

**BOQ**

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

**Name and Address of the Bidder:**

Sl. No.	Description of Item	Qty	Unit	Rate	Amount																														
1	<p>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-in-charge.</p> <p>2.6.1 All kinds of soil</p> <table style="width:100%; border:none;"> <tr> <td style="width:10%;">Filter Tank</td> <td style="width:5%;">1</td> <td style="width:5%;">x</td> <td style="width:5%;">4.60</td> <td style="width:5%;">x</td> <td style="width:5%;">3.60</td> <td style="width:5%;">x</td> <td style="width:5%;">0.375</td> <td style="width:5%;">=</td> <td style="width:5%;">6.21</td> </tr> <tr> <td align="right" colspan="9"><b>Total</b></td> <td><b>= 6.21</b></td> </tr> </table>	Filter Tank	1	x	4.60	x	3.60	x	0.375	=	6.21	<b>Total</b>									<b>= 6.21</b>	6.21	cum												
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2	<p>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.</p> <p>Brick on flat soling.</p> <table style="width:100%; border:none;"> <tr> <td align="right" colspan="9">1 x 4.60 x 3.60 = 16.56</td> </tr> <tr> <td align="right" colspan="9"><b>Total</b></td> <td><b>= 16.56</b></td> </tr> </table>	1 x 4.60 x 3.60 = 16.56									<b>Total</b>									<b>= 16.56</b>	16.56	sqm													
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<b>Total</b>									<b>= 16.56</b>																										
3	<p>Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundation and plinth in:</p> <p>6.1.1 Cement mortar 1:4 (1 cement : 4 coarse sand)</p> <table style="width:100%; border:none;"> <tr> <td align="right" colspan="9">1 x 16.40 x 0.23 x 0.75 = 2.83</td> </tr> <tr> <td align="right" colspan="9"><b>Total</b></td> <td><b>= 2.83</b></td> </tr> </table>	1 x 16.40 x 0.23 x 0.75 = 2.83									<b>Total</b>									<b>= 2.83</b>	2.83	cum													
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4	<p>Supplying and filling in plinth with sand under floors, including watering, ramming, consolidating and dressing complete.</p> <table style="width:100%; border:none;"> <tr> <td align="right" colspan="9">1 x 4.60 x 3.60 x 0.75 = 12.42</td> </tr> <tr> <td align="right" colspan="9"><b>Total</b></td> <td><b>= 12.42</b></td> </tr> </table>	1 x 4.60 x 3.60 x 0.75 = 12.42									<b>Total</b>									<b>= 12.42</b>	12.42	cum													
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5	<p>Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :</p> <p>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)</p> <table style="width:100%; border:none;"> <tr> <td style="width:10%;">Bottom Slab</td> <td style="width:5%;">1</td> <td style="width:5%;">x</td> <td style="width:5%;">4.60</td> <td style="width:5%;">x</td> <td style="width:5%;">3.60</td> <td style="width:5%;">x</td> <td style="width:5%;">0.075</td> <td style="width:5%;">=</td> <td style="width:5%;">1.24</td> </tr> <tr> <td>Plinth Protection</td> <td>1</td> <td>x</td> <td>17.80</td> <td>x</td> <td>0.50</td> <td>x</td> <td>0.100</td> <td>=</td> <td>0.89</td> </tr> <tr> <td align="right" colspan="9"><b>Total</b></td> <td><b>= 2.13</b></td> </tr> </table>	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	<b>Total</b>									<b>= 2.13</b>	2.13	cum		
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																										
<b>Total</b>									<b>= 2.13</b>																										
6	<p>Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level.</p> <p>5.22.6 Thermo-Mechanically Treated bars of grade Fe-500D or more.</p> <table style="width:100%; border:none;"> <tr> <td style="width:15%;">Filter Bottom Slab</td> <td style="width:5%;">2</td> <td style="width:5%;">x</td> <td style="width:5%;">24</td> <td style="width:5%;">x</td> <td style="width:5%;">4.40</td> <td style="width:5%;">x@</td> <td style="width:5%;">0.62</td> <td style="width:5%;">=</td> <td style="width:5%;">130.94</td> </tr> <tr> <td></td> <td>2</td> <td>x</td> <td>30</td> <td>x</td> <td>3.40</td> <td>x@</td> <td>0.62</td> <td>=</td> <td>126.48</td> </tr> </table>	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														
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	1403.30	kg		
		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				
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												1.58	sqm
	Column	2	x	4.45	x	0.10	=	0.89						
		2	x	3.45	x	0.10	=	0.69						
	Total =										1.58			
	5.9.2 Walls (any thickness) including attached pilasters, buttresses, plinth and string courses etc.										85.55	sqm		
	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			
	5.9.21 Lintels, beams, plinth beams, girders, bressumers and cantilevers with water proof ply 12 mm thick										9.23	sqm		
	Filter Slab	1	x	3.075	x	3.00	=	9.23						
	Total =										9.23			
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)										1.54	cum		
	Bottom Slab	1	x	4.45	x	3.45	x	0.100	=	1.54				
	=										1.54			
	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)										5.66	cum		
	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				
	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).								1.53	cum	
	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			
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								12.30	Sqm	
				16.40	x	0.75	=	12.30			
						Total =		12.30			
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								112.80	Sqm	
	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			
11	Stone Aggregate (Single size) : 63 mm nominal size Supply and Laying of stone aggregate for Filter Bed								5.40	cum	
		3.00	x	3.00	x	0.60	=	5.40			
						Total =		5.40			
12	Coarse sand (zone III) Supply and Laying of Coarse Sand for Filter Bed								3.60	cum	
		3.00	x	3.00	x	0.40	=	3.60			
						Total =		3.60			
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)								115.74	kg	
		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			

14	<p>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 cutting to size and shape wherever required.</p> <p>12.1.3 0.63 mm thick with zinc coating not less than 275 gm/ m<sup>2</sup></p>	18.67	Sqm		
	$1 \quad \times \quad 4.85 \quad \underline{\quad} \quad 3.850 \quad = \quad \underline{\quad 18.67}$ <p style="text-align: right;">Total = 18.67</p>				
<b>Sanitary &amp; water Supply works</b>					
15	<p>Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot &amp; cold water supply including all CPVC plain &amp; brass threaded fittings This includes jointing of pipes &amp; fittings with one step CPVC solvent cement, trenching, refilling &amp; testing of joints complete as per direction of Engineer in Charge.</p> <p><b>External work</b></p>	3.00	metre		
	18.9.9 100 mm nominal dia Pipes	6	x	0.50	= 3.00
	18.9.5 40 mm nominal dia Pipes	1	x	228.00	= 228.00
	18.7.4 32 mm nominal dia Pipes	1	x	45.00	= 45.00
16	<p>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.</p> <p>Elbow 90°</p>	12	each		
	18.90.5 For 42.70 mm outer dia pipe				= 12
17	<p>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.</p> <p>Equal Tee</p>	8	each		
	18.92.5 For 42.70 mm outer dia pipe				= 8
18	<p>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.</p>	4	each		
	18.62.4 40 mm nominal bore, 206mm long, weighing not less than 690 gms				= 4
19	<p>Providing and fixing gun metal gate valve with C.I. wheel of approved quality (screwed end) :</p>	4.00	Each		
	18.17.3 40 mm nominal bore				= 4.00
20	<p>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 the subgrade as directed including all labour and materials and if necessary dewatering, complete.</p> <p>(c).Stone soling of thickness 150mm.</p>	33.12	sqm		
	$1 \quad \times \quad 2 \quad \times \quad 4.60 \quad \times \quad 3.60 \quad = \quad 33.12$				

	Electrical Item				
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) .	1.00	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(Rs.)=**

**Add GST @18%(Rs.)=**

**Grand Total(Rs.)=**

**Say(Rs.)=**