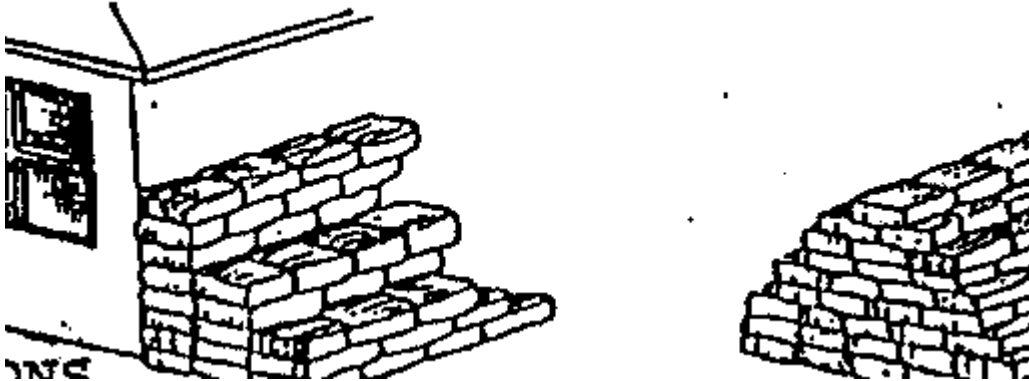


FOR EMERGENCY USE

SANDBAGS

Sandbags, when properly placed, will redirect storm and debris flows away from property improvements. They can be obtained from your local Public Works Department.



FILLINGS

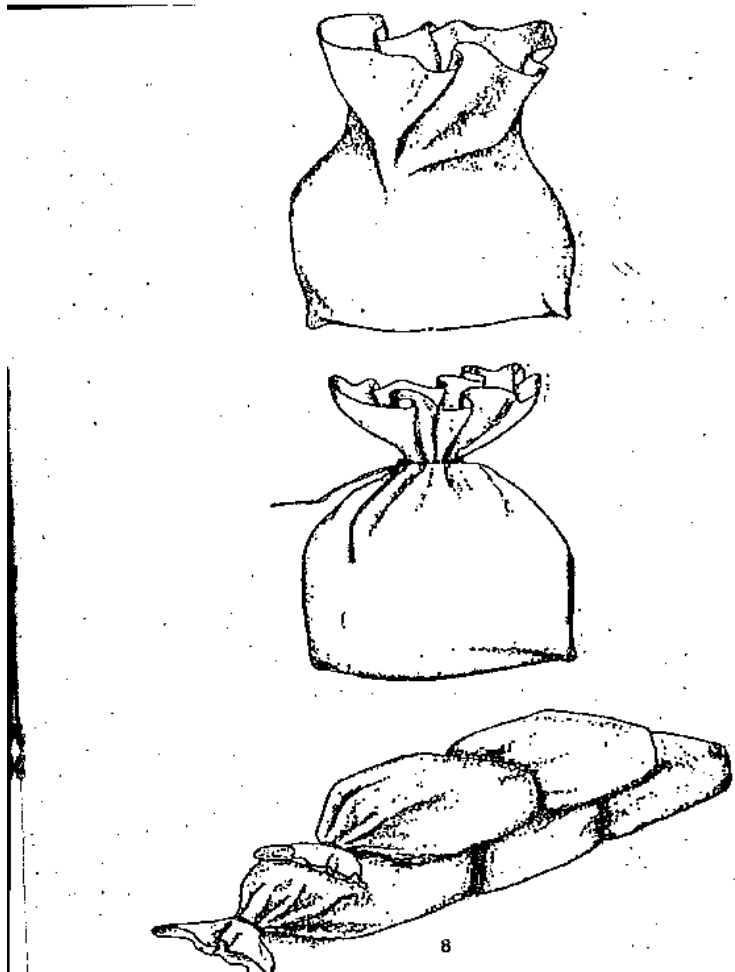
1. Fill sandbags one half full. Sand is suggested if readily available; however, it is not mandatory, and local soil may be used.
2. Gather top of sandbag and tie securely with heavy string.

PLACING

Care should be taken to stack sandbags in accordance with the illustrations. Stamp each sandbag into place, completing each layer prior to starting the next layer. Limit placement to three layers unless a building is used as a backing or sandbags are pyramided as shown below.

LIMITATIONS

1. Sandbags will not seal out water.
2. Sandbags deteriorate when exposed for several months to continued wetting and drying.



SANDBAG FILLING AND PLACING

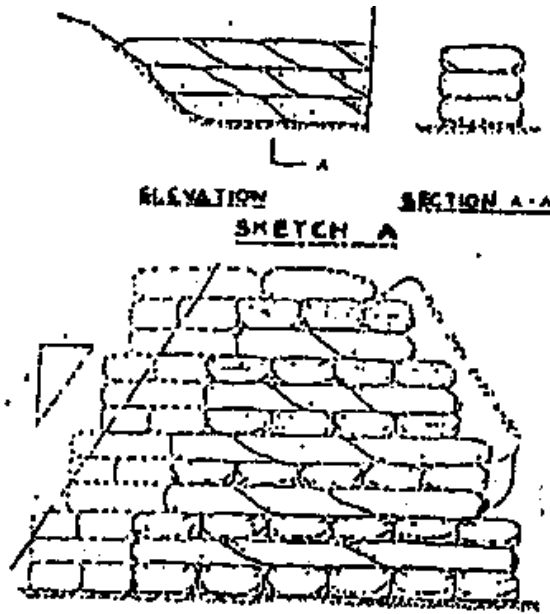
8

SANDBAGGING USED TO PREVENT OVERTOPPING OF EXISTING LEVEES AND FOR RETAINING FLOOD WATERS WHERE NO BACK-UP MATERIAL IS AVAILABLE.

INSTRUCTIONS

1. Fill sandbags 1/2 to 2/3 full but leave enough flap to turn under. Ends can be left open.
2. For heights of 1 foot and less, lay 3 single courses with sacks lengthwise as shown in sketch "A" below.
3. For heights greater than 1 foot, place as indicated in sketch "B" below.
4. When bags are placed, flatten out and fill voids by mashing bags with feet and vigorously tramp each course of the levee section. This is an extremely important operation for providing a levee which will be as impervious to water as possible

and to insure stability of section. Loosely placed sandbags improperly keyed together may result in failure and cause serious damage.



LEVEE SECTION

For heights in excess of the above (approx. 3'-6') hold same batter and build on the side as indicated by dashed lines above. Alternate header course (bags placed crosswise) and stretcher courses (bags placed lengthwise)

ESTIMATING DATA:

1. Average weight of each filled sandbag, approx. 50 lbs. and approx. 1000 sandbags are required for each 100 sq. ft. of surface (height multiplied by distance).

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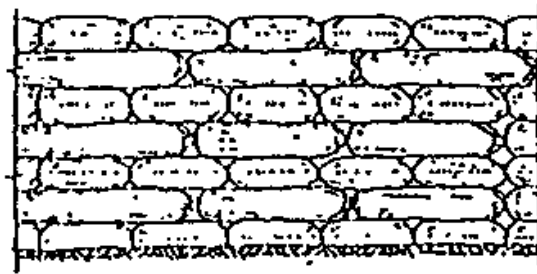
REVETMENTS

Used for emergency bank protection to prevent under cutting and control of course of flood channels.

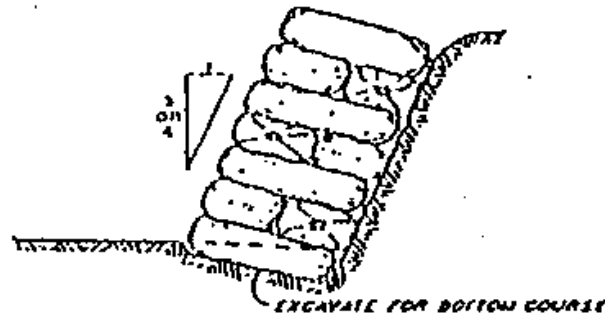
INSTRUCTIONS:

1. Fill sandbags 2/3 full and tie open end.
2. Tuck in bottom corner of bag after filling.
3. Place bags perpendicular to slope.

4. Lay stretcher and header courses with choke and side seams in thus:



ELEVATION



SECTION

ESTIMATING DATA:

1. Average weight of each filled sandbag approximately 65 pounds.
2. Approximately 320 sandbags are required for each 100 square foot of surface to be revetted.

FILL MATERIAL:

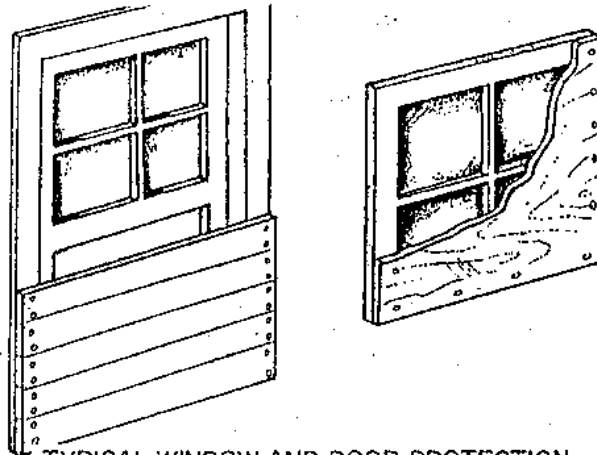
The ideal material for filling sand bags is a fine sand or coarse silt. Avoid, as much as possible, the use of coarse gravel and heavy clays.

WINDOW AND DOOR PROTECTION

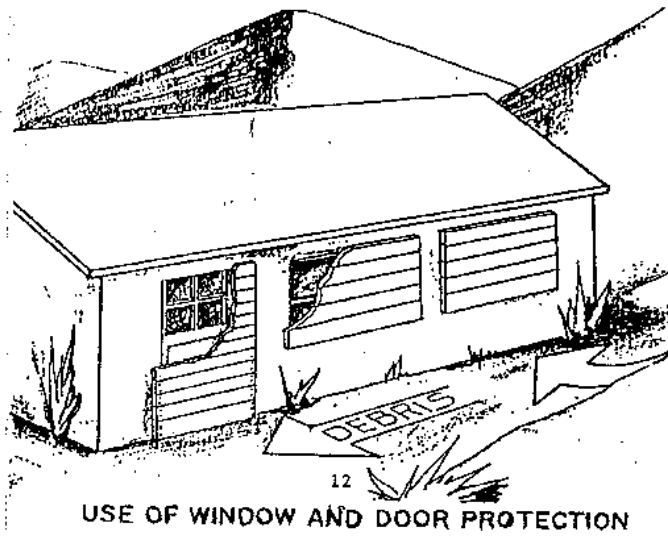
- PREVENT debris from entering doorways and windows by use of Baffle Boards.
- HAZARD may require complete closure of a door and necessitate the use of another entrance.
- MATERIALS can be dismantled after the storm season and stored year to year.

- USE low grade plywood, and overlap windows, vents or doors three to four inches on all sides.
- SECURE the plywood with four or more nails, screws or bolts; a stake and board may also be used to wedge boards in place.

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TYPICAL WINDOW AND DOOR PROTECTION



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USE OF WINDOW AND DOOR PROTECTION