

Office of the Chief Engineer LSGDConstruction of a Bio gas plant (100 kg / Day) MODEL ESTIMATE

Detailed Estimate

(Cost Index Applied for this estimate is 37.93%)

Sl No	Description	No	L	B	D	CF	Quantity	Remark	
1 A. INLET TANK (circular size 60 cm dia)									
1	2.8.1 Earth work in excavation by mechanical means (Hydraulic excavator) /manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.All kinds of soil								
	Cercular pit for foundation (3.14/4 * D *D * h)	0.785	1.250	1.250	0.400		0.491		
	Total Quantity							0.491 cum	
	Total Deducted Quantity							0.000 cum	
	Net Total Quantity							0.491 cum	
	Say0.491 cum @ Rs 214.55 / cum							Rs 105.34	
2	4.1.8 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 nominal size)								
	For foundation leveling (3.14/4 *D * D *h)	0.785	1.250	1.250	0.100		0.123		
	Total Quantity							0.123 cum	
	Total Deducted Quantity							0.000 cum	
	Net Total Quantity							0.123 cum	
	Say0.123 cum @ Rs 5773.88 / cum							Rs 710.19	
3	60.7.1 DRY RUBBLE MASONRY _ Dry rubble without concrete levelling course masonry with good quality blasted rubble including packing to compactness to lines and levels cost and conveyance of all materials labour charges etc. complete as per direction of Departmental officers at site								
	Foundation (3.14/4 * D * D * h)	0.785	1.150	1.150	0.300		0.312		
	Total Quantity							0.312 cum	
	Total Deducted Quantity							0.000 cum	

		Net Total Quantity					0.312 cum	
		Say 0.312 cum @ Rs 2474.64 / cum					Rs 772.09	
4	7.2.1 Random rubble masonry with hard stone in superstructure above plinth level and upto floor five level, including leveling up with cement concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20 mm nominal size) at window sills, ceiling level and the like. Cement mortar 1:6 (1 cement : 6 coarse sand)							
	Basement (3.14/4 * D * D * h)	0.785	1.150	1.150	0.400		0.416	
		Total Quantity					0.416 cum	
		Total Deducted Quantity					0.000 cum	
		Net Total Quantity					0.416 cum	
		Say 0.416 cum @ Rs 6182.61 / cum					Rs 2571.97	
5	4.1.3 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:2:4 (cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)							
	Wearing cot inner (3.14* r * r* h)	3.14	0.600	0.600	0.050		0.057	
		Total Quantity					0.057 cum	
		Total Deducted Quantity					0.000 cum	
		Net Total Quantity					0.057 cum	
		Say 0.057 cum @ Rs 7068.13 / cum					Rs 402.88	
6	6.2.1 Brick work with common burnt clay modular bricks of class designation 7.5 in foundation and plinth in: Cement mortar 1:4 (1 cement : 4 coarse sand)							
	Hollow cylinder V = 3.14*h (R*R - r*r) = 3.14 * 0.30 (0.40*0.40 - 3 0 * 3 0) = 3.14 * 0.30 (0.16 - 0.09) = 0.942 * 0.08	3.14	0.300	0.080			0.076	
		Total Quantity					0.076 cum	
		Total Deducted Quantity					0.000 cum	
		Net Total Quantity					0.076 cum	
		Say 0.076 cum @ Rs 5921.90 / cum					Rs 450.06	
7	13.1.1 12 mm cement plaster of mix:1:4 (1 cement : 4 fine sand)							

	Inner floor portion ($3.14 * r * r$)	3.14	0.300	0.300			0.283	
	Inner wall ($2 * 3.14 * r * h$)	$2 * 3.14$	0.300	0.300			0.566	
	Outer wall ($2 * 3.14 * R * h$)	$2 * 3.14$	0.400	0.300			0.754	
	Top face ($3.14/4 (D * D - d * d) = 3.14/4 (0.80 * 0.80 - 0.60 * 0.60)$)	0.785	0.280				0.220	
							Total Quantity	1.823 sqm
							Total Deducted Quantity	0.000 sqm
							Net Total Quantity	1.823 sqm
							Say 1.823 sqm @ Rs 222.99 / sqm	Rs 406.51
8	13.33.1 Pointing on stone work with cement mortar 1:3 (1 cement : 3 fine sand): Flush/ Ruled pointing							
	$2 * 3.14 * r * h = 2 * 3.14 * 0.575 * 0.40$	$2 * 3.14$	0.575	0.400			1.445	
							Total Quantity	1.445 sqm
							Total Deducted Quantity	0.000 sqm
							Net Total Quantity	1.445 sqm
							Say 1.445 sqm @ Rs 217.19 / sqm	Rs 313.84
SI No	Description	No	L	B	D	CF	Quantity	Remark
2 Lid with Locking facility								
Lump-Sum Total							Rs 500.00	
SI No	Description	No	L	B	D	CF	Quantity	Remark
Remark	3 B. DIGSTER (inner dia 3.60 m)							
1	2.8.1 Earth work in excavation by mechanical means (Hydraulic excavator) /manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. All kinds of soil							
	Above dome ($3.14/4 * d * d * h$)	0.875	4.600	4.600	2.200		40.733	
	dome ($V = 3.14 * h * h (3 * R - h)$)	3.14	0.650	0.650	5.350		7.098	

	Projection all round ($V = 3.14 * h * (R * R - r * r) = 3.14 * 0.20 * (2.30 * 2.30 - 2.00 * 2.00)$)	1	3.140	0.200	1.290		0.811	
	Total Quantity						48.642 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						48.642 cum	
	Say 48.642 cum @ Rs 214.55 / cum						Rs 10436.14	
2	2.26.1 Extra for every additional lift 1.5 m or part there of in excavation / banking excavated or stacked materials. All kinds of soil							
	Above dome ($3.14 / 4 * d * d * h$)	0.875	4.600	4.600	0.700		12.961	
	dome ($V = 3.14 * h * h * (3 * R - h)$)	3.14	0.650	0.650	5.350		7.098	
	Total Quantity						20.059 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						20.059 cum	
	Say 20.059 cum @ Rs 66.72 / cum						Rs 1338.34	
3	4.1.6 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level: 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size)							
	dome outer measurement $V = 3.14 * h * h * (3 * R - h) = 3.14 * 0.65 * 0.65 * (3 * 2.30 - 0.65)$)	3.14	0.650	0.650	5.350		7.098	
	Projection	1	3.140	0.200	1.290		0.811	
	Deduction							
	dome inner measurement $v = 3.14 * h * h * (3 * R - h) = 3.14 * 0.55 * 0.55 * (3 * 1.90 - 0.55)$)	3.14	0.550	0.550	5.150		-4.891	
	opening	1	0.800	0.100	0.100		-0.008	
	Total Quantity						7.909 cum	
	Total Deducted Quantity						-4.899 cum	

		Net Total Quantity					3.010 cum	
		Say 3.010 cum @ Rs 6207.62 / cum					Rs 18684.94	
4	5.1.2 Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level:1:1:5:3 (1 cement 1.5 coarse sand :3 graded stone aggregate 20 mm nominal size							
	dome outer measurement $V=3.14*h*h(3*R-h)=3.14*0.55*0.55(3*1.90-0.55)$	3.14	0.550	0.550	5.150		4.892	
	Tank lintel opening	1	1.200	0.100	0.200		0.024	
	Projection	1	3.140	0.200	1.290		0.811	
		Deduction						
	dome inner measurement V- $3.14*h*h(3*R-h)=3.14*0.45*0.45(3*1.80-0.45)$	3.14	0.450	0.450	4.950		-3.147	
		Total Quantity					5.727 cum	
		Total Deducted Quantity					-3.147 cum	
		Net Total Quantity					2.580 cum	
		Say 2.580 cum @ Rs 8013.73 / cum					Rs 20675.42	
5	5.22.6 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth level Thermo - Mechanically Treated bars of grade Fe-500D or more							
	As per item NO.4 = 2.580 cu.m	2.58				70.0	180.600	
	As per item No.9 = 21.871 sq.m	21.871				5.0	109.355	
		Total Quantity					289.955 kilogram	
		Total Deducted Quantity					0.000 kilogram	
		Net Total Quantity					289.955 kilogram	
		Say 289.955 kilogram @ Rs 72.98 / kilogram					Rs 21160.92	
6	5.9.5 Centering and shuttering including strutting, etc. and removal of form for: Lintels, beams, plinth beams, girders bressumers and cantilevers							

	Surface Area of projection side $2 * 3.14 * r * h = 2 * 3.14 * 1.15 * 0.20$	2	3.140	1.150	0.200		1.445	
	Total Quantity						1.445 sqm	
	Total Deducted Quantity						0.000 sqm	
	Net Total Quantity						1.445 sqm	
	Say 1.445 sqm @ Rs 442.12 / sqm						Rs 638.86	
7	6.9 Brick work in plain arches in superstructure above plinth level and upto floor five level including centering and shuttering complete for span up to 6 metres with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in cement mortar 1:3 (1 cement: 3 coarse sand).							
	Hemi speare outer volume $V = \frac{2}{3} * 3.14 * r * r * r = \frac{2}{3} * 1.90 * 1.90 * 1.90$	0.67*3.14	1.900	1.900	1.900		14.430	
	Deduction							
	Hemi spear inner volume - $\frac{2}{3} * 3.14 * r * r * r = \frac{2}{3} * 1.80 * 1.80 * 1.80$	0.67*3.14	1.800	1.800	1.800		-12.269	
	opening	1	0.800	0.100	1.800		-0.144	
	Total Quantity						14.430 cum	
	Total Deducted Quantity						-12.413 cum	
	Net Total Quantity						2.017 cum	
	Say 2.017 cum @ Rs 11405.04 / cum						Rs 23003.97	
8	13.6.1 20 mm cement plaster of mix:1:4 (1 cement : 4 coarse sand)							
	Ferro cement lining over brick work / Area of hemi sphre cuved surface Area = $2 * 3.14 * r * r$	2*3.14	1.900	1.900			22.671	
	Deduction							
	Opening portion	1	0.800	1.000			-0.800	
	Total Quantity						22.671 sqm	
	Total Deducted Quantity						-0.800 sqm	
	Net Total Quantity						21.871 sqm	
	Say 21.871 sqm @ Rs 325.43 / sqm						Rs 7117.48	

9	13.1.1 12 mm cement plaster of mix:1:4 (1 cement : 4 fine sand)							
	Ferro cement lining over brick work / Area of hemi sphre cuved surface Area = $2 * 3.14 * r * r$	2*3.14	1.900	1.900			22.671	
	Deduction							
	Opening portion	1	0.800	1.000			-0.800	
	Total Quantity						22.671 sqm	
	Total Deducted Quantity						-0.800 sqm	
	Net Total Quantity						21.871 sqm	
	Say21.871 sqm @ Rs 222.99 / sqm						Rs 4877.01	
10	13.7.1 12 mm cement plaster finished with a floating coat of neat cement of mix:1:3 (1 cement : 3 fine sand)							
	spherical surface floor / base = $3.14 (1.80 * 1.8 + 0.45 * 0.45)$	1	3.140	3.443			10.812	
	Inside of dome = $2 * 3.14 * r * r$	2*3.14	1.800	1.800			20.348	
	Deduction							
	opening	1	0.800	1.000			-0.800	
	Total Quantity						31.160 sqm	
	Total Deducted Quantity						-0.800 sqm	
	Net Total Quantity						30.360 sqm	
	Say30.360 sqm @ Rs 292.42 / sqm						Rs 8877.87	
11	50.18.9.10.1 Providing and fixing PVC pipes includings jointing of pipes with one step pvc solvent cement, trenching , refilling & testing of joints complete as per direction of Engineer in Charge. 150 mm dia 6 Kgf/cm2							
	Inlet pipe 150 mm dia pipe	1	3.250				3.250	
	Total Quantity						3.250 metre	
	Total Deducted Quantity						0.000 metre	
	Net Total Quantity						3.250 metre	
	Say3.250 metre @ Rs 761.43 / metre						Rs 2474.65	
SI No	Description	No	L	B	D	CF	Quantity	Remark

4 C. OUT LET POCKET & TANK (inner dimension 4.70 x 2.00 mts)							
1	2.6.1 Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed.All kinds of soil						
	Out let Tank	1	4.700	2.000	0.550		5.170
	Out let Pocket	1	1.800	0.700	1.550		1.953
	Total Quantity						7.123 cum
	Total Deducted Quantity						0.000 cum
	Net Total Quantity						7.123 cum
	Say 7.123 cum @ Rs 162.39 / cum						Rs 1156.70
2	4.1.8 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 nominal size)						
	Foundation	1	1.300	0.900	0.100		0.117
	Total Quantity						0.117 cum
	Total Deducted Quantity						0.000 cum
	Net Total Quantity						0.117 cum
	Say 0.117 cum @ Rs 5773.88 / cum						Rs 675.54
3	5.1.3 Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level:1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)						
	Cover slab	1	3.800	2.500	0.075		0.713
	Total Quantity						0.713 cum
	Total Deducted Quantity						0.000 cum
	Net Total Quantity						0.713 cum
	Say 0.713 cum @ Rs 7442.94 / cum						Rs 5306.82
4	5.2.2 Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. up tot floor five level excluding cost of centering, shuttering, finishing and reinforcement :1:1.5:3(1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size)						
	Out let pocket - floor	1	1.300	0.900	0.100		0.117
	- do - tank - floor	1	4.000	2.400	0.100		0.960

	Pocket	1	1.200	1.000	0.100		0.120	
	Total Quantity						1.197 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						1.197 cum	
	Say1.197 cum @ Rs 9213.41 / cum						Rs 11028.45	
5	5.9.1 Centering and shuttering including strutting, etc. and removal of form for:Foundations, footings, bases of columns, etc for mass concrete							
	Cover slab	1	3.400	2.100			7.140	
	Total Quantity						7.140 sqm	
	Total Deducted Quantity						0.000 sqm	
	Net Total Quantity						7.140 sqm	
	Say7.140 sqm @ Rs 250.07 / sqm						Rs 1785.50	
6	60.7.4 DR PACKING FOR APRONS - Rough stone dry packing for apron with good quality blasted rubble including packing to compactness to lines levels, cost and conveyance of all materials labour charges etc. complete as per direction of Departmental officers at site							
	Whole area	1	4.000	2.400	1.350		12.960	
	Deduction							
	Pocket	1	1.200	1.000	1.350		-1.620	
	Total Quantity						12.960 cum	
	Total Deducted Quantity						-1.620 cum	
	Net Total Quantity						11.340 cum	
	Say11.340 cum @ Rs 2558.51 / cum						Rs 29013.50	
7	6.2.1 Brick work with common burnt clay modular bricks of class designation 7.5 in foundation and plinth in:Cement mortar 1:4 (1 cement : 4 coarse sand)							
	Out let pocket	1	2.800	0.200	1.350		0.756	
	Out let tank	1	11.800	0.200	0.700		1.652	
	Total Quantity						2.408 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						2.408 cum	
	Say2.408 cum @ Rs 5921.90 / cum						Rs 14259.94	
8	13.7.1 12 mm cement plaster finished with a floating coat of neat cement of mix:1:3 (1 cement : 3 fine sand)							

	Floor	1	3.400	2.100			7.140	
	Inside of outlet pocket wall	1	2.400	1.450			3.480	
	Inside of outlet tank wall	1	11.000	0.700			7.700	
	Inside of cover slab	1	3.400	2.100			7.140	
	Total Quantity						25.460 sqm	
	Total Deducted Quantity						0.000 sqm	
	Net Total Quantity						25.460 sqm	
	Say 25.460 sqm @ Rs 292.42 / sqm						Rs 7445.01	
9	13.1.1 12 mm cement plaster of mix:1:4 (1 cement : 4 fine sand)							
	Inside of outlet pocket wall	1	3.200	1.450			4.640	
	Inside of outlet tank wall	1	12.600	0.700			8.820	
	Total Quantity						13.460 sqm	
	Total Deducted Quantity						0.000 sqm	
	Net Total Quantity						13.460 sqm	
	Say 13.460 sqm @ Rs 222.99 / sqm						Rs 3001.45	
10	50.2.25.1 Filling with contractor's own earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift up to 1.5 m as per direction of site Engineer-in-charge							
	Top of dome	0.875	4.600	4.600	2.200		40.733	
	dome	3.14	0.650	5.350			10.920	
	deduction							
	dome bellow	3.14	0.650	0.650	5.350		-7.097	
	Top brick portion	0.67	3.140	1.900	1.900	1.9	-14.429	
	Total Quantity						51.653 cum	
	Total Deducted Quantity						-21.526 cum	
	Net Total Quantity						30.127 cum	
	Say 30.127 cum @ Rs 401.31 / cum						Rs 12090.27	
SI No	Description	No	L	B	D	CF	Quantity	Remark
5 D. PRE FILTER (inner dimension 2.00x1.00 mts)								

1	2.8.1 Earth work in excavation by mechanical means (Hydraulic excavator) /manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.All kinds of soil								
		1	1.400	2.400	1.200		4.032		
		Total Quantity					4.032 cum		
		Total Deducted Quantity					0.000 cum		
		Net Total Quantity					4.032 cum		
		Say4.032 cum @ Rs 214.55 / cum					Rs 865.07		
2	4.1.8 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 nominal size)								
	c. c for leveling	1	1.400	2.400	0.100		0.336		
		Total Quantity					0.336 cum		
		Total Deducted Quantity					0.000 cum		
		Net Total Quantity					0.336 cum		
		Say0.336 cum @ Rs 5773.88 / cum					Rs 1940.02		
3	5.1.2 Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level:1:1:5:3 (1 cement 1.5 coarse sand :3 graded stone aggregate 20 mm nominal size)								
	R.c.c. for foundation	1	1.400	2.400	0.100		0.336		
		Total Quantity					0.336 cum		
		Total Deducted Quantity					0.000 cum		
		Net Total Quantity					0.336 cum		
		Say0.336 cum @ Rs 8013.73 / cum					Rs 2692.61		
4	5.1.3 Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level:1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)								
	cover slab	1	1.400	2.400	0.075		0.252		
	Partition wall	3	0.600	0.050	0.500		0.045		
		Total Quantity					0.297 cum		
		Total Deducted Quantity					0.000 cum		
		Net Total Quantity					0.297 cum		

	Say0.297 cum @ Rs 7442.94 / cum						Rs 2210.55	
5	5.22.6 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth levelThermo - Mechanically Treated bars of grade Fe-500D or more							
	As per item No.3 & 4 =0.336 cu.m + 0.297 cu.m=	1	0.633		70.000		44.310	
	Total Quantity						44.310 kilogram	
	Total Deducted Quantity						0.000 kilogram	
	Net Total Quantity						44.310 kilogram	
	Say44.310 kilogram @ Rs 72.98 / kilogram						Rs 3233.74	
6	6.2.1 Brick work with common burnt clay modular bricks of class designation 7.5 in foundation and plinth in:Cement mortar 1:4 (1 cement : 4 coarse sand)							
	Allround	1	7.600	0.200	1.000		1.520	
	Total Quantity						1.520 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						1.520 cum	
	Say1.520 cum @ Rs 5921.90 / cum						Rs 9001.29	
7	13.7.1 12 mm cement plaster finished with a floating coat of neat cement of mix:1:3 (1 cement : 3 fine sand)							
	Floor	1	1.000	2.000			2.000	
	Inner walls	1	6.000	1.000			6.000	
	Total Quantity						8.000 sqm	
	Total Deducted Quantity						0.000 sqm	
	Net Total Quantity						8.000 sqm	
	Say8.000 sqm @ Rs 292.42 / sqm						Rs 2339.36	
8	13.1.1 12 mm cement plaster of mix:1:4 (1 cement : 4 fine sand)							
	Outrt walls	1	7.600	1.000			7.600	
	Top of cover slab	1	1.400	2.400			3.360	
	Total Quantity						10.960 sqm	
	Total Deducted Quantity						0.000 sqm	
	Net Total Quantity						10.960 sqm	
	Say10.960 sqm @ Rs 222.99 / sqm						Rs 2443.97	

SI No	Description	No	L	B	D	CF	Quantity	Remark
6 E. SEPTIC TANK & SOAK PIT (inner dimension 2.00 x0.60 mts & 120mm dia)								
1	2.8.1 Earth work in excavation by mechanical means (Hydraulic excavator) /manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.All kinds of soil							
	Septic tank	1	2.400	1.000	1.100		2.640	
	Soak pit (circular shape)	0.785	1.600	1.600	1.200		2.412	
							Total Quantity	5.052 cum
							Total Deducted Quantity	0.000 cum
							Net Total Quantity	5.052 cum
							Say5.052 cum @ Rs 214.55 / cum	Rs 1083.91
2	4.1.8 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 nominal size)							
	Septic tank leveling course	1	2.400	1.000	0.100		0.240	
	Soak pit - do -	0.785	1.600	1.600	0.100		0.201	
							Total Quantity	0.441 cum
							Total Deducted Quantity	0.000 cum
							Net Total Quantity	0.441 cum
							Say0.441 cum @ Rs 5773.88 / cum	Rs 2546.28
3	5.1.2 Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level:1:1:5:3 (1 cement 1.5 coarse sand :3 graded stone aggregate 20 mm nominal size)							
	Septic tank top	1	2.400	1.000	0.100		0.240	
							Total Quantity	0.240 cum
							Total Deducted Quantity	0.000 cum
							Net Total Quantity	0.240 cum
							Say0.240 cum @ Rs 8013.73 / cum	Rs 1923.30
4	5.1.3 Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level:1:2:4 (1 cement : 2 coarse							

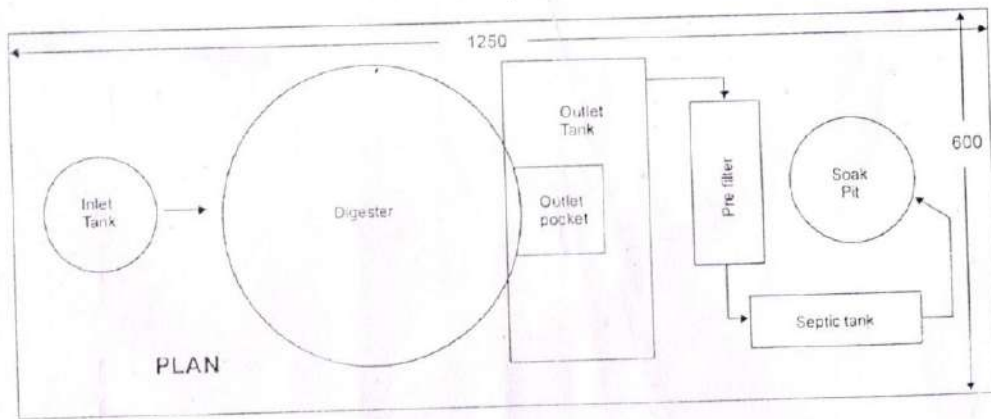
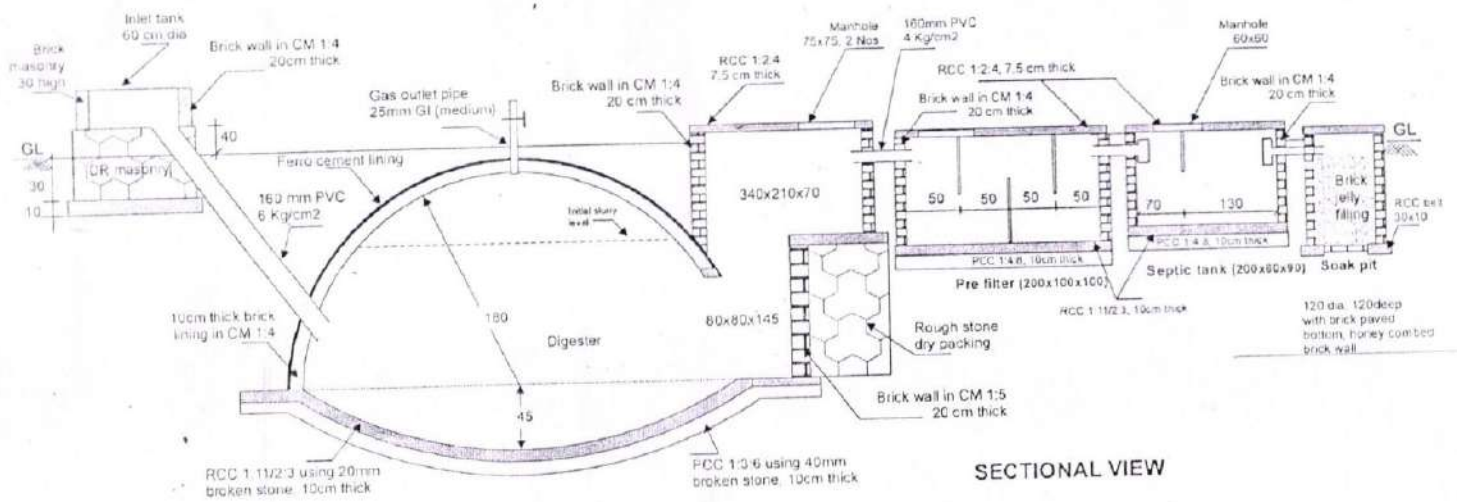
	sand : 4 graded stone aggregate 20 mm nominal size)						
	wearing cot on the floor	1	2.000	0.600	0.050		0.060
	Total Quantity						0.060 cum
	Total Deducted Quantity						0.000 cum
	Net Total Quantity						0.060 cum
	Say0.060 cum @ Rs 7442.94 / cum						Rs 446.58
5	5.9.21 Centering and shuttering including strutting, etc. and removal of form for:Lintels, beams, plinth beams, girders, bressumers and cantilevers with water proofply 12 mm thick.						
	Foundation side	1	6.800	0.100			0.680
	Total Quantity						0.680 sqm
	Total Deducted Quantity						0.000 sqm
	Net Total Quantity						0.680 sqm
	Say0.680 sqm @ Rs 540.17 / sqm						Rs 367.32
6	5.16 Providing, hoisting and fixing up to floor five level precast reinforced cement concrete in shelves including setting in cement mortar 1:3 (1 cement : 3 coarse sand), cost of required centering, shuttering and finishing with neat cement punning on exposed surfaces but excluding the cost of reinforcement, with 1:1.5:3 (1 cement : 1.5 coarse sand (Zone - III) : 3 graded stone aggregate 20 mm nominal size)						
	part ion wall	1	0.500	0.050	0.500		0.013
	Cover slab for septic tank	1	2.400	1.000	0.075		0.180
	Cover slab for soak pit	0.785	1.200	1.200	0.075		0.085
	Total Quantity						0.278 cum
	Total Deducted Quantity						0.000 cum
	Net Total Quantity						0.278 cum
	Say0.278 cum @ Rs 16408.92 / cum						Rs 4561.68
7	5.22.6 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth levelThermo - Mechanically Treated bars of grade Fe-500D or more						
	As per item No.3 & 4 = 0 .24 cu.m = .06 cu.m	0.1	0.300	80.000			2.400
	Total Quantity						2.400 kilogram
	Total Deducted Quantity						0.000 kilogram

	Net Total Quantity						2.400 kilogram	
	Say 2.400 kilogram @ Rs 72.98 / kilogram						Rs 175.15	
8	6.1.2 Brick work with common burnt clay F.P.S (non modular) bricks of class designation 7.5 in foundation and plinth in: Cement mortar 1:6 (1 cement : 6 coarse sand)							
	Septic tank	1	6.800	0.200	0.900		1.224	
	Soak pit (3.14*h (R*R r*r)=3.14*0.90(0.80*0.80 - 0.60*0.60) = 3.14*0.90 (0.64 - 0.36) = 2.826*0.28 =	1	2.826	0.280			0.792	
	Total Quantity						2.016 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						2.016 cum	
	Say 2.016 cum @ Rs 6126.52 / cum						Rs 12351.06	
9	13.9.1 Cement plaster 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement. 12 mm cement plaster							
	Septic tank floor	1	2.000	0.600			1.200	
	Side wall inner	1	5.200	0.900			4.680	
	Total Quantity						5.880 sqm	
	Total Deducted Quantity						0.000 sqm	
	Net Total Quantity						5.880 sqm	
	Say 5.880 sqm @ Rs 302.61 / sqm						Rs 1779.35	
10	13.1.1 12 mm cement plaster of mix:1:4 (1 cement : 4 fine sand)							
	Side wall outer	1	6.800	0.900			6.120	
	Total Quantity						6.120 sqm	
	Total Deducted Quantity						0.000 sqm	
	Net Total Quantity						6.120 sqm	
	Say 6.120 sqm @ Rs 222.99 / sqm						Rs 1364.70	
11	50.18.8.9.2 Providing and fixing PVC pipes, fittings including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes with one step PVC Solvent cement and testing of joints complete as per direction of Engineer-in-Charge. Concealed work, including cutting chases and making good the wall etc. 110 mm pipe 4 kgf/cm ²							
	Inlet pipe	1	4.000				4.000	

	Out let pipe	1	4.000				4.000	
	Total Quantity						8.000 metre	
	Total Deducted Quantity						0.000 metre	
	Net Total Quantity						8.000 metre	
	Say 8.000 metre @ Rs 505.66 / metre						Rs 4045.28	
12	od1165611/2021_2022 Providing and laying bed of dry brick aggregate of 40 mm thick nominal size including spreading, consolidating including f etc. complete as per direction of Engineer-in- Charge.							
	circular portion 3.14x1.85x1.85x1.00	3.14	1.850	1.000			5.809	
	Total Quantity						5.809 cum	
	Total Deducted Quantity						0.000 cum	
	Net Total Quantity						5.809 cum	
	Say 5.809 cum @ Rs 1627.55 / cum						Rs 9454.44	
Amount reserved for GST payments						Rs 33132.88		
Total						Rs 309240.19		
Lumpsum for round off						759.81		
TOTAL						Rs 310000.00360640005		
Rounded Total						Rs 310000.00		
Rupees Three Lakh Ten Thousand Only								

(Cost Index Applied for this estimate is 37.93%)

Frid Aona Bio gas Plant (Capacity 100 kg/day)



Not to scale