AGRICULTURAL LAND CLASSIFICATION

MYTON LANE, THOLTHORPE

NORTH YORKSHIRE

Proposed mineral extraction

and infilling

MAFF

Leeds Regional Office

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AGRICULTURAL LAND CLASSIFICATION REPORT, Myton Lane, Tholthorpe, N Yorkshire

1.0 Introduction and Site Characteristics

1.1 Location

National Grid Reference:-	SE 466665
Location Details:-	7 km SW of Easingwold
Site Size:-	4 hectares

1.2 Survey Methods

Date Surveyed:-	31 January 1992
Boring Density and Spacing Basis:-	At 75 m intervals on a grid pattern pre-determined by the National Grid
Sampling Method:-	By hand auger boring to a depth of 1 metre
Number of Borings:-	7
Number of Soil Pits (used for):-	1 soil inspection pit was dug to examine soil structure and to take samples for laboratory analysis.

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)".

This detailed survey supersedes the previous "1" to one mile" survey of the area.

1.3 Land Use:- At the time of survey all agricultural land was under winter cereal production. Some land was being worked for sand and gravel.

1.4 Climate and Relief

Average Annual Rainfall (AAR):-	643 mm
Accumulated Temperature above 0°C (January-June):-	1366 day °C
Field Capacity Days:-	144 days
Moisture Deficit:	
wheat:-	103 mm
potatoes:-	94 mm
Altitude average:-	30 m a.o.d.
maximum:-	30 m a.o.d.
minimum:-	28 m a.o.d.
Climatic limitation (based on interaction of rainfall and temperature values:-	
Relief:-	Gently undulating
Slopes (°):-	0 - 5°
Gradient Limitations:-	None

1.5 Geology and Soil

Solid Strata:-	Bunter sandstone
Depth of solid rock from surface:-	Greater than 1 metre
Drift types:-	Acolian and glacial sand and gravel.
Thickness of drift and distribution:-	Greater than 1 metre over the whole site.
Soil Types and Distribution:-	Well drained "brown sands" cover the whole site.
Soil Textures (topsoils and subsoils):-	Soils consist of fine sandy loam or loamy fine sand topsoils over similar or lighter subsoils.
Soil Series/Associations:-	
On 1/250000 map:-	Newport I
Identified on site:-	
Soil Limitations and type:-	Topsoil stoniness is limiting in places.

1.6 Drainage

Soil type and Wetness Class:-	All soils are well drained and fall within Wetness Class I.
Drainage Limitations:-	None

2.0 Agricultural Land Classification Grades

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

Grade/Subgrade	Hectares	Percentage of Agricultural Area	Percentage of Total Area
1			
2			
3a	3.5	100	83.3
3b			
4			
5			
Non Agricultural			
Agricultural Buildings			
Urban	0.7		16.7
Other			
Total	4.2	100	100

Subgrade 3a

Distribution on site:-	The whole site falls within this subgrade.
Soil Type(s) and Texture(s):-	Light soils consisting of loamy fine sand topsoils over similar or lighter subsoils
Depth to Slowly Permeable Layers:-	None present.
Wetness and Drainage Class:-	Wetness Class I (well drained).
Stone Percentage and Type:-	5 - 15% small and medium hardstones.
Grade Limiting Factors:-	Topsoil stoniness, droughtiness and susceptibility to wind erosion.

Urban

Type of land use included:-

Land in the eastern corner being worked at present for sand and gravel.

3.0 STATEMENT OF PHYSICAL CHARACTERISTICS (SOIL PROPERTIES AND RESOURCES)

3.1 Soil Properties

One soil type occurs on the site. Its distribution along with soil depth and quantity information is shown on the accompanying maps.

Soil Type 1:- Fine sandy topsoil over similar subsoil.

Occurrence:- Over the whole site.

Textures:- Loamy fine sands and fine sandy loams.

Stone content:- 5-15% in the topsoil passing to similar subsoils with occasionally even stonier horizons.

Horizon thicknesses:- Topsoils: mean 40 cm with subsoils extending to at least 1 m depth.

Profile pit features:- Weakly developed sub-angular topsoil structure over very weakly developed to loose subsoil structure.

3.2 Soil Resources

Topsoils

Unit T1

Texture/stone content:- Loamy fine sand or fine sandy loam with 5 - 15% stones.

Structure:- Weakly developed fine sub-angular blocky.

Occurrence:- Over the whole site.

Thickness:- 40 cm mean

Subsoils

Unit S1

Texture/stone content:-	Very light with 5 - 50% stones.
Structure:-	Very weakly developed sub-angular blocky to loose.
Occurrence:-	Over the whole site.
Thickness:-	Mean:- 60 cm.

4.0 SOIL PROFILE DESCRIPTION

Pit 1. Fine sandy soil
Location: Between borings 2 and 4
Weather: Cold, foggy
Slope: 0°
Land Use: Cereals

DEPTH (cm)	PROFILE DESCRIPTION
0 - 30	Dark greyish brown (10 YR 4/2) fine sandy loam; unmottled; slightly stony with small and medium sub-rounded medium hard rocks and stones; low packing density; moist; weakly developed fine sub-angular blocky structure; moderately porous with common fine pores and fissures; friable; non-sticky; non plastic; many fine fibrous roots; clear smooth boundary.
30 - 100	Dark yellowish brown (10 YR 4/6) loamy fine sand; unmottled; very slightly stony with sub-rounded medium hard rocks and stones; low packing density; moist; very weakly developed fine to medium sub-angular blocky structure; moderately porous with common fine and medium pores and fissures; very friable; non-sticky; non plastic; common fine fibrous roots.