

An area of design that affects many site applications is the use of terraced walls. The upper terrace wall can put pressure on the lower terrace if the walls are too close together. Multiple terrace walls in close proximity to each other, can have structural stability issues related to the lower walls not having the capacity to carry the loads developed by the upper walls.

**QUESTION:** How far apart do the terrace walls have to be to perform as individual gravity walls?

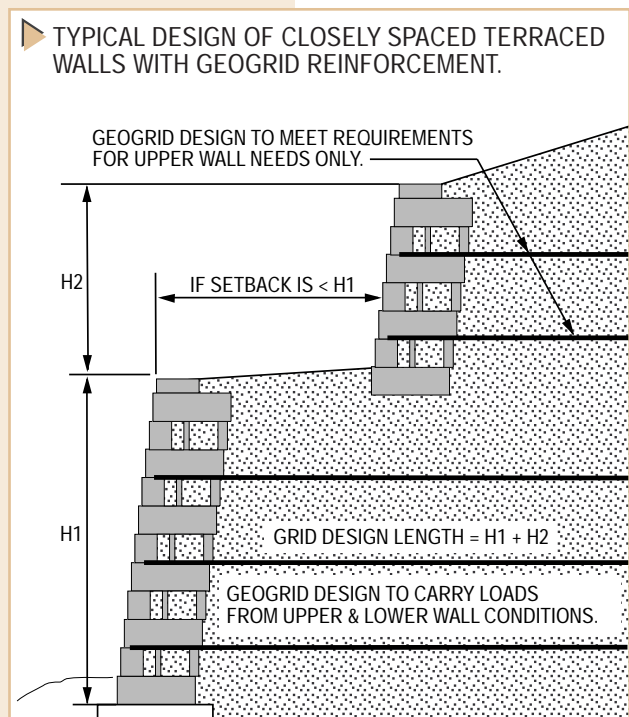
**ANSWER:** As a rule of thumb, the minimum distance between the wall terraces must be at least equal to twice the height of the lower wall.

**EXAMPLE:** If the lower gravity wall is 5 feet (1.5m) tall, then the minimum recommended spacing between terraces is 10 feet (3m). This rule also applies to walls with more than two terraces. The distance between any two terraces must be at least equal to twice the height of the lower adjacent terrace wall.

Note: This simple rule of thumb does not address global stability where walls are built on steep slopes or over poor soils of low friction strength. If these conditions exist, then contact your local Keystone representative or a local engineer.

**QUESTION:** What if there isn't enough room to space the terraces according to this rule? ( $2 \times H1$  MIN.)

**ANSWER:** The wall can still be built, but the effect of the upper terrace on the lower terrace and overall stability must be taken into account when designing the wall(s). When the terraces are close together, the design analysis may model the structure as a single taller wall to account for the added load from the upper terrace wall on the lower wall(s).



The information contained herein has been compiled by Keystone Retaining Wall Systems, Inc. and to the best of our knowledge, accurately represents the Keystone product use in the applications which are illustrated. Final determination of the suitability for the use contemplated and its manner of use are the sole responsibility of the user. Structural design and analysis shall be performed by a qualified engineer.  
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