

Dike Construction

Contributed by
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Recommended procedure for sandbag dike construction.

- Base area of sand bag dike should be clear of snow or ice prior to commencing.
 - Leave at least 8 feet between a dike and buildings.
 - The base of the dike should be 2 feet wider than the ultimate height of the dike, E.G. Height = 4 ft., base = 6 ft..
- Every second layer of sand bags should be set back 1/4 of a sand bag width, both on the river side and the land side of the dike, giving it a step-like appearance. The top of the dike should be 2 feet wide.
- The bottom layer of bags on the river side will run parallel with the river.
 - Sand bags are to be tamped firmly into place.
 - It is recommended that 6 mil polyethylene sheets in 10 foot wide rolls be used as water proofing on the river side of the dike. The polyethylene sheet should be placed loosely against the sand bag dike during construction with a protective layer of sand bags placed on the river side as indicated in the figure.
 - Have extra sand bags on hand to strengthen any weak spots in the dike.
 - If untied bags are used, the top, or unfilled portion of the sack should be stretched lengthwise and the next bag laid on top of it. This method is known as lapping as indicated in the figure. It is not necessary to tie sacks. Untied bags should be filled to half full.
 - You can build a simple sandbag filling rack to expedite filling the sandbags.

Height of dike

Height of dike		Number of Sandbags Required for the following Lengths of dike (Lengths in Feet)													
50	100	150	200	250	300	350	400	450	500	550	600	650	700	0.5	210
430	640	850	1070	1280	1500	1710	1920	2140	2350	2560	2780	2990	1.0		
470	950	1420	1900	2370	2850	3320	3800	4270	4750	5220	5700	6170	6650		
	1.5	780	1570	2350	3130	3920	4700	5480	6270	7050	7830	8620	9400	10190	
		10970	2.0	1100	2300	3400	4600	5700	6800	8000	9100	10300	11400	12500	
		13700	14800	16000	2.5	1500	3100	4600	6200	7700	9300	10800	12300		
		13900	15400	17000	18500	20100	21600	3.0	2000	4000	6000	8000	10000		
		12000	14000	16000	17900	19900	21900	23900	25900	27900	3.5	2500	5000		
		7500	10000	12500	15000	17500	19900	22400	24900	27400	29900	32400	34900		
		4.0	3000	6100	9100	12200	15200	18200	21300	24300	27400	30400	33400		
		36500	39500	42500	4.5	3600	7300	10900	14500	18200	21800	25400	29100		
		32700	36300	40000	43600	47200	50900	5.0	4300	8500	12800	17100	21400		
		25600	29900	34200	38500	42700	47000	51300	55600	59800	5.5	5000	9900		
		14900	19800	24800	29800	34700	39700	44700	49600	54600	59500	64500	69500		
		6.0	5700	11400	17100	22800	28500	34200	39900	45600	51300	57000	62700		
		68400	74100	79800											