

AGRICULTURAL LAND CLASSIFICATION

NEWCASTLE-UPON-TYNE UNITARY  
DEVELOPMENT PLAN  
ZONE 2

MAFF  
Leeds Regional Office

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CONTENTS

1. Introduction and Site Characteristics
2. Agricultural Land Classification

MAP

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## AGRICULTURAL LAND CLASSIFICATION

### NEWCASTLE UPON TYNE UNITARY DEVELOPMENT PLAN - ZONE 2

#### 1. INTRODUCTION AND SITE CHARACTERISTICS

1.1 The site (Grid Reference: N2235705 is located about 5½ km north, north east of Newcastle city centre adjoining the northern end of the western bypass. It covers a total of 56.8 ha.

#### 1.2 Survey methods

Survey work was carried out in March 1990 when soils were examined by hand auger borings at points predetermined by the National Grid. The density of borings was one per hectare. In addition two soil profile pits were dug to collect further information on soil characteristics.

1.3 Land use: Except for an area of grassland immediately south of East Brunton Farm, all the agricultural land is in arable use.

#### 1.4 Climate

Salient climatic parameters in the area are as follows:-

Average Annual Rainfall (mm)	680
Accumulated Temperature above 0°C (Jan-June)	1291
Field Capacity Days	172
Moisture deficit:- wheat (mm)	89
potatoes (mm)	75

These factors impose an overall climatic limitation of Grade 2 across the whole site.

#### 1.5 Relief

The land is gently sloping at an average altitude of about 55 m aod.

## 1.6 Geology Soils and Drainage

Soils are all formed on heavy to light textured glacial and post glacial drift deposits. Topsoils range from medium sandy loam to medium or heavy clay loam. Subsoils display a similar range of textures with slowly permeable layers at between 25 cm and 80 cm depth (Wetness Classes II to IV). The deeper light textured soils are not slowly permeable but are usually gleyed and fall within Wetness Classes I or II.

## 2. Agricultural Land Classification Grades

Grade	Hectares	Percentage of Total Site Area
2	5.8	10.2
3a	20.1	35.4
3b	27.9	49.1
4	0.1	0.2
Non Agricultural	1.3	2.3
Farm Buildings	1.6	2.8
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TOTAL	56.8	100

### Grade 2

A small strip of grade 2 land occurs on well drained soils at the southern end of the site. Both topsoils and subsoils consist of medium or fine sandy loam. The lower subsoil is usually mottled but never slowly permeable (Wetness Class I or II). This slight soil Wetness limitation in addition to the overall climatic limitation prevent this land being placed any higher than Grade 2.

### Subgrade 3a

Subgrade 3a land is widely distributed across the site. Topsoils tend to be of medium clay loam or silty clay loam over a similar textured unmottled upper subsoil. The lower subsoil is clayey, mottled and

slowly permeable (Wetness Class III). Soil Wetness and workability problems are a more serious limitation than on the grade 2 land and are the main restriction in ALC grade.

#### Subgrade 3b

This subgrade is widespread on the heavier land. Topsoils consist of either medium or heavy clay loams over a similar or heavier clayey slowly permeable subsoils all of which fall within Wetness Class IV. Wetness and workability problems are more severe than on the subgrade 3a land and are the main limitation on grade.

#### Grade 4

This consists of a small derelict rubble strewn area on the site of a former mineral railway.

#### Non Agricultural

A small area in the south classified as non agricultural contains two roads and a soil storage area associated with construction of the Newcastle Western Bypass.

#### Farm Buildings

This consists of East Branton Farm and associated outbuildings.

Resource Planning Group  
Leeds Regional Office  
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