

Shallow vs Deep Foundations

Civil Engineering

When a pad will do, and when it will not.

Shallow

- Pads, strips and rafts near the surface
- Competent ground within a metre or two
- Cheap and quick with ordinary plant
- Settlement usually sets the size
- Sensitive to trees, services and heave

Deep

- Piles and caissons reaching firm strata
- Weak or variable ground near the surface
- Specialist plant and much higher cost
- End bearing plus shaft friction
- Integrity testing is part of the work

THE DIFFERENCE THAT MATTERS

Depth to competent ground, not the size of the building, usually decides.

Educational reference. Foundation choice follows a ground investigation and the judgement of a qualified engineer.