

PROPOSED CEMETERY AT LATHOM

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

PROPOSED CEMETERY AT LATHOM

INTRODUCTION

1. This report presents the findings of a detailed Agricultural Land Classification (ALC) survey on 3.8 hectares of land at Lathom, Lancashire. The results of this survey supersede any previous ALC information for this land. The land is located to the south of the village of Lathom, four kilometres east of Ormskirk. The site's northern boundary is bounded by Spa Lane, and its western boundary intersected by Plough Lane.
2. The survey was undertaken on behalf of the Ministry of Agriculture, Fisheries and Food (MAFF) in February 1999 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, all agricultural land to the east of Plough Lane was under brussel sprouts. West of Plough lane, the land was under winter cereals.

SUMMARY

5. The findings of the survey are shown on the enclosed ALC map. The map has been drawn at a scale of 1:5000 with an average auger boring density of 2 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	2.9	83	76
3a	0.6	17	16
3b	-	-	-
4	-	-	-
5	-	-	-
Agricultural land not surveyed	-	N/A	-
Other land	0.3	N/A	8
Total surveyed area	3.5	100	N/A
Total site area	3.8	N/A	100

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

8. Land of very good quality is widely distributed throughout the site. The soils typically comprise a loamy medium sand topsoil overlying loamy medium sand and medium sand subsoils. To the west of Plough Lane, sandy loam topsoils are found. Generally soil profiles are only very slightly stony.

9. Land of good quality is found in south west of the site immediately to the east of Plough Lane. Topsoils have a loamy medium sand texture and overlie medium sand upper subsoils and heavy silty clay loam lower subsoils. Generally topsoils are only very slightly stony, although moderate subsoil stoniness is found in the coarse textured upper subsoils.

FACTORS AFFECTING ALC GRADE

Climate

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

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

Table 2: Climatic and altitude data

Factor	Units	Values
Grid reference	N/A	SD 453 077
Altitude	m, AOD	60
Accumulated Temperature	day°C (Jan-Jun)	1381
Average Annual Rainfall	mm	959
Field Capacity Days	days	219
Moisture Deficit, Wheat	mm	73
Moisture deficit, Potatoes	mm	56
Overall Climatic Grade	N/A	Grade 2

12. 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.

13. 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.

14. The combination of rainfall and temperature at this site places a climatic limitation upon the site. The site is climatically Grade 2.

Site

15. The site lies at an altitude of 60 metres AOD. The land generally falls gently towards the south east.

16. The three site factors of gradient, microrelief and flooding are considered when classifying the land. These site factors do not impose any limitation upon the agricultural use of this land.

Geology and Soils

17. The solid geology of the area is comprised of Carboniferous Middle Coal Measures, including bands of sandstone (British Geological Survey 1977). This is overlain in places by Carboniferous Lower Coal Measures (British Geological Survey 1950).

18. The soils that have developed over this geology have either loamy medium sand or sandy loam topsoils over loamy medium sand and medium sand subsoils. Occasionally heavy silty clay loam subsoils are found.

Agricultural Land Classification

19. 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

20. Land of very good quality occupies 2.9 hectares (76%) of the site, and is found across the site. Two soil profiles were found within this area of very good quality land.

21. To the east of Plough Lane, soils comprise a loamy medium sand topsoil over loamy medium sand and medium sand subsoils. The soil is only slightly stony throughout. Soils are well drained as indicated by the absence of gleying and slowly permeable layers and are placed in Wetness Class I. The moisture balance places these soils in Grade 2.

22. To the west of Plough Lane, soils have a sandy loam topsoil over loamy medium sand and medium sand to depth. Soils are slightly stony throughout. The soils are well drained and placed in Wetness Class I. The moisture balance places these soils into Grade 2.

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

Subgrade 3a

24. Land of good quality occupies 0.6 hectares (16%) of the site area and is found in the south west of the site, immediately to the east of Plough Lane.

25. The topsoil has a loamy medium sand texture, and overlies a medium sand upper subsoil and a heavy silty clay loam lower subsoil. The topsoil is very slightly stony, although moderate subsoil stoniness is found in the coarse textured upper subsoil. The depths to gleying and the slowly permeable heavy silty clay loam lower subsoil place these soils into Wetness Class III.

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

Other Land

27. Other land occupies 0.3 hectares (8%) of the site area and consists of Plough Lane and associated verges.

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SOURCES OF REFERENCE

British Geological Survey (1950). Sheet 84, Wigan. Drift Edition. 1:63 360 Scale. BGS: London.

British Geological Survey (1977). Sheet 84, Wigan. Solid Edition. 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.

SAMPLE	DEPTH	TEXTURE	COLOUR	MOTTLES			PED COL.	STONES			STRUCT/ CONSIST	SUBS				
				COL	ABUN	CONT		GLEY	>2	>6		LITH	TOT	STR	POR	IMP
1	0-37	lms	75YR31 00					0	0	HR	1					
	37-120	ms	05YR33 00					0	0	HR	1		G			
1P	0-35	lms	10YR21 00					0	0	HR	3					
	35-50	ms	10YR31 00					0	0	HR	25	WKCSAB	FR	G		
	50-120	hzc1	05YR43 00	25YR63	00	C		Y	0	0		0	WKCAB	FM	P	Y
3	0-38	lms	10YR21 00					0	0	HR	1					
	38-80	lms	10YR21 00					0	0	HR	1		G			
	80-120	ms	75YR54 00					0	0	HR	1		M			
5	0-36	lms	10YR21 00					0	0	HR	1					
	36-120	ms	10YR41 00					0	0	HR	1		G			
7	0-35	lms	10YR21 00					0	0	HR	1					
	35-50	ms	25Y 21 00					0	0	HR	1		G			
	50-77	ms	10YR44 00					0	0	HR	1		M			
	77-120	hzc1	05YR44 00					Y	0	0	HR	1		P	Y	Y
9	0-38	lms	10YR21 00					0	0	HR	2					
	38-63	ms	75YR31 00					0	0	HR	1		G			
	63-120	ms	10YR41 00					0	0	HR	1		M			
13	0-38	lms	10YR22 00					0	0	HR	5					
	38-45	ms	10YR31 00					0	0	HR	1		G			
	45-120	hzc1	05YR62 00	05YR44	00	C		Y	0	0	HR	1		P	Y	Y
15	0-35	lms	75YR21 00					0	0	HR	1					
	35-85	ms	75YR33 00					0	0	HR	1		G			
	85-120	sc1	25Y 52 00					0	0	HR	1		M			

SAMPLE NO.	GRID REF	USE	ASPECT	GRDNT	---WETNESS---		-WHEAT-		-POTS-		M.REL DRT	EROSN FLOOD	FROST EXP	FROST DIST	CHEM LIMIT	ALC	COMMENTS	
					GLEYS	SPL	CLASS	GRADE	AP	MB								AP
1	SD45300790	BRA				1	2	083	10	066	10	2				DR	2	75YR25-1
1P	SD54310771	BRA	E	01	050	050	3	3A	093	20	075	19	2			WE	3A	
3	SD45400790	BRA	E	01			1	2	098	25	079	23	2			WD	2	CK DEPTH
5	SD45350785	BRA	E				1	2	082	9	065	9	2			WD	2	
7	SD45300780	BRA	E		077	077	3	3A	090	17	065	9	2			WE	3A	CK SPL CLOSE TO 2
9	SD45400780	BRA	SE	01			1	2	083	10	066	10	2			DR	2	
13	SD45300770	BRA	E	01	045	045	3	3A	099	26	081	25	2			WE	3A	
15	SD45400770	BRA	E	01			1	2	102	29	065	9	2			DR	2	