CREWE AND NANTWICH LOCAL PLAN : FIRST REPLACEMENT
Site 3b - Willaston

Agricultural Land Classification
ALC Map and Report
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AGRICULTURAL LAND CLASSIFICATION REPORT
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INTRODUCTION

1. This report presents the findings of a detailed Agricultural Land Classification (ALC) survey on 55.7 hectares of land. The results of this survey supersede any previous ALC information for this land. The land is located to the west of Willaston, near Nantwich. The site is bisected east west by a railway line and north south by a road. The survey was in connection with the Crewe and Nantwich Local Plan (First Replacement 2011).

2. The survey was undertaken on behalf of the Ministry of Agriculture, Fisheries and Food (MAFF) in 1989 and March 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 barley grass and cereal stubble.

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
1	-	-	-
2	2.5	5	4
3a	46.7	93	84
3b	1.2	2	2
4	-	-	-
5	-	-	-
Agricultural land not surveyed	-	N/A	-
Other land	5.3	N/A	10
Total surveyed area	50.4	100	-
Total site area	55.7	-	100

7. The agricultural land on this site has been classified as Grade 2 (very good quality), Subgrade 3a (good quality) and Subgrade 3b (moderate quality). The key limitations to the agricultural use of this land are gradient, soil droughtiness and micorelief.

8. The area of very good quality land is located to the south west of Cheerbrook Farm. The soils have a sandy loam texture over sandy clay loam, sandy loam, loamy sand and sand.

9. The area of good quality land is located over the majority of the site. The soils have a sandy loam topsoil overlying loamy sand and sand.

10. The area of moderate quality land is mapped to the south east of Cheerbrook Farm where the land is limited by microrelief.

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 670 522
Altitude	m, AOD	46
Accumulated Temperature	day°C (Jan-June)	1416
Average Annual Rainfall	mm	734
Field Capacity Days	days	169
Moisture Deficit, Wheat	mm	96
Moisture Deficit, Potatoes	mm	85
Overall climatic grade	N/A	Grade 1

13. The 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 (ATO, 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 43 to 56 metres AOD. The land rises from the south west of the site (Cheer Brook) towards the north east (Park Road).

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

18. To the north east of Cheerbrook Farm there is a small area of land found on slopes of between 7^{o} and 9^{o}. Here gradient limits the agricultural use of the land.

19. To the south east of Cheerbrook Farm there is a small area of land which has many undulations. Here microrelief limits the agricultural use of the land.

20. Flooding does not impose any known limitations on the agricultural use of this land.

Geology and Soils

21. The solid geology of the area is comprised of Middle Keuper Marl and Upper Keuper Saliferous Beds. This is overlain with deposits of alluvium, boulder clay and glacial sands and gravel - British Geological Survey (1967).

22. The soils that have developed on this geology are generally of a sandy loam texture over sand at depth.

Agricultural Land Classification

23. 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.

Grade 2

24. Land of very good quality occupies 2.5 hectares (4%) of the site area and is found to the south west of Cheerbrook Farm.

25. The soil has a sandy loam texture over sandy clay loam, sandy loam, loamy sand and sand to depth, with few stones within the profile. The moisture balance places these soils in Grade 2.

26. The main limitation to the agricultural use of this land is soil droughtiness.

Subgrade 3a

27. Land of good quality occupies 46.7 hectares (84%) of the site area and extends across the majority of the site.

28. The soil has a sandy loam texture over loamy sand and sand. Occasionally clay is encountered in the lower subsoil. To the west of the Cheer Brook the topsoil is of a loamy sand texture. The moisture balance places these soils in Subgrade 3a.

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

Subgrade 3b

30. Land of moderate quality occupies 1.2 hectares (2%) of the site area and is found to the south east and north east of Cheerbrook Farm.

31. To the south east the soil has a sandy loam texture over loamy sand and sand. This land has many undulations with marked variations in slope angle and direction, limiting the land to Subgrade 3b.

32. The main limitation to the agricultural use of this land is microrelief.

33. To the north east the soil has a sandy loam topsoil texture over loamy sand and sand. This land is found on slopes of between 7^{o} and 9^{o}.

34. The main limitation to the agricultural use of this land is gradient.

Other Land

35. Other land occupies 5.3 hectares (10) of the site area and includes Cheerbrook Farm, a house, a railway line, road and trackway.

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SOURCES OF REFERENCE

British Geological Survey (1967) Sheet 122, Nantwich Solid and Drift Edition.
1:63 360 Scale.
BGS: London.

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