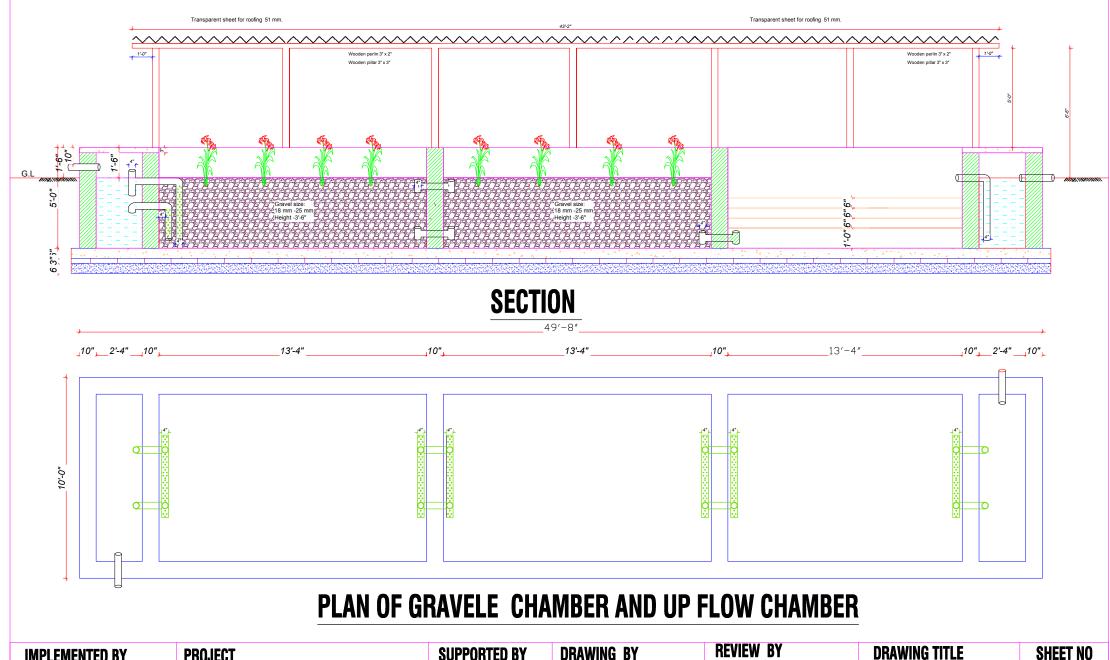
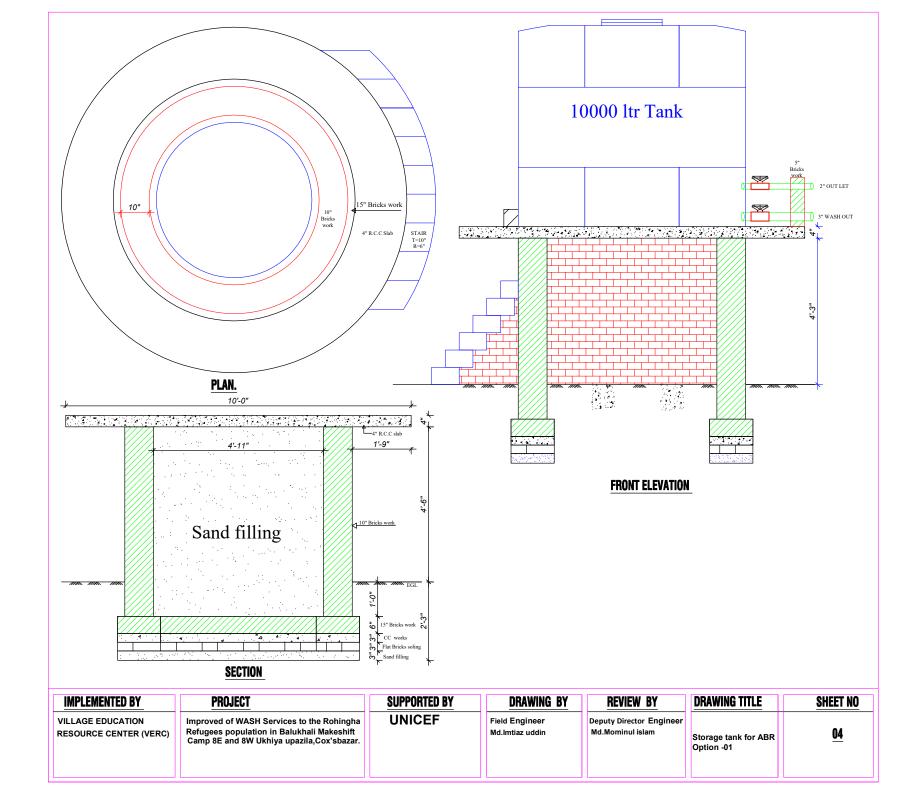
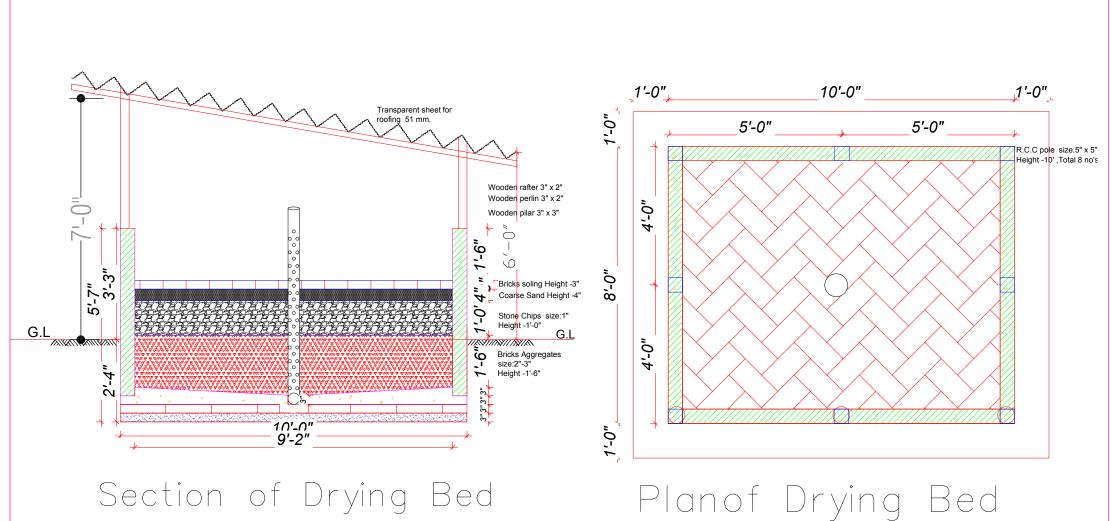


IMPLEMENTED BY	PROJECT	SUPPORTED BY	DRAWING BY	REVIEW BY	DRAWING TITLE	SHEET NO
ILLAGE EDUCATION ESOURCE CENTER (VERC)	Improved of WASH Services to the Rohingha Refugees population in Balukhali Camp 8E and 8W Ukhiya upazila,Cox'sbazar.	UNICEF	Md.Imtiaz uddin Field Engineer	Md.Mominul islam Deputy Director Engineer	Settler Tank with Baffeled rector	<u>02</u>



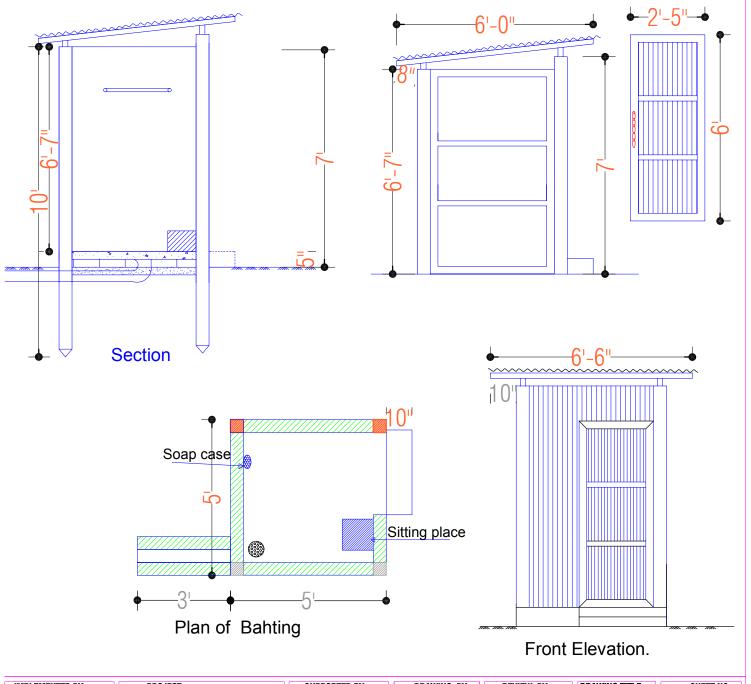
IMPLEMENTED BY	PROJECT	SUPPORTED BY	DRAWING BY	REVIEW BY	DRAWING TITLE	SHEET NO
VILLAGE EDUCATION RESOURCE CENTER (VERC)	Improved of WASH Services to the Rohingha Refugees population in Balukhali Camp 8E and 8W Ukhiya upazila,Cox'sbazar.	UNICEF	Md.Imtiaz uddin Field Engineer	Md.Mominul islam Deputy Director Engineer	ABR filter chamber	<u>03</u>



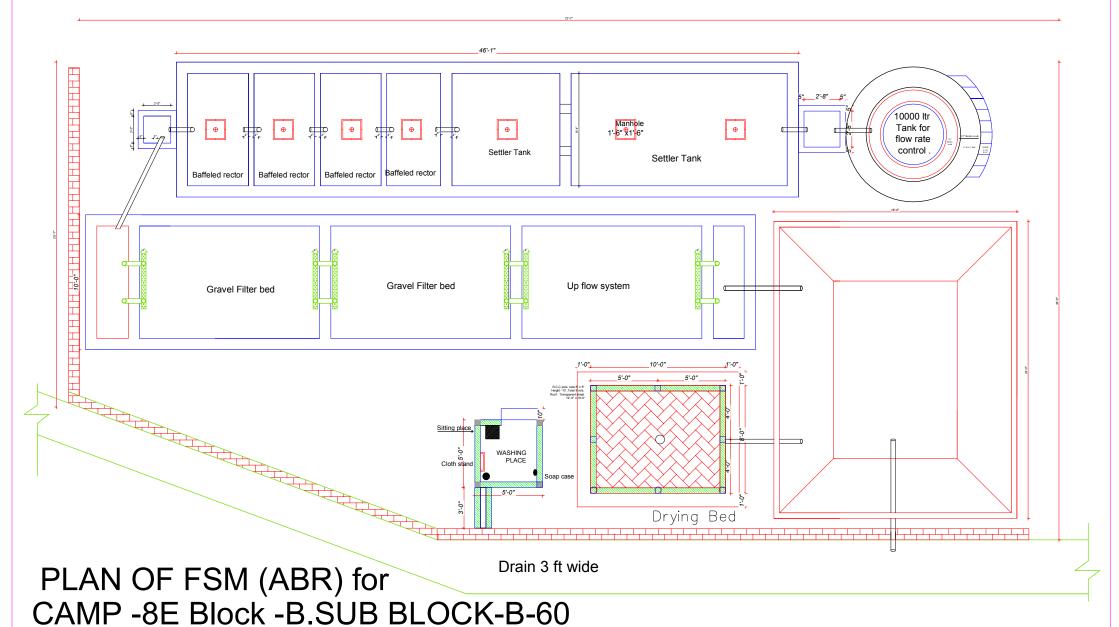


Section of Drying Bed

IMPLEMENTED BY	<u>PROJECT</u>	SUPPORTED BY	DRAWING BY	REVIEW BY	DRAWING TITLE	SHEET NO
VILLAGE EDUCATION RESOURCE CENTER (VERC)	Improved of WASH Services to the Rohingha Refugees population in Balukhali Makeshift Camp 8E and 8W Ukhiya upazila,Cox'sbazar.	UNICEF	Field Engineer Md.Imtiaz uddin	Deputy Director Engineer Md.Mominul islam	Drying bed for ABR	<u>05</u>



IMPLEMENTED BY	PROJECT_	SUPPORTED BY	DRAWING BY	REVIEW BY	DRAWING TITLE	SHEET NO
VILLAGE EDUCATION RESOURCE CENTER (VERC)	Improved of WASH Services to the Rohingha Refugees population in Balukhali Makeshift Camp 8E and 8W Ukhiya upazila,Cox'sbazar.	UNICEF	Field Engineer Md.Imtiaz uddin	Deputy Director Engineer Md.Mominul islam	WASHING PLACE	<u>06</u>



REVIEW BY DRAWING TITLE SHEET NO **SUPPORTED BY** DRAWING BY **IMPLEMENTED BY PROJECT** Improved of WASH Services to the Rohingha **VILLAGE EDUCATION** Md.Imtiaz uddin Md.Mominul islam **UNICEF** ABR (FSM) Refugees population in Balukhali Camp 8E and 8W Ukhiya upazila,Cox'sbazar. B Field Engineer **RESOURCE CENTER (VERC) Deputy Director Engineer**

	5. BoQ for Construction of New FSM(ABR)							
A		ABR						
SL No	Item	Details Description/Specification	Unit	Quantity	Unit Rate	Total Amount		
1		Earth Work Excavation for Planted Gravel Filter & Settler Tank & Baffled Reactor foundation height 5'-0" etc. by manually excavating earth to the lines, grades and elevation.(48'-1" X 12' X 6'-2")	cft	4,000.0	10	40,000.00		
2		Site preparation and Land management and temporary setup for labors shade with ensuring PPE and safty by vendors.	LS	1.0	20,000	20,000.00		
3		Sand Fillng: Sand filling in foundation trenches and inside plinth with sand (minimum F.M. 1.20) in desire layers in/c leveling, watering and consolidating each layer up to finished level.	cft	483.4	30	14,501.76		
4		Single Layer Brick Flat Soling: Single layer brick flat soling with first class brick at the base of the foundation, including carrying bricks, filling the interstices tightly with sand of minimum (FM 1.50), watering, levelling, dressing.		977.8	35	34,221.78		
5		Cement concrete work (CC) in foundation with portland cement, best quality coarse sand (50% quantity of sand minimum F.M. 1.2 and 50% quantity of coarse sand of minimum F.M. 2.5) and Brick chips 20mm down graded, in/c mixing appropriately, casting, laying, compacting and curing for the requisite period. The mixture ratio 1:3:6.	cft	483.8	260	125,791.38		
6		10" Brick work with 1st class bricks in cement mortar (1:4) including fitting the interstices with mortar, raking out joint, cleaning and soaking bricks at least for 24 hours before use, washing of sand if necessary, curing for requisite period.	cft	1,270.4	275	349,351.20		
7		5" Brick work with 1st class bricks in cement mortar (1:4) including fitting the interstices with mortar, raking out joint, cleaning and soaking bricks at least for 24 hours before use, washing of sand if necessary, curing for requisite period.	sft	209.9	135	28,341.90		

R.C.C.Work (1:2:4): Reinforced cement concrete works for the Settler Tank & Baffled Reactor & Inception pit of the Roof Slab having minimum best quality coarse sand (50% quantity of sand minimum F.M. 1.2 and 50% quantity of coarse sand of 8 76,092 cft 158.5 480 minimum F.M. 2.5) 20 mm down graded Brick chips including breaking chips and screening, centering, shuttering, mixing casting, laying, compacting, curing up to the recommended time, making 10mm M.S Deformed Bar (60/72 grade): Supplying and fabrication of M.S. deformed bar of required size and length for all types of RCC work including straightening the rod, removing rust, cleaning, cutting, hooking, bending, binding with ABR 9 488.2 120 58,583.40 kg supply of 22 B.W.G GI wire, placing in position including lapping spacing and securing them in position by concrete blocks (1:1), metal chairs etc. complete including cost of all materials, labor, local handling incidentals necessary. All complete and Plaster with N.C.F work (wall): Minimum 12mm thick cement plaster (1:4) including washing of sand 10 3,577.9 sft 30 107,337.90 (F.M of sand:1.2), cleaning of wall surface, curing for requisite period. 18mm-21mm sized Gravel: Supply and filling of in 408.3 290 11 cft 118,408.74 the Planted Gravel filter. 8mm-12 mm sized Gravel: Supply and filling of in 12 cft 408.3 290 118,408.74 the Planted Gravel filter. Sylhet sand: Supply and filling of in the Upflow 78.0 13 cft 160 12,480.00 Fitering Bed. 14 Charcol: Supply and filling for Filter Bed. cft 78.0 320 24,960.00 3/4 inch sized Gravel : Supply and filling of for 15 cft 78.0 290 22,620.00 Filter Bed (Up Flow Filtration System) 1" X 1" M/S Angle Plain Bar 3 mm Thickness: for Up Flow Filtering Standing Bed Making 16 120 kg 255.4 30,648.12 Welding and around the GI Net Welding. Supplying fitting fixing around GI Net welding all 17 sft 111.1 25 2,777.58 complete as per direction of E-I-C. 3'-0" dia Manhole cover including fitting and 18 Nos 9.0 1,000 9,000.00 fixing. 4" dia UPVc pipe including fitting and fixing. All 19 rft 100.0 100 10,000.00 complete and accepted by the Engineer in-charge

	Eleven Lac One hundred sixty twot Only.					
24	.32mm thick(colored)Corrugated Plastic Sheet for Roofing White Color: Supplying, fitting and fixing 0.32 mm thick corrugated plastic sheet (Brand quality) fitting and fixing on wooden frame with screws.	sft	550.0	55.00	30,250.00	
23	Nail different Size	kg	5.0	180	900.00	
22	Size: 3" X 2" wooden Batten, Long: 48 feet, Total=5 nos Seasing Teamber for Fitration Chamber.	cft	5.0	1,250	6,250.00	
21	Size: 3"X 3" Wooden Purlin , Long: 11 feet, total=11 nos seasing Teamber for Filtration Chamber.	cft	8.0	1,250	10,000.00	
20	10" X 10"Brick Wall 6' Feet height for Baffled/Filtering bed Sheding	cft	90.0	275	24,750.00	

B Pollishing Pond

SL No	Item	Details Description/Specification	Unit	Quantity	Unit Rate	Total Amount
1		Earth Work for Pollishing Pond: Earth work in excavation of polishing pond (11'-0" X 32'-0" X 5'-0") Foundation for Mixing chamber, Drying bed & constructed wetland, carrying and disposing of all Excavated materials at a safe distance designated by the EIC.	cft	880	10.00	8,800.00
2		Sand filling: Sand Fillting 6" in foundation trenches and inside plinth with sand (minimum F.M. 0.80) in 150mm layers in/c leveling, watering and consolidating each layer up to finished level.		176.000	30.00	5,280.00
3		Single layer brick flat soling :Pollishing Pond (11'-0" X32'-0") with first class brick at the base of the foundation, including carrying bricks, filling the interstices tightly with sand of minimum FM 0.80, watering, leveling, dressing.	sft	352.00	35.00	12,320.00
4		Cement concrete: Cement Concrete work in foundation and floor with Portland cement, sand(Min FM 1.50) and first class /Picket Jhama brick chips 20mm down graded, in/c mixing appropriately, casting, laying, compacting and curing for the requisite period. The mixture proportion of cement sand and aggregate should be 1:2:4.	cft	88.00	260.00	22,880.00

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5		Brick Work for Wall (1:4) (11'x32') and 5" Height Height: Brick work with 1 st clas bricks in cement mortar (1:4),Brick making bond with connected walls in/c necessary scaffolding. Racking out joints, cleaning and soaking the bricks at least for 24 hours before use, washing of sand, curing for	Sft	421.66	190.00	80,115.40
6		Plaster work: Minimum 12mm thick cement plaster (1:4) with neat cement fining & water proofing including washing of sand, cleaning of wall surface, curing for requisite period.	sft	1,255.00	30.00	37,650.00
7	Pollishi	0.32mm thick(colored)Corrugated Plastic Sheet for Roofing White Color: Pollishing Pond Construction (12'X 34'-0") Supplying, fitting and fixing 0.32 mm thick corrugated plastic sheet (Brand quality) fitting and fixing on wooden frame with screws.	sft	580.00	55.00	31,900.00
8	ng Pond	Nail different Size	kg	4.50	180.00	810.00
9		Height: 9', pre-cast piller (Size :4"X4") for Pollishing pond and reinforcement cement concrete works with minimum cement content mix ratio(1:1.5:3), including cost of reinforcement water electricity and other charges.	Nos	22.00	1,080.00	23,760.00
10		Visibility board: dimention: 6'-0" X 4'-0"X 12'-0", Column Size: 2" X 2" Box Angle, 6 mm thickness. Standing post Angle bar Height -12', Size: 2" X 2", thickness: 6 mm, Frame Making and .46 mm GI Sheet Welding at site.	Nos	1.00	10,000.00	10,000.00
11		4" X 4" RCC Pillar Height -9' Feet 7 feet C/C and Base Casting around the FSM Fenching Work.	Nos	33.00	1,080.00	35,640.00
12		C.C Work for RCC Base Casting (1'X1'X1'-6")	cft	50.00	260.00	13,000.00
13		Mosquito Net for Drying Bed with Hanging and necessary Accessories (size: 10ftx5ft)	nos	10.00	700.00	7,000.00
14		Three Layer Double (Upper,Lower and Middle) 3" X 1.25" Wood Hanging With RCC Pillar	cft	22.00	1,250.00	27,500.00
15		7'-0" X 7'-0" Cleaning Room Same as Sector Standard. Bathroom around thr .46 mm GI Sheet and top of .32 mm Plastic Sheet and 4 nos 5" X 5" RCC Piller and base casting with 3" x3" and 2"x 3" Necessary wooden purlin and rufter.	lm	1.00	40,000.00	40,000.00

	Three Lac sixty two thousand for	ır hundı	red twenty thr	ee taka Only	402705.40
18	6' X 4' feet Panaflex (VERC -UNICEF with logo)Print, Visibility hanging in the Steel frame and Necessary Fittings,Fixing.	Nos	1	1800.00	1800.00
17	Supply and plant the Canna Indica plant (kolabot big size)	nos	50.00	30.00	1,500.00
16	Fencing works: plastic PVC Fencing (6'-0") Heigh and Orange Colour, Necessary fitting and fixing. Al complete and accepted by the Engineer in-charge		225.00	190.00	42,750.00

C Drying bed (10'X8')

SL No	Item	Details Description/Specification	Unit	Quantity	Unit Rate	Total Amount
1		Earth Work Excavation for Planted drying bed (10'-0" x 8'-0") foundation trench height 2'-4" etc. by manually excavating earth to the lines, grades and elevation.	oft	186	10	1860
2		Single layer brick flat soling (10'-0" X8'-0") with first class brick at the base of the foundation, including carrying bricks, filling the interstices tightly with sand of minimum FM 0.80, watering, leveling, dressing.		160	35	5600.00
1		Sand filling: Sand Fillting(10'-0" x 8'-0") & 6" in foundation trenches and inside plinth with sand (minimum F.M. 0.80) in 150mm layers in/c leveling, watering and consolidating each layer up to finished level.	Cft	20	30	600.00
2		x 8'-0") in foundation and floor with Portland		30	260	7800.00
3	(10'X8')	s matice work With 150 ends of others in dentent mortar (1:4) including fitting the interstices with matter with restrict work want in health in health in the state of the control of the	sft	165.868	135	22,392.18
4		thick cement plaster (1:4) including washing of sand		349.027	30	10,470.81
5		.32mm thick(colored)Corrugated Plastic Sheet for	Sft	120	55	6600.00
6		RCC piller (10'X5"X5")	Nos	8	1200	9600.00
7		wood (3"X2") & (3"X1.5")	cft	11.307	1250	14133.75
8		Nail Different size (1.5 to 4 inch)	kg	6	180	1080.00
9		25mm Angle Nut boult Fitting fixing wooden post.	kg	12.56	120	1507.20
10]	Bricks Aggregate size 2" 3" inch	cft	130	160	20800.00

	One Lac sevenr Thousand sixty eight taka Only.					
13		Rope Nylon (10 mm)	kg	3	190	570.00
12		Sylhet Sand Coarse Sand	cft	26.64	150	3996.00
11		Stone chipes 1" size	cft	80	290	23200.00

D Tank for Flow rate

SL No	Item	Details Description/Specification	Unit	Quantity	Unit Rate	Total Amount
01		Earth Work for Storage Tank Earth work in excavation of Foundation for constructed tank base, carrying and disposing of all Excavated materials at a safe distance designated by the EIC.	Cft	126.05	10.0	1,260
02		Sand filling: Sand Fillting 6" in foundation trenches and inside plinth with sand (minimum F.M. 0.80) in 150mm layers in/c leveling, watering and consolidating each layer up to finished level.		85.41	35.0	2,989
03		10" Brick work with 1st class bricks in cement mortar (1:4) including fitting the interstices with mortar, raking out joint, cleaning and soaking bricks at least for 24 hours before use, washing of sand if necessary, curing for requisite period.	Cft	99.37	275.0	27,327
04		Single Layer Brick Flat Soling: Single layer brick flat soling with first class brick at the base of the foundation, including carrying bricks, filling the interstices tightly with sand of minimum (FM 1.50), watering, levelling, dressing.	Sft	47	45.0	2,115
05		Cement concrete: Cement Concrete work in foundation and floor with Portland cement, sand(Min FM 1.50) and first class /Picket Jhama brick chips 20mm down graded, in/c mixing appropriately, casting, laying, compacting and curing for the requisite period. The mixture proportion of cement sand and aggregate should be 1:2:4.	cft	6.053	260.0	1,574

One Lac forty Thousand fiftyfour taka Only						
	<u> </u>	1 -		ļ		888,014
20		Transport	LS	1	5,000.0	5,000
19		Labour	Each	24	400.0	9,600
17		2" dia bush	Each	1	60.0	60
16		2" dia end cap	Each	1	80.0	80
15		2" dia wash out pipe	ft	6	220.0	1,320
14		2"Controll Vlab/Gate vlab PVC	Each	2	2,800.0	5,600
13		Taplon tap	Each	2	30.0	60
12		C Clam	Each	6	40.0	240
11		1.5" dia bush	Each	1	35.0	35
10		1.5" dia Tee pipe GI	Each	1	120.0	120
09		1.5" dia scoket GI	Each	4	90.0	360
08		1.5" dia pipe GI	ft	10	220.0	2,200
07		Engineer in-charge 1.5" dia elbo GI	Each	4	130.0	520
		Portable lader: 3 mm GI pipe,MS flat bar,4 mm Angel Bar, 20 gaze sheet for portable Lader Supplying and fabrication of required size and length for all types of RCC work including straightening the rod, removing rust, cleaning, hooking, placing in position by concrete blocks . complete including cost of all materials, labor, local handling incidentals necessary. All complete and accepted by the		1	800,000.0 15,000.0	800,000 15,000
06	Tank for Flow rate	R.C.C.Work (1:2:4): Reinforced cement concrete works for the Settler Tank & Baffled Reactor & Inception pit of the Roof Slab having minimum best quality coarse sand (50% quantity of sand minimum F.M. 1.2 and 50% quantity of coarse sand of minimum F.M. 2.5) 20 mm down graded Brick chips including breaking chips and screening, centering, shuttering, mixing casting, laying, compacting, curing up to the recommended time, making shuttering fully leak proof.	Cft	26.15	480.0	12,553

SL No	Item	Details Description/Specification	Unit	Quantity	Unit Rate	Total Amount
1	wall	Earth Work Excavation for Guide wall (150'-0" x 1'-10") foundation trench height 2'-0" etc. by manually excavating earth to the lines, grades and elevation.	eft	279	10	2790
2		Single layer brick flat soling (150'-0" X1'-8") with first class brick at the base of the foundation, including carrying bricks, filling the interstices tightly with sand of minimum FM 0.80, watering, leveling, dressing.	Sft	249	35	8715.00
1		Sand filling: Sand Fillting(100'-0" x 1'-8x 3") & 6" in foundation trenches and inside plinth with sand (minimum F.M. 0.80) in 150mm layers in/c leveling, watering and consolidating each layer up to finished level.	Cft	137.25	30	4117.50
2		Cement concrete: Cement Concrete work (10'-0" x 8'-0") in foundation and floor with Portland cement, sand(Min FM 1.50) and first class /Picket Jhama brick chips 20mm down graded, in/c mixing appropriately, casting, laying, compacting and curing for the requisite period. The mixture proportion of cement sand and aggregate should be 1:2:4.	cft	68.62	260	17841.20
		20" @ 6" height ,15"@ 6" heightand ,10" @ 3' height Brick work with 1st class bricks in cement mortar (1:4) including fitting the interstices with mortar, raking out joint, cleaning and soaking bricks at least for 24 hours before use, washing of sand if necessary, curing for requisite period.	cft	552	275	151,800.00
		Plaster with N.C.F work (wall): Minimum 12mm thick cement plaster (1:4) including washing of sand (F.M of sand:1.2), cleaning of wall surface, curing for requisite period.	eft	483	30	14,490.00
One Lac seventeen Thousand one Hundred four taka Only.						199,753.70

F Washing Place

Si. No	Item	Description of Items	Unit	Unit Quantity	Rate in Tk.	Amount in Tk.	
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	Earth	Earth cutting in excavation of all kinds of soils of				
01	Cutting	foundation trenches including leveling and preparing	cft	35	7	245.00
	Cutting	base, de-watering and shoring if necessary, providing				
0.2	Sand	Sand filling in foundation trenches and plinth layer		20	20	1140.00
02	Filling	with earth available adjust to the building site,	cft	38	30	1140.00
	Dolyath	watering leveling and consolidation each layer up to Providing single layer polythene sheet (0.18 mm				
03	-	thick) weighting one kilogram per 6.5 square meter	sft	20	10	200.00
	2	in floor or anywhere in ground floor underneath the	511	20	10	200.00
	Brick	Brick Flat Soling (3"): Single layer of brick flat				
04		apron in foundation with 1st class or picked bricks	sft	48	35	1680.00
		preparation of bed and filing interstices with local Mass Concrete (1:2:4): Plain cement concrete work				
	Mass					
	Concre	in foundation or floor with best quality Portland				
	te	cement, sand (minimum FM 1.20) and 1st				
		class/picked brick chips 20mm downgraded (LAA				
05		value not exceeding 40), including shuttering	cft	17	260	4420.00
		(Shuttering works in/c centering, leveling, making				
		shuttering fully leak proof, etc. Including all				
		shuttering materials) mixing by concrete mixer				
		machine/manually, casting, laying compacting and				
	5"	curing for 7 days etc. all complete as per direction of 125mm (5") Brick work with mortar 1:4: 5" Brick				
	Brick	work with 1st class bricks				
	work	cement mortar (1:4) and making bond with				
06		connected walls in/c necessary scaffolding, racking	sft	65	135	8775.00
00		out joints, cleaning and soaking the bricks at least for	SIL	0.5	133	8773.00
		24 hours before use, washing of sand, curing for				
		requisite period etc. all complete as per direction of				
		12 mm this haloston with NCE. Distanton sintanian				
		12 mm thick plaster with NCF: Plastering interior and outer wall minimum 1/2 in thick cement plaster				
	Plaster	with (1:4) to outer wall, finishing corner and edges;	_			
07	with	cleaning the surface, all plastering completed as per	sft	85	30	2550.00
	NCF	direction of engineer-in-charge and as per drawing				
		and decian				
		0.32 mm thick (Colored) Corrugated plastic sheet	sft	49	55	2695
	Roofin	for Roofing: Supply, fitting and fixing are all				
08		complete and accepted by the Engineer.				
	g					
		0.51 /0.4 /1.1 /0.1 /2.1				
		0.51 mm/24 gauge thick (Colored) plaine				
		Galvanized Iron sheet for Wall, Fencing & Door:				
09	Fencin	Supply, fitting and fixing .51 mm/24 gauge thick	set	140	70	9800.00
Už	g	(Colored) plaine Galvanized Iron sheet brand	SCI	170		2000.00
		quality forfitting and fixing on wooden purlin with				
		screws, limpet washer and putty etc. are all complete			I I	

	Total				2,942,542.22
		<u> </u>		Total	46,185.00
18	Upvc pipe 4" dia	rft	10	100	1000.00
16	Screws for Hinges	Dozen	1	100	100.00
15	Hinges	Nos	3	80	240.00
14	Nail Different size (1.5 to 4 inch)	kg	1.5	180	270.00
13 Others		Nos	4	100	400.00
Pre-cast pile	10ft 3inch height pre-cast pile (5" x 5" size) with reinforced cement concert works with minimum cement content relates to mix ratio 1:1.5: 3 having minimum f'cr= 30 Mpa, and satisfying specified compressive strength f'c=25 Mpa at 28 days on standard cylinders as per standard practice of Code ACI/BNBC/ASTM best quality coarse sand (F.M.2.2), 20 mm down well graded stone chips conforming to ASTM C-33, mixing in standard mixture machine and centering and shuttering with M.S sheet, M.S angle, F.l bar, nuts and bolts, preparation of bed, laying polythene, placing of reinforcement cage in position, casting, compacting by vibrators and tapered rods, curing for 28 days etc.	Nos	4	980	3920.00
	(Gorjon/Akashmoni/Mehogini): Timber used for wood work shall be well seasoned, kiln dry containing not more than 8% to 12% moisture so as to ensure minimum tendency towards warping, shrinking and swellings. It shall be free from all defects such as large or loose knots, shakes, saps, upsets, wane edge and twisted fiber. It shall also be free from all disease such as decay, wet rot, dry rot and woodworms and white and timber should be finished to the exact dimension shown on the	cft	7	1250	8750.00