

Soil Pit Descriptions, Vinery Lane East, Elburton, Plymouth

Soil Pit No 1

Topsoil: Heavy Clay Loam/Clay; texture grades into Clay below 30 cm
7.5YR32, dark brown
1-2% very fine stones throughout (less than 2 mm)

Subsoil: Structure below 35 cm is Medium Sub-angular Blocky; weak; friable.
There are no evident peds with clay skins despite the high clay content.
The intimate mix of soil and fine stone seems to prevent clear structural units.
Similar colour to topsoil.
No evidence of Wetness.
Common earthworm channels; porosity 0.5% 0.5 mm.

Structure below 60 cm; again difficult to obtain clear structural units.
Towards Coarse Subangular Blocky; weak; friable. Intimate mix of soil and fine stone (2 mm).

Soil continues to + 80 cm. No evidence of wetness or SPL, Wetness Class 1.

ALC grade dependent on topsoil texture (for FCD value 225); HCL = 3A
C = 3B

Soil Pit No 2

Pit Description took the form of trench inspection for building extension.

Topsoil: depth varies from 22-35 cm.
Clay
7.5YR32/34, dark brown
some rusty roots, no evidence of mottling
intimate mix of soil matrix and very fine slate (less than 2 mm mostly).

Vertically bedded slate immediately below topsoil.
Root penetration to about 40 cm, below is rock that is not penetrated.

ALC Grade = 3B (workability, depth and droughtiness).

Soil Pit No 3

Topsoil: 0-23 cm
Heavy Clay Loam/Clay
10YR43, brown
No evidence of wetness
Stone free

Subsoil: 23-55 cm
Clay, similar colour to topsoil
20-30% mix of thin, fine slate (less than 2 cm)
Penetrated by roots

Soil Pit dug to 55 cm. Slate content gradually increases with depth. Further augering reveals impenetrable layer at 65 cm (roots can penetrate to at least this depth). No evidence of wetness throughout the profile; structure assumed "good" due to high stone content.

ALC Grade = 3B (workability)

[RPG-30]SJ

Soil Profile Descriptions: Explanatory Note

Soil texture classes are denoted by the following abbreviations:

Sand **S**; Loamy Sand **LS** Sandy Loam **SL**; Sand Silt Loam **SZL**; Silt Loam **ZL**;
Medium Silty Clay Loam **MZCL**; Medium Clay Loam **MCL**; Sandy Clay Loam **SCL**;
Heavy Silty Clay Loam **HZCL**; Heavy Clay Loam **HCL**; Sandy Clay **SC**;
Silty Clay **ZC**; Clay **C**

For the sand, loamy sand, sandy loam and sandy silt loam classes the predominant size of sand fraction may be indicated by the use of prefixes, thus:

F fine (more than $\frac{2}{3}$ of sand less than 0.2 mm)
C coarse (more than $\frac{1}{3}$ of sand greater than 0.6 mm)
M medium (less than $\frac{2}{3}$ fine sand and less than $\frac{1}{3}$ coarse sand)

The sub-divisions of clay loam and silty clay loam classes according to clay content are indicated as follows:-

M medium (less than 27% clay); **H** heavy (27-35% clay)

Other possible texture classes include:

Peat **P**; Sandy Peat **SP**; Loamy Peat **LP**; Peaty Loam **PL**;
Peaty Sand **PS**; Marine Light Silts **MZ**

The prefix "**Calc**" is used to identify naturally calcareous soils containing more than 1% Calcium Carbonate.

For organic mineral soils, the texture of the mineral fraction is prefixed by "**org**".

Other notation:

st	stones (6 cm)
sst	small stones (2 cm - 6 cm)
vsst	very small stones (2 mm - 2 cm)
Mn	manganese
cdom/cfom	common distinct/feint ochreous mottles
mpom	many prominent ochreous mottles (VMPOM = very many ..)
Few = 1-5%; common = 6-15%; many = 16-35%; very many = +35%	