

AGRICULTURAL LAND CLASSIFICATION

GREYMOORHILL, CARLISLE
CARLISLE URBAN AREA LOCAL PLAN

ADAS
Leeds Regional Office

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1. Agricultural Land Classification

AGRICULTURAL LAND CLASSIFICATION REPORT
ON LAND AT GREYMOORHILL, CARLISLE

1. INTRODUCTION AND SITE CHARACTERISTICS

1.1 Location

The site lies about 4 km north of Carlisle City Centre around National Grid Reference NY 397595 adjoining Junction 44 of the M6 motorway. It covers a total of 17.3 ha, all of which is in agricultural use.

1.2 Survey Methods

Survey work was carried out in April 1990 when soils were examined by hand auger borings at a rate of one boring per hectare at evenly spaced points predetermined by the National Grid. Soil profile pits were also dug where necessary to assess soil structural characteristics and stone content. 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

The western and northern fields are in grassland use. The two large fields on the eastern side of the site have been cultivated and drilled (late April 1990) with a spring cereal crop.

1.4 CLIMATE

Average annual rainfall at Greymoorhill is 851 mm. Accumulated temperature above 0°C between January and June is 1349 day°C and the land is at field capacity for about 214 days a year. The above combination of rainfall and temperature figures indicate that there is an overall climatic restriction on ALC of Grade 2.

1.5 RELIEF

The site is gently undulating at a mean altitude of about 30 m above ordnance datum and there are no slopes steep enough to restrict the use of agricultural machinery or affect ALC grade.

1.6 DRAINAGE

Soils in the slightly lower central part of the site are slowly permeable between 40-50 cm depth and fall within Wetness Class IV (poorly drained). On the higher ground at the northern and southern extremities drainage is somewhat better and here most soils are placed in Wetness Class III.

1.7 SOILS AND GEOLOGY

Soils are developed on fine loamy boulder clay which forms a thick cover over the underlying red Triassic mudstones.

Typical profiles over most of the site consist of medium clay loam topsoils about 30 cm in thickness over similar or slightly heavier upper subsoils which pass into reddish, slowly permeable heavy clay loam or clay between 35 cm and 50 cm depth.

On the higher ground at the northern and southern edges of the site soils are often lighter and consist of fine or medium sandy loam topsoils around 35 cm in thickness over medium sandy loam upper subsoils. Lower subsoils, below about 60 cm depth, are variable and, although typically of heavy clay loam, can be formed of anything from sand to clay.

Although soils throughout the site are slightly stony, stone content is never high enough to restrict ALC grade.

2. AGRICULTURAL LAND CLASSIFICATION GRADES

Subgrade 3a (5.9 ha, 34.1% of the site)

This subgrade is restricted to the northern and southern ends of the site. Soils consist of fine or medium sandy loam top and upper subsoils which pass into heavy clay loam below about 60 cm depth. They are limited to subgrade 3a by slight wetness problems.

Subgrade 3b (11.3 ha, 65.3% of the site)

Subgrade 3b land occurs throughout the central part of the site. Soils consist of medium clay loam topsoils over similar upper subsoils which pass into reddish heavy clay loam at depth. Most profiles are slowly permeable at between 35 and 50 cm depth and, as a result, are poorly drained (Wetness Class IV). The main limitations restricting this area to subgrade 3b are soil wetness and workability problems.

Resource Planning Group
Leeds Regional Office
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MAP