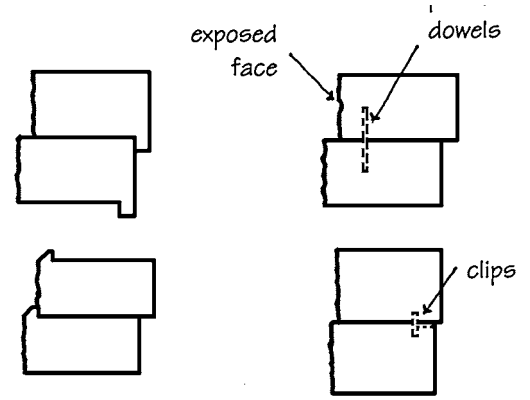

Figure 13-23 Units interlock physically or mechanically to resist sliding.

Maximum Exposed Wall Height*							
		Angle of Internal Friction of Soil, ø (See Table Below)					
		ø = 28°			ø = 34°		
Segmental Unit Height (in.)	Segmental Unit Depth (in.)	Wall Battered 5°	Wall Battered 10°	Wall Battered 15°	Wall Battered 5°	Wall Battered 10°	Wall Battered 15°
6	12	2'-0"	2'-6"	3'-0"	2'-6"	3'-6"	3'-6"
	24	5'-0"	5'-6"	6'-0"	6'-6"	7'-6"	7'-6"
8	12	2'-3"	2'-3"	2'-10"	2'-10"	3'-6"	3'-6"
	24	4'-10"	5'-6"	6'-3"	6'-3"	7'-6"	7'-6"

* Design based on non-critical case walls without soil reinforcing, zero slope backfill at top of wall, no surcharge load, required 6 in. wall embedment in ground at toe, soil and block unit weight 120 pcf.

Angle of Internal Friction (ø) for Various Soil Types		
Soil Type		Angle of Internal Friction (Degrees)
GW	Well-graded gravels, gravel-sand mixtures, little or no fines	37 to 42
GP	Poorly graded gravels or gravel-sand mixtures, little or no fines	
SW	Well-graded sands, gravelly sands, little or no fines	33 to 40
SP	Poorly graded sands or gravelly sands, little or no fines	
GM	Silty gravels, gravel-sand-silt mixtures	
SM	Silty sand, sand-silt mixtures	28 to 35
GC	Clayey gravels, gravel-sand-clay mixtures	
SC	Clayey sands, sand-clay mixtures	
ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity	25 to 32
CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, and lean clays	

Figure 13-24 Maximum height of segmental retaining walls. (*From NCMA* Design Manual for Segmental Retaining Walls, *1993.*)

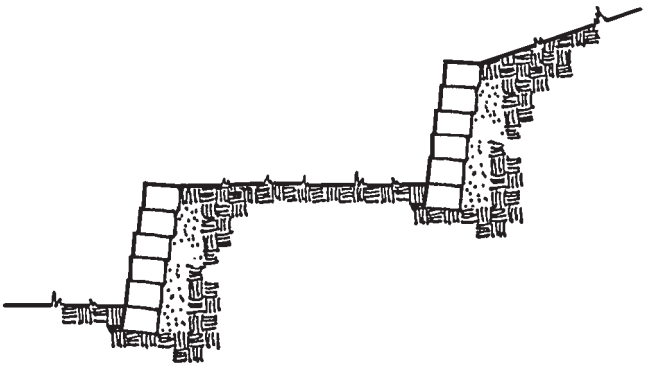

Figure 13-25 Two-level terraced wall.

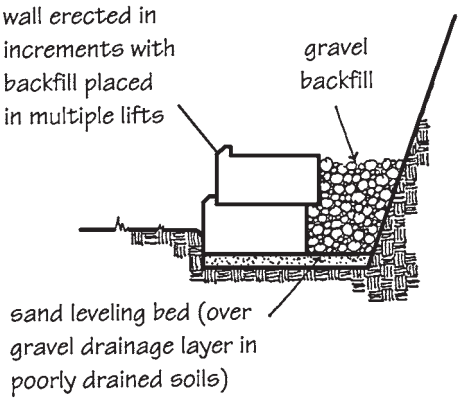

Figure 13-26 Segmental retaining wall construction.