

**AGRICULTURAL LAND CLASSIFICATION
NIXON DRIVE & CHESTER ROAD, WINSFORD**

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AGRICULTURAL LAND CLASSIFICATION REPORT FOR NIXON DRIVE AND CHESTER ROAD, WINSFORD

1 SUMMARY

- 1.1 The Agricultural Land Classification (ALC) Survey for this site shows that the following proportions of ALC grades are present:

| Grade/Subgrade | ha | % of site |
|------------------|------|-----------|
| 3a | 22.7 | 41 |
| 3b | 16.7 | 31 |
| 4 | 0.8 | 1 |
| Other land | | |
| Non-agricultural | 10.5 | 19 |
| Open Water | 1.9 | 3 |
| Woodland | 2.1 | 4 |
| Urban | 0.7 | 1 |

- 1.2 The main limitations to the agricultural use of land in Subgrade 3a are soil droughtiness and soil wetness.
- 1.3 The main limitations to the agricultural use of land in Subgrade 3b are soil wetness and gradient.
- 1.4 The main limitation to the agricultural use of land in Grade 4 is soil wetness.

2 INTRODUCTION

- 2.1 The site was surveyed by the Resource Planning Team in March 1995. An Agricultural Land Classification survey was undertaken according to the guidelines laid down in the "Agricultural Land Classification of England and Wales - Revised Guidelines and Criteria for Grading the Quality of Agricultural Land" (MAFF 1988).
- 2.2 The 55.4 ha site is situated to the north of Winsford, near the Knights Grange sports complex. The land immediately to the north, north east and west of the site is predominantly in agricultural use. The land to the south, south east and south west is in urban and non-agricultural use.
- 2.3 The survey was requested by MAFF in connection with an ad hoc development proposal for housing and a golf course.
- 2.4 At MAFF Land Use Planning Unit's request this was a detailed grid survey at 1:10 000 with a minimum auger boring density of 1 per hectare. The attached map is only accurate at the base map scale and any enlargement would be misleading.
- 2.5 At the time of the survey the site was under grass.

3 CLIMATE

3.1 The following interpolated data are relevant for the site (SJ 635 675) :

| | |
|--|------|
| Average Annual Rainfall (mm) | 821 |
| Accumulated Temperature above 0°C January to June (day °C) | 1417 |

3.2 There is no overall climatic limitation on the site

3.3 Other relevant data for classifying land include:

| | |
|--------------------------------|-----|
| Field Capacity Days (days) | 191 |
| Moisture Deficit Wheat (mm) | 91 |
| Moisture Deficit Potatoes (mm) | 78 |

4 SITE

4.1 Three site factors of gradient, micro relief and flooding are considered when classifying land.

4.2 Gradient is a limiting factor (Subgrade 3b) where there are slopes of 8 to 11°.

4.3 Micro relief is a limiting factor (Subgrade 3b) immediately west of (and parallel to) Grange Lane in the north east corner of the site.

4.4 Flooding does not impose a limitation on the agricultural use of the land.

5 GEOLOGY AND SOILS

5.1 The solid geology of the area is comprised of Lower Keuper Saliferous Beds - British Geological Survey Sheet 109 Chester: 1:63 360. This is overlain with deposits of Quaternary boulder clay

5.2 The underlying geology influences the soils which either have a sandy loam texture in the north of the site or a sandy clay loam and clay loam texture over the remainder of the site.

6 AGRICULTURAL LAND CLASSIFICATION

- 6.1 Subgrade 3a - occupies 22.7 ha (41%) of the survey area and is found mainly in the north and south west of the site. These soils are of two distinct types.
- 6.1.1 Firstly, there are the soils which typically have a sandy loam or a sandy clay loam texture overlying loamy sand and sand to depth, with few to common stones within the profile. The moisture balance places these soils into Subgrade 3a. Occasionally there is clay or sandy clay loam present in the subsoil. There are isolated auger borings of Grade 2 quality within this unit, but they cannot be mapped separately at this scale.
- 6.1.2 The main limitation to the agricultural use of this land is soil droughtiness.
- 6.1.3 Secondly, there are the soils which have a sandy clay loam texture over sandy loam and, or clay to depth, with few stones within the profile. Occasionally the upper subsoil may have a loamy sand or sand horizon. Observations of gleying and the depth to the slowly permeable layer place these soils in either Wetness Class II or III.
- 6.1.4 The main limitation to the agricultural use of this land is soil wetness.
- 6.2 Subgrade 3b - occupies 16.7 ha (31%) of the survey area.
- 6.2.1 The soil typically has a clay loam and, or sandy clay loam texture overlying clay to depth. Observations of gleying and the depth to the slowly permeable layer place these soils in Wetness Class IV. Occasionally the subsoil may have sandy loam or loamy sand and sand lenses, placing these soils in Wetness Class III. However, these occasional profiles are located on slopes of 8 to 11° and are thus limited by gradient.
- 6.2.2 The main limitations to the agricultural use of this land are soil wetness and gradient.
- 6.3 Grade 4 - occupies 0.8 ha (1%) of the survey area and is located in a hollow in the north of the site.
- 6.3.1 The soil typically has a heavy clay loam or sandy clay loam texture over sandy clay loam or clay. At the time of the survey these soils were saturated and difficult to texture. These soils have been placed in Wetness Class IV.
- 6.3.2 The main limitation to the agricultural use of this land is soil wetness.
- 6.4 Other land includes non-agricultural which occupies 10.5 ha (19%) of the survey area as golf course and recreational facilities; woodland - occupying 2.1 ha (4%) of the survey area as carr woodland; urban - covering 0.7 ha (1%) of the survey area at Bradfordwood and in the southwest corner and open water occupying 1.9 ha (3%).

6.5 SUMMARY OF AGRICULTURAL LAND CLASSIFICATION GRADES

| Grade/Sub-grade | Area in Hectares | % of Survey Area | % of Agricultural Land |
|------------------|------------------|------------------|------------------------|
| 3a | 22.7 | 41 | 56 |
| 3b | 16.7 | 31 | 42 |
| 4 | 0.8 | 1 | 2 |
| Other land | | | |
| Non-Agricultural | 10.5 | 19 | - |
| Open Water | 1.9 | 3 | - |
| Woodland | 2.1 | 4 | - |
| Urban | 0.7 | 1 | - |
| Totals | 55.4 | 100 | 100 |