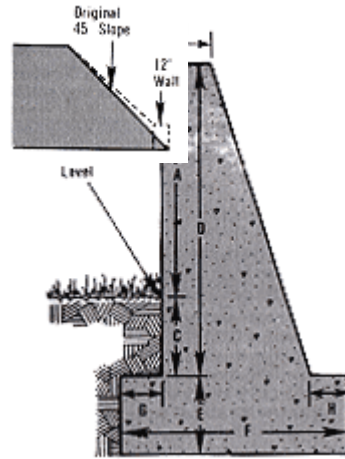


Project	Concrete Retaining Walls
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Retaining walls are used to prevent soil erosion of sharply sloping lawns. The principles of solid form construction must be used.

Step by Step

Planning the Wall

Determine the height of the wall. To assure stability, the angle of a sloping lawn should never be greater than 45-degrees, and the gentler the slope, the better. The higher the wall, the gentler the slope will be. The dimensions of the retaining wall will vary according to the wall height, as shown in the table. The design shown here does not require steel reinforcement since the width of the base and the weight of the wall provides adequate support.

Retaining Wall Construction Data							
Bags of Concrete Needed Per Foot of Form Height							
Exposed Wall Height (A)	Top Thickness (B)	Distance from Ground to Base (C)	Distance from Top to Base (D)	Base Depth (E)	Base Width (F)	Outside Base Extension (G)	Inside Base Extension (H)
12" (30cm)	6" (15cm)	4" (10cm)	16" (41cm)	6" (15cm)	14" (36cm)	3" (8cm)	3" (8cm)
18" (46cm)	6" (15cm)	6" (15cm)	24" (61cm)	6" (15cm)	18" (46cm)	3" (8cm)	3" (8cm)
24" (61cm)	7" (18cm)	8" (20cm)	32" (81cm)	8" (20cm)	24" (61cm)	4" (10cm)	4" (10cm)
30" (76cm)	7" (18cm)	10" (25cm)	40" (102cm)	10" (25cm)	28" (71cm)	4" (10cm)	4" (10cm)
36" (91cm)	8" (20cm)	12" (30cm)	48" (122cm)	12" (30cm)	36" (91cm)	6" (15cm)	6" (15cm)
42" (107cm)	8" (20cm)	14" (36cm)	56" (142cm)	12" (30cm)	40" (102cm)	6" (15cm)	6" (15cm)
48" (112cm)	9" (23cm)	16" (41cm)	64" (163cm)	12" (30cm)	44" (112cm)	6" (15cm)	6" (15cm)

Good drainage is essential. Drainage is provided by filling coarse gravel behind the wall and by building weep holes into the wall. Make weep holes by inserting short lengths of 2" plastic pipe or 3" drain tile in the forms when they are built. The first row should be 2" to 4" above ground level. If the wall is higher than 4', place a second row of

weep holes 3' above the first.

Details of the retaining wall form are shown here. As you can see, the footer and the wall are cast in one step. If the soil is sufficiently firm, use an earth form for the footer portion.

For pouring the wall, follow the mixing and pouring procedure recommended earlier. QUIKRETE® Concrete Mix or QUIKRETE® 5000 is recommended for heavier retaining walls. Because of the pressure created by the sloping aggregate, cure the concrete for at least 7 days before removing the forms.

Once the forms are removed, tamp QUIKRETE® All-Purpose Gravel into the space behind the wall.

Fill the top foot or so with topsoil, providing a gutter depression along the wall for better drainage.

