

Single Stack Placement

Sandbags stacked in a single row work well in flood areas where there is no streamflow velocity or danger from floating debris, such as logs and tree stumps, or from wave action which could topple the bags. Although generally recommended not to be above three courses or layers in height (approximately 1 foot), higher single stack placement can be effectively used as a barricade to protect structures from impending water damage as shown in the photo.



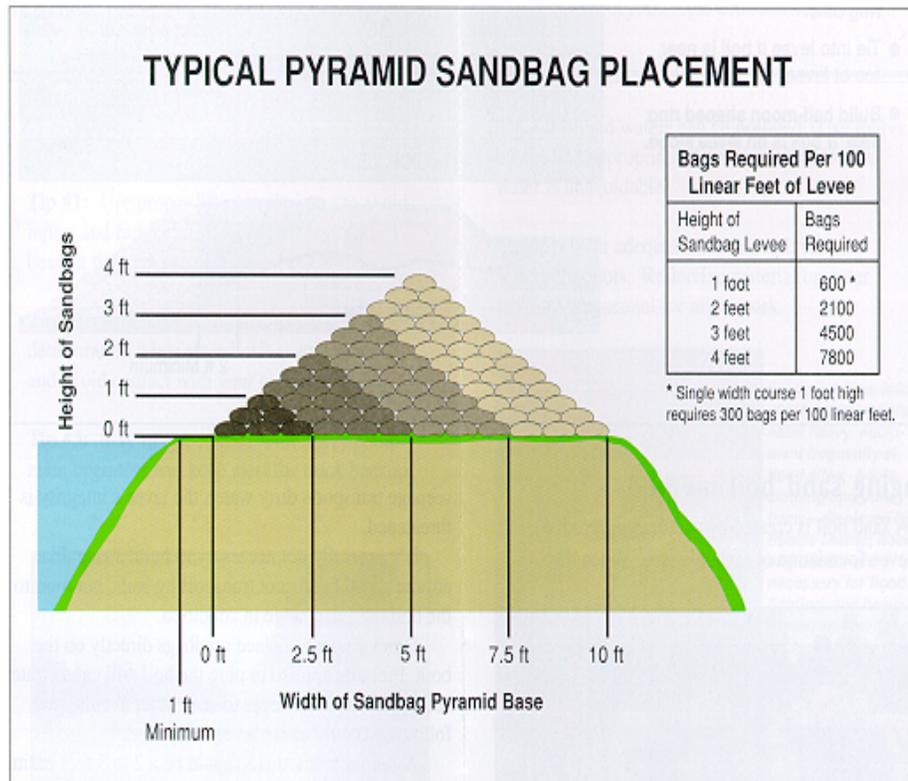
Single stack placement

Pyramid Placement Method

Use pyramid placement to increase the height of sandbag protection; however, use caution when raising the levee height. Determine the height of the sandbag raise by using the best available forecasts of flood conditions.

An example: When the water level is currently 1 foot below the top of the levee and is predicted to rise 3 more feet, construct a 2-1/2 foot sandbag operation which includes one-half foot of height as a safety factor.

It's important to compact each bag in place by walking on it, butting the ends of the sacks together, maintaining a staggered joint placement and folding under all loose ends. Watch for flooding elsewhere, and watch for boils on the landward side of the levee due to the increased water elevation.



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The pyramid placement method is used to increase the height of sandbag protection.

Use this rule of thumb in determining dimensions of the pyramid:

- 1 bag in length equals about 1 foot,
- 3 bags in width equal about 2-1/2 feet,
- 3 bags in height equal about 1 foot.

Place the sandbags by laying an equal number of horizontal rows on the bottom as there are vertical layers.

It's important to compact each bag in place by walking on it, butting the ends of the sacks together, maintaining a staggered joint placement and folding under loose ends.