

Detail Estimate of earthwork for IHHL

Item-01>

Earthwork in excavation in foundation trenches or drain lift upto 1.5mt in different type of soil including removing, spreading or stacking the spoils within different lead including the sides of trenches, levelling, dressing & ramming the bottom, belling out water etc. as required, complete.

Type of soil:		Loose & soft soil			Lead: up to 25m	Lift: upto 1.50m	
Type of Work	No.	Length (in meter)	Bredth (in meter)	Hight (in meter)	Volume (in cum)	Rate (cum/usk)	USK Mandays
Garbage pit (2 X 2 X 1.5)	1	2	2	1.5	6	1.95	3.08
Drain (9 X 0.75 X 0.75)	1	9	0.75	0.75	5.06	1.95	2.59
Foundation; Outer to outer of room-1.22 X 1.22 X 0.3	1	1.22	1.22	0.3	0.45	1.95	0.23
Leach pit- 2nos; (depth- 1.22 & dia 0.9	2	(3.14 X 0.9 X 0.9)/4 X 1.22			1.56	1.95	0.8
Composed pit-2 nos; (length 1.22 breadth- 1.22, depth-1.22)	2	1.22	1.22	1.22	3.63	1.95	1.86
Soak pit- 1no.(length 1.22 breadth-1.22, depth- 0.9)	1	1.22	1.22	0.9	1.34	2.95	0.45

Item-02>

Fine dressing and chilchalling work including breaking clods in the formation and side slope of embankment and canal bed to required slope, camber, and grade.

Type of Work	No.	Length (in meter)	Bredth (in meter)	Hight (in meter)	Volume (in cum)	Rate (cum/usk)	USK Mandays
		L.S.			100	50	2.00

Abstract

Component	Nos.	Say, Nos	Rate in ₹	Amount
1. UnSkilled Labour.	11.01	11.00	151.00	1661.00

Consumption of Materials & Labour Component on estimate of IHHL

Sl. No.	Description of Items	Qty.	Unit	Materials						Labour	
				Brick (in Pcs)	Cement (in Bags)	Sand (in C.ft.)	Stone chips (in C.ft.)	Jhama khoa (in C.ft.)	Steel (in Kg)	Sk	Usk
1	Cement concrete (1 : 3 : 6) with graded jhama khoa (40 mm size) excluding shuttering [2-Sk & 3-Usk per 2.1 m ³] [Jhama khoa-0.96 m ³ , Sand-0.48 m ³ & Cement-0.16 m ³ per m ³] <u>In foundation</u>	0.074	m ³	-	0.34	1.25	-	2.509	-	0.07	0.11
	Supply of Jhama bats = 2.509 x 1.10 = 2.76 c.ft Breaking of Jhama bats to Jhama khoa (63mm to 45mm); 2.509 c.ft = 0.071 m ³ [1-Usk per 1.20 m ³]	0.0710	m ³	-	-	-	-	-	-	-	0.059
2	125 mm thick Brick work (1 : 4) [3-Sk & 4-Usk per 24.0 m ²] [Brick-4951 nos, Sand-3.66 m ³ & Cement-0.914 m ³ per % m ²] <u>Brick work laid over PCC upto Plinth level</u>	1.8500	m ²	92	0.49	2.39	-	-	-	0.23	0.31
3	75 mm thick Brick work (1 : 4) [2-Sk & 3-Usk per 24.0 m ²] [Brick-3014 nos, Cement-0.571 m ³ & Sand-2.285 m ³ per %m ²] <u>Superstructure above P.L.</u>	5.1334	m ²	155	0.84	4.14	-	-	-	0.43	0.64
4	Nominal mix (1 : 2 : 4) cement concrete with graded stone chips (20 mm size) excluding shuttering & reinforcement in Gr. Floor. [2-Sk & 3-Usk per 2.0 m ³] [Stone chips-0.88 m ³ , Sand-0.44 m ³ & Cement-0.22 m ³ per m ³] <u>a) RCC Pillar (75 mm x 75 mm)</u>	0.0552	m ³	-	0.35	0.86	1.72	-	-	0.06	0.08
	Nominal mix (1 : 2 : 4) cement concrete with graded stone chips (20 mm size) excluding shuttering & reinforcement in Gr. Floor. [2-Sk & 3-Usk per 2.0 m ³] [Stone chips-0.88 m ³ , Sand-0.44 m ³ & Cement-0.22 m ³ per m ³] <u>b) 2 nos RCC pit cover</u>	0.0364	m ³	-	0.231	0.566	1.131	-	-	0.04	0.05
	Nominal mix (1 : 2 : 4) cement concrete with graded stone chips (20 mm size) excluding shuttering & reinforcement in Gr. Floor. [2-Sk & 3-Usk per 2.0 m ³] [Stone chips-0.88 m ³ , Sand-0.44 m ³ & Cement-0.22 m ³ per m ³] <u>c) 8 nos RCC rings</u>	0.1624	m ³	-	1.029	2.523	5.047	-	-	0.16	0.24
	Reinforcement for reinforced concrete work in all sorts of structure Tor steel/ Mild steel (using 6 mm bar) [3-Sk (Rod binder) & 2-Usk per 220 Kg] <u>a) RCC Pillar (75 mm x 75 mm)</u>	0.8%	kg	-	-	-	-	-	-	3.47	0.05
Reinforcement for reinforced concrete work in all sorts of structure Tor steel/ Mild steel (using 6 mm bar) [3-Sk (Rod binder) & 2-Usk per 220 Kg] <u>b) RCC pit cover</u>	1.0%	kg	-	-	-	-	-	-	2.86	0.04	0.03
6	Grey A.S.F. for floor, dado, skirting, staircase etc. with cement concrete (1 : 2 : 4) with stone chips 6 mm down ... [5-Sk & 3-Usk per 24.0 m ²] [Stone chips-2.23 m ³ , Sand-1.12 m ³ & Cement-0.855 m ³ per %m ²]	0.720	m ²	-	0.177	0.285	0.567	-	-	0.19	0.48
7	Plaster (to wall, floor, ceiling etc.) with sand and cement mortar a) 19 mm thick (1 : 6) [5-Sk & 8-Usk per 36.0 m ²] [Cement-0.366 m ³ & Sand-2.196 m ³ per %m ²] <u>Internal wall</u>	4 890	m ²	-	0.52	3.79	-	-	-	0.68	1.09

Sl. No.	Description of Items	Qty.	Unit	Materials						Labour	
				Brick (in Pcs)	Cement (in Bags)	Sand (in C.ft.)	Stone chips (in C.ft.)	Jhama khoa (in C.ft.)	Steel (in Kg)	Sk	Usk
	Plaster (to wall, floor, ceiling etc.) with sand and cement mortar b) 12 mm thick (1 : 6) [2-Sk & 3-Usk per 18.0 m ²] [Cement-0.244 m ³ & Sand-1.46 m ³ per %m ²] External wall		m ²	-	0.00	0.00	-	-	-	0.00	0.00
8	Neat cement punning about 1.5 mm. thick in wall, dado, window, sills, floor, drain etc. [2-Sk & 1-Usk per 50.0 m ²] [Cement-0.152 m ³ per %m ²] Floor area, Internal & External wall	1.530	m ²	-	0.067	-	-	-	-	0.06	0.03
9	Roof truss with (10 cm dia) bamboo & purlin [1-Carpenter (Sk), 4-Helper & 2-Usk per 37.0 m ²]	1.400	-	-	-	-	-	-	-	0.04	0.08
10	Fitting, fixing door & window shutters with necessary hinges [1-Sk & 1-Usk per 2 nos] 1-Sk has been converted to 2-Usk; i.e. total 3-Usk per 2 nos	1	each	-	-	-	-	-	-	-	1.50
11	Carriage of construction materials from a nearby quarry/ road point/ river point on head load to a distance of 100 m beyond original lead of 30 m: Bricks @ 335 nos/ 1 Usk Bats/ Sand/ Stone chips @ 0.87 m ³ or 30.72 c.ft/ 1 Usk Steel materials @ 670 kgs/ 1 Usk Cement @ 20 bags/ 1 Usk	250	each	-	-	-	-	-	-	-	0.75
		27.30	c.ft	-	-	-	-	-	-	-	0.89
		6.40	kg	-	-	-	-	-	-	-	0.01
		4.10	bag	-	-	-	-	-	-	-	0.21
						246	4.04	15.81	8.46	2.51	6.33
				250	4.10	16.00	8.50	2.83	6.40	2.00	7.00
	Total - say										

Part - A: Itemwise detail estimate of IHHL

Particulars	No.	Length	Breadth	Height	Dia.	Total	Unit
1. P.C.C (1 : 3 : 6) with ihama khoa							
In foundation & trenches, (C.L. = 0.925 m) (Jhama chips-0.96 m3, Sand-0.48 m3 & Cement-0.16 m3) per m3	4	0.925	0.20	0.10		0.0740	cu.m
2. B/work: 125 mm (1 : 4)							
Upto G.L., (C.L. = 0.925 m) (Brick-4951 Nos, Cement-0.914 m3 & Sand-3.66 m3) per % m2	4	0.925		0.20		0.7400	sq.m
3. B/work: 125 mm (1 : 4)							
Upto P.L., (C.L. = 0.925 m) (Brick-4951 Nos, Cement-0.914 m3 & Sand-3.66 m3) per % m2	4	0.925		0.30		1.1100	sq.m
4. B/work: 75 mm (1 : 4)							
Above P.L., C.L. = 0.975 m & Ht. = (1.83 + 1.68)/2 = 1.755 m (Brick-3014 Nos, Cement-0.571 m3 & Sand-2.285 m3) per % m2	3	0.975		1.755		5.1334	sq.m
5. a) Plaster (19 mm th.; 1 : 6)							
Internal wall (Cement-0.366 m3 & Sand-2.196 m3) per % m2	2	0.90		1.755		3.1590	sq.m
	1	0.90		1.68		1.5120	sq.m
	3	0.975	0.075			0.2194	sq.m
						4.8904	sq.m
6. Artificial Stone Flooring (1 : 2 : 4; 37.5 mm th.)							
(Stone chips-2.23 m3, Sand-1.12 m3 & Cement-0.855 m3 per %m2)	1	0.90	0.90			0.8100	sq.m
Deduction (-)	1	0.30	0.30			0.0900	sq.m
						0.7200	sq.m
7. Neat cement punning about 1.5 mm thick							
i) Floor area						0.7200	sq.m
ii) Internal wall (Cement-0.152 m3 per % m2)	3	0.90		0.30		0.8100	sq.m
						1.5300	sq.m
8. RCC (1 : 2 : 4)							
Pillar (3" x 3"); 1 : 2 : 4	2	2.53	0.075	0.075		0.02846	cu.m
	2	2.38	0.075	0.075		0.02678	cu.m
						0.05524	cu.m
9. P.C.C. (1 : 2 : 4) for rings							
D1=0.815 m, D2=0.76 m & H=0.3 m; $V = 22/7 \times (0.664 - 0.578) \times 0.3/4 = 0.0203$ m3 Stone chips - 0.88 cu.m, Sand - 0.44 cu.m & Cement - 0.22 cu.m (per cu.m for all materials)	8			0.3		0.1624	cu.m
10. Pre-cast circular pit cover (1 : 2 : 4) for leach pit							
Stone chips - 0.88 cu.m, Sand - 0.44 cu.m & Cement - 0.22 cu.m (per cu.m for all materials) (considering, 1% steel on total volume of concrete; using 6 mm rod @ 150 mm c/c)	2			0.0375	0.786	0.0364	cu.m

Construction of IHHL in convergence with NBA & MGNREGA at the land of.....&
.....others

Part-A: Incentive from NBA fund + beneficiary contribution

Sl No.	Item	Quantity	Unit	Rate in Rs	Amount
1	1st class Bricks (klin burnt)	250	nos	8.00	2000.00
2	Cement	4.1	bag	400.00	1640.00
3	Course Sand	16	cft	9.00	144.00
4	1/2" Stone chips	8.5	cft	17.50	149.00
5	Steel (using 6mm rod)	6.4	kg	45.00	288.00
6	Jhama Bats (PWD SOR-wage for breaking)	2.8	cft	21.23	59.00
7	PVC pipe (4" dia; 2'-0" long) with Y junction	1	set	200.00	200.00
8	Ceramic rural pan/trap with foot rest	1	set	230.00	230.00
9	Colouring Material			L.S.	20.00
Material Cost					4730.00
10	Overhead and incidental cost including loss & wastage		LS		470.00
11	Transportation cost of all materials		LS		300.00
Total Cost of Material					5500.00

Part-B: MGNREGA fund

a) Material Component

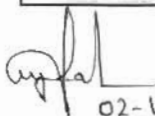
Sl No.	Item	Quantity	Unit	Rate in Rs	Amount
1	GCI sheet (of thickness 0.18mm) for door of height 5'-0" (cutting piece from sheet of full height 10'-0"; 7 pieces in bundel @ Rs. 2100.00)	3/4	piece	300.00	225.00
2	GCI sheet (of thickness 0.25mm) for roof of height 5'-0" & width 2'-8" (cutting piece from sheet of height 10'-0"; 7 pieces in bundel @ Rs. 2450.00)	1	piece	350.00	350.00
3	Timber battan for door & roof (Local hard wood)		LS	250.00	250.00
4	Washer, Nut-bolt, GI wire, Hinges, Sikols, P. sheet etc.		LS	80.00	80.00
5	Display board		LS	46.00	46.00
a) Total Raw Material					951.00
6	skilled labour for masonry work	2	mandays	302.00	604.00
	Semi-skilled labour as Supervisor	1	mandays	226.50	226.50
b) Skilled & Semi-skilled Labour					830.50
(a) + (b)					1781.50

b) Wage component

8	Un-skilled labour for Earth work & Masonry work	18	mandays	151.00	2718.00
Total Unskilled labour					2718.00

Grand Total:

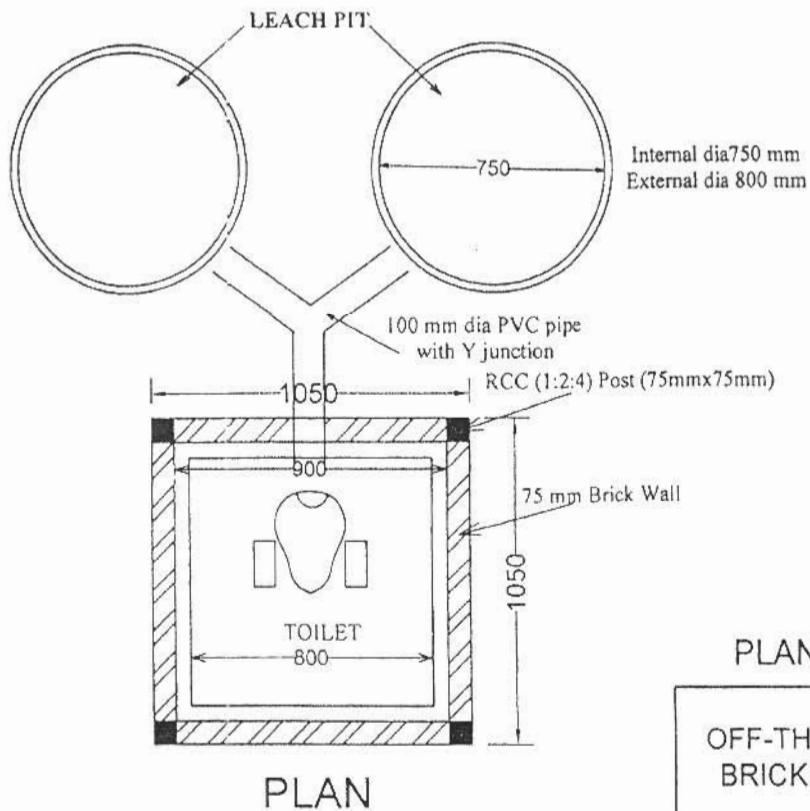
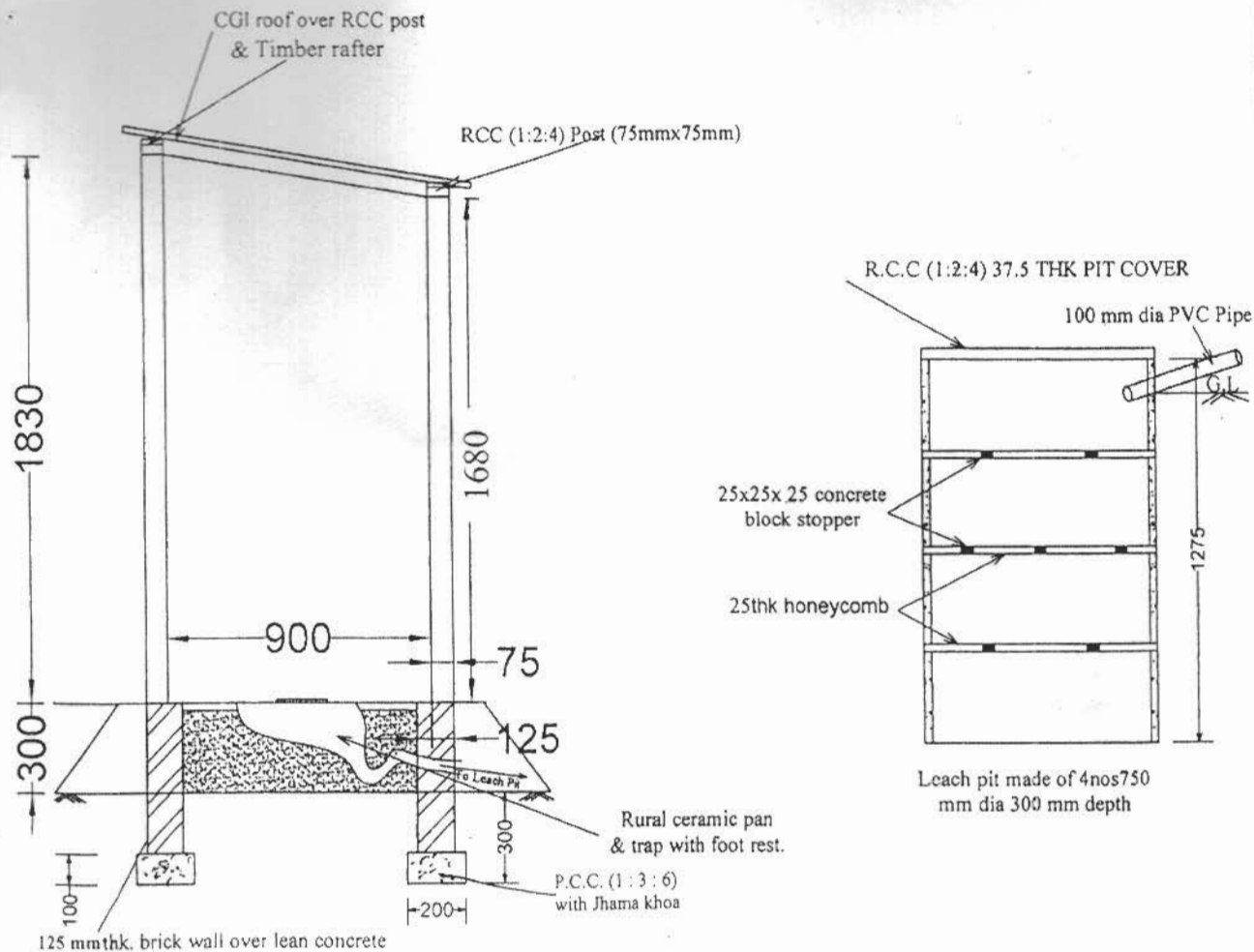
Part-A: Incentive from NBA fund + beneficiary contribution					5500.00
Part-B: MGNREGA fund					4499.50
Total:					9999.50
Say, Total:					10000.00


02-12-13

TECHNICAL ASSISTANT(HQ),
Dist. MGNREGS Cell,
Jaipur


03/12/2013
Assistant Co-ordinator (Technical)
Water & Sanitation Cell
Jaipur Zilla Parishad
Jaipur


03/12/13
District Engineer
Jaipur Zilla Parishad
Jaipur

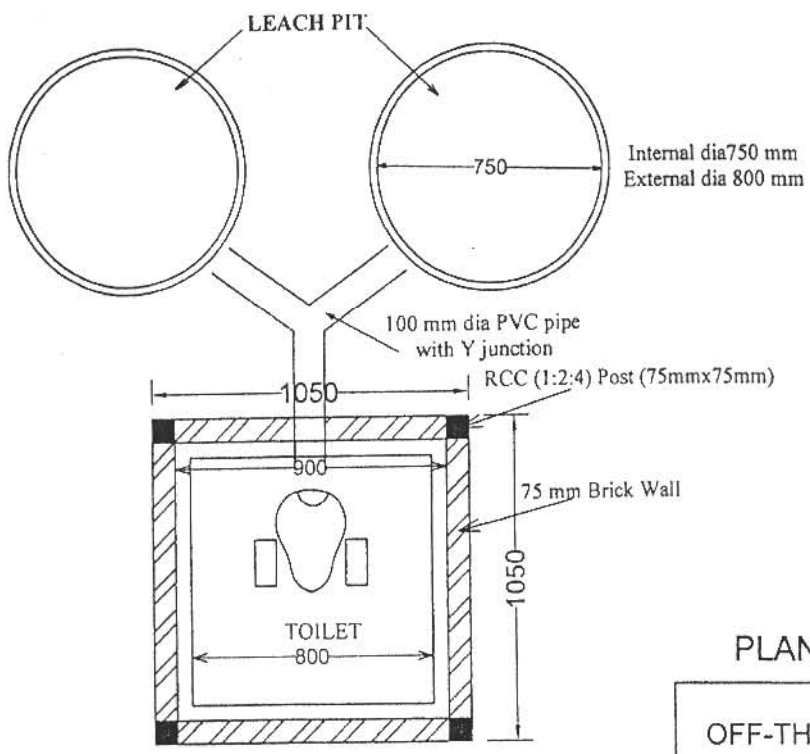
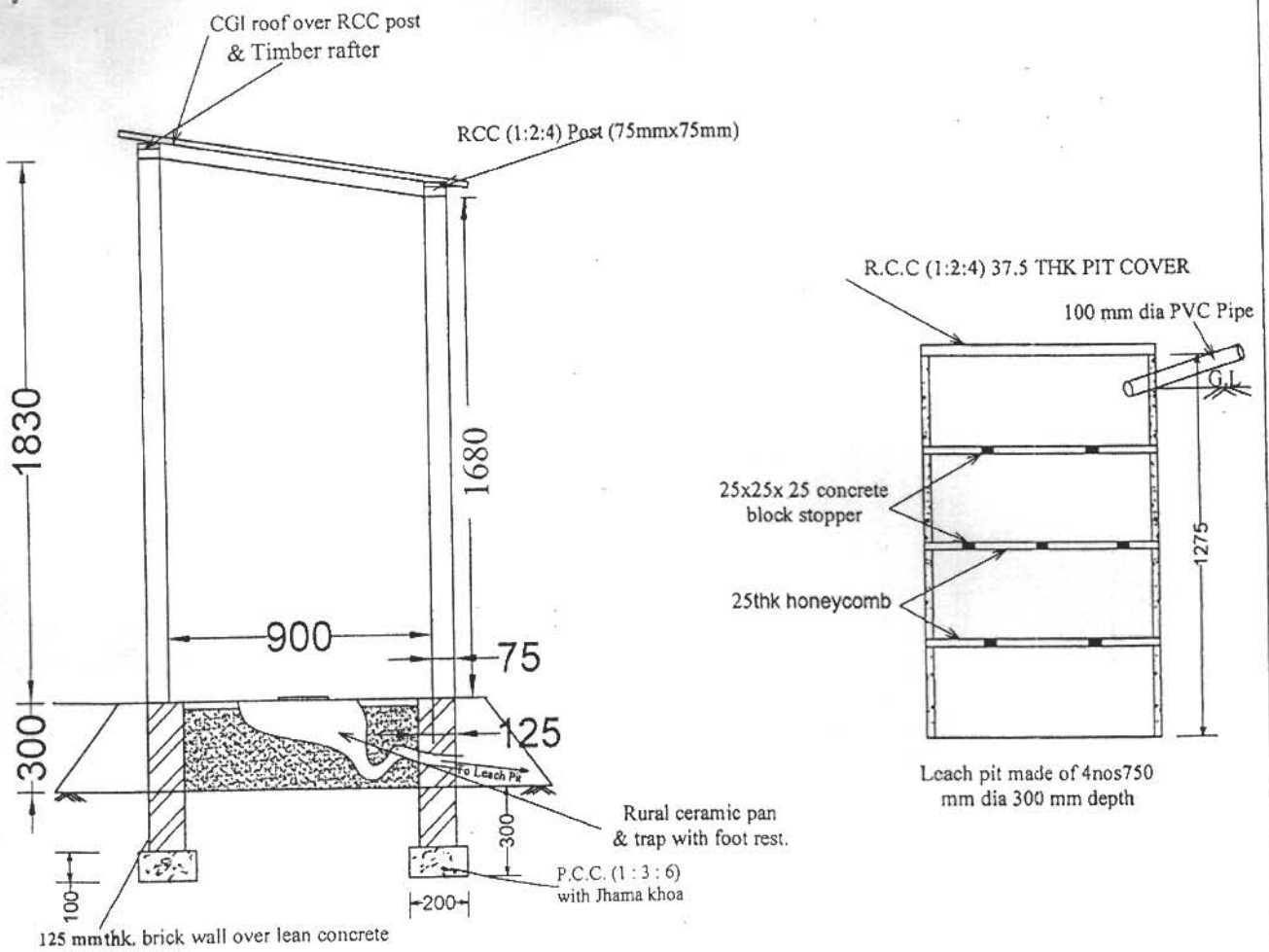


PLAN AND SECTIONAL DETAILS

OFF-THE PIT TOILET (DOUBLE PIT) WITH
BRICK MASSONRY SUPERSTRUCTURE

All dimensions are in mm

NOT TO SCALE



PLAN

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