

PART 1 — HYBRID COMBINATIONS SHEET

This book compares 10 wall systems, but your actual home may combine 2 methods — e.g., ferrocement wet rooms + CEB living areas. Use this matrix to check compatibility.

WALL METHOD (A)	Compatible With	Watch-Out	Foundation Shared?
CEB	Rammed Earth, Adobe, Ferrocement	Avoid direct contact with Straw Bale	☐ Yes ☐ No
Earthbag	Ferrocement (wet rooms), Cob	Must match footing depth	☐ Yes ☐ No
Rammed Earth	CEB, Ferrocement	Formwork access between methods	☐ Yes ☐ No
Adobe	Cob, Wattle & Daub	Keep wet-zone walls in Ferrocement	☐ Yes ☐ No
Bamboo	Ferrocement, Wattle & Daub	Bamboo needs own footing pad	☐ Yes ☐ No
Containers	Ferrocement (cisterns), CEB (in-fill)	Differential settlement — separate ftg	☐ Yes ☐ No

✓	Item	Notes
☐	All methods share same finished floor level — level pegs set before any wall begins	
☐	Foundation type is compatible with both/all methods used	
☐	No capillary break missing between dissimilar materials	
☐	Differential settlement risk assessed — heavier walls on stronger footings	
☐	Structural engineer reviewed hybrid combination for buildings > 1 storey	

PART 2 — RUBBLE TRENCH CALCULATOR

Rubble trench foundations are ideal for low-cost, well-drained sites. Not suitable for expansive clay or flood zones.

PARAMETER	FORMULA	YOUR VALUE
Wall length (total, m)	Measure from plan	
Trench depth (m)	Below frost or expansive clay zone + 300 mm	
Trench width (m)	Wall width + 200 mm each side	
Volume of trench (cu.m)	Length × depth × width	
Rubble stone volume (cu.m)	Trench vol × 0.65 (65% fill factor)	
Drainage aggregate volume (cu.m)	Trench vol × 0.35	
Perforated pipe length (m)	Equal to trench length + 10% for bends	
Concrete cap thickness (mm)	Min. 150 mm reinforced; 200 mm preferred	
Concrete cap volume (cu.m)	Length × wall width × 0.15	

★ Rubble trench works only where water can drain freely. If the bottom of the trench stays wet for >24 hrs after rain, this is not the right foundation for your site.