CHESTER LOCAL PLAN
WREXHAM ROAD
Agricultural Land Classification
ALC Map and Report (Revised)
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AGRICULTURAL LAND CLASSIFICATION REPORT
CHESTER LOCAL PLAN
WREXHAM ROAD

INTRODUCTION

1. This report presents the findings of a detailed Agricultural Land Classification (ALC) survey on 61.5 hectares of land. The results of this survey supersede any previous ALC information for this land. The land is located to the east of Wrexham Road extending across Lache Lane to the railway line. The survey was in connection with the Chester Local Plan.

2. The survey was undertaken on behalf of the Ministry of Agriculture, Fisheries and Food (MAFF) in July 1997 and January 1998 by the Resource Planning Team of the Farming and Rural Conservation Agency (FRCA)- Northern region of FRCA.

3. The land has been graded in accordance with the publication "Agricultural Land Classification of England and Wales - Revised guidelines and criteria for grading the quality of agricultural land" (MAFF 1988) .

4. At the time of survey the agricultural land on this site was under maize and grass.

SUMMARY

5. The findings of the survey are shown on the enclosed ALC map. The map has been drawn at a scale of 1:10000 with an average auger boring density of 1 per hectare. The ALC map is only accurate at this base map scale and any enlargement would be misleading.

6. The area and proportions of the ALC grades and subgrades on the surveyed land are summarised in Table 1.

Table 1: Area of grades and other land

Grade/Other land	Area (hectares)	% surveyed area	% site area
3a	40.8	69	66
3b	17.0	29	28
5	1.0	2	2
Other land	2.7	N/A	4
Total surveyed area	58.8	100	
Total site area	61.5		100

7. The agricultural land on this site has been classified as Subgrade 3a (good quality), Subgrade 3b (moderate quality) and Grade 5 (very poor quality). The key limitation to the agricultural use of this land is soil wetness.

8. The area of good quality land is located across much of the site. The soils commonly comprise a medium silty clay loam topsoil overlying a heavy clay loam upper subsoil passing to clay at depth.

9. The area of moderate quality land is mapped in two blocks. In the west of the site the soils comprise a medium silty clay loam topsoil overlying a gleyed and slowly permeable silty clay upper subsoil passing to clay. In the centre of the site the soils comprise a medium clay loam topsoil overlying a heavy clay loam upper subsoil passing to clay.

10. The area of very poor quality land is found in the west of the site. In this area the topography is such that the land is restricted by a microrelief limitation.

FACTORS INFLUENCING ALC GRADE

Climate

11. Climate affects the grading of land through the assessment of an overall climatic limitation and also through interactions with soil characteristics.

12. The key climatic variables used for grading this site are given in Table 2 and were obtained from the published 5km grid datasets using standard interpolation procedures (Meteorological Office, 1989).

Table 2: Climatic and altitude data

Factor	Units	Values	
Grid reference	N/A	SJ 382 635	SJ 393 631
Altitude	m, AOD	5	15
Accumulated Temperature	day°C (Jan-June)	1464	1453
Average Annual Rainfall	mm	700	703
Field Capacity Days	days	156	157
Moisture Deficit, Wheat	mm	104	103
Moisture Deficit, Potatoes	mm	95	93
Overall climatic grade	N/A	Grade 1	Grade 1

13. Climatic criteria are considered first when classifying land as climate can be overriding in the sense that severe limitations will restrict land to low grades irrespective of favourable site or soil conditions.

14. The main parameters used in the assessment of an overall climatic limitation are average annual rainfall (AAR), as a measure of overall wetness, and accumulated temperature (AT0, January to June), as a measure of the relative warmth of a locality.

15. The combination of rainfall and temperature at this site means that there is no overall climatic limitation. The site is climatically Grade 1.

Site

16. The site lies at an altitude of 5 to 15 metres AOD and is generally level.

17. The three site factors of gradient, microrelief and flooding are considered when classifying the land.

18. In the west of the site a small area of land is restricted to Grade 5 by microrelief.

19. Gradient and flooding have no limitation on the agricultural use of this land.

Geology and Soils

20. The solid geology of the area is comprised of Lower Mottled sandstone - British Geological Survey (1986). This is overlain with deposits of boulder clay - British Geological Survey (1990).

21. The soils that have developed on this geology are generally of a silty clay loam texture over clay at depth.

Agricultural Land Classification

22. The details of the classification of the site are shown on the enclosed ALC map and the area statistics of each grade are given in Table 1, page 1.

Subgrade 3a

23. Land of good quality occupies 40.8 hectares (69 %) of the site area and extends across the majority of the site.

24. The soil has either a clay loam or silty clay loam texture, overlying a heavy clay loam subsoil passing to clay at depth. The depths to gleying and the slowly permeable layer place these soils in Wetness Class III.

25. The main limitation to the agricultural use of this land is soil wetness.

Subgrade 3b

26. Land of moderate quality occupies 17.0 hectares (29 %) of the site area and is found in two blocks.

27. In the west of the site the soil has a silty clay loam texture which lies over silty clay and clay. The depths to gleying and the slowly permeable layer place these soils in Wetness Class IV.

28. In the centre of the site the soil has a medium clay loam texture which lies over heavy clay loam, passing quickly to clay. The depths to gleying and the slowly permeable layer place these soils in Wetness Class IV.

29. The main limitation to the agricultural use of this land is soil wetness.

Grade 5

30. Land of very poor quality occupies 1.0 hectares (2 %) of the site area and is found in the west of the site.

31. This land is subject to severe microrelief limitations.

Other Land

32. Other land occupies 2.7 hectares (4 %) of the site area and is found as ponds and farm buildings in the east of the site and gardens and drainage sluices in the west of the site.

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SOURCES OF REFERENCE

British Geological Survey Sheet 109, Chester Solid (1986) and Drift (1990) Editions. 1:50 000 Scale.
BGS: London.

Ministry of Agriculture, Fisheries and Food (1988) Agricultural Land Classification of England and Wales: Revised guidelines and criteria for grading the quality of agricultural land.
MAFF: London.

Meteorological Office (1989) Climatological Data for Agricultural Land Classification.
Meteorological Office: Bracknell.