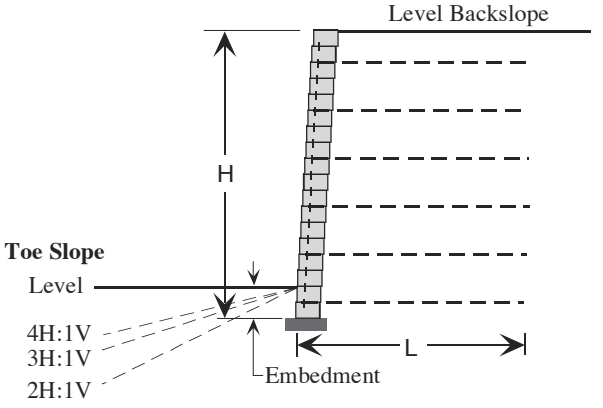
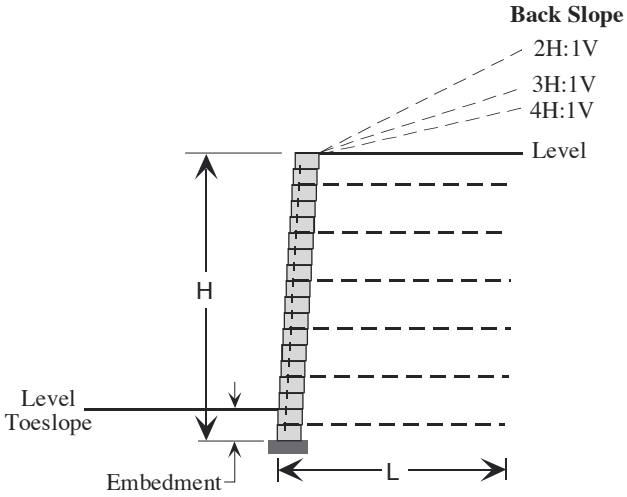
Single Wall - Slope Stability Ratios

The following figures and graphs provide a guide to the relationship between walls and slopes and the L to H ratio required to satisfy basic global stability requirements for simple ϕ only soil strength criteria. Slopes 2H:1V and greater require special attention to soil design parameters.

Assumptions of Stability Analysis

No significant surcharge, γ = 120 pcf, SF> 1.3 min, Bishop.
Vertical reinforcement spacing ~ 2',
Lowest reinforcement ~ 1' from bottom
LTDS of Reinforcement > 1,300 plf min. - upper 10 ft.
> 2,000 plf min - next 10 ft., etc.





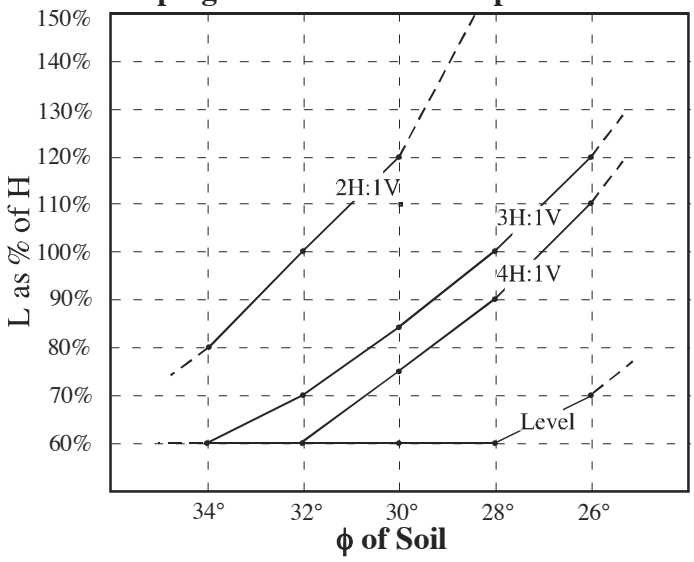
Min. Embedment for Toeslope

Level	10% H
4H:1V	1.0' + 10% H
3H:1V	1.3' + 10% H
2H:1V	2.0' + 10% H

Min. Embedment for Backslope

Level	10% H
4H:1V	10% H
3H:1V	10% H
2H: 1V	10% H

Sloping Toe - Level Backslope



Backslope - Level Toe