

Soil Testing

Civil Engineering

What each soil test actually measures.

In-situ tests keep the stress state; laboratory tests control drainage.

Test	What it gives you
SPT, in situ	N value, density, rough strength
CPT, in situ	Continuous resistance profile
Vane shear, in situ	Undrained strength of soft clay
Plate load, in situ	Stiffness at shallow depth
Triaxial, laboratory	c and ϕ , drained or undrained
Oedometer, laboratory	Compressibility and rate

Educational reference. Test selection and interpretation are governed by standards and a qualified engineer.