AGRICULTURAL LAND CLASSIFICATION
ROTHERHAM UNITARY DEVELOPMENT PLAN
SITE H49, SUNNYSIDE, DALTON
MARCH 1993

ADAS
Leeds Statutory Group

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SUMMARY

An Agricultural Land Classification survey of approximately 30ha of land at Sunnyside, Dalton was carried out in March 1993. 29.5ha of this land was in agricultural use of which 4.8ha falls within Subgrade 3a. Soils in this subgrade are either well drained (Wetness Class I), consisting of medium clay loam or medium sandy loam topsoils over medium sandy loam upper subsoils and loamy medium sand lower subsoil or, are imperfectly drained (Wetness Class III) and consist of medium clay loam topsoils over medium to heavy silty clay loam upper subsoils and slowly permeable heavy silty clay loam lower subsoils. The well drained soils are limited to Subgrade 3a by droughtiness; the imperfectly drained profiles are limited by soil wetness.

Subgrade 3b land covers 24.2ha. Soils in this subgrade are generally poorly drained (Wetness Class IV) and consist of medium clay loam topsoils over slowly permeable heavy clay loam or clay subsoils. These soils are limited to Subgrade 3b by wetness. Within the Subgrade 3b land are some well drained, (Wetness Class I) areas. Profiles consist of medium sandy loam topsoils over medium sand subsoils. This land is limited to Subgrade 3b by droughtiness.

Grade 4 land covers 0.5ha. Soils in this grade are well drained but disturbed and consist of medium sandy loam topsoil over very thin medium sand subsoils and overburden. This land is limited to Grade 3 by severe droughtiness.

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1. INTRODUCTION AND SITE CHARACTERISTICS

1. Location and Survey Methods

The site lies 5km east of Rotherham on the northern edge of Sunnyside around National Grid Reference SK 476933. Survey work was carried out in March 1993 when soils were examined by hand auger borings at a density of one boring per hectare at points predetermined by the National Grid. Land quality was assessed using the methods described in "Agricultural Land Classification of England and Wales: Revised criteria for grading the quality of agricultural land." (MAFF 1988).

1.2 Land Use and Relief

At the time of survey 97% of the site was in agricultural production, most of which was arable use. The remainder consists of farm buildings and urban land. Site altitude varies from 110m to 130m AOD. Most of the land is gently to moderately sloping. There are some small areas of strongly sloping land.

1.3 Climate

Grid Reference	: SK 476933
Altitude (m)	: 125
Accumulated Temperature above 0°C (January-June)	: 1289
Average Annual Rainfall (mm)	: 673
Climatic Grade	: 2
Field Capacity Days	: 139
Moisture Deficit (mm) Wheat	: 97
Moisture Deficit (mm) Potatoes	: 84

1.4 Geology, Soils and Drainage

The site is underlain by coal measures consisting of interbedded sandstones and shales. There is no drift cover and soils are formed on weathering solid strata. Over most of the site soils consist of very slightly stony medium clay loam topsoils over poorly drained (Wetness Class IV) slowly permeable heavy clay loam or clay subsoils. Where soils are formed over sandstone profiles consist of medium sandy loam or loamy medium sand topsoils over well drained (Wetness Class I) loamy medium sand or medium sand subsoils.

2. AGRICULTURAL LAND CLASSIFICATION

The ALC grades occurring on this site are as follows:

Grade/Subgrade	Hectares	Percentage of Total Area
1		
2		
3a	4.8	15.8
3b	24.2	79.9
4	0.5	1.7
5		
(Sub total)	(29.5)	(97.4)
Urban	0.3	0.9
Non Agricultural		
Woodland - Farm		
- Commercial		
Agricultural Buildings	0.5	1.7
Open Water		
Land not surveyed		
(Sub total)	(0.8)	(2.6)
TOTAL	30.3	100

2.1 Subgrade 3a

Subgrade 3a land occurs on the northern and southern edges of the site. In the north soils consist of medium clay loam topsoils over medium to heavy silty clay loam upper subsoils and slowly permeable heavy silty clay loam or clay lower subsoils. These profiles are imperfectly drained (Wetness Class III) and are limited to Subgrade 3a by soil wetness. In the south, profiles generally consist of medium clay loam or medium sandy loam topsoils over medium sandy loam upper subsoils and loamy medium sand lower subsoils. The soils are drained (Wetness Class I) and are limited to Subgrade 3a by droughtiness.

2.2 Subgrade 3b

Most of the agricultural land on the site falls within this subgrade. Most soils consist of medium clay loam topsoils over slowly permeable heavy clay loam. Profiles are poorly drained (Wetness Class IV) and are limited to Subgrade 3b by soil wetness. There are some isolated areas of well drained (Wetness Class I) land in this area. Within these patches soils consist of medium sandy loam topsoils over medium sand subsoils and sandstone bedrock. They are limited to Subgrade 3b by severe droughtiness.

2.3 Grade 4

Grade 4 land occurs in a small area west of Woodlaithes Farm. This land has been disturbed. Profiles consist of medium sandy loam topsoils over very thin (30cm) medium sand subsoils and overburden. This land is limited to Grade 4 by very severe droughtiness.

2.4 Urban

This includes a house and some derelict urban land adjacent to Woodlaithes Farm.

2.5 Agricultural Buildings

This consists of Woodlaithes Farm.

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