Cambs 3/89

AGRICULTURAL LAND CLASSIFICATION

LAND AT LEVERINGTON, WISBECH

1.0 INTRODUCTION

1.1 An agricultural land classification survey was carried out over approximately 34 ha of land at Leverington, near Wisbech, in connection with a planning application for residential development. The site is located between the A1101 road and the village of Leverington on the north west side of Wisbech.

1.2 A total of 39 auger borings were made together with 2 soil inspection pits to establish the physical characteristics of the soil and an agricultural land classification grading has been assigned to the area.

1.3 On the published one inch to one mile Agricultural Land Classification map sheet no. 124 (MAFF 1972), the area is shown as Grade 1. The current detailed survey has confirmed this grading.

2.0 PHYSICAL FACTORS AFFECTING LAND QUALITY

Relief

2.1 The site lies at an altitude of approximately 4m A.O.D. and is generally flat.

Climate

2.2 The average annual rainfall for the site is 554 mm making this area one of the driest parts of the country. The low rainfall combined with the relatively high spring and summer temperatures can result in large moisture deficits building up. The calculated moisture deficits for wheat and potatoes on this site are 123 and 120 mm respectively and thus the soil will need a good reservoir of available water to prevent crops suffering from drought stress. The growing season in the area is long at 251 days (MAFF, 1984) whilst the number of field capacity days is small at 97 days.

Geology

2.3 The site is located on the marine alluvium associated with the Wash and the soils identified during the survey conform with this quarternary deposit.

Soils

2.4 The soils are shown as the Wisbech Association on the 1:250,000 map of Eastern England (SSEW, 1984). The soils found in this survey correlated with the various phases of the Wisbech series (Soil Survey Record 88). Two distinct phases were distinguished, namely a coarse silty phase and a fine sandy subsoil phase.

2.5 The coarse silty phase soils have a stoneless silt loam topsoil overlying a stoneless fine sandy silt loam or fine sandy loam subsoil, which has faint ochreous mottling. Beneath this at depth the soil texture is sometimes loamy fine sand. The soils are porous and the mottling is considered to be relict.

2.6 The fine sandy subsoil phase soils are similar to those described above, but generally have either a fine sandy loam or fine sandy silt loam topsoil overlying a loamy fine sand subsoil. The mottling is similar to that described above. Both phases occur together and generally not in mappable areas, but the characteristics of the soils are very similar and therefore they tend to behave in a similar manner.

3.0 AGRICULTURAL LAND CLASSIFICATION

3.1 The site has been graded using the revised guidelines of the ALC system (MAFF, 1988) as grade 1. The soils described above are porous and have been underdrained in the past, consequently they will be seldom wet and as such are wetness class I. In addition droughtiness is not a limiting factor as these marine silt deposits have high available water capacitates due to the large silt and very fine sand fractions. The only minor limitation associated with these soils is one of capping. The high silt fractions in the topsoil will cause the soils to slake under heavy rainfall and capping can result causing slight difficulties to seedling establishment, but this is not considered to be sufficient to merit any downgrading. The land is extremely versatile and can grow a very wide range of crops and in addition landwork can be carried out at most times of the year.

Resource Planning Group
Cambridge

March 1989

References

MAFF (1972) 1:63,360 scale Agricultural Land Classification Map Sheet No 124.

MAFF (1984) Reference Book 435. The Agricultural Climate of England and Wales.

MAFF (1988) Agricultural Land Classification of England and Wales, revised guidelines

Soil Survey of England and Wales (1984) Soils and their use in Eastern England. Bulletin 13.

Soil Survey of England and Wales (1985) Soils in Lincolnshire IV, sheet TF 45 (Friskney) Soil Survey Record No. 88.