

LAND AT BRICKHILL FARM, WILMSLOW

STATEMENT OF PHYSICAL CHARACTERISTICS FOR THE APPLICATION AREA

1. Introduction

The site was visited by the Resource Planning Team and ADAS Statutory Land Use Team in April and May 1993.

2. Location

The site is situated to the south and east of Wilmslow and centred at National Grid Reference SJ850800. It is bounded to the north by the school playing fields and to the west by the Crewe/Manchester railway. Land surrounding the east, south and south-east is in agricultural use.

3. Climate

Assessment of climatic limitation is based upon average annual rainfall (AAR) and accumulated temperature above 0°C January to June (ATO). For this site the figures are 850mm and 1365°C respectively.

Field Capacity Days (FCD) are 204 with a moisture deficit wheat of 82mm and a moisture deficit potatoes of 68mm. There is no overall climatic limitation to the agricultural use of this land.

4. Geology and Soils

The drift geology of this site comprises mainly clays, medium heavy clay loams and sandy clay loams subsoils in the lower areas and loamy sandy and sands in the central elevated area. The finer textured subsoils suffer from wetness problems, partly due to their low lying location, whilst the coarse textured sandy soils are free draining.

5. Site

The site rises to the centre and the h^ummocky nature of the topography is the result of the glacial activity in the past. The altitude varies from 75m AOD to approximately 80m AOD.

Wetness is the limiting factor in the low lying areas whereas wetness in part and droughtiness in part are the limiting factors in the central elevated area.

6. Land Use

At the time of survey the south western area - approximately 47% of the site - was in cereals while the northern and eastern areas - approximately 53% - were in grass.

7. Soil Resources

The soils were examined using a Dutch soil auger, with borings on a 100m x 100m grid. Borings were to a depth of 110cm unless prevented by stony layers. Soil pits were dug to obtain further details on subsoil structure, depth and stone volumes.

7.1 Soil Unit I

This soil unit covers 5.87 hectares and 22.33% of the application site. It is found in the central southern area of the site.

Typical profiles have 27cm of sandy clay loam topsoil over sandy clay loam to 52cm and medium sandy loam or loamy medium sand to depth. Topsoils have few common stones and equally the subsoils have few stones. A typical profile for this soil is described below:

Pit 3

0-27cm 10YR43 sandy clay loam topsoil

27-52cm 75YR56 sandy clay loam, moderately developed medium angular blocky, with very friable consistence and moderate drought structure.

52cm-86cm 75YR66, medium sandy loam weakly developed fine angular blocky structure, with very friable consistence and good drought structure.

86cm-127cm 75YR64, loamy medium sand, weakly developed fine angular blocky, with very friable consistence and good drought structure.

7.2 Soil Unit II

This soil unit covers 3.24 hectares and 12.34% of the application area. It is found on the south eastern part of the application area with one area of similar physical characteristics found in the centre of the area for Soil Unit III.

Typical profiles have 25cm of medium clay loam topsoil, over clay subsoil to depth. Topsoils have few common stones and equally the subsoils have few stones. A typical profile for this soil is described below:

Pit 2

0-25cm - 10YR43 medium clay loam topsoil.

25-35cm 75YR56, clay, strongly developed coarse angular blocky, with very firm consistence and poor drought structure.

35-55cm 75YR66, clay, strongly developed coarse prismatic, with very very firm consistence and poor drought structure.

55-120cm 75YR66, clay, strongly developed coarse prismatic, with very firm consistence and poor soil structure. The slowly permeable layer commences at 55cm.

7.3 Soil Unit III

This soil unit covers 10.78 hectares and 41% of the application area. It is found on the northern low lying area of the application area.

The typical soil profile has:

0-30cm medium/heavy clay loam topsoil, sometimes organic.

30-100cm medium/heavy clay loam with occasional pockets of peat, sand or sandy clay loam.

7.4 Soil Unit IV

This soil unit has variable textures and covers 6.3 hectares and 24.3% of the application area. This soil is found in the south western part of the application area. Typical soil profiles have medium clay loam topsoils over medium clay, heavy clay loam or clay subsoil to 45cm, over fine sandy clay loam, clay or heavy clay loam to 80cm, over heavy clay loam, clay, fine sandy loam or fine silty loam to 100cm. Topsoils have few common stones and equally the subsoils have few stones. Details of a lighter textured soil profile in this area is recorded below:

0-35cm 10YR43 medium clay loam topsoil.

35-40cm 75YR50 medium clay loam subsoil with common mottles.

40-52cm 10YR71 fine sandy clay loam moderately developed medium angular blocky with friable consistence and moderate drought structure.

52-72cm 10YR63 medium clay loam with common mottles.

72-100cm 75YR72 fine sandy clay loam very friable consistence, and permeable.

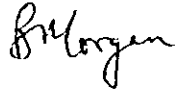
100-105cm 75YR62 silty clay loam.

Summary

A significant part of this site comprises best and most versatile land. These soils are typified by sandy clay loam topsoils overlying sandy clay subsoils and medium sandy loam or loamy medium sand to depth in the southern central area. Furthermore, medium clay loam topsoils overlying medium clay loams subsoils, over fine sandy clay

loam over medium clay loam and fine sandy clay loam soils are present in the south western area.

Approximately 70% of the agricultural land in the west, east and, northern areas of the application area are of moderate quality (Grade 3b).



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