

AGRICULTURAL LAND CLASSIFICATION

SEDFIELD LOCAL PLAN

NORTH CHILTON

COUNTY DURHAM

SEPTEMBER 1992

ADAS

LEEDS STATUTORY GROUP

Ref: 90/12

MAFF File:-

NCHILTON.ALC/MP

SEDFIELD LOCAL PLAN  
NORTH CHILTON

SUMMARY

Land covering an area of 23ha was surveyed at Chilton. 86% of this is in agricultural use of which approximately 8ha has been classified as Subgrade 3a and 12ha as Subgrade 3b.

Subgrade 3a land occurs in the south and centre of the site. Typically it contains medium clay loam topsoils over either heavy clay loam or loamy sand subsoils. The main limiting factors are soil wetness on the heavy subsoils and droughtiness where subsoils are light.

Subgrade 3b land is widespread elsewhere on the site. Soils consist mainly of medium clay loam topsoils over clay subsoils which are limited to Subgrade 3b by wetness.

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1. AGRICULTURAL LAND CLASSIFICATION

## 1. INTRODUCTION AND SITE CHARACTERISTICS

The site at North Chilton is located around Grid Reference NZ.285 304, immediately to the west of the A167(T), north of Chilton. It covers an area of approximately 23ha, most of which is in agricultural use.

Survey work was carried out in September 1992 when soils were examined by hand auger borings at 100m intervals predetermined by the national grid. Land quality was assessed using methods described in "Agricultural Land Classification of England and Wales, Revised guidelines for assessing the quality of agricultural land" (MAFF, 1988).

### Climate

Grid Reference	NZ 285 304
Altitude	120m
Accumulated Temperature above 0°C (January-June)	1239°C
Average Annual Rainfall (mm)	684
Climatic Grade	2
Field Capacity Days	175
Moisture Deficit (mm) Wheat	86
Moisture Deficit (mm) Potatoes	71

### Land Use and Relief

At the time of the survey all of the land was in agricultural production with the exception of a small area of non agricultural land and urban land (consisting of a petrol station and the A167(T) road). Most of the agricultural land was under oilseed rape or cereal stubble except for the southern most field which was under permanent pasture. The site is flat to gently sloping with a southerly aspect.

## Geology and Soils

Soils are formed on boulder clay overlying Magnesian limestone. In places the limestone occurs within 60cm of the soil surface.

Topsoils overall consist of medium clay loam. Subsoils, in a band running west from the petrol station, range between sandy clay loam and loamy medium sand. Elsewhere they consist of heavy clay loam or clay. Profiles vary between well drained on the light subsoils and poorly drained on the heavy clay loam and clay. (Wetness classes I to 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 Land</u>
3a	7.94	34.4
3b	12.01	52.0
Sub Total	(19.95)	(86.4)
Non Agricultural	0.26	1.1
Urban	2.89	12.5
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TOTAL	23.1	100%
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Subgrade 3a

Land in this subgrade occurs in two bands in the centre and the south of the site. Soils consist of medium clay loam topsoils over well drained (Wetness Class I) loamy medium sand to sandy clay loam subsoils at the western edge of the site and imperfectly drained (Wetness Class III) heavy clay loam subsoils elsewhere. Profiles with light subsoils are limited to Subgrade 3a by droughtiness. Those with heavier subsoils are limited to this subgrade by wetness.

Subgrade 3b

Land in this sub grade occurs widely across the site. Medium clay loam topsoils overlie heavy clay loam or clay subsoils. Profiles are gleyed, slowly permeable and poorly drained (Wetness Class IV) and limited to subgrade 3b by soil wetness.

Non Agricultural Land

This consists of a small wooded area alongside the A167(T).

Urban

This includes the A167(T) road and a petrol station on the eastern edge of the site.

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