

AGRICULTURAL LAND CLASSIFICATION

Westwood New Road, Howbrook
Sheffield, S. Yorks

Proposed Golf Course

MAFF
Leeds Regional Office

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1. AGRICULTURAL LAND CLASSIFICATION

AGRICULTURAL LAND CLASSIFICATION REPORT

1.0 Introduction and Site Characteristics

1.1 Location

National Grid Reference:- SK 330 984
Location Details:- 3 km northwest of Chapelton on the A61
Site Size:- 37 hectares

1.2 Survey Methods

Date Surveyed:- 13 February 1992
Boring Density and Spacing Basis:- At 100m intervals on a grid pattern predetermined by the National Grid.
Sampling Method:- By hand auger borings to a depth of 1 metre.
Number of Borings:- 35

All land quality assessments were made using the methods described in "Agricultural Land Classification of England and Wales: Revised Guidelines and Criteria for grading the quality of agricultural land (MAFF 1988)"

1.3 Land Use:-

Most land is under cereal production with some areas of grassland and other arable crops.

1.4 Climate and Relief

Average Annual Rainfall (AAR):- 729 mm

Accumulated Temperature above
0°C (January-June):- 1308 day °C

Field Capacity Days:- 175 days

Altitude average:- 110 m a.o.d.

maximum:- 130 m a.o.d.

minimum:- 100 m a.o.d.

Climatic limitation (based on
interaction of rainfall and
temperature values Grade 2

Relief:- Gently undulating in an overall easterly
direction. Two small valleys run from
west to east across the site.

Slopes (°):- 0 - 13°

Limiting gradients:- Yes

Grades/subgrades:- 8° - 11° - subgrade 3b

12° - 13° - Grade 4

Occurrence on site:- 3b:- northeast part of site.

4:- northern side of the How Brook
valley near the A61

1.5 Geology and Soil

Solid Strata:-	Carboniferous Millstone Grit and Coal Measures consisting of interbedded shales and sandstones.
Depth of solid rock from surface:-	Generally more than 1m except in the north where soils overlie sandstone.
Soil Types and Distribution:-	Poorly drained medium over heavy stagnogley soils cover almost all of the site. Somewhat better drained slightly lighter soils occur along the north eastern edges of the site.
Soil Textures (topsoils and subsoils):-	Mainly medium clay loam topsoils over similar or heavier upper subsoils. Lower subsoils are commonly formed of clay or silty clay.
Soil Series/Associations:-	Dale
Soil Limitations and type:-	Heavy topsoil textures resulting in workability problems.

1.6 Drainage

Soil type and Wetness Class:-	Medium soils - Wetness Classes I - II Medium/heavy soils - Wetness classes III or IV.
Drainage Limitations:-	The heavier soils are usually slowly permeable at 30 - 50cm. The resulting poor drainage causes topsoil wetness and workability problems.

2.0 Agricultural Land Classification Grades

The ALC grades occurring on the site are as follows:-

<u>Grade/Subgrade</u>	<u>Hectares</u>	<u>Percentage of Agricultural Area</u>	<u>Percentage of Total Area</u>
1			
2	3.7	10.2	9.8
3a			
3b	32.1	88.2	85.2
4	0.6	1.6	1.6
5			
Non Agricultural	1.1		2.9
Agricultural Buildings	0.2		0.5
Urban			
Other			
Total	<u>37.7</u>	<u>100</u>	<u>100</u>

Grade 2

Distribution on site:-

Northern corner between Storrs Lane and West Wood.

Soil Types and Textures:-

Medium textured soils consisting of medium clay loam topsoils over similar subsoils sometimes passing to sandstone at depth.

Depth to Slowly Permeable Layers:-

None present.

Wetness and Drainage Class:-

Mainly Wetness Class I (well drained).

Stone Percentage and Type:-

5 - 8% medium soft sandstones.

Grade Limiting Factors:-

Slight soil droughtiness and overall climatic limitation.

Subgrade 3b

Distribution on site:-

Almost the whole area.

Soil Types and Textures:-

Medium over heavy soils consisting of medium clay loam topsoils over heavy clay loam, silty clay or clay subsoils. Somewhat lighter soils occur in parts of the How Brook valley.

Depth to Slowly Permeable Layers:-

Mainly Wetness Class IV - (poorly drained). Some Wetness Class III (imperfectly drained) profiles occur in places in the How Brook valley.

Stone Percentage and Type:-

0 - 5% medium soft sandstones.

Grade Limiting Factors:-

Soil Wetness and workability problems over most of this area. Also gradient limitations in some eastern parts of the site.

Grade 4

Distribution on site:-

A small area on the northern side of How Brook

Soil Types and Textures:-

Similar to adjoining land.

Grade Limiting Factors:-

Slopes of 13° which restrict the use of agricultural machinery.

Non Agricultural

Type and location of land included:-

Land along the banks of both streams and an area of scrub woodland in the north.

Agricultural Buildings

Type and location of building included:- Hollin Berry Farm in the south.

MAP