AGRICULTURAL LAND CLASSIFICATION
AND
STATEMENT OF PHYSICAL CHARACTERISTICS

Sproatley Grange, Sproatley
North Humberside

Proposed Extension of Waste Disposal Site.

MAFF
Leeds Regional Office

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MAP(S)

AGRICULTURAL LAND CLASSIFICATION REPORT :- SPROATLEY GRANGE SPROATLEY. PROPOSED EXTENSION OF WASTE DISPOSAL SITE.

1.0 Introduction and Site Characteristics

1.1 Location

National Grid Reference:- TA 200 332

Location Details:- 1½km SE of Sproatley village, east of the B 1240 to which there is direct access

Site Size:- Approximately 11 hectares including the present tipped area

1.2 Survey Methods

Date Surveyed:- August 23rd 1991

Boring Density and Spacing Basis:- 1 boring per hectare at points pre-determined by the National Grid (ie. 100m intervals)

Sampling Method:- By auger borings to a depth of 1m.

Number of Borings:- Eleven

Number of Soil Pits (used for):- 2 to examine subsoil structure

All land quality assessments were made using the methods described in "Agricultural Land Classification of England and Wales: Revised Guidelines and Criteria for grading the quality of agricultural land (MAFF 1988)".

1.3 Land Use:- Existing tipped area is largely covered by very poor quality unmanaged grass. It also includes two areas of unrestored waste material (mainly rubble). The extension area is in arable use (wheat).

1.4 Climate and Relief

Average Annual Rainfall (AAR):-	617 mm
Accumulated Temperature above 0°C (January-June):-	1386 day °C
Field Capacity Days:-	135 days
Altitude average:-	10 m a.o.d.
maximum:-	10 m a.o.d.
minimum:-	8 m a.o.d.
Climatic limitation (based on interaction of rainfall and temperature values:-	None
Relief:-	Extension area is very
Slopes (°):-	gently undulating. Slopes 1-2°
Gradient Limitations:-	None
Limiting gradient(s):-	None
Grade(s)/subgrade(s):-	—
Occurrence on site:-	—

1.5 Geology and Soil in extension area

Solid Strata:-	Chalk
Depth of solid rock from surface:-	Approximately 30m
Drift types:-	Boulder Clay and peat.
Thickness of drift and distribution:-	About 30m. Drift covers all of the extension area.
Soil Types and Distribution:-	Most of extension area is covered by a medium to heavy textured boulder clay soil. North west corner contains peat and clay.
Soil Textures (topsoils and subsoils):-	Medium or heavy clay loam over similar subsoils.
Soil Series/Associations:-	
On 1/250000map:-	Burlingham association.
Identified on site:-	Burlingham and Adventurers (peat) associations.
Soil Limitations and type:-	Slight droughtiness on the boulder clay soils. Wetness and lack of bearing strength on the peat.

1.6 Drainage

Soil type and Wetness Class:-	Wetness Class II/III (imperfectly drained) on the boulder clay. Wetness Class V* (very poorly drained) on the peat.
Drainage Limitations:-	

* Peaty area is placed in Wetness Class V because it occurs in depression site which would be difficult to drain.

2.0 Agricultural Land Classification Grades

The ALC grades occurring on the site are as follows:-

Grade/Subgrade	Hectares	Percentage of Total Area
3a	3.0	27.0%
3b	1.2	10.8%
4	5.2	46.9%
Urban	1.7	15.3%
Total	11.1	100

Subgrade 3a ~~2a~~

Distribution on site:-	Southern and eastern parts of the extension area
Soil Type(s) and Texture(s):-	Medium over heavy textured boulder clay soils
Depth to Slowly Permeable Layers:-	50-60 cm
Wetness and Drainage Class:-	Mainly wetness Class III — imperfectly drained. Some Wetness Class II profiles (moderately well drained) in the higher north eastern part of this area.
Stone Percentage and Type:-	Less than 10% of hard igneous and sedimentary stones.
Grade Limiting Factors:-	Slight droughtiness in summer. Slight wetness and workability problems in winter and early spring.

Subgrade 3b

Distribution on site:-	Central and South western part of the extension area
Soil Type(s) and Texture(s):-	Medium over heavy textured boulder clay soils
Depth to Slowly Permeable Layers:-	< 40cm
Wetness and Drainage Class:-	Wetness Class IV – poorly drained
Stone Percentage and Type:-	Less than 10% of hard igneous and sedimentary stones.
Grade Limiting Factors:-	Soil wetness and workability problems

Grade 4

Distribution on site:- North west corner of the extension area and most of the previously tipped area.

Soil Type(s) and Texture(s):- Mixed peaty and silty clay soils in the extension area.
Medium textured topsoils over rubble in the existing restored waste disposal area.

Depth to Slowly Permeable Layers:- —

Wetness and Drainage Class:- Wetness Class V (very poorly drained) in the low lying peaty area.
Variable drainage in the restored area.

Stone Percentage and Type:- —

Grade Limiting Factors:- Severe wetness and drainage problems in the peaty area.
Severe compaction, droughtiness and presence of rubble and metal waste in the restored area.

Non Agricultural —

Type and location of land included:-

Agricultural Buildings —

Type and location of building included:-

Urban

Type of land use included:- Areas of derelict land within the restored part of the site containing recently tipped rubble and other waste

3.0 STATEMENT OF PHYSICAL CHARACTERISTICS (SOIL PROPERTIES AND RESOURCES)

3.1 Soil Properties

3 soil types occur on the site. Their distribution along with soil depths ~~and quantity information~~ is shown on the accompanying map. In addition there is an area of derelict land with no useable soil resources.

Soil Type 1:- Medium or heavy topsoil of variable thickness over landfill material.

Occurrence:- Northern and western parts of the site.

Textures:- Topsoil:- medium or heavy clay loam

Stone content:- Rubble and metal waste present.

Horizon thicknesses:- About 45cm

Profile pit features:- Compacted topsoil with angular blocky structure and containing a steel bar and landfill rubble.

Other features:-

Soil Type 2:- Medium or heavy boulder clay soil

Occurrence:- Most of the proposed extension area.

Textures:- medium or heavy clay loam topsoils over similar textured subsoils.

Stone content:-

Horizon thicknesses:- Topsoil : approximately 35cm
Subsoil :- 70cm+

Profile pit features:- Topsoil shows subangular blocky structure. Subsoil angular blocky.

Other features:- —

Soil Type 3:-	Mixed peaty and silty clay soil
Occurrence:-	low lying north west corner of the proposed extension area.
Textures:-	Peaty loam with lenses of silty clay
Stone content:-	—
Horizon thicknesses:-	Peaty and clayey material to a depth of at least 1m
Profile pit features:-	—
Other features:-	—