

ESTIMATION BY LONG WALL-SHORT WALL METHOD

STRUCTURE IS DIVIDED INTO VARIOUS ITEMS LIKE;

- Excavation for foundation
- Concreting in foundation
- Earthwork in filling
- Masonry in foundation
- Masonry in superstructure
- RCC work
- Plastering
- Painting
- Flooring
- Wood work for doors, windows, etc.

ESTIMATION SHEETS

- Measurement sheet
- Abstract sheet

Measurement sheet

Item No.	Description	No.	Length (m)	Width (m)	Height (m)	Quantity

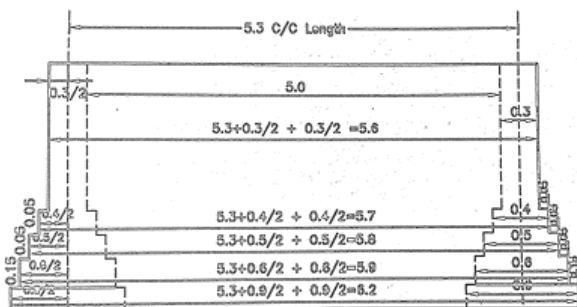
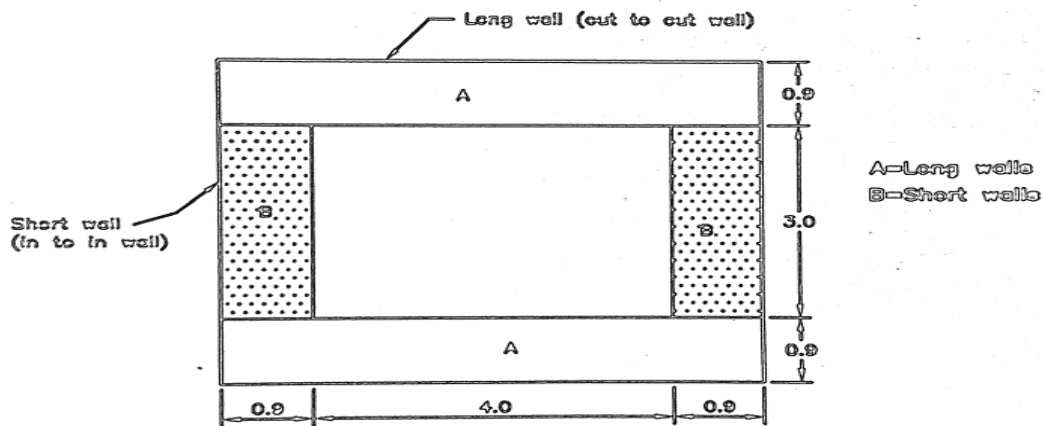
Abstract sheet

Item No.	Description	Quantity	Rate	Per	Amount

METHODS

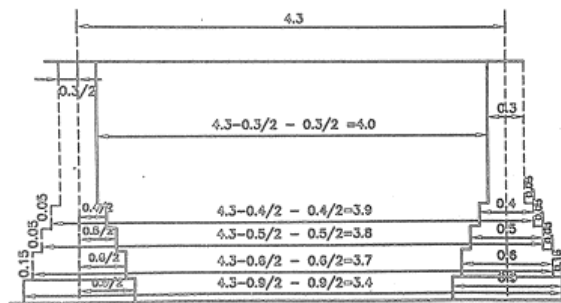
1. Long wall – Short wall method
2. Centre line method
3. Crossing method

Long wall – Short wall method



Length of out to out (long) wall decreases as we move upward from foundation towards plinth.

(a) Out to out (Long) wall AB



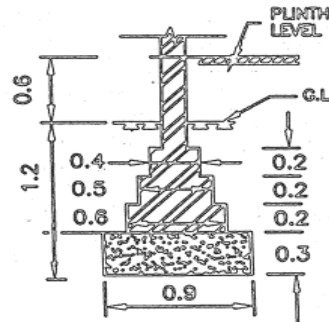
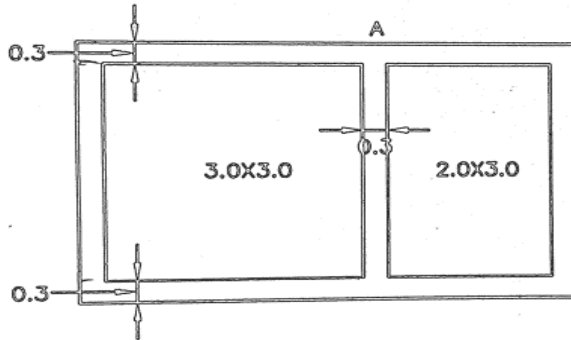
Length of in to in (short) wall increases as we move upward from foundation towards plinth.

(b) In to in (Short) wall DE

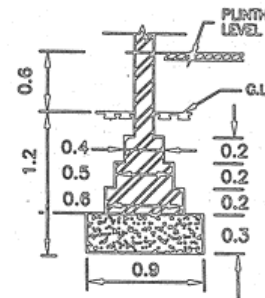
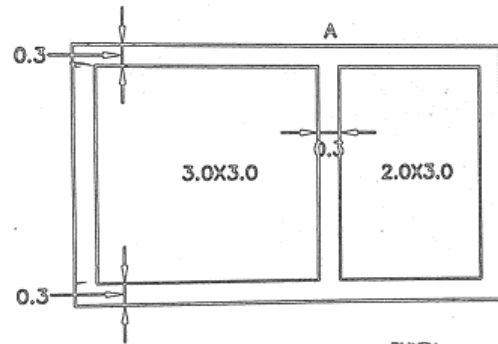
Example

Figure shows the plan and section of a building, calculate the quantities and costs of the following items ;

1. Excavation for foundation
2. P.C.C. (1:4:8) in foundation
3. Brick masonry in foundation and plinth in C.M. (1:6)



Measurement Sheet						
Item No.	Description	No.	Length (m)	Width (m)	Height (m)	Quantity
01	Excavation for foundation					
	Long walls :					
	L = 3 + 2 + 2 x 0.3 + 2 x 0.45	2	6.5	0.9	1.2	14.04
	Short walls :					
	L = 3 + 0.3 - 2 x 0.45	3	2.4	0.9	1.2	7.78
						21.84 m³
02	P.C.C (1:4:8) in foundation					
	Long walls :	2	6.5	0.9	0.3	3.51
	Short walls :	3	2.4	0.9	0.3	1.94
						5.45 m³
03	Brick masonry in foundation and plinth in c.m. (1:6)					
	Long walls :					
	First step : L = 6.5 - 2 x 0.15	2	6.2	0.6	0.2	1.49
	Second step : L = 6.2 - 2 x 0.05	2	6.1	0.5	0.2	1.22
	Third step : L = 6.1 - 2 x 0.05	2	6.0	0.4	0.2	0.96
	Fourth step : L = 6.0 - 2 x 0.05	2	5.9	0.3	0.9	3.19
	Short walls :					
	First step : L = 2.4 + 0.3	3	2.7	0.6	0.2	0.97
	Second step : L = 2.7 + 2 x 0.05	3	2.8	0.5	0.2	0.84
	Third step : L = 2.8 + 2 x 0.05	3	2.9	0.4	0.2	0.70
	Fourth step : L = 2.9 + 2 x 0.05	3	3.0	0.3	0.9	2.43
						11.80 m³



Abstract sheet

Item No.	Description	Quantity	Rate	Per	Amount (Rs.)
01	Excavation for foundation	21.84 m ³	85	m ³	1856.40
02	P.C.C. (1:4:8) in foundation	5.45 m ³	3500	m ³	19075
03	Brickwork in foundation	11.80 m ³	3200	m ³	37760
					58691.40
				Add 3% Contingencies	1760.74
				Add 2% work charged establishment	1173.83
				Total Cost	61625.97