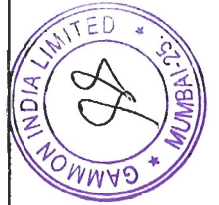


Bill-of-Quantities for 10250 cum Capacity Reservoir at Amiya Nagar (Revised November 4, 2010)

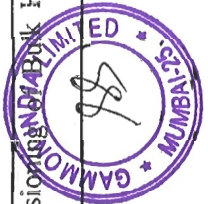
Item No.	Description	Unit	Quantity	Rate				Amount	
				Local		Foreign		Local	Foreign
				Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.
2.03	Out let pipes supplying, installing, commissioning & third party inspection of 900ø MS Outlet pipe from bell mouth in Reservoir to fence line including fittings, Butterfly valve, specials like EMF Meter, Wall piece, Well mouth, Tee, pipe support, Reducer Sleeve coupling etc complete in all respect and as per specification and drawings.	LS	1	3,968,140.00	79,363.00	3,968,140	79,363		
2.04	Wash out pipes supplying, installing, commissioning of Wash out pipe from Washout sump in the Reservoir to Washout manhole including all fittings, conc. encasement etc complete in all respect and as per specification and	LS	1	15,499,796.00	309,996.00	15,499,796	309,996		
2.05	Over Flow supplying, installing, commissioning of Reservoir over flow from inside Reservoir to Manhole including all fittings etc complete in all respect and as per specification and drawings.	LS	1	29,605.00	593.00	29,605	593		
2.06	Inlet valve chamber Supplying, fixing and installation in position true to line and level, inlet valve chamber and its contents including Altitude/Flow Control Valve, and related fitting and associated valves, ball valve, sleevecouplings, excavation, concreting, shuttering, steel and specials and pipe support, rungs, etc complete in all respect and as per drawing and specification.	LS	1	2,925,912.00	58,519.00	2,925,912	58,519		
2.07	Chlorination Systems supplying and installation Complete chlorine system in reservoir as per specification.	LS	1	2,920,157.00	58,404.00	2,920,157	58,404		



Chief Executive Officer
Guwahati Metropolitan Dev. Authority

Bill-of-Quantities for 10250 cum Capacity Reservoir at Amiya Nagar (Revised November 4, 2010)

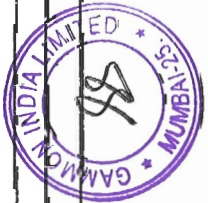
Item No.	Description	Unit	Quantity	Rate				Amount	
				Local		Foreign		Local	Foreign
				Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.		
2.08	Providing and fixing electromic water level indicator upto 5m height including MS enameled gauge plate, Copper float of 150mm dia., providing and fixing required accessories such as pointer, pulleys, SS rope including cost of all materials, labour etc., as per specification &	No.	1	21,354.00	428.00			21,354	428
2.09	Supplying, installing, commissioning of Wash out/Overflow/Storm water pipe from: fenceline to offsite disposal point including all fittings, conc. encasement etc complete in all respect and as per specification. (See site	m	300	1,843.00	37.00			552,900	11,100
2.10	Supplying, fixing and installation in position true to line and level, Air release chamber and its contents including excavation, concreting, shuttering, steel etc complete as per drawing.	LS	1	24,913.00	499.00			24,913	499
			SUB TOTAL					30,180,476	603,658
3. ELECTRICAL SYSTEM									
Service Buildings Internal Lighting System									
3.01	Manufacturing, inspection, delivery, installation, testing, commissioning of Lighting Distribution Board (DB)								
a	4 Way	Nos	1	21,638.00	433.00			21,638	433
b	12 Way	Nos	1	24,913.00	499.00			24,913	499
3.02	Providing & Fixing, Testing and commissioning of industrial fluorescent tube fitting with reflector fabricated from CRCA sheet and finished with powder coating / stove enamelled paint complete with accessories like Electronic Ballast, starter, terminal block duly prewired with copper conductor including making connection, testing etc. as required.								
a	2 X 28 Watts T5 lamp	Nos.	10	1,211.00	25.00			12,110	250
b	1 X 28 Watts T5 lamp	Nos.	9	499.00	10.00			4,491	90
c	Providing & Fixing, Testing and commissioning of Bulk Head fittings along with 100 W lamp	Nos.	6	997.00	20.00			5,982	120



Chief Executive Officer
Guwahati Metropolitan Dev. Authority

Bill-of-Quantities for 10250 cum Capacity Reservoir at Amiya Nagar (Revised November 4, 2010)

Item No.	Description	Unit	Quantity	Rate				Amount		
				Local		Foreign		Local		Foreign
				Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.	
d	Providing & Fixing , Testing and commissioning of Switches, Junction boxes, Ceiling rose, modular fittings for switches & sockets, Receptacles etc on as required basis	Lot	1	4,983.00	100.00	4,983	100			
3.03	Point Wiring along with heavy duty PVC conduit complete with fittings, clasmps, nut bolts, etc.									
a	(a) Short point (upto 3m)	Per Point	20	597.00	12.00	11,940	240			
b	(b) Medium point (upto 6m)	Per Point	12	863.00	18.00	10,356	216			
3.04	Pipe Earthing for SB's as per IS:3043 with perforated 3.0 Mtr. Long, 40 mm dia. ' B ' class G.I. Pipe including all accessories like nut, bolts, reducer, nipple, wire meshed funnel, and C.C. finished chamber covered with hinged type with locking arrangement C.I. Cover, C.I. Frame of size 300mm x 300 mm and embodying the pipe complete with alternate layers salt and coke/ charcoal, testing of earth resistance as required.	Nos.	1	26,336.00	527.00	26,336	527			
3.05	Supply & Laying following size earth wire/strip in horizontal or vertical run in ground/surface/recess including riveting, soldering, saddles, making connection etc. as required.									
a	8 SWG G.I. Wire	m	150	22.00	1.00	3,300	150			
3.06	Providing & Fixing , Testing and commissioning of metal clad industrial plug top & socket unit with pin and sleeve type contact on porcelain/Bakelite base in sheet steel enclosure with MCB including making connections with lugs, testing etc.as required for use as welding socket.									
a	Three phase (Five pin) 20A	Nos.	1	4,983.00	100.00	4,983	100			
Service Buildings Out-Side Lighting System										



Chief Executive Officer
Guwahati Metropolitan Dev. Authority

Bill-of-Quantities for 10250 cum Capacity Reservoir at Amiya Nagar (Revised November 4, 2010)

Item No.	Description	Unit	Quantity	Rate		Amount	
				Local		Foreign	
				Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.
3.07	Supply, erection, Testing and commissioning of 7 mtr high Mild steel swaged tubular pole conforming to IS: 2713-1980 (part I to II) with galvanised base plate of size 400mm x 400mm x 7mm in position including excavation of the pit and filling the same with C.C. of M-10 grade (1:3:6) from base plate to 50cm above ground level, with the help of steel frame not less than 40 cm dia up to 114.3mm outer dia and 50 cm beyond 114.3mm outer dia around the pole. Duly finished with cement plaster, earthing terminals, cable entry, GI cable sleeve complete as required. The pole shall be galvanised using JSL mark seamless tube for	Nos.	8	17,795.00	356.00	142,360	2,848
3.08	Supply, erection, Testing and commissioning of IP-54 protected street light luminaire suitable for HPSV/ MH lamp, made out from powder coated single piece die cast aluminium housing, electrochemically brightened and anodized POT optics aluminium reflector, UV stabilised acrylic bowl cover/toughened glass cover and accessories like copper ballast, electronic ignitor, capacitor, holder prewired up to terminal block etc. as required including making connection testing etc. as required.						
a	70 Watt HPSV	Nos.	6	6,406.00	129.00	38,436	774
b	150 Watt HPSV	Nos.	2	7,830.00	157.00	15,660	314
3.09	Supply, erection, Testing and commissioning IP65 protected decorative lighting luminaire Post top suitable for following lamps, made of powder coated cast aluminium housing, moulded acrylic lamp compartment with built in anodized aluminium covers for lamp shielding and glare control, metallic lid top cover, including the cost of control gear complete in all respect. Bollards are including cost of decorative base pipe/ plate.						
a	70 Watt HPSV	Nos.	2	3,559.00	72.00	7,118	144



Chief Executive Officer
 Guwahati Metropolitan Dev. Authority

Bill-of-Quantities for 10250 cum Capacity Reservoir at Amiya Nagar (Revised November 4, 2010)

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				Local		Foreign		Local	Foreign
				Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.
3.10	Supply & Laying XLPE insulated & P.V.C. sheathed cable of 1.1 KV grade with aluminium conductor armoured of IS:7098-I approved make in ground as per IS:1255 including excavation of 30cmx75cm size trench, 25 cm thick under layer of sand, 11nd class bricks covering, refilling earth, compaction of earth, making necessary connection, testing etc. as								
a	4/CX 25 mm ²	m	200	139.00	3.00	27,800	600		
b	4/CX 16 mm ²	m	600	97.00	2.00	58,200	1,200		
3.11	Supplying and making end terminations with heavy duty single compression brass gland SIBG type, aluminium lugs duly crimped with crimping tool, PVC tape etc for following size of Armoured PVC insulated & PVC sheathed/ XLPE aluminium conductor cable of 1100								
a	4/CX 25 mm ²	Nos.	4	356.00	8.00	1,424	32		
b	4/CX 16 mm ²	Nos.	18	321.00	7.00	5,778	126		
3.12	Feeder Pillar	Nos.	1	1,068.00	22.00	1,068	22		
3.13	Supply Install test and commissioning 11kv /433v 3 phase main transformer (with neutral in secondary side) complete with spport.	Nos.	1	207,421.00	4,149.00	207,421	4,149		
3.14	Supply and install ceiling fan (1200mm sweep) complete with double ball bearing capacitor starter with regulator and other accessories for complete	Nos.	2	2,136.00	43.00	4,272	86		
			SUB TOTAL			640,569	13,020		
			GRAND TOTAL			149,634,232	3,724,800		



Chief Executive Officer
 Guwahati Metropolitan Dev. Authority

Bill-of-Quantities for 7800 cum Capacity Reservoir at Geeta Nagar I

Item No.	Description	Unit	Quantity	Rate				Amount	
				Local		Foreign	Local	Foreign	
				Basic Rate	Applicable taxes and duties etc.	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.	
I. CIVIL WORKS									
1.01	Site clearance by cleaning and grubbing Reservoir area including uprooting rank vegetation including grass, shrubs, bushes, removing temporary structure, removing all trees coming in the alignment with all contractor's machinery, labour, tools & plants, including obtaining permission from concerned departments and taking out all cut materials by the agency with all lead and lift complete as directed by Engineer and as per standard specification in the entire proposed Reservoir area.	LS	1	68,773.00	1,376.00		68,773	1,376	
1.02	Excavation for foundation / pipe trenches in earth, soils of all types, sand, gravel and soft murum, including removing the excavated material from the site and stacking and spreading as directed, including dewatering where necessary, preparing the bed for foundation etc. complete.								
a	Upto all lift	m ³	4500	59.00	2.00		265,500	9,000	
1.03	Excavation for foundation / pipe trenches in soft rock or rippable rock at all levels and depth below ground including removing the excavated materials from the site and stacking and spreading as directed, including dewatering where necessary, preparing the bed for foundation etc.								
a	Upto all lift	m ³	4000	78.00	2.00		312,000	8,000	
1.04	Excavation for foundation / pipe trenches in hard rock or non-rippable rock at all levels and depth below ground including removing the excavated materials from the site and stacking and spreading as directed, including dewatering where necessary, preparing the bed for foundation								
a	Upto all lift	m ³	3500	221.00	5.00		773,500	17,500	
1.05	Providing and laying cement concrete (M-20) including curing, compaction etc. using hard broken stone aggregate 20 mm nominal size under the foundation and plinth, including cost of shuttering, complete. (For all Non structural Concrete)	m ³	460	5,840.00	117.00		2,686,400	53,820	



Chief Executive Officer
Guwahati Metropolitan Dev. Authority

Bill-of-Quantities for 7800 cum Capacity Reservoir at Geeta Nagar I

Item No.	Description	Unit	Quantity	Rate		Amount	
				Local		Foreign	
				Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.
1.06	Providing and laying in position compacted gravel bedding All work up to plinth level for Reservoir and Service building as per drawing and	m ³	1000	292.00	6.00	292,000	6,000
1.07	Filling with excavated soil including watering, ramming, consolidating and dressing complete and disposal of surplus excavated materials to a place identified by the Contractor and approved by the Engineer including loading, unloading, stacking etc complete as per drawing and	m ³	150	78.00	2.00	11,700	300
1.08	Providing and laying in position machine batched, machine mixed and machine vibrated design mix cement concrete of specified grade for reinforced cement concrete structural elements, including the cost of centering, Shuttering, including curing, compaction, finishing and making good the joints and admixtures in recommended proportions as per IS 9103. M-30 grade reinforced cement concrete. (For all structural						
i	Foundation base slab, Sump Walls upto base slab of reservoir						
a	For Reservoir	m ³	1,060	6,618.00	133.00	7,015,080	140,980
b	for service building	m ³	100	6,618.00	133.00	661,800	13,300
ii	In walls, columns, roof slab, beams, lintels, chhajjas, ventilators and stair etc.						
a	For reservoir	m ³	2,700	6,618.00	133.00	17,868,600	359,100
b	for service building	m ³	180	6,618.00	133.00	1,191,240	23,940
1.09	Providing and fixing in position steel bar reinforcement (Tor Steel Fe-415 Grade) of various diameters for RCC footings, foundations, slabs, beams, columns, Retaining wall, newels, chajjas, lintels, copings, chairs and accessories, rebars in service building, Brick work etc. as per specification and drawings; including cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required, etc. complete. (including cost of binding wire).	Kg.	367,100	55.00	2.00	20,190,500	734,200



Chief Executive Officer
Guwahati Metropolitan Dev. Authority

Bill-of-Quantities for 7800 cum Capacity Reservoir at Geeta Nagar I

Item No.	Description	Unit	Quantity	Rate				Amount			
				Local		Foreign		Local		Foreign	
				Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.
1.10	Providing and placing in position suitable PVC water Stops conforming to IS:12200 for construction joints between two RCC members.	m	6,000	195.00	4.00	1,170,000	24,000				
1.11	Providing and fixing 20mm dia G.I. medium 'B' class railing with two horizontal pipes and 1.5 Mtr. Long vertical pipe 1.5 Mtr. Centre to centre with all accessories, like elbows, tees etc., including welding, threading and embedding in cement concrete M:20, block of size 30X30X40cm with 2 nos angle iron 25x25x5mm size holdfast complete as per drawings	m	150	974.00	20.00	146,100	3,000				
1.12	Brick work for Service building Construction of Brick masonry for super structure of 300 mm thick walls in CM (1:6) prop.using First class best quality table moulded bricks including cost and conveyance of all materials, labour , scaffolding, Curing etc., complete for finished item of work and as per drawing and	m ³	40	3,634.00	73.00	145,360	2,920				
1.13	Flooring Providing and laying Ceramic tile flooring in upper floor of Service Building, bath room, chlorination room, and chlorination storage room using approved quality and finishing to required level, curing, etc., complete all as per specifications.	m ²	120	390.00	8.00	46,800	960				
1.14	Plastering a Providing and applying cement plaster 6 mm thick to ceiling in single coat in cement mortar 1:3 with out neeru finish to concrete surface in all positions including scaffolding and curing etc. complete. b Providing and applying internal cement plaster with Water proof compound 12 mm thick in a single coat in cement mortar 1:4 without neeru finish to concrete or brick surface in all positions including scaffolding and curing complete. Providing groove at joint of	m ²	50	143.00	3.00	7,150	150				
		m ²	40	117.00	3.00	4,680	120				



Chief Executive Officer
Guwahati Metropolitan Dev. Authority

Bill-of-Quantities for 7800 cum Capacity Reservoir at Geeta Nagar I

Item No.	Description	Unit	Quantity	Rate				Amount	
				Local		Foreign	Local	Foreign	
				Basic Rate	Applicable taxes and duties etc.		Basic Rate	Applicable taxes and duties etc.	
1.15	DOOR & WINDOW AND ROLLING SHUTTER								
a	Providing and fixing rolling shutters in as per drawings & specification, complete in all respect including welding, painting, finishing etc.	m ²	10	2,596.00	52.00		25,960	520	
b	Providing and fixing in position Stainless Steel ladder inside the reservoir including cost of material and labour involved, welding, cages, anchoring and applying 3 coat of anti-corrosive paint, etc. complete and as per drawings and specification.	Nos.	1	38,929.00	779.00		38,929	779	
c	Providing and fixing in position Access aluminium ladder out side the reservoir including cost of material and labour involved, complete and as per drawings and specification.	Nos.	1	38,929.00	779.00		38,929	779	
d	Providing and fixing steel frame for internal door including complete in all respect complete and size as per drawings and specification.	m ²	13	2,596.00	52.00		33,748	676	
e	Providing and fixing in position steel windows with openable frame, of approved quality, fixture and fastenings, handle, stopper etc. complete as per drawings and specification.	m ²	15	1,947.00	39.00		29,205	585	
f	Providing and fixing steel frame 14 inch Roof ventilator including complete in all respect including welding, painting, finishing etc. complete and as per specification.	No.	2	1,947.00	39.00		3,894	78	
g	Providing and fixing Fiber glass reinforced plastic doors for external door in Chlorine room including complete in all respect complete and size as per drawings and specification.	m ²	7	5,840.00	117.00		40,880	819	



Chief Executive Officer
 Guwahati Metropolitan Dev. Authority

Bill-of-Quantities for 7800 cum Capacity Reservoir at Geeta Nagar I

Item No.	Description	Unit	Quantity	Rate				Amount	
				Local		Foreign	Local	Foreign	
				Basic Rate	Applicable taxes and duties etc.		Basic Rate	Applicable taxes and duties etc.	
1.16	Providing and erecting 3.0 m. high chain link fencing with chain link having hole size 65 mm x 65 mm supported on M.S. angle post of size 50 mm x 50 mm: x 6 mm: at 2.40 m c/c including excavating pits for foundation fixing post in M 20 concrete of size 45 cm x 45 cm x 45 cm fixing chain link with 3.25 mm (10 guage) G.I. wire at top and bottom and with oil paint etc. complete and Providing and fixing steel frame 4.0 m wide Double leaf Entrance gate (exterior) complete in all respect including welding, painting, finishing etc. complete and as per drawings.	m	220	2,725.00	55.00		599,500	12,100	
1.17	Water proofing on Roof Providing and laying three layers of cold bituminous paint with two layers of polyester felt and gravel to roof and parapet walls for water proofing.	m ²	900	234.00	5.00		210,600	4,500	
1.18	Painting								
a	Providing and applying primer coat for wall surface to receive oil bound distemper treatment.	m ²	3,000	20.00	1.00		60,000	3,000	
b	Providing and applying washable oil bound distemper of approved colour and shade to new surfaces in two coats including scaffolding, preparing the surfaces (excluding the primer coat) complete.	m ²	3,000	39.00	1.00		117,000	3,000	
c	Providing and applying priming coat on concrete/masonry/ Asbestos Cement /piastered surfaces including scaffolding if necessary, preparing the surface by thoroughly cleaning oil, grease, dirt and other foreign matter and sand papering as required. (Sample and brand is to be got approved from Engineer incharge before use)	m ²	3,000	20.00	1.00		60,000	3,000	
d	Providing and applying exterior emulsion water based water proof cement paint (On Doors & Windows) of approved colour and shade to exterior old/new surface in two coats including scaffolding preparing the surface to receive paint etc. complete	m ²	125	29.00	1.00		3,625	125	




 Chief Executive Officer
 Guwahati Metropolitan Dev. Authority

Bill-of-Quantities for 7800 cum Capacity Reservoir at Geeta Nagar I

Item No.	Description	Unit	Quantity	Rate		Amount	
				Local		Foreign	
				Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.
e	Painting on new surface with ducro paint (IC or equivalent) to give an even shade (minimum 4 coats with preparation: of surface by rubbing, primer coats, ducro filler putty including polishing etc complete : on steel work	m ²	350	52.00	2.00	18,200	700
i.19	Paved Area						
a	Providing, Laying, compacting Subgrade with selected job excavated material in paved area and access road within the fence line from existing subgrade to the underside of the basecourse as per drawings and	m ³	1,400	273.00	6.00	382,200	8,400
b	Providing, Laying, compacting Base course 500 mm thick in paved area and access road within fence line as per drawings and specification.	m ³	160	2,336.00	47.00	373,760	7,520
c	Providing, Laying, compacting asphalt concrete binder course 50 mm: thick of paved area as per drawings and specification.	m ³	15	10,122.00	203.00	151,830	3,045
d	Providing, Laying, compacting Asphalt concrete surface course 30 mm thick of paved area as per drawings and specification.	m ³	10	10,122.00	203.00	101,220	2,030
1.20	Providing, Fixing and installation of all sanitary fixtures related Plumbing for the bath room / sanitation facilities with all accessories ISI marked fittings and Connections including cost of labour and material and preparation of plumbing shop drawings as per specification.	LS	1	32,441.00	649.00	32,441	649
1.21	Providing, Fixing and installation of local water supply from the inlet valve chamber for the bathroom and reservoir cleaning . Inlet to Reservoir will be established on site.	LS	1	12,977.00	260.00	12,977	260



Chief Executive Officer
Gawahat Metropolitan Dev. Authority

Bill-of-Quantities for 7800 cum Capacity Reservoir at Geeta Nagar I

Item No.	Description	Unit	Quantity	Rate		Amount	
				Local		Foreign	
				Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.
i.22	Providing, Fixing and installation of Waste water pipe and manholes from the bathroom to the septic tank including cost of labour and material as per drawings and specifications.	LS	1	12,977.00	260.00	12,977	260
i.23	Providing, Fixing and installation of Septic tank and absorption pit as per drawings and specification including cost of labour and material.	LS	1	19,465.00	390.00	19,465	390
i.24	Providing, Fixing and installation of Traffic barrier complete in all respect (Type A) as per specification and drawings.	m	45	5,840.00	117.00	262,800	5,265
i.25	Providing and laying 2No. floor drain as per specification and drawings including cost of labour and material and as per Drawings and	LS	2	25,953.00	520.00	51,906	1,040
i.26	Providing and laying Storm water / roof drain system of the reservoir including Manholes. Rates also include excavation, concreting, shuttering, steel, specials, pipes, fittings, etc complete in all respect as	LS	1	83,047.00	1,661.00	83,047	1,661
i.27	Providing and laying 400 mm dia Pipe to washout and headwall including labour, material etc complete in all respect as per drawings and	LS	1	90,833.00	1,817.00	90,833	1,817
i.28	Providing, Fixing and installation of Fire hydrants system complete including fittings, valves, Pipes etc as per relevant IS code and as per drawings and specifications.	LS	1	22,709.00	455.00	22,709	455
i.29	To Clean reservoir, supply Potable water, including Transportation, Equipment, Manpower, Level measuring device fill reservoir and perform leakage testing of Reservoir (Hydro test) as per specification for water tightness including leaving reservoir full after disinfection.						
a	Reservoir	LS	1	233,166.00	4,664.00	233,166	4,664
b	Alli yard piping	LS	1	32,441.00	649.00	32,441	649



Chief Executive Officer
Guwahati Metropolitan Dev. Authority

Bill-of-Quantities for 7800 cum Capacity Reservoir at Geeta Nagar I

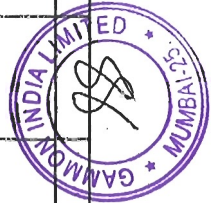
Item No.	Description	Unit	Quantity	Rate		Amount	
				Local		Foreign	
				Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.
1.30	To supply manpower, equipment, chemicals, testing and disinfect the reservoir including all inlet, outlet, piping according as per specification.						
a	Reservoir	LS	1	32,441.00	649.00	32,441	649
b	All yard piping	LS	1	6,489.00	130.00	6,489	130
1.31	Supply install polyethylene sheeting between gravei and PCC under Reservoir and Service Building base	m ²	1700	26.00	1.00	44,200	1,700
1.32	Supply and install building paper/bond breaker between reservoir and Service Building,	m ²	150	260.00	6.00	39,000	900
1.33	Supply and install joint sealant between Reservoir and Service Building roof.	m	25	649.00	13.00	16,225	325
			SUB TOTAL			56,139,780	1,471,136
2.0 MECHANICAL WORKS							
	Supplying & installing Mechanical Equipment including, but no limited to, safe storage, protection, erection, installation, pre-commissioning & commissioning testing as per specification and drawing						
2.01	Inlet pipes Supplying, installing, commissioning & third party inspection of 500ø MS inlet pipe from fence line to the bell mouth inside the Reservoir (excluding the inlet flow control valve chamber and its content,) , Butterfly valve, pipe supports, bell mouth, sleeve coupling etc complete in all respect and as per specification and Drawings.	LS	1	32,676,380.00	653,528.00	32,676,380	653,528




Chief Executive Officer
 Guwahati Metropolitan Dev. Authority

Bill-of-Quantities for 7800 cum Capacity Reservoir at Geeta Nagar I

Item No.	Description	Unit	Quantity	Rate		Amount	
				Local		Foreign	
				Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.
2.02	Out let pipes supplying, installing, commissioning & third party inspection of 900ø MS Outlet pipe from bell mouth in Reservoir to fence line including fittings, Butterfly valve, EMF Meter, Wall piece, Well mouth, Tee, Sleeve coupling etc complete in all respect and as per specification and	LS	1	4,438,729.00	88,775.00	4,438,729	88,775
2.03	Wash out pipes supplying, installing, commissioning of Wash out pipe from Washout sump in the Reservoir to Washout manhole including all fittings, conc. encasement etc complete in all respect and as per specification and	LS	1	12,489,379.00	249,788.00	12,489,379	249,788
2.04	Over Flow supplying, installing, commissioning of Reservoir over flow from inside Reservoir to Manhole including all fittings etc complete in all respect and as per specification and drawings.	LS	1	51,469.00	1,030.00	51,469	1,030
2.05	Inlet Valve chamber Supplying, fixing and installation in position true to line and level, inlet valve chamber and its contents including Altitude/Flow Control Valve, and related fitting and associated valves, ball valve, sleevecouplings, excavation, concreting, shuttering, steel and specials and pipe support, rungs, etc complete in all respect and as per drawing and specification.	LS	1	2,916,401.00	58,329.00	2,916,401	58,329
2.06	Chlorination Systems supplying and installation Complete chlorine system in reservoir as per specification.	LS	1	2,920,157.00	58,404.00	2,920,157	58,404
2.07	Supplying and fixing electronic water level indicator upto 5m height including MS enameled gauge plate, Copper float of 150mm dia., providing and fixing required accessories such as pointer, pulleys, SS rope including cost of all materials, labour etc., as per specification &	No.	1	21,354.00	428.00	21,354	428



Chief Executive Officer
Guwahati Metropolitan Dev. Authority

Bill-of-Quantities for 7800 cum Capacity Reservoir at Geeta Nagar I

Item No.	Description	Unit	Quantity	Rate				Amount	
				Local		Foreign	Local	Foreign	
				Basic Rate	Applicable taxes and duties etc.		Basic Rate	Applicable taxes and duties etc.	
2.08	Supplying, installing, commissioning of Wash out/Overflow/Storm water pipe from fenceline to offsite disposal point including all fittings, concrete encasement etc complete in all respect and as per specification. (See site plan for pipe size)	m	300	1,843.00	37.00		552,900	11,100	
2.09	Supplying, fixing and installation in position true to line and level, Air release chamber and its contents including excavation, concreting, shuttering, steel etc complete as per drawing.	LS	1	24,913.00	499.00		24,913	499	
			SUB TOTAL				56,091,682	1,121,881	
3. ELECTRICAL SYSTEM									
Service Buildings Internal Lighting System									
3.01	Manufacturing, inspection, delivery, installation, testing, commissioning of Lighting Distribution Board (DB)								
a	4 Way	Nos	1	21,638.00	433.00		21,638	433	
b	12 Way	Nos	1	24,913.00	499.00		24,913	499	
3.02	Providing, fixing, Testing and commissioning of industrial fluorescent tube fitting with reflector fabricated from CRCA sheet and finished with powder coating / stove enamelled paint complete with accessories like Electronic Ballast, starter, terminal block duly prewired with copper conductor including making connection, testing etc. as required.								
a	2 X 28 Watts T5 lamp	Nos.	10	1,211.00	25.00		12,110	250	
b	1 X 28 Watts T5 lamp	Nos.	9	499.00	10.00		4,491	90	
c	Bulk Head fittings along with 100 W lamp	Nos.	6	997.00	20.00		5,982	120	
d	Providing, fixing, Testing and commissioning of Switches, Junction boxes, Ceiling rose, modular fittings for switches & sockets, Receptacles etc on as required basis	Lot	1	4,983.00	100.00		4,983	100	



Chief Executive Officer
Guwahati Metropolitan Dev. Authority

Bill-of-Quantities for 7800 cum Capacity Reservoir at Geeta Nagar I

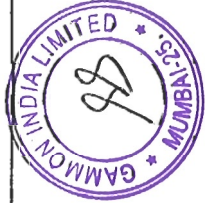
Item No.	Description	Unit	Quantity	Rate		Amount	
				Local		Foreign	
				Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.
3.03	Point Wiring along with heavy duty PVC conduit complete with fittings, clasps, nut bolts, etc.						
a	(a) Short point (upto 3m)	Per Point	20	597.00	12.00	11,940	240
b	(b) Medium point (upto 6m)	Per Point	12	863.00	18.00	10,356	216
3.04	Pipe Earthing for SB's as per IS:3043 with perforated 3.0 Mtr. Long, 40 mm dia. B class G.I. Pipe including all accessories like nut, bolts, reducer, nipple, wire meshed funnel, and C.C. finished chamber covered with hinged type with locking arrangement C.I. Cover, C.I. Frame of size 300mm x 300 mm and embodying the pipe complete with alternate layers salt and coke/ charcoal. testing of earth resistance as required.	Nos.	1	26,336.00	527.00	26,336	527
3.05	Supply & Laying following size earth wire/strip in horizontal or vertical run in ground/surface/recess including riveting, soldering, saddles, making connection etc. as required.						
a	8 SWG G.I. Wire	m	150	22.00	1.00	3,300	150
3.06	Providing, fixing, Testing and commissioning of metal clad industrial plug top & socket unit with pin and sleeve type contact on porcelain/ Bakelite base in sheet steel enclosure with MCB including making connections with lugs, testing etc.as required for use as welding socket.						
a	Three phase (Five pin) 20A	Nos.	1	4,983.00	100.00	4,983	100




 Chief Executive Officer
 Guwahati Metropolitan Dev. Authority

Bill-of-Quantities for 7800 cum Capacity Reservoir at Geeta Nagar I

Item No.	Description	Unit	Quantity	Rate				Amount	
				Local		Foreign		Local	Foreign
				Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.
Service Buildings Out-Side Lighting System									
3.07	Supply, erection, testing and commissioning of 7 mtr high Mild steel swaged tubular pole conforming to IS: 2713-1980 (part I to II) with galvanised base plate of size 400mm x 400mm x 7mm in position including excavation of the pit and filling the same with C.C. of M-20 grade from base plate to 50cm above ground level, with the help of steel frame not less than 40 cm dia up to 14.3mm outer dia and 50 cm beyond 14.3mm outer dia around the pole. Duly finished with cement plaster, earthing terminals, cable entry, GI cable sleeve complete as required. The pole shall be galvanised using ISI mark seamless tube for structural	Nos.	7	17,795.00	356.00	124,565	2,492		
3.08	Providing, fixing, Testing and commissioning of IP-54 protected street light luminaire suitable for HPSV/ MH lamp, made out from powder coated single piece die cast aluminium housing, electrochemically brightened and anodized POT optics aluminium reflector, UV stabilised acrylic bowl cover/toughened glass cover and accessories like copper ballast, electronic ignitor, capacitor, holder prewired up to terminal block etc. as required including making connection testing etc. as required.								
a	70 Watt HPSV	Nos.	5	6,406.00	129.00	32,030	645		
b	150 Watt HPSV	Nos.	2	7,830.00	157.00	15,660	314		
3.09	Providing, fixing, Testing and commissioning of IP65 protected decorative lighting luminaire Post top suitable for following lamps, made of powder coated cast aluminium housing, moulded acrylic lamp compartment with built in anodized aluminium louvers for lamp shielding and glare control, metallic lid top cover, including the cost of control gear complete in all respect. Bollards are including cost of decorative base pipe/ plate.								
a	70 Watt HPSV	Nos.	2	3,559.00	72.00	7,118	144		



Chief Executive Officer
Guwahati Metropolitan Dev. Authority

Bill-of-Quantities for 7800 cum Capacity Reservoir at Geeta Nagar I

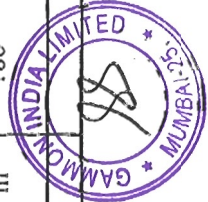
Item No.	Description	Unit	Quantity	Rate				Amount	
				Local		Foreign	Local		Foreign
				Basic Rate	Applicable taxes and duties etc.		Basic Rate	Applicable taxes and duties etc.	
3.10	Supply & Laying XLPE insulated & P.V.C. sheathed cable of 1.1 KV grade with aluminium conductor armoured of IS:7098-I approved make in ground as per IS:1255 including excavation of 30cmx75cm size trench, 25 cm thick under layer of sand, II nd class bricks covering, refilling earth, compaction of earth, making necessary connection, testing etc. as								
a	4/CX 25 mm2	m	250	139.00	3.00		34,750	750	
b	4/CX 16 mm2	m	750	97.00	2.00		72,750	1,500	
3.11	Supplying and making end terminations with heavy duty single compression brass gland SIBG type, aluminium lugs duly crimped with crimping tool, PVC tape etc for following size of Armoured PVC insulated & PVC sheathed/ XLPE aluminium conductor cable of 1100								
a	4/CX 25 mm2	Nos.	4	356.00	8.00		1,424	32	
b	4/CX 16 mm2	Nos.	16	321.00	7.00		5,136	112	
c	Feeder Pillar	Nos.	1	1,068.00	22.00		1,068	22	
3.12	Supply Install test and commissioning 11kv /433v 3 phase main transformer (with neutral in secondary side) complete with support.								
		Nos.	1	207,421.00	4,149.00		207,421	4,149	
3.13	Supply and install ceiling fan (1200mm: sweep) complete with double ball bearing capacitor starter with regulator and other accessories for complete operation.								
		Nos.	2	2,136.00	43.00		4,272	86	
			SUB TOTAL				637,226	12,971	
			GRAND TOTAL				112,868,688	2,605,988	




 Chief Executive Officer
 Guwahati Metropolitan Dev. Authority

Cost Estimate for 1100 cum Capacity Reservoir at Geeta Nagar II

Item No.	Description	Unit	Quantity	Rate				Amount	
				Local		Foreign	Local	Foreign	
				Basic Rate	Applicable taxes and duties etc.		Basic Rate	Applicable taxes and duties etc.	
I. CIVIL WORKS									
1.01	Site clearance by cleaning and grubbing Reservoir area including uprooting rank vegetation including grass, shrubs, bushes, removing temporary structure, removing all trees coming in the alignment with all contractor's machinery, labour, tools & plants, including obtaining permission from concerned departments and taking out all cut materials by the agency with all lead and lift complete as directed by Engineer and as per standard specification in the entire proposed Reservoir area.	LS	1	68,773.00	1,376.00		68,773	1,376	
1.02	Excavation for foundation / pipe trenches in earth, soils of all types, sand, gravel and soft murum, including removing the excavated material from the site and stacking and spreading as directed, including dewatering where necessary, preparing the bed for foundation etc. complete.	m ³	250	59.00	2.00		14,750	500	
a	all lead and lift								
1.03	Excavation for foundation / pipe trenches in soft rock or rippable rock at all levels and depth below ground including removing the excavated materials from the site and stacking and spreading as directed, including dewatering where necessary, preparing the bed for foundation etc.	m ³	100	78.00	2.00		7,800	200	
a	Upto all lift								
1.04	Excavation for foundation / pipe trenches in hard rock or non-rippable rock at all levels and depth below ground including removing the excavated materials from the site and stacking and spreading as directed, including dewatering where necessary, preparing the bed for foundation	m ³	100	221.00	5.00		22,100	500	
a	Upto all lift								
1.05	Providing and laying cement concrete (M-20) including curing, compaction etc. using hard broken stone aggregate 20 mm nominal size under the foundation and plinth, including cost of shuttering, complete.	m ³	180	5,840.00	117.00		1,051,200	21,060	



Chief Executive Officer
Guwahati Metropolitan Dev. Authority

Cost Estimate for 1100 cum Capacity Reservoir at Geeta Nagar II

Item No.	Description	Unit	Quantity	Rate				Amount	
				Local		Foreign	Local	Foreign	
				Basic Rate	Applicable taxes and duties etc.		Basic Rate	Applicable taxes and duties etc.	
i.06	Providing and laying in position compacted gravel bedding. All work up to plinth level for Reservoir and Service building as per drawing and	m ³	160	292.00	6.00		46,720	960	
i.07	Filling with excavated soil including watering, ramming, consolidating and dressing complete and disposal of surplus excavated materials to a place identified by the Contractor and approved by the Engineer including loading, unloading, stacking etc complete as per drawing and	m ³	90	78.00	2.00		7,020	180	
i.08	Providing and laying in position machine batched, machine mixed and machine vibrated design mix cement concrete of specified grade for reinforced concrete structural elements, including the cost of centering, Shuttering, including curing, compaction, finishing and making good the joints and admixtures in recommended proportions as per IS 9103. M-30 grade reinforced cement concrete. (For all structural								
	Foundaton base slab, Sump Walls upto base slab of reservoir								
a	For Reservoir	m ³	160	6,618.00	133.00		1,058,880	21,280	
b	for service building	m ³	10	6,618.00	133.00		66,180	1,330	
ii	In walls, columns, roof slab, beams, lintels, chhajjas, ventilators and stair etc.								
a	For Reservoir	m ³	360	6,618.00	133.00		2,382,480	47,880	
b	for service building	m ³	20	6,618.00	133.00		132,360	2,660	
i.09	Providing and fixing in position steel bar reinforcement (Tor Steel Fe-415 Grade) of various diameters for RCC footings, foundations, slabs, beams, columns, Retaining wall, newels, chhajjas, lintels, copings, chairs and accessories, rebars in service building, Brick work etc. as per specification and drawings; including cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required, etc.								
	For Reservoir	Kg.	60,000	55.00	2.00		3,300,000	120,000	
	for Service building	Kg.	2,500	55.00	2.00		137,500	5,000	



Chief Executive Officer
Guwahati Metropolitan Dev. Authority

Cost Estimate for 1100 cum Capacity Reservoir at Geeta Nagar II

Item No.	Description	Unit	Quantity	Rate				Amount	
				Local		Foreign		Local	Foreign
				Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.
1.10	Providing and placing in position suitable PVC water Stops confirming to IS:12200 for construction joints between two RCC members.	m	900	195.00	4.00	175,500	3,600		
1.11	Providing and fixing 20mm dia G.I. medium 'B' class railing with two horizontal pipes and 1.5 Mtr. Long vertical pipe 1.5 Mtr. Centre to centre with all accessories, like elbows, tees etc., including welding, threading and embedding in cement concrete M:20, block of size 30X30X40cm with 2 nos angle iron 25x25x5mm size holdfast complete as per drawings	m	150	974.00	20.00	146,100	3,000		
1.12	Brick work Construction of Brick masonry for super structure of 300 mm thick walls in CM (1:6) prop. using First class best quality table moulded bricks including cost and conveyance of all materials, labour, scaffolding, Curing etc., complete for finished item of work and as per drawing and	m ³	2	3,634.00	73.00	7,268	146		
1.13	Flooring Providing and laying Ceramic tile flooring in upper floor of Service Building, bath room, chlorination room, and chlorination storage room using approved quality and finishing to required level, curing, etc.,	m ²	40	1,298.00	26.00	51,920	1,040		
1.14	Plastering Providing and applying cement plaster 6 mm thick to ceiling in single coat in cement mortar 1:3 with out neeru finish to concrete surface in all positions including scaffolding and curing etc. complete. Providing and applying internal cement plaster 12 mm thick in a single coat in cement mortar 1:4 without neeru finish to concrete or brick surface in all positions including scaffolding and curing complete. Providing groove at joint of B.B. Masonry and concrete members	m ²	10	117.00	3.00	1,170	30		



Chief Executive Officer
Guwahati Metropolitan Dev. Authority

Cost Estimate for 1100 cum Capacity Reservoir at Geeta Nagar II

Item No.	Description	Unit	Quantity	Rate				Amount	
				Local		Foreign	Local	Foreign	
				Basic Rate	Applicable taxes and duties etc.		Basic Rate	Applicable taxes and duties etc.	
1.15	DOOR & WINDOW AND ROLLING SHUTTER								
1.16	Providing and fixing in position Stainless Steel ladder inside the reservoir including cost of material and labour involved, welding, cages, anchoring and applying 3 coat of anti-corrosive paint, etc. complete and as per drawings and specification.	Nos.	1	38,929.00	779.00		38,929	779	
1.17	Providing and fixing in position: Access aluminium ladder out side the reservoir including cost of material and labour involved, complete and as per drawings and specification.	Nos.	1	38,929.00	779.00		38,929	779	
1.18	Providing and fixing steel frame for internal door including complete in all respect complete and size as per drawings and specification.	m ²	3	2,596.00	52.00		7,788	156	
1.19	Providing and fixing in position steel windows with openable frame, of approved quality, fixture and fastenings, handle, stopper etc. complete as per drawings and specification.	m ²	18	1,947.00	39.00		35,046	702	
1.20	Providing and fixing steel frame 14 inch Roof ventilator including complete in all respect including welding, painting, finishing etc. complete and as per specification.	No.	2	1,947.00	39.00		3,894	78	
1.21	Providing and erecting 3.0 m. high chain link fencing with chain link having hole size 65 mm x 65 mm supported on M.S. angle post of size 50 mm x 50 mm x 6 mm at 2.40 m c/c including excavating pits for foundation fixing post in M 20 concrete of size 45 cm x 45 cm x 45 cm fixing chain link with 3.25 mm (10 gauge) G.I. wire at top and bottom and with oil paint etc. complete and Providing and fixing steel frame 4.0 m wide Double leaf Entrance gate (exterior) complete in all respect including welding, painting, finishing etc. complete and as per drawings	m	150	2,725.00	55.00		408,750	8,250	



Chief Executive Officer
Guwahati Metropolitan Dev. Authority

Cost Estimate for 1100 cum Capacity Reservoir at Geeta Nagar II

Item No.	Description	Unit	Quantity	Rate				Amount	
				Local		Foreign	Local	Foreign	
				Basic Rate	Applicable taxes and duties etc.		Basic Rate	Applicable taxes and duties etc.	
1.22	Water proofing on Roof Providing and laying three layers of cold bituminous paint with two layers of polyester felt and gravel to roof and parapet walls for water proofing.	m ²	240	234.00	5.00		56,160	1,200	
1.23	Painting								
a	Providing and applying primer coat for wall surface to receive oil bound distemper treatment.	m ²	450	20.00	1.00		9,000	450	
b	Providing and applying washable oil bound distemper of approved colour and shade to new surfaces in two coats including scaffolding, preparing the surfaces (excluding the primer coat) complete.	m ²	450	39.00	1.00		17,550	450	
c	Providing and applying priming coat on concrete/masonry/ Asbestos Cement/plastered surfaces including scaffolding if necessary, preparing the surface by thoroughly cleaning oil, grease, dirt and other foreign matter and sand papering as required. (Sample and brand is to be got approved from Engineer incharge before use)	m ²	450	20.00	1.00		9,000	450	
d	Providing and applying exterior emulsion water based water proof cement paint (On Doors & Windows) of approved colour and shade to exterior old/new surface in two coats including scaffolding preparing the surface to receive paint etc. complete	m ²	125	29.00	1.00		3,625	125	
e	Painting on new surface with ducco paint (IC or equivalent) to give an even shade (minimum 4 coats with preparation of surface by rubbing, primer coats, ducco filler putty including polishing etc complete : on steel work	m ²	250	52.00	2.00		13,000	500	
1.24	Paved Area								
a	Providing, Laying, compacting Subgrade with selected job excavated material in paved area and access road within the fence line from existing subgrade to the underside of the basecourse as per drawings and	m ³	1,250	273.00	6.00		341,250	7,500	



Chief Executive Officer
 Guwahati Metropolitan Dev. Authority

Cost Estimate for 1100 cum Capacity Reservoir at Geeta Nagar II

Item No.	Description	Unit	Quantity	Rate				Amount	
				Local		Foreign	Local	Foreign	
				Basic Rate	Applicable taxes and duties etc.		Basic Rate	Applicable taxes and duties etc.	
b	Providing, Laying, compacting Base course 500 mm thick in paved area and access road within fence line as per drawings and specification.	m ³	150	2,336.00	47.00		350,400	7,050	
c	Providing, Laying, compacting asphalt concrete binder course 50 mm thick of paved area as per drawings and specification.	m ³	20	10,122.00	203.00		202,440	4,060	
d	Providing, Laying, compacting Asphalt concrete surface course 30 mm thick of paved area as per drawings and specification.	m ³	10	10,122.00	203.00		101,220	2,030	
1.25	Providing, Fixing and installation of all sanitary fixtures related Plumbing for the bath room / sanitation facilities with all accessories ISI marked fittings and Connections including cost of labour and material and preparation of plumbing shop drawings as per specification.	LS	1	32,441.00	649.00		32,441	649	
1.26	Providing, Fixing and installation of local water supply from the inlet valve chamber for the bathroom and reservoir cleaning. Inlet to Reservoir will be established on site.	LS	1	12,977.00	260.00		12,977	260	
1.27	Providing, Fixing and installation of Waste water pipe and manholes from the bathroom to the septic tank including cost of labour and material as per drawings and specifications.	LS	1	12,977.00	260.00		12,977	260	
1.28	Providing, Fixing and installation of Septic tank and absorption pit as per drawings and specification including cost of labour and material.	LS	1	19,465.00	390.00		19,465	390	
1.29	Providing, Fixing and installation of Traffic barrier complete in all respect (Type A) 12 m in length as per specification and drawings.	m	15	5,840.00	117.00		87,600	1,755	
1.30	Providing and laying 2No. floor drain as per specification and drawings including cost of labour and material and as per Drawings and	S	2	19,465.00	390.00		38,930	780	



Chief Executive Officer
Guwahati Metropolitan Dev. Authority

Cost Estimate for 1100 cum Capacity Reservoir at Geeta Nagar II

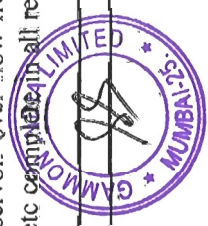
Item No.	Description	Unit	Quantity	Rate				Amount	
				Local		Foreign	Local	Foreign	
				Basic Rate	Applicable taxes and duties etc.		Basic Rate	Applicable taxes and duties etc.	
1.31	Providing and laying Storm water / roof drain system of the reservoir including Manholes. Rates also include excavation, concreting, shuttering, steel, specials, pipes, fittings, etc complete in all respect as	LS	1	83,047.00	1,661.00		83,047	1,661	
1.32	Providing and laying 200 mm dia Pipe to washout and headwall including labour, material etc complete in all respect as per drawings and	LS	1	45,417.00	909.00		45,417	909	
1.33	Providing, Fixing and installation of Fire hydrants system complete including fittings, valves, Pipes etc as per releavent IS code and as per drawings and specifications.	LS	1	22,709.00	455.00		22,709	455	
1.34	To Clean reservoir, supply Potable water, including Transportation, Equipment, Manpower, Level measuring device fill reservoir and yard piping and perform leakage testing of Reservoir and yard piping (Hydro test) as per specification for water tightness including cleaning Reservoir								
a	Reservoir	LS	1	233,166.00	4,664.00		233,166	4,664	
b	All yard piping	LS	1	32,441.00	649.00		32,441	649	
1.35	To supply manpower, equipment, chemicals, testing and disinfect the reservoir and yard piping including all inlet, outlet, piping according as								
a	Reservoir	LS	1	32,441.00	649.00		32,441	649	
b	All yard piping	LS	1	6,489.00	130.00		6,489	130	
1.36	Supply install polyethylene sheeting between gravel and PCC under Reservoir and Service Building base	m ²	240	26.00	1.00		5,240	240	
1.37	Supply and install building paper/bond breaker between reservoir and Service Building.	m ²	50	260.00	6.00		13,000	300	



Chief Executive Officer
 Guwahati Metropolitan Dev. Authority

Cost Estimate for 1100 cum Capacity Reservoir at Geeta Nagar II

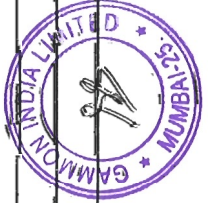
Item No.	Description	Unit	Quantity	Rate		Amount	
				Local		Foreign	
				Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.
1.38	Supply and install joint sealant between Reservoir and Service Building	m	25	649.00	13.00	16,225	325
			SUB TOTAL			11,011,125	279,395
2.0 MECHANICAL WORKS							
2.00	Supplying & installing Mechanical Equipment including, but no limited to, safe storage, protection, erection, installation, pre-commissioning & commissioning testing as						
2.01	Inlet Pipes Supplying, installing, commissioning & third party inspection of 1500ø MS inlet pipe from fence line to the bell mouth inside the Reservoir (excluding the inlet flow control valve chamber and its content), Butterfly valve, pipe supports, bell mouth, sleeve coupling etc complete in all respect and as per specification and Drawings.	LS	1	5,162,936.00	#####	5,162,936	103,259
2.02	Out let Pipes supplying, installing, commissioning & third party inspection of 200ø MS Outlet pipe from bell mouth in Reservoir to fence line including fittings, Butterfly valve, EMF Meter, Wall piece, Well mouth, Tee, Sleeve coupling etc complete in all respect and as per specification and	LS	1	4,219,275.00	84,386.00	4,219,275	84,386
2.03	Wash out pipes supplying, installing, commissioning of Wash out pipe from Washout sump in the Reservoir to Washout manhole including all fittings, conc. encasement etc complete in all respect and as per specification and	LS	1	3,115,183.00	62,304.00	3,115,183	62,304
2.04	Over Flow supplying, installing, commissioning of Reservoir over flow from inside Reservoir to Manhole including all fittings etc complete in all respect and as per specification and drawings.	LS	1	10,159.00	204.00	10,159	204



Chief Executive Officer
Gauhati Metropolitan Dev. Authority

Cost Estimate for 1100 cum Capacity Reservoir at Geeta Nagar II

Item No.	Description	Unit	Quantity	Rate				Amount	
				Local		Foreign	Local	Foreign	
				Basic Rate	Applicable taxes and duties etc.		Basic Rate	Applicable taxes and duties etc.	
2.05	Inlet valve chamber Supplying, fixing and installation in position true to line and level, inlet valve chamber and its contents including Altitude/Flow Control Valve, and related fitting and associated valves, ball valve, sleeve couplings, excavation, concreting, shuttering, steel and specials and pipe support, rungs, etc complete in all respect and as per drawing and specification.	LS	1	752,697.00	15,054.00		752,697	15,054	
2.06	Chlorination Systems supplying and installation Complete chlorine system in reservoir as per specification.	LS	1	2,920,157.00	58,404.00		2,920,157	58,404	
2.07	Supplying and fixing electromic water level indicator upto 5m height including MS enameled gauge plate, Copper float of 150mm dia., providing and fixing required accessories such as pointer, pulleys, SS rope including cost of all materials, labour etc., as per specification &	No.	1	21,354.00	428.00		21,354	428	
2.08	Supplying, installing, commissioning of Wash out/Overflow/Storm water pipe from fenceline to offsite disposal point including all fittings, conc. encasement etc complete in all respect and as per specification. (See site	m	300	1,843.00	37.00		552,900	11,100	
2.09	Supplying, fixing and installation in position true to line and level, Air release chamber and its contents including excavation, concreting, shuttering, steel etc complete as per drawing.	LS	1	24,913.00	499.00		24,913	499	
	3. ELECTRICAL SYSTEM								
	Service Buildings Internal Lighting System								
3.01	Manufacturing, inspection, delivery, installation, testing, commissioning of Lighting Distribution Board (DB)								
a	4 Way	Nos.	1	21,638.00	433.00		21,638	433	
	SUB TOTAL						16,779,574	335,638	



Chief Executive Officer
Guwahati Metropolitan Development Authority

Cost Estimate for 1100 cum Capacity Reservoir at Geeta Nagar II

Item No.	Description	Unit	Quantity	Rate		Amount	
				Local		Foreign	
				Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.
3.02	Providing, fixing, Testing and commissioning of industrial fluorescent tube fitting with reflector fabricated from CRCA sheet and finished with powder coating / stove enamelled paint complete with accessories like Electronic Ballast, starter, terminal block duly prewired with copper conductor including making connection, testing etc. as required.						
a	2 X 28 Watts T5 lamp	Nos.	2	1,211.00	25.00	2,422	50
b	1 X 28 Watts T5 lamp	Nos.	1	499.00	10.00	499	10
c	Bulk Head fittings along with 100 W lamp	Nos.	6	997.00	20.00	5,982	120
d	Providing, fixing, Testing and commissioning of Switches, Junction boxes, Ceiling rose, modular fittings for switches & sockets, Receptacles etc on as required basis	Lot	1	4,983.00	100.00	4,983	100
3.03	Providing, fixing, Testing and commissioning of double bail bearing capacitor start ceiling fan of approved make complete with regulator and other accessories as required.						
a	1200 mm sweep	Nos.	1	2,136.00	43.00	2,136	43
3.04	Point Wiring along with heavy duty PVC conduit complete with fittings, clasmgs, nut bolts, etc.						
a	(a) Short point (upto 3m)	Per Point	10	597.00	12.00	5,970	120
b	(b) Medium point (upto 6m)	Per Point	4	863.00	18.00	3,452	72
3.05	Pipe Earthing for SB's as per IS:3043 with perforated 3.0 Mtr. Long, 40 mm dia. B' class G.i. Pipe including all accessories like nut, bolts, reducer, nipple, wire meshed funnel, and C.C. finished chamber covered with hinged type with locking arrangement C.I. Cover, C.I. Frame of size 300mm x 300 mm and embodying the pipe complete with alternate layers salt and coke/ charcoal, testing of earth resistance as required.	Nos.	1	26,336.00	527.00	26,336	527



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Cost Estimate for 1100 cum Capacity Reservoir at Geeta Nagar II

Item No.	Description	Unit	Quantity	Rate			Amount			
				Local		Foreign	Local		Foreign	
				Basic Rate	Applicable taxes and duties etc.		Basic Rate	Applicable taxes and duties etc.		
3.06	Supply & Laying following size earth wire/strip in horizontal or vertical run in ground/surface/recess including riveting, soldering, saddles, making connection etc. as required.									
a	8 SWG G.i. Wire	m	75	22.00	1.00		1,650	75		
3.07	Providing, fixing, Testing and commissioning of metal clad industrial plug top & socket unit with pin and sleeve type contact on porcelain/ Bakelite base in sheet steel enclosure with MCB including making connections with lugs, testing etc.as required for use as welding socket.									
a	Three phase (Five pin) 20A	Nos.	1	4,983.00	100.00		4,983	100		
Service Buildings Out-Side Lighting System										
3.08	Supply , erection, Testing and commissioning of 7 mtr high Mild steel swaged tubular pole conforming to IS: 2713-1980 (part I to II) with galvanised base plate of size 400mm x 400mm x 7mm in position including excavation of the pit and filling the same with C.C. of M-10 grade (1:3:6) from base plate to 50cm above ground level, with the help of steel frame not less than 40 cm dia up to 114.3mm outer dia and 50 cm beyond 114.3mm outer dia around the pole. Duly finished with cement plaster, earthing terminals , cable entry, GI cable sleeve complete as required. The pole shall be galvanised using ISI mark seamless tube for									
a	70 Watt HPSV	Nos.	6	17,795.00	356.00		106,770	2,136		
3.09	Providing, fixing, Testing and commissioning of IP-54 protected street light luminaire suitable for HPSV/ MH lamp, made out from powder coated single piece die cast aluminium housing, electrochemically brightened and anodized POT optics aluminium reflector, UV stabilised acrylic bowl cover/toughened glass cover and accessories like copper ballast, electronic ignitor, capacitor, holder prewired up to terminal block etc. as required including making connection etc. as required.									
a	70 Watt HPSV	Nos.	4	6,406.00	129.00		25,624	516		



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Cost Estimate for 1100 cum Capacity Reservoir at Geeta Nagar II

Item No.	Description	Unit	Quantity	Rate		Amount	
				Local		Foreign	
				Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.
b	150 Watt HPSV	Nos.	2	7,830.00	157.00	15,660	314
3.10	Providing, fixing, Testing and commissioning of IP65 protected decorative lighting luminaire Post top suitable for following lamps, made of powder coated cast aluminium housing, moulded acrylic lamp compartment with built in anodized aluminium louvers for lamp shielding and glare control, metallic lid top cover, including the cost of control gear complete in all respect. Bollards are including cost of decorative base pipe/ plate.						
a	70 Watt HPSV	Nos.	2	3,559.00	72.00	7,118	144
3.11	Supply & Laying XLPE insulated & P.V.C. sheathed cable of 1.1 KV grade with aluminium conductor armoured of IS:7098-I approved make in ground as per IS:1255 including excavation of 30cmx75cm size trench, 25 cm thick under layer of sand, 11nd class bricks covering, refilling earth, compaction of earth, making necessary connection, testing etc. as						
a	4/CX 25 mm2	m	150	139.00	3.00	20,850	450
b	4/CX 16 mm2	m	500	97.00	2.00	48,500	1,000
3.12	Supplying and making end terminations with heavy duty single compression brass gland SIBG type, aluminium lugs duly crimped with crimping tool, PVC tape etc for following size of Armoured PVC insulated & PVC sheathed/ XLPE aluminium conductor cable of 1100						
a	4/CX 25 mm2	Nos.	4	356.00	8.00	1,424	32
b	4/CX 16 mm2	Nos.	14	321.00	7.00	4,494	98
c	Feeder Pillar	Nos.	1	1,068.00	22.00	1,068	22
3.13	Supply Install test and commissioning 11kv /433v 3 phase main transformer (with neutral in secondary side) complete with spport.	Nos.	1	207,421.00	4,149.00	207,421	4,149
	SUB TOTAL					518,980	10,511
	GRAND TOTAL					28,309,679	625,544



Chief Executive Officer
Guwahati Metropolitan Dev. Authority

Bill-of-Quantities for 4500cum Capacity Reservoir at Lichubagan

Item No.	Description	Unit	Quantity	Rate		Amount	
				Local		Foreign	
				Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.
1. CIVIL WORKS							
1.01	Site clearance by cleaning and grubbing Reservoir area including uprooting rank vegetation including grass, shrubs, bushes, removing temporary structure, removing all trees coming in the alignment with all contractor's machinery, labour, tools & plants, including obtaining permission from concerned departments and taking out all cut materials by the agency with all lead and lift complete as directed by Engineer and as per standard specification in the entire proposed Reservoir area.	LS	1	68,773.00	1,376.00	68,773	1,376
1.02	Excavation for foundation /- pipe trenches in earth, soils of all types, sand, gravel and soft murum, including removing the excavated material from the site and stacking and spreading as directed, including dewatering where necessary, preparing the bed for foundation etc. complete.						
a	Upto all lift	m ³	3200	59.00	2.00	188,800	6,400
1.03	Excavation for foundation / pipe trenches in soft rock or rippable rock at all levels and depth below ground including removing the excavated materials from the site and stacking and spreading as directed, including dewatering where necessary, preparing the bed for foundation etc.						
a	Upto all lift	m ³	2600	78.00	2.00	202,800	5,200
1.04	Excavation for foundation / pipe trenches in hard rock or non-rippable rock at all levels and depth below ground including removing the excavated materials from the site and stacking and spreading as directed, including dewatering where necessary, preparing the bed for foundation						
a	Upto all lift	m ³	2600	221.00	5.00	574,600	13,000
1.05	Providing and laying cement concrete (M-20) including curing, compaction etc. using hard broken stone aggregate 20 mm nominal size under the foundation and plinth, including cost of shuttering, complete.						
		m ³	400	5,840.00	117.00	2,336,000	46,800



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Bill-of-Quantities for 4500cum Capacity Reservoir at Lichubagan

Item No.	Description	Unit	Quantity	Rate				Amount	
				Local		Foreign	Local	Foreign	
				Basic Rate	Applicable taxes and duties etc.		Basic Rate	Applicable taxes and duties etc.	
1.06	Providing and laying in position compacted gravel bedding All work up to plinth level for Reservoir and Service building as per drawing and	m ³	570	292.00	5.00		166,440	3,420	
1.07	Filling with excavated soil including watering, ramming, consolidating and dressing complete and disposal of surplus excavated materials to a place identified by the Contractor and approved by the Engineer including loading, unloading, stacking etc complete as per drawing and	m	1700	78.00	2.00		132,600	3,400	
1.08	Providing and laying in position machine batched, machine mixed and machine vibrated design mix cement concrete of specified grade for reinforced cement concrete structural elements; including the cost of centering, Shuttering, including curing, compaction, finishing and making good the joints and admixtures in recommended proportions as per IS 9103. M-30grade reinforced cement concrete. (For all structural								
i	Foundaton base slab, Sump Walls upto base slab of reservoir								
a	For Reservoir	m ³	650	6,618.00	133.00		4,301,700	86,450	
b	For Service Building	m ³	50	6,618.00	133.00		330,900	6,650	
ii	In walls, columns, roof slab, beams, lintels, chhajjas, ventilators and stair etc.								
a	Reservoir	m ³	1,400	6,618.00	133.00		9,265,200	186,200	
b	For Service Building	m ³	100	6,618.00	133.00		661,800	12,300	
1.09	Providing and fixing in position steel bar reinforcement (Tor Steel Fe-415 Grade) of various diameters for RCC footings, foundations, slabs, beams, columns, Retaining wall, newels, chajjas, lintels, copings, chairs and accessories, rebars in service building, Brick work etc. as per specification and drawings; including cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required. etc.	Kg.	204,700	55.00	2.00		11,258,500	409,400	
1.10	Providing and placing in position suitable PVC water Stops conforming to IS:12200 for construction joints between two RCC members.		3,600	195.00	4.00		702,000	14,400	



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Bill-of-Quantities for 4500cum Capacity Reservoir at Lichubagan

Item No.	Description	Unit	Quantity	Rate		Amount	
				Local		Foreign	
				Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.
1.11	Providing and fixing 20mm dia G.I. medium 'B' class railing with two horizontal pipes and 1.5 Mtr. Long vertical pipe 1.5 Mtr. Centre to centre with all accessories, like elbows, tees etc., including welding, threading and embedding in cement concrete M:20, block of size 30X30X40cm with 2 nos angle iron 25x25x5mm size holdfast complete as per drawings	m	150	974.00	20.00	146,100	3,000
1.12	Brick work for Service building Construction of Brick masonry for super structure of 300 mm thick walls in CM. (1:6) prop.using First class best quality table moulded bricks including cost and conveyance of all materials, labour, scaffolding, Curing etc., complete for finished item of work and as per drawing and	m ³	40	3,634.00	73.00	145,360	2,920
1.13	Flooring Providing and laying Ceramic tile flooring in upper floor of Service Building, bath room, chlorination. room, and chlorination storage room: using approved quality and finishing to required level, curing, etc.,	m ²	120	1,298.00	26.00	155,760	3,120
1.14	Plastering a Providing and applying cement plaster 6 mm thick to ceiling in single coat in cement mortar 1:3 with out neeru finish to concrete surface in all positions including scaffolding and curing etc. complete. b Providing and applying internal cement plaster 12 mm thick in a single coat in cement mortar 1:4 without neeru finish to concrete or brick surface in all positions including scaffolding and curing complete. Providing groove at joint of B.B.Masonry and concrete members	m ²	40	143.00	3.00	5,720	120
1.15	DOOR & WINDOW AND ROLLING SHUTTER a Providing and fixing rolling shutters in as per drawings & specification, complete in all respect including welding, painting, finishing etc.	m ²	10	2,596.00	52.00	25,960	520




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