

Part A
Model cost Detailed and Abstract Estimate

Name of work: Model estimate for construction of Water pool/pond

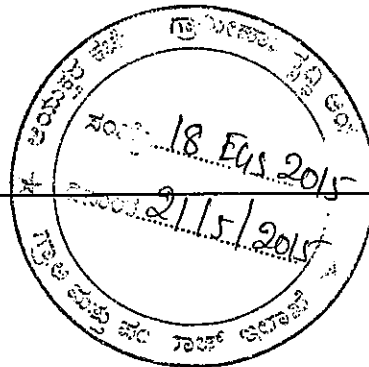
Financial Year : 2015-16

Head of Account = Mahatma Gandhi NREGS Karnataka

Important notes

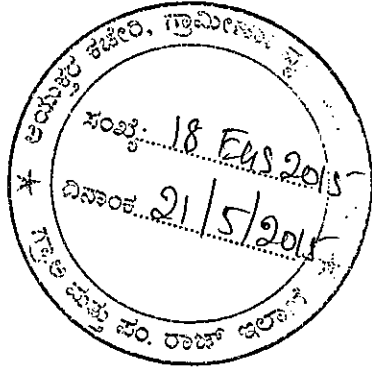
1. Some of the rates adopted in this estimate are as per M.I. Circle schedule of rates of Bengaluru for 2014-15 continued for 2015-16.
2. The area weightage pertaining to the respective areas to be adopted as per respective schedule of rates of respective circles of respective departments.
3. Some of the rates adopted in this estimate are also Nrega SoR for year 2015-16.
4. This is only a model estimate, the Officer/Engineer-in-charge should visit the site and prepare the estimate based on (i) Actual site conditions width and depths . (ii) Foundation to be designed as per existing geological conditions.
5. The overall variations in the cost should not exceed 10% of the estimated cost. In case if it exceeds 10% same should be got approved from the Commissionerate.
6. For procurement of material KTPP Act 1999 and rules 2000 to be followed.
7. For purpose of this estimate average lead of 25km is considered and lead charges are worked out as per MI SR .For actual estimate actual approve leads leads should be considered and estimate be prepared
8. Where rates are not available market rates are considered

Sl no	Item as per SoR(prevaling nrega or line dept or as per approved Data Sheet)	Unit	Quantity	Rate (In Rs)	Amount (in Rs) (col 4 x col 5)
1	2	3	4	5	6
1	Earth work excavation for foundation of buildings, water supply, sanitary lines and electrical conducts either in pits or in trenches 1.5m and above in width, in Hard soil not exceeding 1.5m, in depth including dressing the bottom and sides of pits and trenches stacking the excavated soil clear from edges of excavation with lead upto 50m after breaking of clods complete as per specification including shoring strutting danger lighting (NREGA SoR 2015-16) for ordinary soil				
A	0.00 to 1.50m lift	cum	789.41	198.06	1,56,350.54
B	for 1.50 to 3.00 m lift Rate analysis MI SR pno 23 Basic rate = Rs198.06 add for lift =Rs 7.30 total =Rs205.36	cum	466.42	205.36	95,784.01
C	for 3.00 to 4.50 m lift Rate analysis MI SR pno 23 Basic rate = Rs198.06 add for lift =Rs 14.70 total =Rs 212.76	cum	263.35	212.76	56,030.35
a)	Providing and constructing 250mm thick dry rubblestone pitching with pin headers at 2 per sq. meter including cost of all materials labour, hand packing wedgins, stone chips finishing etc., complete upto 50m and all lifts. (SR item No. 56 P No 61 of MI circle Bangalore for 2014-15)	Sqm	924.84	132.00	1,22,078.88



PKD

2	Extra lead charges upto 25 km for above rubble stone [P No.21 item No.1 /M I circle, Bangalore for the year 2014-15 Rate analysis b) Lead charges up to 5km =107.10 Lead charges beyond 5km up to 25km (20x9.20) = 184.00 Total rate = 291.10	cum	231.21	291.10	670523
	Sub total 1				497549.01
4	Add 1% for technical supervision				4975.00
5	Add for Sharpening charges 1557 person Rs 10/day/person				15570.00
6	Name board and rounding off				1905.99
	Total				520000.00



Measurement Sheet.

Name of work; Model estimate for construction of Water pool/pond

Financial year 2015-16

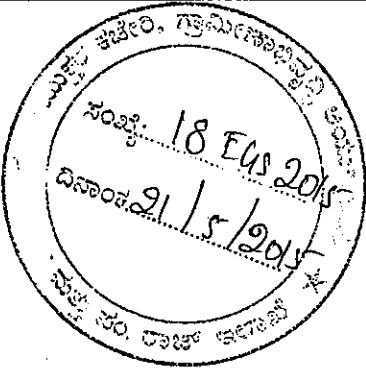
State: Karnataka

As in NREGASoR

Important notes

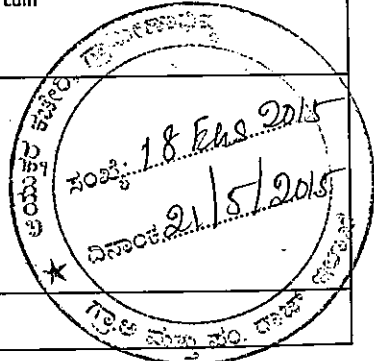
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5. The overall variations in the cost should not exceed 10% of the estimated cost. In case if it exceeds 10% same should be got approved from the Commissionerate.
6. For procurement of material K.T.P.P. Act 1999 and rules 2000 to be followed.
7. For purpose of this estimate average lead of 25km is considered and lead charges are worked out as per M.I. SR. For actual estimate actual approved leads should be considered and estimate be prepared
8. Where rates are not available market rates are considered

Sl no	Item as per SoR (prevailing nrega or line dept or As per approved Data Sheet)	Unit	Measurements				
			No	Length (in Mt)	Breadth (in Mt)	Depth (in Mt)	Quantity
1	2	3	4	5	6	7	8
1	Earth work excavation for foundation of buildings, water supply, sanitary lines and electrical conducts either in pits or in trenches 1.5m and above in width, in Hard soil not exceeding 1.5m, in depth including dressing the bottom and sides of pits and trenches stacking the excavated soil clear from edges of excavation with lead upto 50m after breaking of clods complete as per specification including shoring strutting danger lighting (NREGA SoR 2015-16) for ordinary soil	cum					
	A_ 0.00 to 1.50m lift						
	a One third qty of For approach channel						$\frac{[(5.20+4.00) \times 0.60 + (10.00+4.00) \times 4.00]}{2} \times 20.00 = 307.60 \times \frac{1}{3}$ $= 102.54 \text{ cum}$
	b top pitching						long wall $2 \times 24.00 \times 1.00 \times 0.25 = 12.00$ short wall $2 \times 20.00 \times 1.00 \times 0.25 = 10.00$
	c For pond portion (1:1 slope is taken into account depending upon site condition change slope) for upper trapezoidal portion						$\frac{(22.50 \times 22.50 + 19.50 \times 19.50)}{2} \times 1.50 = 664.87 \text{ cum}$
	Net qty of A(a+b+c)						102.54 + 12.00 + 10.00 + 664.87 = 789.41 cum
B	for 1.50 to 3.00 m lift Rate analysis MI SR pno 23 Basic rate = Rs198.06 add for lift = Rs 7.30 total = Rs205.36	cum					



PNV

	a	One third qty of For approach channel			$\frac{[(5.20+4.00) \times 0.60 + (10.00+4.00) \times 4.00]}{2} \times 20.00 = 307.60 \times \frac{1}{3}$ $= 102.54 \text{ cum}$
	b	For pond portion (1;1 slope is taken into account depending upon site condition change slope) for upper trapezoidal portion			$\frac{(19.50 \times 19.50 + 18.50 \times 18.50)}{2.00} \times 0.50 = 180.63 \text{ cum}$
	c	For pond portion (1;1 slope is taken into account depending upon site condition change slope) for lower trapezoidal portion			$\frac{(14.50 \times 14.50 + 12.50 \times 12.50)}{2.00} \times 1.00 = 183.25 \text{ cum}$
		Net qty of B(a+b+c)			102.54+180.63+183.25=466.42
	C	for 3.00 to 4.50 m lift Rate analysis MI SR pno 23 Basic rate = Rs198.06 add for lift =Rs 14.70 total =Rs 212.76			
	a	One third qty of For approach channel			$\frac{[(5.20+4.00) \times 0.60 + (10.00+4.00) \times 4.00]}{2} \times 20.00 = 307.60 \times \frac{1}{3}$ $= 102.54 \text{ cum}$
	b	For pond portion (1;1 slope is taken into account depending upon site condition change slope) for lower trapezoidal portion			$\frac{(10.50 \times 10.50 + 12.50 \times 12.50)}{2.00} \times 1.00 = 133.25 \text{ cum}$
	c	For bottom portion pitching			10.50x10.50x0.25=27.56
		Net qty of C(a+b+c)			102.54+133.25+27.56=263.35
2	a	providing and constructing 250m thick dry rubblestone pitching with pin headers at 2 per sq. meter including cost of all materials labour, hand packing wedgins, stone chips finishing etc., complete upto 50m and all lifts. (SR item No. 56 P No.61 of MI circle Bangalore for 2014-15)			<p>a) Pitching</p> <p>Top : (24.00x24.00) - (22.00x22.00) = 92.00</p> <p>Slope-I: 1x4x1.41x $\frac{(22.00 + 18.00)}{2}$ x 2.00 = 225.60</p> <p>Berm: 1x(18.00x18.00) - (14.00+14.00) = 128.00</p> <p>Slope-II: 1x4x2.00x $\frac{(14.00+10.00)}{2}$ + 1.41 = 135.36</p>
		Rate analysis Extra Lead charges upto 25kms (Item No.5 P No 21 of M I Circle Bangalore for the year 2014-15)	SQM		<p>Bed: 1x10.00x10.00 = 100.00</p> <p>Approach Channel :</p> <p>Bed : 26.00x4.00 = 104.00</p> <p>Sides : 2x26.00x $\frac{[(0.60 \times 1.41) + (1.41 \times 4.00)]}{2}$ = 168.64</p> <p>Top : 2x20.00x1.00 = 40.00</p> <p>993.60 sqm</p> <p>Deduct: 10.00+8.00 x (1.41+4.00+2.00) = 68.76</p> <p>924.84</p>
	b	Extra lead charges Rate analysis Lead charges up to 5km =107.10 Lead charges beyond 5km up to 25km (20x9.20) = 184.00 Total rate = 291.10			<p>b) Extra lead charges</p> <p>924.84x0.25 = 231.21 cum</p>
3		Add 1% for technical supervision			
4		Add for Sharpening charges ... person Rs 10/day/person			
5		Name board and rounding off			
		Sign of Engineer			



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Part B

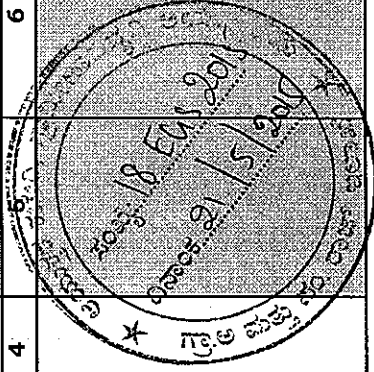
Detailed Estimation (Calculation) of labour and Material requirement

Name of work = Model estimate for construction of Water pool/pond
 Financial year = 2014-15
 Head of Account = Mahatma Gandhi NREGS Karnataka
 Work Code(As in nregasoft)

Important notes

1. Some of the rates adopted in this estimate are as per M.I. Circle schedule of rates of Bengaluru for 2014-15 continued for 2015-16.
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7. For purpose of this estimate average lead of 25km is considered and lead charges are worked out as per MI SR .For actual estimate actual approve leads should be considered and estimate be prepared
8. Where rates are not available market rates are considered

Sl no	Item as per SoR(prevaling nrega or line dept or As per approved Data Sheet) as in part A detailed and abstract estimate	Unit	Quantity	Unskilled Labour Component		Amount (in Rs) (col 11 x col 12)
				No of Person days	Wage rate for 2015-16 fixed by GOI, MoRD (col 5 x col 6)	
1	Earth work excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in Hard soil not exceeding 1.5m, in depth including dressing the bottom and sides of pits and trenches stacking the excavated soil clear from edges of excavation with lead upto 50m after breaking of clods complete as per specification including shoring strutting danger lighting (NREGA SoR 2015-16) for ordinary soil	2	4	6	7	8



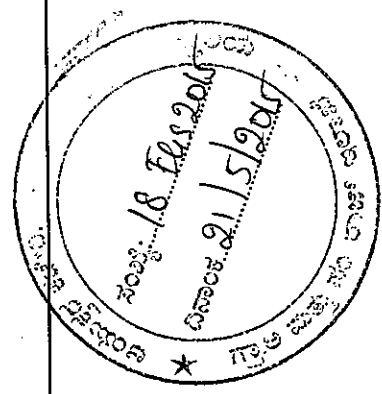
PWV

A	0.00 to 1.50m lift	cum	789.41	766.42	204.00	156350.54
B	for 1.50 to 3.00 m lift Rate analysis MI SR pno 23 Basic rate = Rs198.06 add for lift =Rs 7.30 total =Rs205.36	cum	466.42	469.53	204.00	95784.01
C	for 3.00 to4.50 m lift Rate analysis MI SR pno 23 Basic rate = Rs198.06 add for lift =Rs 14.70 total =Rs 212.76	cum	263.35	274.66	204.00	56030.35
2	a providing and constructing 250m thick dry rubblestone (SR item No. 56 P No 61 of MI circle Bangalore for 2014-15)	cum	924.84	46.24	204.00	9432.96
	b Extra lead charges upto 25 km for above rubble stone [P No.21 item No.1 /M I circle, Bangalore for the year 2014-15	cum	231.21			67305.23
3	Add 1% for technical supervision					4975.00
4	Add for Sharpening charges 2003 person Rs 10/day/person					15570.00
5	Name board and rounding off					1905.99
	Total			1556.85 SAY 1557		317597.86
						202402.14

Unskilled labour Percentage - 61.07%
Material amount Percentage -38.92%

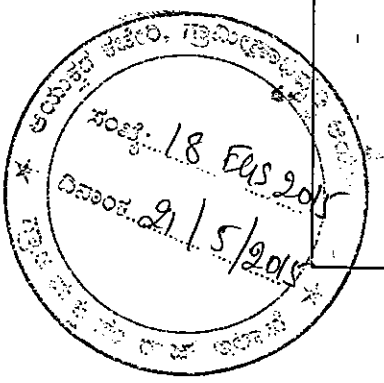
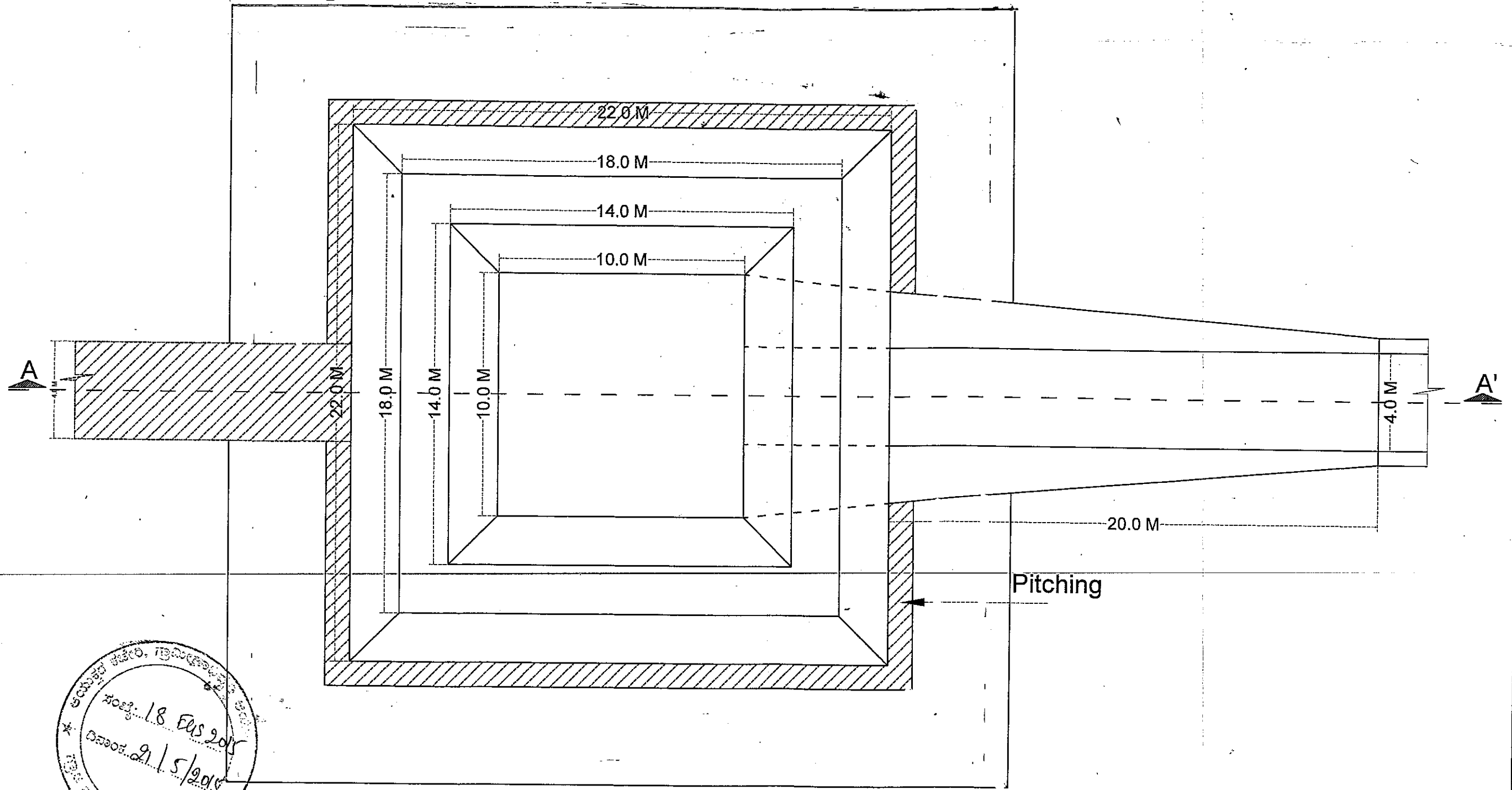
Sign of Engineer

Sign of EO/PO

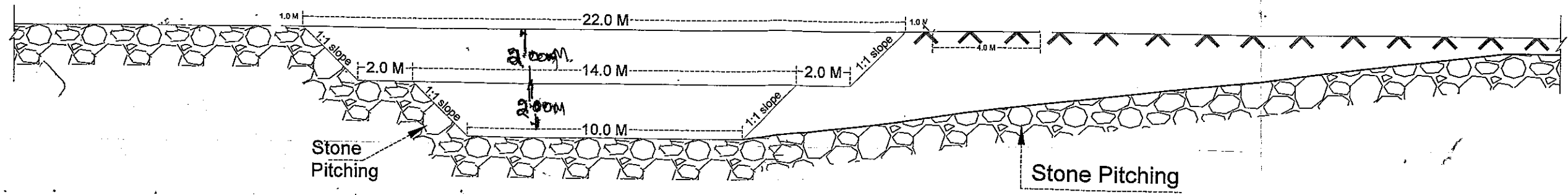


WATER POOL / POND

PM7



PLAN



SECTION @ AA'