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MEDWAY TOWNS LOCAL PLAN
Site 42, Cliffe Woods

Agricultural Land Classification
February 1996

Resource Planning Team
Guildford Statutory Group
ADAS Reading

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AGRICULTURAL LAND CLASSIFICATION REPORT
MEDWAY TOWNS LOCAL PLAN, SITE 42, CLIFFE WOODS

INTRODUCTION

1. This report presents the findings of a detailed Agricultural Land Classification (ALC) survey of approximately 32 ha of land on the south side of the village of Cliffe Woods. The site is located immediately to the south of the village bounded by Town Road to the west, Lee Green Road to the south and by orchards to the east. The survey was carried out in February 1996.

2. The survey was commissioned by the Ministry of Agriculture, Fisheries and Food (MAFF) Land Use Planning Unit, Reading in connection with the Medway Towns Local Plan. This survey supersedes any previous ALC surveys on this land.

3. The work was carried out under sub-contracting arrangements by NA Duncan & Associates and was supervised by members of the Resource Planning Team in the Guildford Statutory Group of ADAS. The land has been graded in accordance with the published MAFF ALC guidelines and criteria (MAFF, 1988). A description of the ALC grades and subgrades is given in Appendix I.

4. At the time of survey the majority of the site was in fruit production, with the land principally covered by orchards and a field of young raspberry canes immediately to the south of an irrigation reservoir on the western side of the site. To the east of the raspberry field is a cricket pitch with a small pavilion whilst at the north eastern corner of the site is an area of broad leafed woodland.

SUMMARY

5. The findings of the survey are shown on the enclosed ALC map. The map has been drawn at a scale of 1:10000 it is accurate at this scale but any enlargement would be misleading.

6. The area and proportions of the ALC grades and subgrades on the surveyed land are summarised in Table 1.

Table 1: Area of grades and other land

Grade/Other land	Area (hectares)	% agricultural area	% total site area
3a	10.2	40.3	31.5
3b	15.1	59.7	46.6
Other	7.1		21.9
Total agricultural area	25.3	100.0	
Total site area	32.4		100.0

7. The fieldwork was conducted at an average density of one auger boring per hectare. A total of 27 borings and 2 soil pits was described.

8. The site has been mapped as a combination of Subgrade 3a, good quality agricultural land and Subgrade 3b, moderate quality agricultural land. The presence of heavy textured clayey soils developed on London Clay means that wetness and workability restrictions affect the whole site and the severity of the limitation reflects the land grading. The moderately well drained soils have therefore been mapped as Subgrade 3a, whilst the less well drained soils are confined to Subgrade 3b.

FACTORS INFLUENCING ALC GRADE

Climate

9. Climate affects the grading of land through the assessment of an overall climatic limitation and also through interactions with soil characteristics.

10. The key climatic variables used for grading this site are given in Table 2 and were obtained from the published 5km grid datasets using the standard interpolation procedures (Met. Office, 1989).

Table 2: Climatic and altitude data

Factor	Units	Values
Grid reference	N/A	TQ 736 730
Altitude	m, AOD	35
Accumulated Temperature	day°C	1460
Average Annual Rainfall	mm	608
Field Capacity Days	days	116
Moisture Deficit, Wheat	mm	123
Moisture Deficit, Potatoes	mm	119

11. 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.

12. The main parameters used in the assessment of an overall climatic limitation are average annual rainfall (AAR), as a measure of overall wetness, and accumulated temperature (ATO, January to June), as a measure of the relative warmth of a locality.

13. The combination of rainfall and temperature at this site mean that the area is relatively dry and warm. The site is not considered to be exposed or subject to any particular frost risk and as such no climatic limitation exists on this site.

Site

14. The altitude of the site ranges from 50 m AOD at the north east corner of the site to approximately 20 m AOD along the western boundary and falls generally to the south and west. Slopes are typically in the range of 0-4° with the flatter land mainly occurring on the western side of the site. The land is not prone to flooding. Site factors therefore do not impose any limitation to the agricultural quality of the land.

Geology and soils

15. The published geological information (BGS, 1977), shows the area to be underlain by London Clay with no drift deposits in the vicinity.

16. There is no detailed published soil map for this district but the reconnaissance soil survey map (SSEW, 1983) shows the area to comprise soils of the Windsor association. These soils are described as 'slowly permeable seasonally waterlogged clayey soils mostly with brown subsoils'.

AGRICULTURAL LAND CLASSIFICATION

17. The details of the classification of the site are shown on the attached ALC map and the area statistics of each grade are given in Table 1, page 1.

18. The location of the auger borings and pits is shown on the attached sample location map and the details of the soils data are presented in Appendix III.

Subgrade 3a

19. Two areas of Subgrade 3a, good quality agricultural land, have been mapped which generally correspond to the better drained soils on the site. The soils in these areas typically comprise non-calcareous or occasionally slightly calcareous clay topsoils overlying a yellowish brown faintly mottled or unmottled clay upper subsoil often containing small chalk stones. The lower subsoil is a strongly mottled, stoneless olive grey clay which is typically slowly permeable. These soils are assessed as Wetness Class II or occasionally Wetness Class III (see Appendix II). The main limitation associated with this land therefore is a moderate wetness and workability restriction due to the slight drainage impedance combined with the clay topsoil textures which under the prevailing climatic conditions restricts the land quality to Subgrade 3a.

Subgrade 3b

20. The majority of the site comprises moderate quality agricultural land, Subgrade 3b. The soils on these areas typically comprise stoneless clay soils with impeded drainage. A typical soil profile has a non-calcareous clay topsoil overlying a distinctly mottled clay upper subsoil, which becomes greyer and more strongly mottled with depth, although in many profiles browner less mottled clay occurs below 80-100 cm depth. The subsoil is generally slowly permeable and the soils are assessed as Wetness Class III. The presence of slowly permeable subsoil horizons combined with the clay topsoil texture results in a moderately

severe wetness and workability restriction which restricts the versatility of the land, principally in terms of cultivations, stocking and trafficking if structural damage to the soils is to be avoided.

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for Resource Planning Team
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SOURCES OF REFERENCE

British Geological Survey (1977) *Sheet No.* 272. BGS: London.

Ministry of Agriculture, Fisheries and Food (1988) *Agricultural Land Classification of England and Wales: Revised guidelines and criteria for grading the quality of agricultural land.* MAFF: London.

Met. Office (1989) *Climatological Data for Agricultural Land Classification.* Met. Office: Bracknell.

Soil Survey of England and Wales (1983) *Sheet* 6, *South East England.* SSEW: Harpenden.

Soil Survey of England and Wales (1984) *Soils and their Use in South East England* SSEW: Harpenden

APPENDIX I

DESCRIPTIONS OF THE GRADES AND SUBGRADES

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 of this 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 land.

Grade 3: Good to Moderate Quality Land

Land with moderate limitations which affect the choice of crops, the 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.

Subgrade 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 (e.g. 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 severe limitations which restrict use to permanent pasture or rough grazing, except for occasional pioneer forage crops.

APPENDIX II

SOIL WETNESS CLASSIFICATION

Definitions of Soil Wetness Classes

Soil wetness is classified according to the depth and duration of waterlogging in the soil profile. Six soil wetness classes are identified and are defined in the table below.

Wetness Class	Duration of waterlogging[1]
I	The soil profile is not wet within 70 cm depth for more than 30 days in most years.[2]
II	The soil profile is wet within 70 cm depth for 31-90 days in most years **or**, if there is no slowly permeable layer within 80 cm depth, it is wet within 70 cm for more than 90 days, but only wet within 40 cm depth for 30 days in most years.
III	The soil profile is wet within 70 cm depth for 91-180 days in most years **or**, if there is no slowly permeable layer present within 80 cm depth, it is wet within 70 cm for more than 180 days, but only wet within 40 cm depth for between 31-90 days in most years.
IV	The soil profile is wet within 70 cm depth for more than 180 days but not wet within 40 cm depth for more than 210 days in most years **or**, if there is no slowly permeable layer present within 80 cm depth, it is wet within 40 cm depth for 91-210 days in most years.
V	The soil profile is wet within 40 cm depth for 211-335 days in most years.
VI	The soil profile is wet within 40 cm depth for more than 335 days in most years.

Assessment of Wetness Class

Soils have been allocated to wetness classes by the interpretation of soil profile characteristics and climatic factors using the methodology described in *Agricultural Land Classification of England and Wales: Revised guidelines and criteria for grading the quality of agricultural land* (MAFF, 1988).

[1] The number of days is not necessarily a continuous period.
[2] 'In most years' is defined as more than 10 out of 20 years.

APPENDIX III

SOIL DATA

Contents:

SOIL PROFILE DESCRIPTIONS: EXPLANATORY NOTE

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

Boring Header Information

1. **GRID REF**: national 100 km 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	**FLW**:	Fallow
PGR:	Permanent Pasture	**LEY**:	Ley Grass	**RGR**:	Rough Grazing
SCR:	Scrub	**CFW**:	Coniferous Woodland	**DCW**:	Deciduous Wood
HTH:	Heathland	**BOG**:	Bog or Marsh	**FLW**:	Fallow
PLO:	Ploughed	**SAS**:	Set aside	**OTH**:	Other
HRT:	Horticultural Crops				

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

4. **GLEY/SPL**: Depth in centimetres (cm) to gleying and/or slowly permeable layers.

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

6. **MB (WHEAT/POTS)**: Moisture Balance. (Crop adjusted AP - crop adjusted MD)

7. **DRT**: Best grade according to soil droughtiness.

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

MREL:	Microrelief limitation	**FLOOD**:	Flood risk	**EROSN**:	Soil erosion risk
EXP:	Exposure limitation	**FROST**:	Frost prone	**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**:	Erosion Risk	**WD**:	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
ZL:	Silt 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 the following 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 using Munsell notation.

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 using Munsell notation.

6. **GLEY**: If the soil horizon is gleyed a 'Y' will appear in this column. If slightly gleyed, an 'S' will appear.

7. **STONE LITH**: Stone Lithology. One of the following is used:

HR:	all hard rocks and stones	**SLST**:	soft oolitic or dolimitic limestone
CH:	chalk	**FSST**:	soft, fine grained sandstone
ZR:	soft, argillaceous, or silty rocks	**GH**:	gravel with non-porous (hard) stones
MSST:	soft, medium grained sandston	**GS**:	gravel with porous (soft) stones
SI:	soft weathered igneous/metamorphic rock		

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

8. **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	

9. **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

10. **SUBS STR**: Subsoil structural condition recorded for the purpose of calculating profile droughtiness:
G: good **M**: moderate **P**: poor

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

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

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

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

15. 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.

SAMPLE NO.	GRID REF	USE	ASPECT	GRDNT	GLEY	SPL	--WETNESS-- CLASS	GRADE	-WHEAT- AP	MB	-POTS- AP	MB	M.REL DRT	FLOOD	EXP	EROSN DIST	FROST LIMIT	CHEM	ALC	COMMENTS
1	TQ73407320	FRT	S	01	030	030	3	3B	000	0	000	0						WE	3B	
1P	TQ73707270	FRT			030	040	3	3B	129	6	106	-13	3A					WE	3B	
2	TQ73507320	FRT	S	01	030	038	3	3A	000	0	000	0						WE	3A	CALC
2P	TQ73607280	FRT	W	02	050	065	2	3A	132	9	112	-7	2					WE	3A	WT 75CM
5	TQ73607310	FRT	W	01	040	060	2	3A	000	0	000	0						WE	3A	NEAR 3B
6	TQ73707310	FRT	W	02	030	038	3	3B	000	0	000	0						WE	3B	
7	TQ73807310	FRT	W	03	030	030	3	3B	000	0	000	0						WE	3B	
10	TQ73607300	FRT	W	02	040	040	2	3A	000	0	000	0						WE	3A	NEAR 3B
11	TQ73707300	FRT	W	03	030	070	2	3A	000	0	000	0						WE	3A	NEAR 3B
12	TQ73807300	FRT	W	02	030	060	3	3B	132	9	111	-8	2					WE	3B	
15	TQ73407290	FRT	W		030	045	3	3B	000	0	000	0						WE	3B	
16	TQ73507290	FRT	W		028	028	3	3B	000	0	000	0						WE	3B	
17	TQ73607290	FRT	W	03	060	060	2	3A	000	0	000	0						WE	3A	
18	TQ73707290	FRT	W	03	045	045	2	3A	000	0	000	0						WE	3A	
19	TQ73807290	FRT	SW	02	025	045	3	3B	000	0	000	0						WE	3B	
20	TQ73907290	FRT	S	03	040	060	2	3A	000	0	000	0						WE	3A	NEAR
21	TQ73407280	FRT	W		055	055	2	3A	000	0	000	0						WE	3A	
22	TQ73507280	FRT	N	04	050	070	2	3A	000	0	000	0						WE	3A	
23	TQ73607280	FRT	W	02	055	055	2	3A	000	0	000	0						WE	3A	
24	TQ73707280	FRT	NW	04	028	040	3	3B	000	0	000	0						WE	3B	
25	TQ73807280	FRT	S	02	030	030	3	3B	000	0	000	0						WE	3B	
26	TQ73907280	FRT	S	03	038	038	3	3B	000	0	000	0						WE	3B	
27	TQ73507270	FRT	N	05	028	080	2	3A	000	0	000	0						WE	3A	NEAR 3B
28	TQ73607270	FRT	N	03	027	027	3	3B	000	0	000	0						WE	3B	
29	TQ73707270	FRT	S		030	040	3	3B	000	0	000	0						WE	3B	
30	TQ73807270	FRT	S	01	045	045	2	3A	000	0	000	0						WE	3A	
31	TQ73907270	FRT	S	02	028	028	3	3B	000	0	000	0						WE	3B	
32	TQ73707260	FRT	W		020	020	3	3A	000	0	000	0						WE	3A	CALC
33	TQ73807260	FRT	W		030	045	3	3A	000	0	000	0						WE	3A	CALC

SAMPLE	DEPTH	TEXTURE	COLOUR	MOTTLES COL	MOTTLES ABUN	MOTTLES CONT	PED COL.	GLEY	STONES >2	STONES >6	STONES LITH	STONES TOT	STRUCT/ CONSIST	SUBS STR	SUBS POR	SUBS IMP	SUBS SPL	SUBS CALC
1	0-30	c	10YR43 00						0	0	HR	3						
	30-65	c	10YR64 00	10YR66 00	C			Y	0	0		0					Y	
	65-120	c	75YR63 00	75YR55 00	C			Y	0	0		0					Y	
1P	0-30	c	10YR42 00						0	0		0						
	30-40	c	25Y 54 00	10YR56 00	C		25Y 53 00	Y	0	0		0	MDMAB	FM	M			Y
	40-120	c	25Y 63 00	10YR66 71	M		25Y 63 00	Y	0	0		0	MDCPR	FM	P	Y	Y	
2	0-30	c	10YR43 00						0	0	HR	3						Y
	30-38	c	10YR64 00	10YR66 00	F			S	0	0	CH	5						Y
	38-70	c	25Y 63 62	10YR68 00	M			Y	0	0		0					Y	
	70-120	c	75YR63 00	75YR55 00	C			Y	0	0		0					Y	
2P	0-27	c	10YR43 00						0	0	HR	1						
	27-50	c	10YR54 00						0	0	CH	3	MDCSB	FM	M			Y
	50-65	c	25Y 53 00	10YR56 00	C		25Y 62 00	Y	0	0	CH	1	MDCSB	FM	M			Y
	65-120	c	25Y 63 00	10YR68 00	M		25Y 73 00	Y	0	0		0	MDCAB	FM	P	Y	Y	
5	0-30	c	10YR43 00						0	0	HR	1						
	30-40	c	10YR55 00						0	0	CH	2						Y
	40-60	c	10YR64 63	10YR68 00	C			Y	0	0	CH	1						Y
	60-120	c	75YR53 00	75YR55 62	C			Y	0	0		0					Y	
6	0-30	c	10YR43 00						0	0	HR	1						
	30-38	c	10YR54 00	10YR56 00	C			S	0	0		0						Y
	38-80	c	10YR64 54	10YR68 00	C			Y	0	0		0					Y	
	80-120	c	75YR63 00	75YR56 00	C			Y	0	0		0					Y	
7	0-30	c	10YR43 00						0	0		0						
	30-80	c	10YR63 64	75YR66 00	C			Y	0	0		0					Y	
	80-120	c	75YR63 62	75YR56 00	C			Y	0	0		0					Y	
10	0-30	c	10YR43 00						0	0		0						
	30-40	c	10YR43 55	10YR56 00	F				0	0	CH	2						Y
	40-100	c	25Y 63 00	10YR68 00	M			Y	0	0		0					Y	
	100-120	c	75YR64 00	75YR56 00	C			Y	0	0		0					Y	
11	0-30	c	10YR43 00						0	0		0						
	30-70	c	10YR53 54	10YR58 00	C			Y	0	0		0						
	70-120	c	75YR63 64	75YR56 00	C			Y	0	0		0					Y	
12	0-30	c	10YR43 00						0	0	HR	2						
	30-60	c	10YR64 00	75YR58 00	C			Y	0	0	CH	2		M				
	60-120	c	75YR63 00	75YR55 62	C			Y	0	0		0		P			Y	
15	0-30	c	10YR43 00						0	0	HR	2						
	30-45	c	25Y 63 00	10YR66 00	C			Y	0	0	CH	5						Y
	45-95	c	25Y 63 62	10YR66 68	M			Y	0	0		0					Y	
	95-120	c	75YR63 00	75YR56 62	C			Y	0	0		0					Y	

SAMPLE	DEPTH	TEXTURE	COLOUR	MOTTLES COL	MOTTLES ABUN	MOTTLES CONT	PED COL.	GLEY	STONES >2	STONES >6	STONES LITH	STONES TOT	STRUCT/ CONSIST	SUBS STR	SUBS POR	SUBS IMP	SUBS SPL	SUBS CALC
16	0-28	c	10YR33 00						0	0	HR	1						
	28-40	c	25Y 52 00	10YR46 62	C			Y	0	0		0					Y	
	40-60	c	25Y 53 00	75YR56 00	C			Y	0	0		0					Y	
	60-80	c	25Y 62 00	10YR68 00	C			Y	0	0	CH	1					Y	
	80-120	c	05Y 62 61	10YR58 00	M			Y	0	0		0					Y	
17	0-30	c	10YR54 44						0	0		0						
	30-60	c	10YR54 00						0	0	CH	1						
	60-85	c	10YR53 00	10YR56 00	C			Y	0	0		0					Y	
	85-120	c	10YR63 00	75YR56 00	M			Y	0	0		0					Y	
18	0-30	c	10YR43 00						0	0		0						
	30-45	c	10YR54 00	10YR56 00	F				0	0		0						
	45-80	c	25Y 53 00	10YR56 58	M			Y	0	0		0					Y	
	80-120	c	75YR64 00	75YR66 00	C			Y	0	0		0					Y	
19	0-25	c	10YR44 00						0	0	HR	2						
	25-45	c	10YR63 64	10YR66 00	C			Y	0	0	CH	3						Y
	45-80	c	25Y 63 62	10YR68 00	M			Y	0	0		0					Y	
	80-120	c	75YR53 54	75YR56 00	C			Y	0	0		0					Y	
20	0-30	c	10YR43 00						0	0	HR	2						
	30-40	c	10YR54 55						0	0		0						Y
	40-60	c	10YR64 00	75YR56 00	C			Y	0	0		0						
	60-120	c	10YR64 00	75YR65 00	F			Y	0	0		0					Y	
21	0-30	c	10YR33 00						0	0	HR	1						
	30-55	c	10YR54 00						0	0	CH	2						Y
	55-85	c	25Y 63 73	10YR68 00	M			Y	0	0		0					Y	
	85-120	c	10YR64 00	10YR66 00	C			Y	0	0		0					Y	
22	0-30	c	10YR43 00						0	0	HR	2						Y
	30-50	c	10YR64 00						0	0	CH	2						Y
	50-70	c	10YR63 00	10YR56 62	C			Y	0	0		0						Y
	70-90	c	25Y 51 00	10YR46 00	C			Y	0	0		0					Y	Y
	90-120	c	25Y 62 00	10YR68 00	M			Y	0	0		0					Y	
23	0-30	c	10YR43 00						0	0	HR	1						
	30-55	c	10YR54 00						0	0	CH	2						Y
	55-80	c	25Y 63 00	10YR58 00	C			Y	0	0		0					Y	
	80-120	c	25Y 63 00	10YR68 62	M			Y	0	0		0					Y	
24	0-28	c	25Y 42 00						0	0		0						
	28-40	c	10YR53 64	10YR66 00	C			Y	0	0		0						
	40-90	c	10YR64 62	10YR68 00	C			Y	0	0		0					Y	
	90-120	c	10YR63 00	10YR66 00	C			Y	0	0		0					Y	
25	0-30	c	10YR43 00						0	0	HR	1						
	30-75	c	10YR63 00	10YR68 00	M			Y	0	0		0					Y	
	75-120	c	75YR63 00	75YR56 00	C			Y	0	0		0					Y	

SAMPLE	DEPTH	TEXTURE	COLOUR	MOTTLES COL	MOTTLES ABUN	MOTTLES CONT	PED COL.	GLEY	STONES >2	STONES >6	STONES LITH	STONES TOT	STRUCT/ CONSIST	SUBS STR	SUBS POR	SUBS IMP	SUBS SPL	SUBS CALC
26	0-28	c	10YR43 00						0	0	HR	1						
	28-38	c	10YR55 00						0	0	CH	2						Y
	38-80	c	10YR64 63	10YR68 62	M			Y	0	0		0					Y	
	80-120	c	75YR53 54	75YR55 00	F			Y	0	0		0					Y	
27	0-28	c	10YR42 00						0	0		0						
	28-80	c	10YR64 00	10YR66 00	C			Y	0	0		0						
	80-120	c	10YR63 00	25Y 71 00	C			Y	0	0		0					Y	
28	0-27	c	25Y 43 00						0	0		0						
	27-85	c	10YR64 00	10YR66 71	C			Y	0	0	CH	1					Y	
	85-120	c	75YR54 64	75YR66 62	C			Y	0	0		0					Y	
29	0-30	c	10YR42 00						0	0		0						
	30-40	c	25Y 54 00	10YR56 00	C			S	0	0	CH	1						
	40-90	c	25Y 63 64	10YR66 00	C			Y	0	0		0					Y	
	90-120	c	05Y 62 00	10YR56 00	C			Y	0	0		0					Y	
30	0-30	c	25Y 42 00						0	0	HR	1						
	30-45	c	10YR55 00						0	0	CH	2						Y
	45-120	c	25Y 62 63	10YR68 00	M			Y	0	0		0					Y	
31	0-28	c	10YR43 00						0	0		0						
	28-70	c	10YR64 00	75YR66 00	C			Y	0	0		0					Y	
	70-120	c	75YR54 00	75YR56 00	C			Y	0	0		0					Y	
32	0-20	hcl	10YR32 00						0	0	HR	3						Y
	20-60	c	25Y 54 00	10YR56 00	C			Y	0	0	CH	2					Y	Y
	60-120	c	25Y 63 62	10YR68 00	M			Y	0	0		0					Y	
33	0-30	c	10YR32 00						0	0	HR	1						Y
	30-45	c	25Y 53 00	10YR56 00	C			Y	0	0	CH	2						Y
	45-70	c	25Y 63 62	10YR68 00	M			Y	0	0		0					Y	
	70-120	c	05Y 62 00	10YR66 00	M			Y	0	0		0					Y	

SOIL PIT DESCRIPTION

Site Name : MEDWAY TOWNS LP SITE 42 Pit Number : 1P

Grid Reference: TQ73707270 Average Annual Rainfall : 608 mm
Accumulated Temperature : 1460 degree days
Field Capacity Level : 116 days
Land Use :
Slope and Aspect : degrees

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 30	C	10YR42 00	0	0						
30- 40	C	25Y 54 00	0	0		C	MDMAB	FM	M	Y
40-120	C	25Y 63 00	0	0		M	MDCPR	FM	P	

Wetness Grade : 3B Wetness Class : III
Gleying :030 cm
SPL :040 cm

Drought Grade : 3A APW : 129mm MBW : 6 mm
APP : 106mm MBP : -13 mm

FINAL ALC GRADE : 3B
MAIN LIMITATION : Wetness

SOIL PIT DESCRIPTION

Site Name : MEDWAY TOWNS LP SITE 42 Pit Number : 2P

Grid Reference: TQ73607280 Average Annual Rainfall : 608 mm
Accumulated Temperature : 1460 degree days
Field Capacity Level : 116 days
Land Use :
Slope and Aspect : 02 degrees W

HORIZON	TEXTURE	COLOUR	STONES >2	TOT.STONE	LITH	MOTTLES	STRUCTURE	CONSIST	SUBSTRUCTURE	CALC
0- 27	C	10YR43 00	0	1	HR					
27- 50	C	10YR54 00	0	3	CH		MDCSB	FM	M	Y
50- 65	C	25Y 53 00	0	1	CH	C	MDCSB	FM	M	Y
65-120	C	25Y 63 00	0	0		M	MDCAB	FM	P	

Wetness Grade : 3A Wetness Class : II
Gleying :050 cm
SPL :065 cm

Drought Grade : 2 APW : 132mm MBW : 9 mm
APP : 112mm MBP : -7 mm

FINAL ALC GRADE : 3A
MAIN LIMITATION : Wetness