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Shepway District Local Plan
Site 28: Queens Road, New Romney
Agricultural Land Classification
ALC Map and Report
September 1993

**SHEPWAY DISTRICT LOCAL PLAN
SITE 28: QUEENS ROAD, NEW ROMNEY**

AGRICULTURAL LAND CLASSIFICATION REPORT

1. Summary

- 1.1 In July 1993, a detailed Agricultural Land Classification (ALC) survey was made on approximately 26 hectares of land to the south of Queens Road, New Romney in Kent.
- 1.2 The work was conducted by members of the Resource Planning Team in the Guildford Statutory Group of ADAS in response to a commission by MAFF's Land Use Planning Unit to provide information on the quality of agricultural land affected by proposals for development contained in the Shepway District Local Plan.
- 1.3 The classification has been made using MAFF's revised guidelines and criteria for grading the quality of agricultural land (MAFF, 1988). These guidelines provide a framework for classifying land according to the extent to which its physical or chemical characteristics impose long-term limitations on its use for agriculture.
- 1.4 The field work was carried out with an observation density of approximately one per hectare. A total of 28 borings and one soil pit were examined.
- 1.5 The table below provides the details of the grades and subgrades found across the site. The majority of the land is classified as good quality (Subgrade 3a), limited by both wetness and droughtiness. An area to the north east of the site is graded as moderate quality land (Subgrade 3b), with soil wetness as the key limitation.

Table 1 : Distribution of Grades and Subgrades

<u>Grade</u>	<u>Area (ha)</u>	<u>% of Site</u>	<u>% of Agricultural Area</u>
3a	20.9	78.6	82.3
3b	4.5	16.9	17.7
Urban	0.3	1.1	100% (25.4 ha)
Non-Agricultural	0.6	2.3	
Woodland	0.3	1.1	
Total site area	26.6 ha	100%	

- 1.6 The distribution of the ALC grades is shown on the attached map. The information is presented at a scale of 1:5,000; it is accurate at this level but any enlargement would be misleading. This map supersedes any previous ALC information for this site.
- 1.7 At the time of survey the land use on the site was rough ungrazed grassland to the north and linseed to the south.

1.8 A general description of the grades and subgrades is provided as an appendix. The main classes are described in terms of the type of limitation that can occur, the typical cropping range and the expected level and consistency of yield.

2. Climate

2.1. The climatic criteria are considered first when classifying land as climate can be overriding in the sense that severe limitations will restrict land to low grades irrespective of favourable site or soil conditions.

2.2. The main parameters used in the assessment of the overall climatic limitation are annual average rainfall, as a measure of overall wetness, and accumulated temperature, as a measure of the relative warmth of a locality.

2.3. A detailed assessment of the prevailing climate was made by interpolation from a 5 km gridpoint dataset (Met. Office, 1989). The details are given in the table below and these show that there is no overall climatic limitation affecting the site.

2.4. No local climatic factors such as exposure or frost risk affect the site.

Table 2: Climatic Interpolations

Grid Reference:	TR075243
Altitude (m):	5
Accumulated Temperature (days):	1508
Average Annual Rainfall (mm):	668
Field Capacity (days):	136
Moisture Deficit, Wheat (mm):	130
Moisture Deficit, Potatoes (mm):	129
Overall Climatic Grade:	1

3. Relief

3.1. The site lies at approximately 5 m AOD. Overall the topography is flat, and gradient or microrelief do not affect the grading of the land.

4. Geology and Soil

4.1. The relevant published geological sheet (British Geological Survey, 1978, Sheet-305/306, Folkestone and Dover) shows the area to be underlain with Pleistocene or Recent Marine Alluvium Sand, a deposit of fine silty sand found on reclaimed tidal flats and saltmarshes.

4.2. The main soil types that occur on the site according to the Soil Survey of England and Wales publication, Bulletin 4, Soils of Romney Marsh (1968), are from the Greatstone Series. There are described as imperfectly drained, with a silty clay loam or clay loam topsoil with sand or loamy sand at less than 45 cm. Soils of this type were found at the site.

5. **Agricultural Land Classification**

- 5.1. Table 1 provides the details of the area measurements for each grade and the distribution of each grade is shown on the attached ALC map.
- 5.2. The location of the soil observation points is shown on the attached sample point map.
- 5.3 **Subgrade 3a**

The majority of the agricultural land has been placed in this grade with soil wetness and soil droughtiness as the key limiting factors.

A relatively high water table was present in these soils at the time of survey. Given this evidence of waterlogging in the summer period, the soils have been assessed as falling into Wetness Class III at best. The heavy nature of the topsoil textures combines to create a significant workability limitation.

A soil wetness limitation exists where the soil water regime adversely affects plant growth or imposes restrictions on cultivations or grazing by livestock. Excessive soil wetness adversely affects seed germination and survival, by reducing temperature and anaerobism and it also hinders root system development. It also influences soil sensitivity to structural damage meaning that there is a restriction on the number of days that the soil may be cultivated and/or grazed upon, such that consistent moderate yields of a wide range of crops including cereals, oilseed rape and grass would be expected..

This area is also limited by soil droughtiness, caused by the light sandy nature of the subsoils beneath a heavy topsoil (see above). These were often medium and fine sandy loam, loamy fine and medium sand and fine and medium sand, all of which were found to be calcareous, such that in the local climatic regime, there would be a restricted water availability during a part of the growing season in most years..

5.4 **Subgrade 3b**

The land of this quality to the north east quarter of the site primarily experiences a significant soil wetness limitation. This is due to the presence of a very shallow watertable within the profile at the time of survey. This was considered to be of a degree whereby Wetness Class IV (see Appendix II) was appropriate. This, in combination with the local climatic regime and the workability limit of the heavy clay loam or heavy silty clay loam topsoil leads to the land being restricted to Subgrade 3b. Land of this grade is considered to be capable of producing moderate yields of a narrow range of crops, principally cereals and grass.

- 5.5 The area marked as urban is a metalled track running through the surveyed area to the sewage works.
- 5.6 The area marked as non-agricultural is an unmetalled track between 2 fields and culminating in an area of dumped rubbish towards the east.

5.7 The area of open water is a pond which is becoming overgrown by the woodland surrounding it.

ADAS Ref: 2010/85/93
MAFF Ref: EL 20/109

Resource Planning Team
Guildford Statutory Group
ADAS Reading

SOURCES OF REFERENCE

- * British Geological Survey (1978), Sheet No. 305/306, Folkestone and Dover 1:50000.
- * MAFF (1988), Agricultural Land Classification of England and Wales : Revised guidelines and criteria for grading the quality of agricultural land.
- * Meteorological Office (1989), Climatological Data for Agricultural Land Classification.
- * Soil Survey of England and Wales (1968), Bulletin No. 4, Soils of Romney Marsh, 1:25000.

APPENDIX I

DESCRIPTION OF THE GRADES AND SUB-GRADES

Grade 1 : Excellent Quality Agricultural Land

Land with no or very minor limitations to agricultural use. A very wide range of agricultural and horticultural crops can be grown and commonly includes top fruit, soft, fruit, salad crops and winter harvested vegetables. Yields are high and less variable than on land of lower quality.

Grade 2 : Very Good Quality Agricultural Land

Land with minor limitations which affect crop yield, cultivations or harvesting. A wide range of agricultural or horticultural crops can usually be grown but on some land on the grade there may be reduced flexibility due to difficulties with the production of the more demanding crops such as winter harvested vegetables and arable root crops. The level of yield is generally high but may be lower or more variable than Grade 1.

Grade 3 : Good To Moderate Quality Agricultural Land

Land with moderate limitations which affect the choice of crops, timing and type of cultivation, harvesting or the level of yield. When more demanding crops are grown yields are generally lower or more variable than on land in grades 1 and 2.

Subgrade 3a : Good Quality Agricultural Land

Land capable of consistently producing moderate to high yields of a narrow range of arable crops, especially cereals, or moderate yields of a wide range of crops including cereals, grass, oilseed rape, potatoes, sugar beet and the less demanding horticultural crops.

Sub-grade 3b : Moderate Quality Agricultural Land

Land capable of producing moderate yields of a narrow range of crops, principally cereals and grass, or lower yields of a wider range of crops or high yields of grass which can be grazed or harvested over most of the year.

Grade 4 : Poor Quality Agricultural Land

Land with severe limitations which significantly restrict the range of crops and/or the level of yields. It is mainly suited to grass with occasional arable crops (eg. cereals and forage crops) the yields of which are variable. In moist climates, yields of grass may be moderate to high but there may be difficulties in utilisation. the grade also includes very droughty arable land.

Grade 5 : Very Poor Quality Agricultural Land

Land with very severe limitations which restrict use to permanent pasture or rough grazing, except for occasional pioneer forage crops.

Urban

Built-up or 'hard' uses with relatively little potential for a return to agriculture : housing, industry, commerce, education, transport, religious buildings, cemeteries. Also, hard-surfaced sports facilities, permanent caravan sites and vacant land; all types of derelict land, including mineral workings which are only likely to be re-claimed using derelict land grants.

Non-agricultural

'Soft' uses where most of the land could be returned relatively easily to agriculture, including : private parkland, public open spaces, sports fields, allotments and soft-surfaced areas on airports/airfields. Also active mineral workings and refuse tips where restoration conditions to 'soft' after-uses may apply.

Woodland

Includes commercial and non-commercial woodland.

Agricultural Buildings

Includes the normal range of agricultural buildings as well as other relatively permanent structures such as glasshouses. Temporary structures (eg. polythene tunnels erected for lambing) may be ignored.

Open Water

Includes lakes, ponds and rivers as map scale permits.

Land Not Surveyed

Agricultural land which has not been surveyed.

Where the land use includes more than one of the above, eg. buildings in large grounds, and where map scale permits, the cover types may be shown separately. Otherwise, the most extensive cover type will be shown.

APPENDIX II

DEFINITION OF SOIL WETNESS CLASSES

Wetness Class I

The soil profile is not wet within 70cm depth for more than 30 days in most years.

Wetness Class II

The soil profile is wet within 70cm depth for 31-90 days in most years or, if there is no slowly permeable layer within 80cm depth, it is wet within 70cm for more than 90 days, but not wet within 40cm depth for more than 30 days in most years.

Wetness Class III

The soil profile is wet within 70cm depth for 91-180 days in most years or, if there is no slowly permeable layer within 80cm depth, it is wet within 70cm for more than 180 days, but only wet within 40cm depth for 31-90 days in most years.

Wetness Class IV

The soil profile is wet within 70cm depth for more than 180 days but not wet within 40cm depth for more than 210 days in most years or, if there is no slowly permeable layer within 80cm depth, it is wet within 40cm depth for 91-210 days in most years.

Wetness Class V

The soil profile is wet within 40cm depth for 211-335 days in most years.

Wetness Class VI

The soil profile is wet within 40cm depth for more than 335 days in most years.

(The number of days is not necessarily a continuous period. 'In most years' is defined as more than 10 out of 20 years.)

APPENDIX III

SOIL PIT AND SOIL BORING DESCRIPTIONS

- Contents :**
- * Soil Abbreviations : Explanatory Note
 - * Soil Pit Descriptions
 - * Database Printout : Boring Level Information
 - * Database Printout : Horizon Level Information

SOIL PROFILE DESCRIPTIONS : EXPLANATORY NOTE

Soil pit and auger boring information collected during ALC fieldwork is held on a database. This has commonly used notations and abbreviations as set out below.

Boring Header Information

1. GRID REF : national grid square and 8 figure grid reference.

2. USE : Land use at the time of survey. The following abbreviations are used.

ARA : Arable WHT : Wheat BAR : Barley CER : Cereals OAT : Oats MZE : Maize OSR : Oilseed rape
BEN : Field Beans BRA : Brassicae POT : Potatoes SBT : Sugar Beet FCD : Fodder Crops LIN : Linseed
FRT : Soft and Top Fruit HRT : Horticultural Crops PGR : Permanent Pasture LEY : Ley Grass RGR : Rough Grazing
SCR : Scrub CFW : Coniferous Woodland DCW : Deciduous Woodland HTH : Heathland BOG : Bog or Marsh
FLW : Fallow PLO : Ploughed SAS : Set aside OTH : Other

3. GRDNT : Gradient as measured by a hand-held optical clinometer.

4. GLEY/SPL : Depth in cm to gleying or slowly permeable layers.

5. AP (WHEAT/POTS) : Crop-adjusted available water capacity.

6. MB (WHEAT/POTS) : Moisture Balance.

7. DRT : Best grade according to soil droughtiness.

8. If any of the following factors are considered significant, an entry of 'Y' will be entered in the relevant column.

MREL : Microrelief limitation FLOOD : Flood risk EROSN : Soil erosion risk EXP : Exposure limitation FROST : Frost
DIST : Disturbed land CHEM : Chemical limitation

9. LIMIT : The main limitation to land quality. The following abbreviations are used.

OC : Overall Climate AE : Aspect EX : Exposure FR : Frost Risk GR : Gradient MR : Microrelief
FL : Flood Risk TX : Topsoil Texture DP : Soil Depth CH : Chemical WE : Wetness WK : Workability
DR : Drought ER : Soil Erosion Risk WD : Combined Soil Wetness/Droughtiness ST : Topsoil Stoniness

Soil Pits and Auger Borings

1. TEXTURE : soil texture classes are denoted by the following abbreviations.

S : Sand LS : Loamy Sand SL : Sandy Loam SZL : Sandy Silt Loam CL : Clay Loam ZCL : Silty Clay Loam
SCL : Sandy Clay Loam C : Clay SC : Sandy Clay ZC : Silty Clay OL : Organic Loam P : Peat SP : Sandy Peat
LP : Loamy Peat PL : Peaty Loam PS : Peaty Sand MZ : Marine Light Silts

For the sand, loamy sand, sandy loam and sandy silt loam classes, the predominant size of sand fraction will be indicated by the use of prefixes.

F : Fine (more than 66% of the sand less than 0.2mm)

M : Medium (less than 66% fine sand and less than 33% coarse sand)

C : Coarse (more than 33% of the sand larger than 0.6mm)

The clay loam and silty clay loam classes will be sub-divided according to the clay content.

M : Medium (< 27% clay) H : Heavy (27-35% clay)

2. **MOTTLE COL** : Mottle colour

3. **MOTTLE ABUN** : Mottle abundance, expressed as a percentage of the matrix or surface described.

F : few <2% C : common 2-20% M : many 20-40 VM : very many 40%+

4. **MOTTLE CONT** : Mottle contrast

F : faint - indistinct mottles, evident only on close inspection D : distinct - mottles are readily seen

P : prominent - mottling is conspicuous and one of the outstanding features of the horizon

5. **PED. COL** : Ped face colour

6. **STONE LITH** : One of the following is used.

HR : all hard rocks and stones MSST : soft, medium or coarse grained sandstone

SI : soft weathered igneous or metamorphic SLST : soft oolitic or dolimitic limestone

FSST : soft, fine grained sandstone ZR : soft, argillaceous, or silty rocks CH : chalk

GH : gravel with non-porous (hard) stones GS : gravel with porous (soft) stones

Stone contents (> 2cm, > 6cm and total) are given in percentages (by volume).

7. **STRUCT** : the degree of development, size and shape of soil peds are described using the following notation:

- degree of development WK : weakly developed MD : moderately developed ST : strongly developed

- ped size F : fine M : medium C : coarse VC : very coarse

- ped shape S : single grain M : massive GR : granular AB : angular blocky SAB : sub-angular blocky PR : prismatic
PL : platy

8. **CONSIST** : Soil consistence is described using the following notation:

L : loose VF : very friable FR : friable FM : firm VM : very firm EM : extremely firm EH : extremely hard

9. **SUBS STR** : Subsoil structural condition recorded for the purpose of calculating profile droughtiness.

G : good M : moderate P : poor

10. **POR** : Soil porosity. If a soil horizon has less than 0.5% biopores > 0.5 mm, a 'Y' will appear in this column.

11. **IMP** : If the profile is impenetrable a 'Y' will appear in this column at the appropriate horizon.

12. **SPL** : Slowly permeable layer. If the soil horizon is slowly permeable a 'Y' will appear in this column.

13. **CALC** : If the soil horizon is calcareous, a 'Y' will appear in this column.

14. Other notations

APW : available water capacity (in mm) adjusted for wheat

APP : available water capacity (in mm) adjusted for potatoes

MBW : moisture balance, wheat

MBP : moisture balance, potatoes

SOIL PIT DESCRIPTION

Site Name : SITE 28 SHEPWAY L P Pit Number : 1P

Grid Reference: TR07422452 Average Annual Rainfall : 0 mm
 Accumulated Temperature : 0 degree days
 Field Capacity Level : 136 days
 Land Use : Permanent Grass
 Slope and Aspect : degrees

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	MOTTLES	STRUCTURE
0- 23	MCL	10YR42 00	0	0		
23- 51	MCL	25Y 61 00	0	0	M	STCAB
51- 68	FS	10YR52 51	0	0	M	MDCSAB
68-120	FS	10YR53 00	0	0	C	MDCSAB

Wetness Grade : 3A Wetness Class : III
 Gleying : 023 cm
 SPL : No SPL

Drought Grade : 3A APW : 168mm MBW : 38 mm
 APP : 113mm MBP : -16 mm

FINAL ALC GRADE : 3A
 MAIN LIMITATION : Wetness.

SAMPLE NO.	GRID REF	ASPECT USE	--WETNESS--		-WHEAT-		-POTS-		M. REL		EROSN	FROST	CHEM	ALC	COMMENTS	
			GRDNT	GLEY SPL	CLASS	GRADE	AP	MB	AP	MB	DRT	FLOOD	EXP	DIST		LIMIT
1	TR07402460	PGR	035		3	3A		0		0				WE	3A	WETNESS LEVEL
1P	TR07422452	PGR	023		3	3A	168	38	113	-16	3A			WE	3A	DR & WE
2	TR07502460	PGR	025		3	3A	118	-12	103	-26	3A			DR	3A	DR & WE
3	TR07402450	PGR	025		3	3A	178	48	117	-12	3A			WE	3A	WETNESS LEVEL
4	TR07502450	PGR	026		3	3A	92	-38	76	-53	3B			DR	3B	WET 55
5	TR07602450	PGR	040		3	3A		0		0				WE	3A	WETNESS LEVEL
6	TR07302440	PGR	028	028	4	3B		0		0				WE	3B	SPL 28
7	TR07402440	PGR	028		3	3A		0		0				WE	3A	WETNESS LEVEL
8	TR07502440	PGR	0		3	3A	114	-16	95	-34	3B			DR	3B	GLEY 32
9	TR07602440	PGR	035		3	3A	174	44	118	-11	3A			DR	3A	DR & WE
10	TR07702440	PGR	040		3	3A		0		0				WE	3A	WETNESS LEVEL
11	TR07302430	PGR	030		3	3A		0		0				WE	3A	WETNESS LEVEL
12	TR07402430	PGR	028		3	3A		0		0				WE	3A	WETNESS LEVEL
13	TR07502430	PGR	032		3	3A	116	-14	96	-33	3B			DR	3B	GLEY 32
14	TR07602430	PGR	065		3	3A		0		0				WE	3A	WETNESS LEVEL
15	TR07702430	PGR	035		3	3A	173	43	117	-12	3A			DR	3A	DR & WE
16	TR07302420	PGR	035		3	3A		0		0				WE	3A	WETNESS LEVEL
17	TR07402420	PGR	028		3	3A		0		0				WE	3A	WETNESS LEVEL
18	TR07502420	PGR	025		3	3A	122	-8	105	-24	3A			DR	3A	DR & WE
19	TR07602420	PGR	025		3	3A		0		0				WE	3A	WETNESS LEVEL
20	TR07702420	PGR			3	3A	154	24	99	-30	3A			DR	3A	DR & WE
21	TR07302410	LIN	030		3	3A		0		0				WE	3A	WETNESS LEVEL
22	TR07402410	LIN			3	3A	124	-6	83	-46	3B			DR	3B	
23	TR07502410	LIN	030		3	3A	127	-3	110	-19	3A			DR	3A	DR & WE
24	TR07602410	PGR	030	030	4	3B		0		0				WE	3B	SPL 30
25	TR07702410	PGR	035		3	3A	107	-23	88	-41	3B			DR	3B	
26	TR07202400	PGR	025		3	3A		0		0				WE	3A	WETNESS LEVEL
27	TR07602400	LIN	028		3	3A	129	-1	117	-12	3A			DR	3A	DR & WE
28	TR07572392	LIN	065		3	3A	128	-2	112	-17	3A			DR	3A	DR & WE

SAMPLE	DEPTH	TEXTURE	COLOUR	---MOTTLES---			PED COL.	---STONES---			STRUCT/ CONSIST	SUBS STR POR IMP SPL CALC
				COL	ABUN	CONT		GLEY	>2	>6 LITH TOT		
1	0-35	hzc1	10YR42 00					0	0	0		Y
	35-50	zc	25Y 62 00	10YR56 00	C		Y	0	0	0	M	Y
	50-80	fs1	25Y 62 00	10YR56 00	C		Y	0	0	0	M	Y
	80-120	lfs	10YR62 00				Y	0	0	0	M	Y
1P	0-23	mc1	10YR42 00					0	0	0		Y
	23-51	mc1	25Y 61 00	10YR58 00	M		Y	0	0	0	STCAB FR M	Y
	51-68	fs	10YR52 51	10YR56 00	M		Y	0	0	0	MDCSAB FR G	Y
	68-120	fs	10YR53 00	10YR56 00	C		Y	0	0	0	MDCSAB VF G	Y
2	0-25	hc1	10YR42 00					0	0	0		Y
	25-35	ms1	10YR62 00	75YR58 00	C		Y	0	0	0	M	Y
	35-60	ms1	10YR62 00	10YR56 00	C		Y	0	0	0	M	Y
	60-120	ms	10YR62 00	10YR56 00	C		Y	0	0	0	M	Y
3	0-25	mzc1	10YR42 00					0	0	0		Y
	25-48	mc1	10YR62 00	10YR56 00	C		Y	0	0	0	M	Y
	48-120	lfs	10YR53 00				Y	0	0	0	M	Y
4	0-26	hc1	10YR42 00					0	0	0		Y
	26-55	lms	10YR62 00	10YR56 00	M		Y	0	0	0	M	Y
	55-120	ms	10YR62 00	10YR62 00	F		Y	0	0	0	M	Y
5	0-40	hzc1	10YR43 00					0	0	0		Y
	40-55	fs1	10YR53 00	10YR58 61	C		Y	0	0	0	M	Y
	55-120	lfs	10YR53 00	10YR58 61	C		Y	0	0	0	M	Y
6	0-28	mzc1	10YR42 00					0	0	0		Y
	28-60	c	10YR52 00	10YR58 61	C		Y	0	0	0	P Y	Y Y
	60-120	fs1	10YR53 00	10YR58 61	C		Y	0	0	0	M	Y Y
7	0-28	hzc1	10YR42 00					0	0	0		Y
	28-45	fs1	25Y 62 00	10YR56 00	C		Y	0	0	0	M	Y
	45-120	lfs	25Y 62 00	10YR56 00	F		Y	0	0	0	M	Y
8	0-32	hc1	10YR42 00	10YR56 00	C		Y	0	0	0		Y
	32-45	ms1	10YR62 00	10YR56 00	C		Y	0	0	0	M	Y
	45-120	lms	10YR52 00	10YR56 00	C		Y	0	0	0	M	Y
9	0-35	hzc1	10YR43 00					0	0	0		Y
	35-55	lfs	10YR63 00	10YR58 61	C		Y	0	0	0	M	Y
	55-120	fs	10YR52 00	10YR58 00	F		Y	0	0	0	M	Y
10	0-40	hzc1	10YR42 00					0	0	0		Y
	40-60	lfs	10YR53 00	10YR58 61	C		Y	0	0	0	M	Y
	60-120	fs	10YR53 00	10YR58 61	C		Y	0	0	0	M	Y
11	0-30	hzc1	10YR43 00					0	0	0		Y
	30-45	sc1	10YR63 00	10YR58 00	C		Y	0	0	0	M	Y
	45-120	fs1	10YR53 00	10YR58 00	F		Y	0	0	0	M	Y

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES----			PED COL.	----STONES----			STRUCT/ CONSIST	SUBS					
				COL	ABUN	CONT		GLE	>2	>6		LITH	TOT	STR	POR	IMP	SPL
12	0-28	hc1	10YR42 00						0	0	0						Y
	28-55	fs1	25Y 62 00	10YR56	00	C		Y	0	0	0		M				Y
	55-120	fs	10YR53 00					Y	0	0	0		M				Y
13	0-32	hc1	10YR42 00						0	0	0						Y
	32-45	c	10YR41 51	10YR56	00	C		Y	0	0	0		M				Y
	45-60	lms	10YR62 00	10YR56	00	C		Y	0	0	0		M				Y
	60-120	lms	10YR62 00	10YR56	00	C		Y	0	0	0		M				Y
14	0-40	hzc1	10YR42 00						0	0	0						Y
	40-65	fs1	10YR54 00	10YR58	00	F			0	0	0		M				Y
	65-120	fs	10YR53 00	10YR58	61	C		Y	0	0	0		M				Y
15	0-35	hzc1	10YR43 00						0	0	0						Y
	35-50	lfs	10YR53 00	10YR58	61	C		Y	0	0	0		M				Y
	50-75	fs	10YR53 00	10YR58	61	C		Y	0	0	0		M				Y
	75-120	fs	10YR53 00	10YR58	61			Y	0	0	0		M				Y
16	0-35	hzc1	10YR53 00						0	0	0						Y
	35-50	fs1	10YR52 00	10YR58	00	C		Y	0	0	0		M				Y
	50-65	lfs	10YR53 00	10YR58	00	F		Y	0	0	0		M				Y
	65-120	fs	10YR54 00					Y	0	0	0		M				Y
17	0-28	hc1	10YR42 00						0	0	0						Y
	28-58	fs1	25Y 62 00	10YR56	00	C		Y	0	0	0		M				Y
	58-120	fs	10YR53 00					Y	0	0	0		M				Y
18	0-25	hc1	10YR42 00						0	0	0						Y
	25-60	ms1	10YR53 52	10YR56	00	C		Y	0	0	0		M				Y
	60-120	lms	10YR51 61	10YR56	00	M		Y	0	0	0		M				Y
19	0-25	hc1	10YR42 00						0	0	0						Y
	25-120	fs1	10YR53 62	10YR56	00	C	000000	00	Y	0	0	0		M			Y
20	0-28	hc1	10YR42 00						0	0	0						Y
	28-45	mc1	10YR53 00	000C00	00	F			0	0	0		M				Y
	45-65	lms	10YR54 00	000C00	00	F			0	0	0		M				Y
	65-120	fs	25Y 53 00						0	0	0		M				Y
21	0-30	hzc1	10YR43 00						0	0	0						Y
	30-60	fs1	10YR53 00	10YR58	61	C		Y	0	0	0		M				Y
	60-120	lfs	10YR54 00	10YR58	00	F		Y	0	0	0		M				Y
22	0-20	hzc1	10YR42 00						0	0	0						Y
	20-30	c	10YR42 00						0	0	0		M				Y
	30-90	lms	10YR54 00						0	0	0		M				Y
	90-120	fs	25Y 53 00						0	0	0		M				Y

SAMPLE	DEPTH	TEXTURE	COLOUR	----MOTTLES-----			PED	----STONES-----			STRUCT/	SUBS	SPL	CALC
				COL	ABUN	CONT	COL.	GLEY	>2	>6	LITH	TOT		
23	0-30	hc1	10YR42 00					0	0	0				Y
	30-65	ms1	10YR53 52	10YR56	00	C		Y	0	0		M		Y
	65-120	lms	10YR51 61	10YR56	00	C		Y	0	0		M		Y
24	0-30	hc1	10YR42 00					0	0	0				Y
	30-55	c	10YR62 00	10YR56	00	C		Y	0	0		M		Y
	55-120	lms	25Y 62 00	10YR56	00	M		Y	0	0		M		Y
25	0-35	hc1	10YR42 00					0	0	0				Y
	35-65	lms	10YR62 00	10YR56	00	C		Y	0	0		M		Y
	65-120	lms	10YR51 61	10YR56	00	M		Y	0	0		M		Y
26	0-25	hzc1	10YR43 00					0	0	0				Y
	25-40	hzc1	10YR52 00	10YR58	61	C		Y	0	0		M		Y
	40-65	fs1	10YR53 00	10YR58	00	C		Y	0	0		M		Y
	65-120	lfs	10YR54 00					Y	0	0		M		Y
27	0-28	hc1	10YR42 00					0	0	0				Y
	28-65	hzc1	10YR53 52	10YR56	00	C		Y	0	0		M		Y
	65-120	lms	25Y 62 00	10YR56	00	M		Y	0	0		M		Y
28	0-35	hc1	10YR42 00					0	0	0				Y
	35-65	ms1	10YR54 00					0	0	0		M		Y
	65-120	lms	10YR51 61	10YR56	00	C		Y	0	0		M		Y