ADAS

FOOD, FARMING, LAND & LEISURE

AGRICULTURAL LAND CLASSIFICATION

Barrowby Hall and Swillington Common Farms, Garforth, West Yorkshire

Proposed Golf Course Development

ADAS
Leeds Statutory Centre

May 1992
File Ref: 2FCS 5876
Job No. 32/92

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AGRICULTURAL LAND CLASSIFICATION OF LAND AT BARROWBY HALL AND SWILLINGTON COMMON FARMS, GARFORTH, WEST YORKSHIRE.

1. Introduction

The site is centred on National Grid Reference SE 387332 and lies about 2km south-west of Garforth town centre. It covers a total of approximately 115 ha. Western parts of the site had been surveyed in June and July 1990 and in June 1991 as part of the corridors of interest for the proposed A1-M1 link road and the Seacroft and Cross Gates bypass respectively. The remainder of the site was surveyed in May 1992. Hand auger borings were made to a maximum depth of 1.20m at 100m intervals predetermined by the National Grid. Extra borings were made, where necessary, to refine grade boundaries. Two soil inspection pits were dug to allow the assessment of subsoil structure.

Land Use

Most of the site is in agricultural production. Although cereals are the main crop there are significant areas of potatoes and soft fruit (in the south) and ley grassland (in the centre of the site). There are also areas of farm woodland scattered throughout the site, areas of urban land (at Barrowby Hall and the access roads to Barrowby Hall and Bradbury Grange). Agricultural buildings are located at Barrowby Hall and Bradbury Grange and open water (two ponds) to the south of Barrowby Hall.

Climate and Relief

Average annual rainfall is approximately 687mm. Accumulated Temperature (January to June) is 1331 day °C and the site is at field capacity for 160 days in an average year. The temperature and rainfall figures indicate that there is no overall climatic limitation on ALC grade.

Geology, Soils and Drainage

The entire site is underlain by Carboniferous coal measures consisting of interbedded sandstones and shales. The soils across the site closely reflect the underlying geology with heavy-textured soils formed over the shales and light to medium-textured soils formed over the outcrops of sandstone. In general the heavy-textured soils are poorly drained (falling in Wetness Class IV) while the light-textured soils are well drained (falling in Wetness Class I).

2. Agricultural Land Classification

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

Grade/Subgrade	Area (ha)	Percentage of Agricultural Area	Percentage of Total Area
2	28.8	28.6	24.2
3a	24.2	24.1	20.3
3b	47.5	47.3	39.9
Farm Woodland	11.0	-	9.2
Non Agricultural Land	3.0	-	2.5
Agricultural Buildings	1.2	-	1.0
Urban	2.1	-	1.8
Open Water	1.2		1.0
TOTAL	119.0	100	100

Grade 2

Land in this grade occurs in four separate areas - three in the north of the site and one in the south-west. Typically soils consist of medium sandy loam or medium clay loam topsoils over loamy medium sand, medium sandy loam or medium clay loam subsoils. Heavy clay loam subsoils occur at depth especially in the south. In other parts of the site sandstone bedrock occurs in places at around 70cm depth. Profiles are generally well-drained or moderately well drained (Wetness Classes I and II) and slowly permeable layers are absent. Soils over sandstone are limited to Grade 2 by droughtiness, especially where subsoils are very light. Elsewhere gleying within 40cm of the soil surface indicates a slight soil wetness limitation.

Subgrade 3a

Subgrade 3a land occurs in five separate areas scattered throughout the site. In general the subgrade 3a land in the north consists of medium sandy loam topsoils overlying loamy medium sand subsoils. Sandstone bedrock often occurs at around 60cm depth. These soils are well-drained (falling in Wetness Class I) but restricted to subgrade 3a by a moderate droughtiness limitation. In the south the soils typically consist of medium clay loam topsoils overlying medium clay loam upper subsoils and heavy clay loam lower subsoils. Slowly permeable layers generally occur at depths of 50 to 60cm and soil wetness is thus the main factor limiting ALC grade.

Subgrade 3b

Subgrade 3b land covers much of the centre and south of the site. Most soils consist of medium clay loam or heavy clay loam topsoils overlying heavy clay loam, clay or silty clay subsoils. Profiles are poorly drained (falling in Wetness Class IV) and slowly permeable layers usually begin at around 35cm depth. Soil wetness and workability are thus the main factors limiting ALC grade on this land.

Farm Woodland

This is located in four separate areas across the centre of the site.

Non Agricultural Land

This occurs at Bradbury Grange (in the west), Barrowby Hall (in the north-east) and to the east and north-east of Brookfield Farm (in the south-eastern corner).

Agricultural Buildings

This includes the farmhouse and outbuildings at Bradbury Grange and the outbuildings at Barrowby Hall.

Urban

This consists of the house at Barrowby Hall and access roads to Barrowby Hall and Bradbury Grange.

Open Water

The two ponds lying to the south of Barrowby Hall are included within this category.

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