

AGRICULTURAL LAND CLASSIFICATION
BOROUGHBRIDGE (SITE C)
NORTH YORKSHIRE
PROPOSED A1(M) MOTORWAY
SERVICE FACILITIES
AUGUST 1993

ADAS
Leeds Statutory Group

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SUMMARY

An Agricultural Land Classification survey of 11.5ha of land south of Boroughbridge was carried out in August 1993.

8.1ha of this is Grade 2 land. Soil profiles generally consist of fine sandy loamy or fine sandy silt loam topsoils over fine sandy loam, medium sandy loam or loamy fine sand subsoils, passing to sandy clay loam at depth. Soil profiles are well drained to moderately well drained (Wetness Classes I to II) and this land is limited to Grade 2 by slight soil wetness and pattern restrictions.

Subgrade 3a land covers 2.8ha. Soils are generally medium textured with medium silty clay loam or sandy clay loam topsoils over medium clay loam or sandy clay loam subsoils which become slowly permeable at between 40 and 70cm depth. These soils are imperfectly drained (Wetness Class III) and the land is limited to Subgrade 3a by soil wetness.

The remaining agricultural land on the site (0.4ha) falls within Subgrade 3b. Medium clay loam topsoils overlie heavy clay loam subsoils which are slowly permeable within 40cm of the soil surface. Soil profiles are poorly drained (Wetness Class IV) and the land is restricted to Subgrade 3b by a more severe wetness limitation.

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(SITE C): PROPOSED A1(M) MOTORWAY SERVICE FACILITIES

1. INTRODUCTION AND SITE CHARACTERISTICS

1.1 Location and Survey Methods

The site is located approximately 1km south of Boroughbridge, to the east of the A1(T) and is centred around National Grid Reference SE 397653. Survey work was carried out in August 1993 when soils were examined by hand auger borings at a density of one per hectare at points predetermined by the National Grid. Two soil profile pits were dug to validate soil stone content and subsoil structure. 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 the survey 98.3% of the site was in agricultural use, mostly as permanent pasture; the remainder consists of agricultural buildings. The site is predominantly level to gently sloping, with moderately sloping land in the south. Altitude ranges between 30 and 40m AOD.

1.3 Climate

Grid Reference	: SE 397653
Altitude (m)	: 35
Accumulated Temperature above 0°C (January-June)	: 1356 day°C
Average Annual Rainfall (mm)	: 645
Climate Grade	: 1
Field Capacity Days	: 150
Moisture Deficit (mm) Wheat	: 102
Moisture Deficit (mm) Potatoes	: 92

1.4 Geology, Soils and Drainage

The site is underlain by Bunter sandstone over which there is a thick covering of glacio-fluvial drift. Soils generally consist of very slightly stony, light textured topsoils (typically fine sandy loams or fine sandy silt loams) over very slightly stony, light or very light textured subsoils (fine sandy loams, medium sandy loams or loamy fine sands), passing to sandy clay loam at depth. Slowly permeable layers, where they occur, generally lie below 50cm depth. These soils are generally well to moderately well drained, falling within Wetness Classes I or II. The soils become heavier textured towards the south-east of the site, with medium clay loam, medium silty clay loam or sandy clay loam topsoils overlying medium clay loam, sandy clay loam or heavy clay loam subsoils. Slowly permeable layers begin at between 35 and 70cm depth and these soils are imperfectly to poorly drained, falling within Wetness Classes III or IV.

2. AGRICULTURAL LAND CLASSIFICATION

The ALC grades occurring on this site are as follows:

<u>Grade/Subgrade</u>	<u>Hectares</u>	<u>Percentage of Total Area</u>
1		
2	8.1	70.5
3a	2.8	24.4
3b	0.4	3.4
4		
5		
(Sub total)	(11.3)	(98.3)
Urban		
Non Agricultural		
Woodland - Farm		
- Commercial		
Agricultural Buildings	0.2	1.7
Open Water		
Land not surveyed		
(Sub total)	(0.2)	(1.7)
TOTAL	<hr/> 11.5 <hr/>	<hr/> 100 <hr/>

2.1 Grade 2

Most of the agricultural land on the site falls within Grade 2. Profiles consist of very slightly stony light textured topsoils (typically fine sandy loam or sandy silt loam) over very slightly stony fine sandy loam, medium sandy loam or loamy fine sand subsoils, passing to sandy clay loam at depth. Soil profiles are generally well to moderately well drained (falling in Wetness Classes I and II) but are imperfectly drained (Wetness Class III) where slowly permeable layers begin within 40 to 70cm depth. This land is limited to Grade 2 by slight soil wetness and pattern limitations.

2.2 Subgrade 3a

Subgrade 3a land lies on the south-east of the site. Soils are typically medium textured with medium silty clay loam or sandy clay loam topsoils overlying medium clay loam or sandy clay loam subsoils which become slowly permeable at between 40 and 70cm depth. These soils are imperfectly drained (Wetness Class III) and the land is limited to Subgrade 3a by soil wetness.

2.3 Subgrade 3b

A small area of Subgrade 3b land lies in the south-east of the site. Soil profiles consist of medium clay loam topsoils over heavy clay loam subsoils which are slowly permeable within 40cm of the soil surface. The soil is poorly drained (falling in Wetness Class IV) and the land is limited to Subgrade 3b by severe soil wetness.

2.4 Agricultural Buildings

This refers to Stump Cross Farm in the north of the site.

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