BOQ

Name of Work:- Construction of RCC slow sand water filter with distribution pipes at 132 kV Kamalpur GSS.

Name & Address of Bidder:

Sl. No.	Description of Item	Qnty	Unit	Rate (Rs)	Amount (Rs)
(I)	**CIVIL WORKS**				
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 getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer-incharge.				
	2.6.1 All kinds of soil				
	Filter Tank 1 x 4.60 x 3.60 x 0.375 = 6.21				
	Total = 6.21	6.21	cum		
2	Dry brick on edge flooring in required pattern with bricks of class designation 7.5 on a bed of 12 mm mud mortar, including filling joints with Jamuna sand, with common burnt clay non modular bricks.				
	Brick on flat soling.				
	1 x 4.60 x 3.60 = 16.56				
	Total = 16.56	16.56	sqm		
3	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundation and plinth in:				
	6.1.1 Cement mortar 1:4 (1 cement : 4 coarse sand)				
	1 x 16.40 x 0.23 x 0.75 = 2.83				
	Total = 2.83	2.83	cum		
4	Supplying and filling in plinth with sand under floors, including watering, ramming, consolidating and dressing complete.				
	1 x 4.60 x 3.60 x 0.75 = 12.42				
	= 12.42	12.42	cum		
5	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :				
	4.1.5 1:3:6 (1 Cement : 3 coarse sand (zone-III) derived from natural sources : 6 graded stone aggregate 20 mm nominal size derived from natural sources)				
	Bottom Slab 1 x 4.60 x 3.60 x 0.075 = 1.24				
	Plinth Protection 1 x 17.80 x 0.50 x 0.100 = 0.89				
	Total = 2.13	2.13	cum		
6	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level.				
	5.22.6 Thermo-Mechanically Treated bars of grade Fe-500D or more.				
	Filter Bottom Slab 2 x 24 x 4.40 x@ 0.62 = 130.94				
	2 x 30 x 3.40 x@ 0.62 = 126.48				
	Wall 2 x 60 x 3.20 x@ 0.89 = 341.76				
	2 x 34 x 1.90 x@ 0.89 = 114.99				
	Extra Column 5 x 4 x 1.95 x@ 0.89 = 34.71				
	4 x 16 x 1.02 x@ 0.40 = 26.11				
	2 x 12 x 14.50 x@ 0.62 = 215.76				
	Filter Slab 4 x 24 x 3.40 x@ 0.62 = 202.37				
	Wall 2 x 20 x 1.55 x@ 0.89 = 55.18				
	2 x 10 x 12.50 x@ 0.62 = 155.00				
	Total in kg = 1403.30	1403.30	kg		

7	FORM WORK Centering and shuttering including strutting, propping etc. and removal of form for													
	5.9.6 Columns, Pillars, Piers, Abutments, Posts and Struts													
	Column			2	x	4.45	x	0.10	=	0.89				
				2	x	3.45	x	0.10	=	0.69				
								Total	=	1.58	1.58	sqm		
	5.9.2 Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.													
	Wall	2	x	2	x	4.25	x	1.725	=	29.33				
		2	x	2	x	3.25	x	1.725	=	22.43				
		4	x	2	x	3.25	x	1.300	=	33.80				
								Total	=	85.55	85.55	sqm		
	5.9.21 Lintels, beams, plinth beams, girders, bressumers and cantilevers with water proof ply 12 mm thick													
	Filter Slab			1	x	3.075	x	3.00	=	9.23				
								Total	=	9.23	9.23	sqm		
8	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 :													
	5.1.2 1:1.5:3 (1 cement : 1.5 coarse sand (zone-III) derived from natural sources : 3 graded stone aggregate 20 mm nominal size derived from natural sources)													
	Bottom Slab	1	x	4.45	x	3.45	x	0.100	=	1.54				
									=	1.54	1.54	cum		
	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. above plinth level up to floor five level, excluding cost of centering, shuttering, finishing and reinforcement :													
	5.2.2 1:1.5:3 (1 cement : 1.5 coarse sand(zone-III) derived from natural sources : 3 graded stone aggregate 20 mm nominal size derived from natural sources)													
	Column	4	x	0.254	x	0.25	x	1.95	=	0.50				
	Wall	2	x	4.25	x	1.725	x	0.125	=	1.83				
		2	x	3.00	x	1.725	x	0.125	=	1.29				
		2	x	3.25	x	1.300	x	0.125	=	1.06				
		2	x	3.00	x	1.30	x	0.125	=	0.98				
									=	5.66	5.66	cum		
	Reinforced cement concrete work in beams, suspended floors, roofs having slope up to 15° landings, balconies, shelves, chajjas, lintels, bands, plain window sills, staircases and spiral stair cases above plinth level up to floor five level, excluding the cost of centering, shuttering, finishing and reinforcement with 1:1.5:3 (1 cement : 1.5 coarse sand(zone-III) derived from natural sources : 3 graded stone aggregate 20 mm nominal size derived from natural sources).													
	Filter Slab	1	x	3.20	x	3.00	x	0.125	=	1.20				
	Cover slab	1	x	3.25	x	1.00	x	0.100	=	0.33				
								Total	=	1.53	1.53	cum		
9	15 mm cement plaster on rough side of single or half brick wall of mix:													
	13.5.1 1:4 (1 cement: 4 coarse sand)													
	plinth wall					16.40	x	0.75	=	12.30				
								Total	=	12.30	12.30	Sqm		
10	CEMENT PLASTER WITH A FLOATING COAT OF NEAT CEMENT													

	Cement plaster 1:3 (1 cement: 3 coarse sand) finished with a floating coat of neat cement.											
	13.9.2 20 mm cement plaster											
	Floor			4.00	x	3.00	=	12.00				
				3.00	x	3.00	=	9.00				
	Wall Surface of filter unit	2	x	14.00	x	1.73	=	48.30				
		2	x	12.00	x	1.30	=	31.20				
	plinth wall	1	x	16.40	x	0.75	=	12.30				
						Total	=	112.80	112.80	Sqm		
11	Stone Aggregate (Single size) : 63 mm nominal size											
	Supply and Laying of stone aggregate for Filter Bed											
		3.00	x	3.00	x	0.60	=	5.40				
						Total	=	5.40	5.40	cum		
12	Coarse sand (zone III)											
	Supply and Laying of Coarse Sand for Filter Bed											
		3.00	x	3.00	x	0.40	=	3.60				
							=	3.60	3.60	cum		
13	Providing and fixing angle iron frames for doors, windows and ventilators of mild steel Angle sections of size 35x35x5 mm, joints mitred and welded by angle iron 35x35x5 mm or 35x 5 mm flat pieces to the existing T-iron frame or to the wall with dash fastener, including fixing of necessary butt hinges and screws and applying a priming coat of approved steel primer, all complete as per the direction of Engineer-In-charge.											
	M. S. Angle.											
	(35x35x5 mm angle)	6	x	6.85	x@	1.800	=	73.98				
		10	x	1.90	x@	1.800	=	34.20				
		7	x	0.60	x@	1.800	=	7.56				
						Total in kg	=	115.74	115.74	kg		
14	Providing corrugated G.S. sheet roofing including vertical / curved surface fixed with polymer coated J or L hooks, bolts and nuts 8 mm diameter with bitumen and G.I. limpet washers or with G.I. limpet washers filled with white lead, including a coat of approved steel primer and two coats of approved paint on overlapping of sheets complete (up to any pitch in horizontal/ vertical or curved surfaces), excluding the cost of purlins, rafters and trusses and including cuttingto size and shape wherever required.											
	12.1.3 0.63 mm thick with zinc coating not less than 275 gm/ m²											
		1	x	4.85	x	3.850	=	18.67				
						Total	=	18.67	18.67	Sqm		
	Sanitary & water Supply works											
15	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings This includes jointing of pipes & fittings with one step CPVC solvent cement, trenching, refilling & testing of joints complete as per direction of Engineer in Charge.											
	External work											
	18.9.5 40 mm nominal dia Pipes			1	x	95.00	=	95.00	95.00	metre		
	18.7.4 32 mm nominal dia Pipes			1	x	20.00	=	20.00	20.00	metre		
16	Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.											
	Elbow 90°											
	18.90.5 For 42.70 mm outer dia pipe						=	12	12	each		
17	Providing and fixing required Stainless Steel Fitting of press fit design of grade AISI 304 conforming to JWWA G116 standard with V-profile or M-profile and with O-ring sealing gasket of EPDM material of required dia as per direction of Engineer-in-charge.											
	Equal Tee											
	18.92.5 For 42.70 mm outer dia pipe						=	8	8	each		

18	Providing and fixing PTMT Ball cock of approved quality, colour and make complete with Epoxy coated aluminium rod with L.P./ H.P.H.D. plastic ball. 18.62.4 40 mm nominal bore, 206mm long, weighing not less than 690 gms = 4	4	each		
19	Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end) : 18.17.3 40 mm nominal bore = 4.00	4.00	Each		
20	Providing soling in foundation and under floor with stone/ best quality picked jhama brick, sand packed and laid to level and in panel after preparing (c).Stone soling of thickness 150mm. 1 x 2 x 4.60 x 3.60 = 33.12	33.12	sqm		
21	1.5 HP single Phase Centrifugal monoblock pump set (Crompton Greaves/ Aquatic/ CRI/ V-Guard make) 2900 rpm with DOL Starter (Crompton Greaves/ Control & Switch Gear/ BCH/ L& T / Siemens make) .	2.00	Each		
22	Motor Starter Supplying fitting and fixing including necessary connection as approved by the Deptt.)of Starter (Crompton Greaves/ Control & Switch Gear/ BCH/ L& T / Siemens make) of following type and capacity as specified and directed by the Department. (Crompton Greaves/ Control & Switch Gear/ BCH/ L& T / Siemens make) 39.8.2 D.O.L Starter (Crompton Greaves/ Control & Switch Gear/ BCH/ L& T / Siemens make)15 HP, 17.4 TO 24 A.	1.00	Each		
23	Wiring for light/ fan/ call bell point with 2x1.5 sq mm P.V.C. insulated single core unsheathed industrial (Multistrand) cable FR conforming to IS-694: 1990 with flexible bright annealed electrolytic copper conductor for voltage grade up to 1100 volts (Finolex /RR Kabel /Nicco / Anchor or Equivalent Make as approved by the Deptt.) with flat 19 mm ISI marked casing 'n' capping (AKG / Precision/ Presto Plast/Polycab/ MW or equivalent make as approved by the Deptt.) in surface system, including 6 Amp flush type switch/ bell push (Anchor Penta/Gold medal /Kolor kany.Kom/ Havells or equivalent make as approved by the Deptt.) GI/ MS switch board (ISI marked) half conceal on wall with phenolic laminated sheet cover ,ceiling rose (Anchor/Gold medal /Kolor kany.Kom / Havells or equivalent make as approved by the Deptt.) etc. complete as directed and specified by the Deptt. 1.1.3 Long point up to 10.00 metre. Length.	1.00	Each		

Total =

Add 18% GST=

Grand Total =

Say =