

Table 10 Minimum width of strip footings

Type of ground (including engineered fill)	Condition of ground	Field test applicable	Total load of load-bearing walling not more than (kN/linear metre)					
			20	30	40	50	60	70
			Minimum width of strip foundations (mm)					
I Rock	Not inferior to sandstone, limestone or firm chalk	Requires at least a pneumatic or other mechanically operated pick for excavation	In each case equal to the width of wall					
II Gravel or sand	Medium dense	Requires pick for excavation. Wooden peg 50mm square in cross section hard to drive beyond 150mm	250	300	400	500	600	650
III Clay Sandy clay	Stiff Stiff	Can be indented slightly by thumb	250	300	400	500	600	650
IV Clay Sandy clay	Firm Firm	Thumb makes impression easily	300	350	450	600	750	850
V Sand Silty sand Clayey sand	Loose Loose Loose	Can be excavated with a spade. Wooden peg 50mm square in cross section can be easily driven	400	600	Note: Foundations on soil types V and VI do not fall within the provisions of this section if the total load exceeds 30kN/m.			
VI Silt Clay Sandy clay Clay or silt	Soft Soft Soft Soft	Finger pushed in up to 10mm	450	650				
VII Silt Clay Sandy clay Clay or silt	Very soft Very soft Very soft Very soft	Finger easily pushed in up to 25mm	Refer to specialist advice					

The table is applicable only within the strict terms of the criteria described within it.

Minimum depth of strip foundations

2E4 Except where strip foundations are founded on rock, the strip foundations should have a minimum depth of 0.45m to their underside to avoid the action of frost. This depth, however, will commonly need to be increased in areas subject to long periods of frost or in order to transfer the loading onto satisfactory ground.

In clay soils subject to volume change on drying ('shrinkable clays', with Modified Plasticity Index greater than or equal to 10%), strip foundations should be taken to a depth where anticipated ground movements will not impair the stability of any part of the building taking due consideration of the influence of vegetation and trees on the ground. The depth to the underside of foundations on clay soils should not be less than 0.75m on low shrinkage clay soils, 0.9m on medium shrinkage clay soils and 1.0m on high shrinkage clay soils, although these depths may need to be increased in order to transfer the loading onto satisfactory ground, or where there are trees nearby.

20 kN/m	Single storey lean too extension GBS
30 kN/m	Single storey lean too extension BB
40 kN/m	Two storey extension BB floor
45 kN/m	2 Storey house BB and TR
50 kN/m	2 storey house with BB,EJ and TR
60 kN/m	3 storey house with BB,EJ and TR

GBS Ground bearing slab
BB Block and beam floor
EJ Engineered floor joists
TR Trussed rafters

Depths	600mm in cohesionless soils
	750mm low shrinkable clay
	900mm medium shrinkable clay
	1000mm high shrinkable clay
where trees are within 30m of an excavation founded in clay subsoil NHBC practice note 4.2 should be used.	