merit the downgrading of the profile itself.

6.2 Sub Grade 3a: This grade occupies 19.7 ha (30.6%) of the survey area. It is found in the centre and the south east of the site.

6.2.1 Profiles within this grade are of two types. Firstly there are the profiles in the centre of the site which are typified by clay loam topsoils over a gleyed subsoil consisting of sandy clay loam and clay to depth. Occasionally a sandy loam may be found instead of the clay lower subsoil. Topsoil stones are common in occurrence with subsoil stone becoming abundant in places. These profiles fall into Wetness Class II and III and are thus limited by wetness.

6.2.2 The second type of profile within this grade, which is located towards the South Eastern periphery of the site, is typified by a sandy clay loam or sandy loam topsoil over sandy clay loam and clay to depth. However, in some instances subsoils may be lighter with loamy sand and sand being found. These soils are limited by wetness.

6.3 Sub Grade 3b: this grade occupies 37.5 ha (58.4%) of the survey area. It is found throughout the site.

6.3.1 Typical profiles within this grade are of a medium clay loam topsoil with common stones over a gleyed subsoil of sandy clay loam and clay, which acts as a slowly permeable layer (SPL). The clay (an SPL) is encountered within 50cm of the surface and thus these soils fall into wetness class IV and are limited by wetness to this grade.

6.3.2 To the west of Parchfield Farm the soils within this grade are lighter and typified by a sandy loam topsoil with common stones over loamy sand and sand to depth. Subsoil stones may become abundant in quantity. Thus, these soils are limited by droughtiness.

6.4 Grade 4: This grade occupies 2.8 ha (4.3%) of the survey area. It is found in the North and East of the site.

6.4.1 Typical profiles within this grade are of a heavy clay loam topsoil over a clay subsoil which acts as an SPL within 50cm. Thus these soils fall into wetness class IV and are limited by wetness to this grade.

6.5 Woodland: This occupies 0.3 ha (0.5%) of the survey area. It is found in the North of the site.

6.6 Urban: This occupies 0.2 ha (0.3%) of the survey area. It is found as a hard surface near New Barn.

6.7 Summary of Agricultural Land Classification Grades

Grade	Area in hectares	% of survey area	% of agricultural area
2	3.7	5.7	5.8
3a	19.7	30.6	30.9
3b	37.5	58.4	58.9
4	2.8	4.3	4.4
Woodland	0.3	0.5	-
Urban	0.2	0.3	-
Open Water	0.1	0.2	-
TOTAL:	<u>64.3</u>	<u>100.0</u>	<u>100.0</u>

**Resource Planning Team
Wolverhampton
May 1993**