

Detailed Estimation of Bore Well Apron

S.No	Engineering Department	No.	Length (m)	Width (m)	Height (m)	Quantity(m ³)	Remarks
	Particular Items	No.	Length (m)	Width (m)	Height (m)	Quantity(m ³)	Remarks
1	sofa	1	2.35	1.45	0.12	0.41	$W=(1.9+1)/2$
2	pond	1	1.1	1.65	0.18	0.33	$W=(1.9+1.4)/2$
3	pedestal	1	0.78	0.78	0.27	0.16	
4	trench	1	3	0.4	0.12	0.14	
5	circular	1	0.2		0.6	0.12	$3.14*0.25^2$
	Total					1.16	
	gravel						
1	sofa	1	2.35	1.45	0.12	0.41	$W=(1.9+1)/2$
2	pond	1	1.1	1.65	0.12	0.22	$W=(1.9+1.4)/2$
3	trench	1	3	0.4	0.1	0.12	
4	circular	1	0.2		0.6	0.12	$3.14*0.25^2$
	Total					0.87	
	PCC						
1	sofa	1	2.47	1.69	0.12	0.50	$L=2.35+0.12$ $W=(1.9+1)/2+0.12+0.12$
2	pond	1	1.22	1.89	0.22	0.51	$L=1.1+0.12$ $W=(1.9+1.4)/2+0.12+0.12$
3	pond deduction	-1	1	1.1	0.1	-0.11	$W=(1.3+0.9)/2$
4	pedestal	1	0.78	0.78	0.27	0.16	
5	pedestal	1	0.48	0.48	0.3	0.07	$L=(0.65+0.3)/2$ $W=(0.65+0.3)/2$
6	trench	1	3	0.3	0.2	0.18	
7	trench deduction	-1	3	0.1	0.1	-0.03	
						1.50	

**Estimation of Construction Material& Manpower
According to Standard of Ministry of Public Service of Afghanistan**

A. Excavation (Earth # 3): Volume = 0.52 Cum

Laborer = $0.52 \times 0.65 = 0.34$ person

B. P.C.C. Work (M:150) Volume = 0.91 Cum

Conc. Wastage 1% added = 0.92 Cum

Laborer = $0.92 \times 3.25 = 3.00$ person

Skilled laborer = $0.92 \times 0.65 = 0.60$ person.

Cement = $325 \text{ Kg/m}^3 \times 0.92 = 299/50 = 5.98$ bag.

Sand and Gravel = $1.005 \times 0.92 = 0.92$ Cum

C. Filling of Bolder:

Volume = 0.95 m³

Bolder stone = $0.95 \text{ m}^3 \times 1.20 = 1.14 \text{ m}^3$

Laborer = $0.95 \times 0.6 = 0.57$ person

Skilled laborer = $0.95 \times 0.10 = 0.095$ person.

Abstract of Estimation:

Cement = 6 bag.

Sand and Gravel = 0.92 Cum

Bolder stone = 1.14 Cum

Laborer = 3.91 person

Skilled laborer = 0.70 person

0.3 for hand pump installation = 1

Kabul pump cost RS 4900

Indus pump cost RS 7100

Rising main cost RS 120.7

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