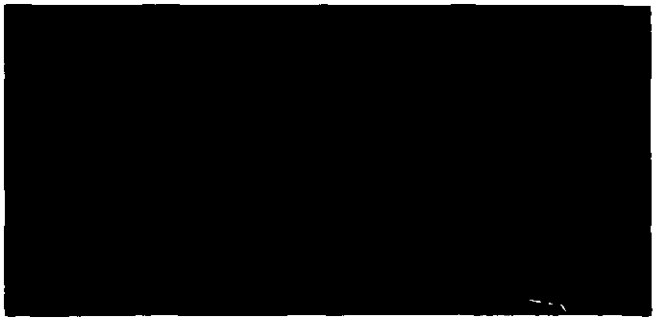

MAFF Ministry of Agriculture Fisheries and Food

AGRICULTURAL LAND CLASSIFICATION
HULL CITY PLAN
HUMBERSIDE
AUGUST 1994

ADAS
Leeds Statutory Group

Job No:- 76/94
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SUMMARY

A semi-detailed Agricultural Land Classification survey of 504 ha of land north of Kingston-upon-Hull was carried out in July and August 1994.

At the time of survey 460 ha of land was in agricultural use of which 56 ha falls in Subgrade 3a. Profiles vary between well drained (Wetness Class I) and poorly drained (Wetness Class IV) although most are moderately well or imperfectly drained (falling in Wetness Classes II and III). Typically non-calcareous light, medium or heavy-textured topsoils overlie similarly-textured subsoils. Where present slowly permeable layers begin at between 40 cm and 65 cm depth and soil wetness and topsoil workability limitations restrict the land to Subgrade 3a.

The remainder of the agricultural land surveyed (383 ha) falls in Subgrade 3b. The soils are imperfectly or poorly drained with non-calcareous heavy-textured topsoils overlying gleyed and slowly permeable heavy-textured subsoils at between 20 cm and 40 cm depth. An area of restored land on the site of a rubbish tip south of High Bransholme also falls in Subgrade 3b. Soil textures are similar to those found on the undisturbed land but domestic rubbish and debris is found in both the topsoil and subsoil. In both cases the land is restricted to Subgrade 3b by soil wetness and topsoil workability limitations. The remainder of the site consists of Non Agricultural land (41 ha), Urban land (0.5 ha), Woodland (2 ha) and land not surveyed (21 ha).

CONTENTS

MAPS

AGRICULTURAL LAND CLASSIFICATION REPORT ON LAND FOR HULL CITY PLAN

1. INTRODUCTION AND SITE CHARACTERISTICS

1.1 Location and Survey Methods

A semi-detailed Agricultural Land Classification survey of two blocks of land to the north of Kingston-upon-Hull was carried out in July and August 1994 when soils were examined by hand auger borings at points predetermined by the National Grid, at a density of one boring per two hectares. One of the sites is centred on a Grid Reference TA 085 350 and lies approximately 6 km north of Hull city centre, while the other is centred on Grid Reference TA 113 349 and lies approximately 6km north - north-east of the city centre. In the case of the latter, 15 ha of land in the south-west, at East Carr, had been the subject of a detailed ALC survey in early July 1994 in relation to an ad-hoc planning application. A total of six soil pits were dug to allow the assessment of subsoil structure and to allow samples to be taken for laboratory analysis. Land quality was assessed 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).

1.2 Land Use and Relief

At the time of survey most of the agricultural land surveyed was in arable use (principally cereals and oilseed rape) with smaller areas of ley and permanent grass and set-aside. A total of 41.3 ha of Non Agricultural land to the north of Bransholme Road and at South Field, 2.0 ha of Woodland and 0.5 ha of Urban land make up the remainder of the area surveyed. Site altitude varies between 1m and 11m AOD and the land is level to gently sloping (0-2°) with variable aspect.

1.3 Climate

There is virtually no difference in climate over the area surveyed so one Grid Reference point was used to obtain the relevant data.

Grid Reference	: TA 113 349
Altitude (m)	: 2
Accumulated Temperature above 0°C (January - June)	: 1397 day °C
Average Annual Rainfall (mm)	: 636
Climatic Grade	: 1
Field Capacity Days	: 140
Moisture Deficit (mm) Wheat	: 110
Moisture Deficit (mm) Potatoes	: 102

1.4 Geology, Soils and Drainage

The area is underlain by deposits of Cretaceous Chalk which are covered by deep deposits of marine alluvium or, in places, by boulder clay.

In most cases the soils are imperfectly or poorly drained(Wetness Classes III and IV) with non-calcareous heavy textured topsoils overlying gleyed and slowly permeable heavy-textured subsoils. Where deposits of boulder clay occur the soils are more variable, with profiles ranging from well drained (Wetness Class I) to poorly drained (Wetness Class IV). Typically non-calcareous medium sandy loam, medium clay loam or heavy silty clay loam topsoils overlie subsoils which range in texture from sandy loam through sandy clay loam to clay.

The soils on this site correspond to the Wallasea 2 and Holderness Associations as mapped by the Soil Survey and Land Research Centre.

2. AGRICULTURAL LAND CLASSIFICATION

The ALC grades occurring on this site are as follows:

Grade/Subgrade	Hectares	Percentage of Total Area
1		
2		
3a	56.1	11.1
3b	383.4	76.1
4		
5		
(Sub total)	(439.5)	(87.2)
Urban	0.5	0.1
Non Agricultural	41.3	8.2
Woodland	2.0	0.4
Agricultural Buildings		
Open Water		
Land not surveyed	20.8	4.1
(Sub total)	(64.6)	(12.8)
TOTAL	504.1	100

A breakdown of the ALC grades on each of the two blocks surveyed is given with the maps at the end of this report.

2.1 Subgrade 3a

Three areas of Subgrade 3a land occur. Profiles are typically moderately well or imperfectly drained, falling in Wetness Classes II and III. In most cases non-calcareous sandy loam, medium clay loam or heavy silty clay loam topsoils overlie subsoil horizons which vary in texture from sandy loam, sandy clay loam and medium clay loam to heavy clay loam and clay. Profiles are generally gleyed at between 25 cm and 50 cm depth and slowly permeable layers begin at between 40 cm and 65 cm depth where present. This land is limited to Subgrade 3a by soil wetness and topsoil workability limitations.

2.2 Subgrade 3b

Most of the agricultural land surveyed falls in Subgrade 3b. Profiles are typically imperfectly or, more frequently, poorly drained, falling in Wetness Classes III or IV. In most cases non-calcareous heavy-textured topsoils (heavy clay loam, heavy silty clay loam, or silty clay) overlie similarly textured gleyed and slowly permeable subsoils at between 20 cm and 40 cm depth. The ALC grade of the land is therefore limited by topsoil workability limitations and by soil wetness.

To the south of High Bransholme an area of restored land also falls in Subgrade 3b. Profiles are also poorly drained in most cases (falling in Wetness Class IV) with medium silty clay loam, heavy silty clay loam or heavy clay loam topsoils (some of which are calcareous) overlying medium or heavy silty clay loam, heavy clay loam or silty clay subsoils. In most places the subsoils are gleyed and slowly permeable below about 20 cm depth and domestic rubbish occurs in both the topsoil and subsoil. Again, soil wetness and topsoil workability limitations restrict the land to Subgrade 3b.

2.3 Urban

A school at South Field falls within this category.

2.4 Non Agricultural

An area of disused tip north of Bransholme Road and land/playing fields associated with the school at South Field have been mapped as Non Agricultural land.

2.5 Woodland

A block of woodland occurs at Ings Plantation.

2.6 Land not surveyed

Two areas of land, under beans and oilseed rape at the time of survey, were left unsurveyed at the request of the tenants.

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MAPS