

AGRICULTURAL LAND CLASSIFICATION REPORT FOR LAND AT ASHTON MOSS, MANCHESTER

1. Introduction

A land classification survey of approximately 167 ha of land between Daisy Nook and Ashton Moss was carried out in the autumn and winter of 1990 in response to a planning application for urban and recreational developments.

The survey was undertaken using a hand held 5cm Dutch auger to provide sufficient information to map the result at a scale of 1:10,000.

The area is underlain by Bolder Clay and peat which has formed on Carboniferous deposits and land quality ranges from Sub-grade 3a on the peats to Sub-grade 3b and grade 4 on the Boulder Clay. Large areas of Non-agricultural land are included in the application area.

2. Site details and limitations

2.1 Climatic limitation

The main parameters used in the assessment of the climatic limitation are average annual rainfall as a measure of overall wetness and accumulated temperature as a measure of the relative warmth of a locality. The site receives an average annual rainfall of approximately 970 mm and has an Accumulated Temperature (January to June of 1328°C). This combination of rainfall and temperature precludes the area from grade 1.

2.2 Location and site limitations

This site extends from the A635 in the south as far north as Daisy Nook to include all the peatlands of Ashton Moss and extends onto mineral soils north of the railway. The site boundary is formed by urban development in most places but the site abuts agricultural land in the north west.

The land which lies at about 100m is almost level with the Moss rising very gently towards a central dome along Rayners Lane. Only at the extreme northern end of the site does gradient limit the land classification, as the land falls away to the River Medlock.

2.3 Geology and soil limitation

The area is underlain by Boulder Clay with an extensive raised peat in the south. Two distinct soil types have formed.

On the peat land in the south 30cm of humified peat with clinkers overlies semi fibrous and fibrous moss and sedge peat. A limited Dipwell study indicates that these soils fall into Wetness Class III and IV in their drained state and into Wetness Class V where modern drains have not been installed.

In the north organic sandy loam to clay loam overlies similar or heavier subsoils which are gleyed and usually slowly permeable. These soils fall into wetness class IV and V.

2.4 Inter-active limitations

The physical limitations which result from the interactions between climate, site and soil are soil wetness, droughtiness and erosion. Soil wetness expresses the extent to which excess water imposes restrictions on crop growth and cultivation. Soil wetness is a major limiting factor on this site.

The severity of the limitation is influenced by the amount and frequency of rain in relation to evapotranspiration, the duration of waterlogging and the texture of the uppermost layers in the soil.

The soils are at field capacity for approximately 228 days in the south of the area and 234 days in the north. The mineral soils fall into Wetness Class IV and V whilst a dipwell study undertaken between December 1990 and July 1991 indicates that the peat soils fall into Wetness Classes IV and III when recently under-drained and wetness class V in areas where no modern drainage has been installed. This area falls close to the 225 field capacity day cut off and in the absence of detailed guidelines the 176 to 225 field capacity cut offs have been used to give an indication of land quality.

Droughtiness and erosion are generally not limiting factors on this site as the soils are moisture retentive and the site level.

2.5 Land Use

The majority of the mineral soils support permanent pasture whilst land use on the peat varies from intensive horticultural use to scrub and rough grass. Land use on the peat soils is determined by ownership rather than differences in land quality.

3. **Agricultural Land Classification**

3.1 Sub-grade 3a

This sub-grade is mapped over 61.2 ha and 36.6% of the area, to include all of the peat soils which are in agricultural use. These soils have 30cm of humified peat or loamy peat over semi fibrous peat. They fall mainly into Wetness Class IV and III and hence into Sub-grade 3a.

3.2 Sub-grade 3b

This sub-grade is mapped over 26.7 ha and 16.0% of the land. It is mapped to include mineral and organic mineral soils which fall into Wetness Class IV and have topsoils which are no heavier than medium clay loam.

3.3 Grade 4

This grade accounts for 19.9 ha and 11.9% of the area. It is mapped to include mineral and organic mineral soils which fall into Wetness Class V and have a heavy clay loam topsoil. It also includes small areas where gradients exceed 11°.

3.4 Grade 5

This grade is mapped over 1.5 ha and 0.9% of the area to include steeply sloping (greater than 18°) land in the north.

3.5 Non agricultural

This grade is mapped over 52.2 ha and 31.3% of the area to include disused land, playing fields and a radio receiving station.

3.6 Farm buildings

Covers 5.5 ha and 3.3% of the area to include traditional buildings in the north and an extensive area of modern glasshouses in the south.

Summary of Land Classification

Grade	Area (ha)	% total area
3a	61.2	36.6
3b	26.7	16.0
4	19.9	11.9
5	1.5	0.9
Non agricultural	52.2	31.3
Farm buildings	5.5	3.3
Total	167.0	100

ROSEMARY PEEL
Wolverhampton RO
30 January 1992