



Ministry of  
Agriculture  
Fisheries  
and Food

AGRICULTURAL LAND CLASSIFICATION  
DARLINGTON LOCAL PLAN  
GRANGE ROAD  
JANUARY 1993

ADAS  
Leeds Statutory Group

Job No:- /9  
MAFF Ref:-

2 FCS 6310

grange.alc.mp

## SUMMARY

An Agricultural Land Classification survey of approximately 26ha of land at Grange Road, Darlington was carried out in January 1993. .

25.0 ha of this was in agricultural use of which 4.2ha falls within Grade 2. Soils on this land are well to moderately well drained (Wetness Classes I and II) and consist of medium sandy loam topsoils over sandy clay loam subsoils which are slowly permeable at depth. Soils are limited to Grade 2 by slight summer droughtiness and winter wetness.

Subgrade 3a land covers 10.6ha. Soils are well to imperfectly drained (Wetness Class I to III) with medium clay loam topsoils over both permeable and impermeable sandy clay loam and/or heavy clay loam subsoils. This land is limited to Subgrade 3a by a combination of wetness, slight droughtiness and variability which will cause management difficulties.

Subgrade 3b land (10.2ha) covers the central and south eastern parts of the site. Soils are poorly drained (Wetness Class IV) and consist of medium clay loam topsoils over slowly permeable heavy clay loam subsoils. They are limited to Subgrade 3b by wetness and workability problems.

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1. AGRICULTURAL LAND CLASSIFICATION

AGRICULTURAL LAND CLASSIFICATION REPORT: DARLINGTON LOCAL PLAN, GRANGE ROAD

1. INTRODUCTION AND SITE CHARACTERISTICS

1.1 Location and Survey Methods.

The site lies 2 Km south of Darlington town centre adjacent to the A66 and is centred on Grid Reference NZ 284127. Survey work was carried out in January 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 guidelines and criteria for grading the quality of agricultural land. (MAFF 1988).

1.2 Land Use and Relief

At the time of the survey 97% of the site was in permanent pasture or arable production.

Site altitude varies from 35m AOD to 43m AOD and the land varies from level to moderately sloping (0-4°).

1.3 Climate

Grid Reference	:	NZ 284127
Altitude (m)	:	40
Accumulated Temperature above 0°C (January-June)	:	1338 Day°C
Average Annual Rainfall (mm)	:	622
Climatic Grade	:	1
Field Capacity Days	:	153
Moisture Deficit (mm) Wheat	:	101
Moisture Deficit (mm) Potatoes	:	90

#### 1.4 Geology, Soils and Drainage

The area is underlain by Permian Marls. Drift cover is complex with boulder clay, undifferentiated drift, alluvium, river terrace drift and glacial sand and gravel covering different parts of the site. Consequently soils vary from poorly drained (Wetness Class IV) medium clay loam topsoils over heavy clay loam subsoils on the boulder clay to well drained (Wetness Class I) medium clay loams over gravel or deep medium sandy loam topsoils and subsoils on the lighter drift deposits.

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	4.2	16.5
3a	10.6	44.4
3b	10.2	39.8
4		
5		
(Sub total)	(25.0)	(97.7)
Urban		
Non Agricultural	0.6	2.3
Woodland - Farm		
- Commercial		
Agricultural Buildings		
Open Water		
Land not surveyed		
(Sub total)	(0.6)	(2.3)
	_____	_____
TOTAL	25.6	100
	_____	_____

## 2.1 Grade 2

Land in this grade occurs in the north of the site. The northern most part of this area consists of unmottled stoneless medium sandy loams over well drained (Wetness Class I) unmottled sandy clay loam subsoils. Further south profiles consist of unmottled stoneless medium sandy loams over moderately well drained (Wetness Class II) stoneless mottled sandy clay loam subsoils with a slowly permeable layer starting at or below 70cm. Soils throughout the Grade 2 area are limited to this grade by either slight droughtiness or wetness.

## 2.2 Grade 3a

Land in this subgrade occurs in the north east and south west of the site. Topsoils in both areas consist of unmottled stoneless or very slightly stony medium clay loam. Subsoils in the north east consist of very slightly to moderately stony unmottled well drained (Wetness Class I) medium clay loam over impenetrable gravel at or below 50cm. A small area near the river consists of stoneless unmottled medium clay loam over strongly mottled imperfectly drained (Wetness Class III) heavy clay loam which is slowly permeable at or below 50cm. Subsoils in the south west area are variable and consist of either unmottled stoneless or very slightly stony well drained (Wetness Class I) sandy clay loam or imperfectly drained (Wetness Class III) stoneless strongly mottled heavy clay loam which is slowly permeable, at or below 45cm. Some patches of medium sand over impenetrable stone at or below 60cm also occur.

Soils are limited to Subgrade 3a by wetness, occasional droughtiness and problems of soil variability.

## 2.3 Subgrade 3b

Land in this subgrade occurs in a small band in the west of the site and over the whole central and south eastern parts of the site. Topsoils consist of stoneless to very slightly stony medium clay loam and overlies gleyed poorly drained (Wetness Class IV) slowly permeable (at or below 35cm) heavy clay loam subsoils. Profiles of this type are limited to Subgrade 3b by wetness and workability problems.



2.4 Urban

This consists of roads around the edge of the site.

2.5 Non Agricultural

Non agricultural land in the south east corner of the site consists of a small area of rough land containing pipe lines.

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MAP