

AGRICULTURAL LAND CLASSIFICATION

GLEBE FARM, BARTON-ON-HUMBER  
SOUTH HUMBERSIDE  
Proposed Industrial Development

MAFF  
Leeds Regional Office

January 1992  
File Ref: 2FCS 5712  
Project No: 137/91

lds.AL5.Glebe.frm

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AGRICULTURAL LAND CLASSIFICATION REPORT ON LAND AT:  
GLEBE FARM, BARTON-ON-HUMBER, SOUTH HUMBERSIDE

1. INTRODUCTION AND SITE CHARACTERISTICS

1.1 The site is located around National Grid Reference TA 048 222 and lies 1½ km east of the town of Barton-On-Humber. It covers a total of 70ha, all of which is arable land. Survey work was carried out in January 1992 when soils were examined by hand auger borings to a depth of 1.00m at 100m intervals predetermined by the National Grid. Further borings were made where necessary to refine grade boundaries.

1.2 Climate and Relief

Average Annual Rainfall is approximately 635mm. The accumulated temperature above 0°C (January to June) is 1,395 day °C and the site is at field capacity for 138 days a year. The temperature and rainfall figures indicate that there is no overall climatic limitation on ALC grade on the site.

Altitude ranges from 21m in the south to 3m in the north. Slopes are gentle to occasionally moderate (0-5°).

1.3 Geology, Soils and Drainage

The entire site is underlain by chalk over which there is a thick cover of drift deposits. These consist of clayey estuarine alluvium along the low lying northern edge passing to medium textured boulder clay and sandy drift on the higher ground to the south. Although chalk and flint stones are common in places on the higher land, solid chalk does not occur within 1m of the surface. The alluvial soils consist of stoneless, non-calcareous, heavy silty clay loam topsoils over gleyed slowly permeable silty clay subsoils, all of which are poorly drained and fall within Wetness Class IV. On the higher ground soils vary from medium clay topsoils over similar or heavier subsoils to medium sandy loam topsoils over loamy sand subsoils. Drainage varies from well drained (Wetness Class I) on the lighter soils to imperfectly drained (Wetness Class III) on the boulder clays.

## 2. AGRICULTURAL LAND CLASSIFICATION

### Grade 2 (24.68ha or 35.05% of the site area)

Land in this grade covers the western and central parts of the site. Topsoils generally consist of fine sandy loam, medium sandy loam or medium clay loam and overlie upper subsoils of medium sandy loam, medium clay loam or sandy clay loam. Heavier-textured lower subsoils (usually heavy clay loams) occur in places at depths of 70cm to 80cm. The soils are very slightly stony, well to moderately well drained (falling in Wetness Classes I and II) and no slowly permeable layers occur. Slight soil wetness and soil droughtiness are the main factors limiting ALC grade on these soils.

### Subgrade 3a (34.40ha or 48.85% of the site area)

Land in this subgrade covers the north, central and south-eastern parts of the site and is divided into two separate areas. In most places topsoils consist of non-calcareous medium-textured soils (usually medium clay loam or sandy clay loam) and generally overlie heavy-textured subsoils (often heavy clay loam) at depths of around 45cm. These soils are imperfectly drained and fall in Wetness Class III. Slowly permeable layers generally start at around 45cm depth and soil wetness is the main factor limiting ALC grade. Lighter soils consisting of loamy medium sand topsoils over similar subsoils also occur in a few places, especially to the west of Glebe Farm. Profiles of this type are well drained (wetness class I) and limited to subgrade 3a by droughtiness.

**Subgrade 3b (11.54ha or 16.39% of the site area)**

Subgrade 3b land occurs along the northern edge of the site. Topsoils are medium to heavy-textured (ranging from medium silty clay loam to silty clay) and non-calcareous. They overlie heavy-textured subsoils heavy silty clay loam, clay or silty clay) and slowly permeable layers begin at depths of 30-35cm. Most profiles are poorly drained, falling in Wetness IV. Soil wetness and workability problem are thus, the main limiting factors on ALC grade.

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January 1992

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