

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.	
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	20	2,596.00	52.00		51,920	1,040	
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	4	1,947.00	39.00		7,788	156	
f	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	
g	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	
1.16	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	225	2,725.00	55.00		613,125	12,375	



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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 as per specification	m ²	1,800	20.00	1.00		36,000	1,800		
b	Providing and applying washable oil bound distemper of approved colour and shade to new surfaces in two coats including scaffolding, preparing the surfaces complete.	m ²	1,800	39.00	1.00		70,200	1,800		
c	Providing and applying priming coat on concrete/masonry/ plastered surfaces including scaffolding if necessary, preparing the surface by thoroughly cleaning oil, grease, dirt and other foreign matter and sand papering as required as per specification.	m ²	1,800	20.00	1.00		36,000	1,800		
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 duco paint (1C or equivalent) to give an even shade (minimum 4 coats with preparation of surface by rubbing, primer coats, duco filler putty including polishing etc complete : on steel work	m ²	250	52.00	2.00		13,000	500		
1.19	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	1,500	273.00	6.00		409,500	9,000		
b	Providing, Laying, compacting Base course 500 mm thick in paved area and access road within fence line as per drawings and specification.		160	2,336.00	47.00		373,760	7,520		



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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	
1.20	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	
1.22	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	
1.23	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	
1.24	Providing, Fixing and installation of Traffic barrier Type - A complete in all respect and as per specification and drawings.	m	40	5,840.00	117.00		233,600	4,680	
1.25	Providing and laying 2No. floor drain as per specification and drawings including cost of labour and material and as per Drawings and	LS	2	23,357.00	468.00		46,714	936	
1.26	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	



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1.27	Providing and laying 300 mm dia Pipe to washout and headwall including labour, material etc complete in all respect as per drawings and	LS	1	84,345.00	1,687.00		84,345	1,687	
1.28	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	
1.29	To Clear 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 leaving reservoir Reservoir All yard piping	LS LS	1 1	233,166.00 32,441.00	4,664.00 649.00		233,166 32,441	4,664 649	
1.30	To supply manpower, equipment, chemicals, testing and disinfect the reservoir and yard piping, including all inlet, outlet, piping according as Reservoir All yard piping	LS LS	1 1	32,441.00 6,489.00	649.00 130.00		32,441 6,489	649 130	
1.31	Supply install polyethylene sheeting between gravel and PCC under Reservoir and Service Building base	m ²	950	26.00	1.00		24,700	950	
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	m	30	549.00	13.00		19,470	390	
SUB TOTAL							33,860,315	874,237	



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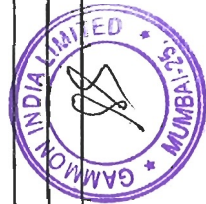
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2.0 MECHANICAL WORKS									
2.0	Supplying & installing Mechanical Equipment including, but no limited to, safe storage, protection, erection, installation, pre-commissioning & commissioning testing as								
2.01	Inlet Pipes Supplying, installing, commissioning & third party inspection of 700ø 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	LS	1	2224120	44,483.00		2224120	44483	
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	2647852	52,958.00		2647852	52958	
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	336709	6,735.00		336709	6735	
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	27450	549.00		27450	549	




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2.05	Inlet Valve chambers 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, sievecouplings, excavation, concreting, shuttering, steel and specials and pipe support, rungs, etc complete in all respect and as per drawing and specification.	LS	1	2252082	45,042.00	2252082	45042				
2.06	Chlorination Systems supplying and installation Complete chlorine system in reservoir as per specification.	LS	1	2920157	58,404.00	2920157	58404				
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	21354	428.00	21354	428				
2.08	Supplying, installing, commissioning of Wash out/Overflow/Storm water pipe from fence line to offsite disposal point including all fittings, conc. encasement etc complete in all respect and as per specification. (See site	m	300	1843	37.00	552900	11100				
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	24913	499.00	24913	499				
			SUB TOTAL			11,007,537	220,198				
3.0 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	21638	433				
b	8 Way	Nos	1	22,920.00	459.00	22920	459				



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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.	4	1211	25.00		4844	100	
b	1 X 28 Watts T5 lamp	Nos.	3	499	10.00		1497	30	
c	Bulk Head fittings along with 100 W lamp	Nos.	6	997	20.00		5982	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	4983	100.00		4983	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	15	597	12.00		8955	180	
b	(b) Medium point (upto 6m)	Per	3	863	18.00		2589	54	
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	26336	527.00		26336	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	75	22	1.00		1650	75	




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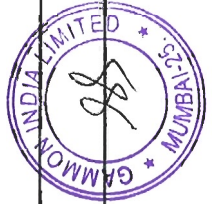
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3.06	Providing, fixing, Testing and commissioning of metal clad industrial plug top & socket unit with pin and sleeve type contact on porcelain/ Bakelite base in sheet steel enclosure with MCB including making connections with lugs, testing etc.as required for use as welding socket.								
a	Three phase (Five pin) 20A	Nos.	1	4983	100.00		4983	100	
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 galvanized 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 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 structural								
		Nos.	6	17795	356.00		106770	2136	
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.	4	6406	129.00		25624	516	
b	150 Watt HPSV	Nos.	2	7830	157.00		15660	314	




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3.09	Providing, fixing, Testing and commissioning of IP65 protected decorative lighting luminaire Post top suitable for following lamps, made of powder coated 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	3559	72.00		7118	144	
3.10	Supply & Laying XLPE insulated & P.V.C. sheathed cable of 1.1 KV grade with aluminium conductor armoured of IS:7098-1 approved make in ground as per IS:1255 including excavation of 30cmx75cm size trench, 25 cm thick under layer of sand, 1st class bricks covering, refilling earth, connection of earth, making necessary connection, testing etc. as								
a	4/CX 25 mm2	m	150	139	3.00		20850	450	
b	4/CX 16 mm2	m	500	97	2.00		48500	1000	
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	8.00		1424	32	
b	4/CX 16 mm2	Nos.	14	321	7.00		4494	98	
c	Feeder Pillar	Nos.	1	1068	22.00		1068	22	
3.12	Supply install test and commissioning 11kv /433v 3 phase main transformer (with neutral in secondary side) complete with support.								
		Nos.	1	207421	4,149.00		207421	4149	
3.13	Supply and install ceiling fan (1200mm sweep) complete with double ball bearing capacitor starter with regulator and other accessories for complete								
		Nos.	2	2136	43.00		4272	86	
			SUB TOTAL				549,578	11,125	
			GRAND TOTAL				45,417,430	1,105,560	



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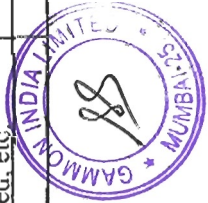
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1. CIVIL WORKS									
1.01	Site clearance by cleaning and grubbing Reservoir area including uprooting rank vegetation including grass, shrubs, bushes, removing temporary structure, removing all trees coming in the alignment with all contractor's 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	3000	59.00	2.00	177,000	6,000		
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	2500	78.00	2.00	195,000	5,000		
1.04	Excavation for foundation / pipe trenches in hard rock or nonrippable 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. complete								
a	Upto all lift	m ³	2000	221.00	5.00	442,000	10,000		
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	150	5,840.00	117.00	876,000	17,550		



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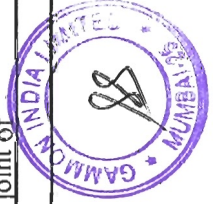
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1.06	Providing and laying in position compacted gravel bedding All work up to plinth level for Reservoir and Service building as per drawing and	m ³	1000	292.00	6.00	292,000	6,000		
1.07	Filling with excavated soil including watering, ramming, consolidating 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	1500	78.00	2.00	117,000	3,000		
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	Foundation base slab, Sump Walls upto base slab of reservoir								
a	For Reservoir	m ³	1,100	6,618.00	133.00	7,279,800	146,300		
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	200	6,618.00	133.00	1,323,600	26,600		
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, 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.	Kg.	368,500	55.00	2.00	20,267,500	737,000		



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i.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		
i.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		
i.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		
i.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	150	1,298.00	26.00	194,700	3,900		
i.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	45	143.00	3.00	6,435	135		
		m ²	40	117.00	3.00	4,680	120		




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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	17	1,947.00	39.00	33,099	663		
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		




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				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 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	270	2,725.00	55.00		735,750	14,850		
1.17	Water proofing on Roof									
a	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	1,500	234.00	5.00		351,000	7,500		
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 /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	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		




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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.
e	Painting on new surface with duco paint (1C or equivalent) to give an even shade (minimum: 4 coats with preparation of surface by rubbing, primer coats, duco 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	1,500	273.00	6.00	409,500	9,000		
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		
1.20	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		



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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	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	
1.23	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	
1.24	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	
1.25	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	
1.26	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	162,201.00	3,245.00		162,201	3,245	
1.27	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	
1.28	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	
1.29	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	



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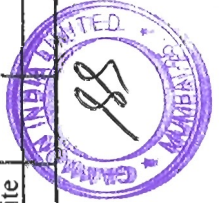
Item No.	Description	Unit	Quantity	Rate				Amount	
				Local		Foreign		Local	Foreign
				Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.
b	All yard piping	LS	1	6,489.00	130.00	6,489	130		
1.30	Supply install polyethylene sheeting between gravel and PCC under Reservoir and Service Building base	m ²	1700	26.00	1.00	44,200	1,700		
1.31	Supply and install building paper/bond breaker between reservoir and Service Building,	m ²	130	260.00	6.00	33,800	780		
1.32	Supply and install joint sealant between Reservoir and Service Building	m	30	649.00	13.00	19,470	390		
			SUB TOTAL			54,660,652	1,440,852		
2. MECHANICAL WORKS									
2.0	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 700ø 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	3,025,887.00	60,518.00	3,025,887	60,518		
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, Wali piece, Well mouth, Tee, Sleeve coupling etc complete in all respect and as per specification and	LS	1	3,604,143.00	72,083.00	3,604,143	72,083		




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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	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	1,971,362.00	39,428.00	1,971,362	39,428		
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	4,083,765.00	81,676.00	4,083,765	81,676		
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	2,252,082.00	45,042.00	2,252,082	45,042		
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	Providing 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		
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		



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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.		
2.09	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					18,456,563	369,178		
3.0 ELECTRICAL WORKS									
Service Buildings Internal Lighting System									
3.02	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		
3.03	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		
3.04	Point Wiring along with heavy duty PVC conduit complete with fittings, clasmps, nut bolts, etc.								
a	(a) Short point (upto 3m)	Per	20	597.00	12.00	11,940	240		
b	(b) Medium point (upto 6m)	Per	12	863.00	18.00	10,356	216		



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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.
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		
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.	m	150	22.00	1.00	3,300	150		
3.07	Providing, fixing, Testing and commissioning of P&F 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 iugs, testing etc.as required for use as weiding socket.	Nos.	1	4,983.00	100.00	4,983	100		
a	Three phase (Five pin) 20A								
Service Buildings Out-Side Lighting System									
3.08	Supplying, 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 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 structural	Nos.	8	7,795.00	356.00	42,360	2,848		



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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.
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: 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		
3.10	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:7098-1 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		



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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.
3.i2	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		
3.13	Feeder Pillar	Nos.	1	1,068.00	22.00	1,068	22		
3.14	Supply instal: 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		
3.15	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			73,757,784	1,823,050		



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Bill-of-Quantities for 20500 cum Capacity Reservoir at Sonaighuli

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.
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	15000	59.00	2.00	885,000	30,000		
a	Upto all lift								
1.03	Excavation for foundation / pipe trenches in soft 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. complete	m ³	10000	78.00	2.00	780,000	20,000		
a	Up to 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	10000	221.00	5.00	2,210,000	50,000		
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	950	5,840.00	117.00	5,548,000	111,150		
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	2000	292.00	6.00	584,000	12,000		

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Item No.	Description	Unit	Quantity	Rate		Amount	
				Local		Foreign	
				Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.
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	3400	78.00	2.00	265,200	6,800
i.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	4,500	6,618.00	133.00	29,781,000	598,500
b	for Service building	m ³	200	6,618.00	133.00	1,323,600	26,600
ii	In walls, columns, roof slab, beams, lintels, chhajjas, ventilators and stair etc.						
a	For Reservoir	m ³	7,100	6,618.00	133.00	46,987,800	944,300
b	for Service building	m ³	110	6,618.00	133.00	727,980	14,630
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, 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.	1,087,400	55.00	2.00	59,807,000	2,174,800
i.10	Providing and placing in position suitable PVC water Stops conforming to IS:12200 for construction joints between two RCC members.	m	25,900	195.00	4.00	5,050,500	103,600
i.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

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Item No.	Description	Unit	Quantity	Rate		Amount	
				Local		Foreign	
				Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.
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	150	1,298.00	26.00	194,700	3,900
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.	m ²	50	143.00	3.00	7,150	150
	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	117.00	3.00	4,680	120
1.15	DOOR & WINDOW AND ROLLING SHUTTER						
a	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
b	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
c	Providing and fixing steel frame for internal door including complete in all respect complete and size as per drawings and specification .	m ²	11	2,596.00	52.00	28,556	572

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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 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	21	1,947.00	39.00	40,887	819		
e	Providing and fixing steel frame 14 inch Roof ventilator including complete in all respect including welding, painting, finishing etc. complete and as per specification.	Nos.	2	1,947.00	39.00	3,894	78		
f	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		
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 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	350	2,725.00	55.00	953,750	19,250		
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	m ²	3,600	234.00	5.00	842,400	18,000		
1.18	Painting								
a	Providing and applying primer coat for wall surface as per specification	m ²	10,350	20.00	1.00	207,000	10,350		
b	Providing and applying washable oil bound distemper of approved colour and shade to new surfaces in two coats including scaffolding, preparing the surfaces complete.	m ²	10,350	39.00	1.00	403,650	10,350		
c	Providing and applying priming coat on concrete/masonry/ plastered surfaces including scaffolding if necessary, preparing the surface by thoroughly cleaning oil, grease, dirt and other foreign matter and sand papering as required as per specification.	m ²	10,350	20.00	1.00	207,000	10,350		



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Item No.	Description	Unit	Quantity	Rate		Amount	
				Local		Foreign	
				Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.
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 duco paint (IC or equivalent) to give an even shade (minimum 4 coats with preparation of surface by rubbing, primer coats, duco filler putty including polishing etc complete : on steel work	m ²	250	52.00	2.00	13,000	500
1.19	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	3,100	273.00	6.00	846,300	18,600
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	310	2,336.00	47.00	724,160	14,570
c	Providing, Laying, compacting asphalt concrete binder course 50 mm thick of paved area as per drawings and specification.	m ³	40	10,122.00	203.00	404,880	8,120
d	Providing, Laying, compacting Asphalt concrete surface course 30 mm: thick of paved area as per drawings and specification.	m ³	20	10,122.00	203.00	202,440	4,060
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
Guwahati Metropolitan Dev. Authority



Bill-of-Quantities for 20500 cum Capacity Reservoir at Sonaighuli

Item No.	Description	Unit	Quantity	Rate		Amount	
				Local		Foreign	
				Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.
1.22	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
1.23	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
1.24	Providing, Fixing and installation of Traffic barrier complete in all respect (Type A) as per specification and drawings.	m	50	5,840.00	117.00	292,000	5,850
1.25	Providing and laying 2No. floor drain as per specification and drawings including cost of labour and material and as per Drawings and specification..	LS	2	32,441.00	649.00	64,882	1,298
1.26	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 per specification.	LS	1	83,047.00	1,661.00	83,047	1,661
1.27	Providing and laying 500 mm dia Pipe to washout and headwall including labour, material etc complete in all respect as per drawings and specification.	LS	1	188,153.00	3,764.00	188,153	3,764
1.28	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
1.29	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	LS	1	233,166.00	4,664.00	233,166	4,664
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
1.30	To supply manpower, equipment, chemicals, testing and disinfect the reservoir and yard piping including all inlet, outlet, piping according as per specification.						
a	Reservoir	LS	1	32,441.00	649.00	32,441	649



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Bill-of-Quantities for 20500 cum Capacity Reservoir at Sonaighuli

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.
b	All yard piping	LS	1	6,489.00	130.00	6,489	130		
1.31	Supply install polyethylene sheeting between gravel and PCC under Reservoir and Service Building base	m ²	4000	26.00	1.00	104,000	4,000		
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	m	30	649.00	13.00	19,470	390		
			SUB TOTAL			#####	4,247,936		
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 900ø 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	3,580,734.00	71,615.00	3,580,734	71,615		
2.02	Out let Pipes								
	supplying, installing, commissioning & third party inspection of 1200ø 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	5,828,767.00	#####	5,828,767	116,576		
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	19,724,879.00	#####	#####	394,498		



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Bill-of-Quantities for 20500 cum Capacity Reservoir at Sonaighuli

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.
2.04	Over Flow Section 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	71,306.00	1,427.00	71,306	1,427		
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	3,649,173.00	72,984.00	3,649,173	72,984		
2.06	Chlorination Systems supplying and installation Complete chlorine system in reservoir as per specification.	LS	1	2,993,152.00	59,864.00	2,993,152	59,864		
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)	Nos.	1	21,638.00	433.00	21,638	433		
a	4 Way								
	SUB TOTAL					36,447,178	728,991		



Chief Executive Officer
Guwahati Metropolitan Dev. Authority

Bill-of-Quantities for 20500 cum Capacity Reservoir at Sonaighuli

Item No.	Description	Unit	Quantity	Rate		Amount	
				Local		Foreign	
				Basic Rate	Applicable taxes and duties etc.	Basic Rate	Applicable taxes and duties etc.
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.	15	1,211.00	25.00	18,165	375
b	1 X 28 Watts T5 lamp	Nos.	5	499.00	10.00	2,495	50
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	Point Wiring along with heavy duty PVC conduit complete with fittings, clasmps, nut bolts, etc.						
a	(a) Short point (upto 3m)	Per	25	597.00	12.00	14,925	300
b	(b) Medium point (upto 6m)	Per	8	863.00	18.00	6,904	144
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




Chief Executive Officer
 Guwahati Metropolitan Dev. Authority

Bill-of-Quantities for 20500 cum Capacity Reservoir at Sonaighuli

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.	
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. Three phase (Five pin) 20A	Nos.	1	4,983.00	100.00	4,983	100			
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 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 structural	Nos.	8	17,795.00	356.00	142,360	2,848			
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.	Nos.	6	6,406.00	129.00	38,436	774			
a	70 Watt HPSV	Nos.	2	7,830.00	157.00	15,660	314			
b	150 Watt HPSV									
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.	Nos.	2	3,559.00	72.00	7,118	144			
a	70 Watt HPSV									



Chief Executive Officer
Guwahati Metropolitan Dev. Authority

Bill-of-Quantities for 20500 cum Capacity Reservoir at Sonaighuli

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.		
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 mm2	m	200	139.00	3.00	27,800	600						
b	4/CX 16 mm2	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 mm2	Nos.	4	356.00	8.00	1,424	32						
b	4/CX 16 mm2	Nos.	18	321.00	7.00	5,778	126						
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 sport.	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	Nos.	2	2,136.00	43.00	4,272	86						
			SUB TOTAL			644,161	13,093						
			GRAND TOTAL			#####	4,990,020						




 Chief Executive Officer
 Guwahati Metropolitan Dev. Authority

Priced Bill of Quantities for Reservoir Access Roads

Chief Executive Officer
Guwahati Metropolitan Dev. Authority



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**Contract-4 Reservoirs, Transmission main, Access Road - South Central Zone
Ramsahill - Access Road
Bill of Quantities**

Sr no.	Item No.	Reference of MoSRT&H Specification	Description	Unit	Quantity	Rate		Amount	
						Local		Foreign	
						Basic Rate	Applicable taxes and duties	Basic Rate	Applicable taxes and duties
CONSTRUCTION OF ROAD SIDE STONE MASONRY OPEN DRAIN									
Name of Road: Approach Road At Ramsa Hill									
Length of Road = 907.131 m									
1	12.1	304	Foundation Excavation for Structures Earthwork in excavation of foundation in structures as per drawing and technical specification, including setting out, construction of shoring and bracing, removal of stumps and other deleterious matter, dressing of sides and bottom and backfilling with approved material						
			Ordinary Soil						
			Manual Means						
			Without Dewatering						
			upto 3 m height	m ³	3365.87	124.00	3.00	417,368	10,098
2	12.3	304	Sand Filling in foundation trenches as per drawing and technical specification	m ³	633.36	844.00	17.00	534,559	10,767
3	17.56		Providing brick 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. (c).Stone soling 150mm thick	m ²	2091.79	1,428.00	29.00	2,987,081	60,662
4	12.4	2100	PCC 1:3:6 in Foundation Plain cement concrete 1:3:6 nominal mix in foundation with crushed stone aggregates 40mm nominal size mechanically mixed, placed in foundation and compacted by vibration including curing for 14 days	m ³	125.95	4,283.00	86.00	539,450	10,832
			Sub-Structure						



Chief Executive Officer
Guwahati Metropolitan Corporation

**Contract-4 Reservoirs, Transmission main, Access Road - South Central Zone
Ramsahill - Access Road
Bill of Quantities**

Sr no.	Item No.	Reference of MoSRT&H Specification	Description	Unit	Quantity	Rate		Amount	
						Local	Foreign	Local	Foreign
						Basic Rate	Applicable taxes and duties	Basic Rate	Applicable taxes and duties
5	13.5	1500, 1700 & 2200	Plain/Reinforced Cement Concrete in sub-structure complete as per drawing and technical specification and steel N) Without Plasticiser A. P.C.C. Grade M15 Height upto 5m	m ³	83.23	5,840.00	117.00	486,051	9,738
6	13.4	1400 & 2200	Stone Masonry work in cement mortar 1:3 in sub-structure complete as per drawing and technical specification A. Random Rubble Masonry	m ³	2151.27	2,596.00	52.00	5,384,707	111,866
7	13.3	1300 & 2200	Plastering with cement mortar (1:3) on brick work in sub-structure as per Technical Specifications	m ²	3273.63	143.00	3.00	468,129	9,821
8	13.9	710.1.4 of IRC:78 & 2200	Back Filling behind abutment, wing wall and return wall complete as per drawing & technical specification	m ³	104.03	649.00	13.00	67,519	1,352
						Sub Total		11,084,864	225,136
ROAD WORKS									
Name of Road: Approach Road At Ramsa Hill									
Length of Road = 907.131 m									
SITE CLEARENCE									
9	2.1	201	Cutting of Trees, Including Cutting of Trunks, Branches and Removal Cutting of Trees, including Cutting of Trunks, Branches and Removal of stumps, roots, stacking of serviceable material and upto a lead of 1000 mts and earth filling in depression/pit (1) Girth from 300 mm to 600 mm	each	40	1,039.00	21.00	41,560	840



Chief Executive Officer
Guwahati Metropolitan Dev. Authority

**Contract-4 Reservoirs, Transmission main, Access Road - South Central Zone
Ramsahill - Access Road
Bill of Quantities**

Sr no.	Item No.	Reference of MoSRT&H Specification	Description	Unit	Quantity	Rate				Amount	
						Local		Foreign		Local	Foreign
						Basic Rate	Applicable taxes and duties	Basic Rate	Applicable taxes and duties	Basic Rate	Applicable taxes and duties
10	2.3	201	Clearing and Grubbing Road Land: Clearing and grubbing road land including uprooting rank vegetation, grass, brush, shrubs sapling and trees of girth upto 300mm removal of stumps, disposal of unserviceable materials and slaking of serviceable material to be used or auctioned upto a lead of 1000m including removal and disposal of top organic and not exceeding 150 mm in thickness. I) By Manual Means A) In area of non thorny jungle	Hect	0.36	38,929.00	779.00	14,014	280		
11	2.4	202	Dismantling of Structures Dismantling of existing structures like culverts, bridges, retaining wall, and other structure comprising of masonry, cement concrete, wood work, steel work, including T&P and scarfing wherever necessary, sorting the dismantled material, disposal of unserviceable material with all lifts and leads of 1000 metres I) Lime / Cement Concrete A) By Manual means a) Lime Concrete, cement concrete M10 grade and below III) Dismantling Stone Masonry b) Rubble Masonry in cement mortar								
			EARTHWORK, EROSION CONTROL AND DRAINAGE								
12	3.3	301	Excavation in Soil with Dozer with lead upto 100 m Excavation for roadway in: Soil by mechanical means including cutting and pushing the earth to site of embankment upto a distance of 100 metres (average lead of 50 m), including trimming bottom of side slopes in accordance with requirements of lines, grades and cross sections	m ³	60453.53	59.00	2.00	3,566,758	120,907		



Chief Executive Officer
Guwahati Metropolitan Dev. Authority

**Contract-4 Reservoirs, Transmission main, Access Road - South Central Zone
Ramsahill - Access Road
Bill of Quantities**

Sr no.	Item No.	Reference of MoSRT&H Specification	Description	Unit	Quantity	Rate				Amount		
						Local		Foreign		Local		Foreign
						Basic Rate	Applicable taxes and duties	Basic Rate	Applicable taxes and duties	Basic Rate	Applicable taxes and duties	Applicable taxes and duties
13	3.11	301	Removal of Unserviceable Soil with Disposal upto 1000 metres Removal of Unserviceable Soil with Disposal upto 1000 metres lead but excluding replacement by suitable soil which shall be paid separately as per clause 305)	m ³	48362.83	33.00	1.00			1,595,973	48,363	
14	3.16	305	Embankment Construction with Materials obtained from Borrow Pits Construction of embankment with materials obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacting to meet requirement of table 300-2 (including compensation of earth) (Including cost of testing of materials at site and laboratory as directed by the dept.) (b) from Govt. Land									
					10546.38	33.00	1.00			348,031	10,546	
15	3.17		Embankment Construction with Materials obtained from Roadway Cutting Construction of embankment with approved materials deposited at site from roadway cutting and excavation of drains and foundations of other structures graded and compacted to meet requirement of table 300-2	m ³	12090.71	91.00	2.00			1,100,255	24,181	



Chief Executive Officer
Guwahati Metropolitan Dev. Authority

**Contract-4 Reservoirs, Transmission main, Access Road - South Central Zone
Ramsahill - Access Road
Bill of Quantities**

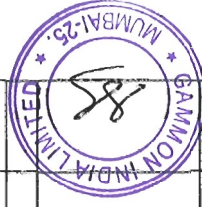
Sr no.	Item No.	Reference of MoSRT&H Specification	Description	Unit	Quantity	Rate		Amount	
						Local		Foreign	
						Basic Rate	Applicable taxes and duties	Basic Rate	Applicable taxes and duties
16			SUB-BASES, BASES (NON-BITUMINOUS) AND SHOULDERS Sub-Base Construction of sub-base coarse 150mm compacted thickness by stone dust in single layer of 180 mm loose thickness including collection and supply stone dust coming out as by product during crusher running consisting of hard quarry chipping, machine broken and of size 10mm down as per IRC grading free from dust, dirt and other organic and deleterious constituents including payments of Forest Royalty and Sales Tax, including preparation of sub-base to specified profile and grade after removal of all vegetation and extraneous material if any, dressing, cambering lightly sprinkling with water and rolling with adequate passes of 8-10T roller till the stone dust sub-grade is properly compacted. Spreading the granular materials between prepared shoulders in layers not exceeding 150mm(loose thickness, dressing, watering to bring the moisture content to $\pm 2\%$ of OMC for the entire depth of the layer and compacting the same with power roller 8-10T capacity, adding or removing materials if necessary to keep the longitudinal and cross profile of the surface within permissible tolerance, checking the same with templates and straight edges, continue rolling and correcting surface irregularities as the appear within permissible tolerance checking the same with template and straight edges continue rolling and correcting surface irregularities as they appear controlling moisture content of maintaining the same above the OMC and compacting to 95% proctor density (collection of stone dust to be made from barpathar stone quarry) and measurement will be taken on the finished compacted work in position.	m ³	748.28	1,558.00	32.00	1,165,820	23,945




 Chief Executive Officer
 Guwahati Metropolitan Dev. Authority

**Contract-4 Reservoirs, Transmission main, Access Road - South Central Zone
Ramsahill - Access Road
Bill of Quantities**

Sr no.	Item No.	Reference of MoSRT&H Specification	Description	Unit	Quantity	Rate		Amount			
						Local	Foreign	Local	Foreign		
						Basic Rate	Applicable taxes and duties	Basic Rate	Applicable taxes and duties		
9	4.9	404	Water Bound Macadam Providing, Laying, Spreading and compacting stone aggregates of specific size to water bound macadam specification including spreading in uniform thickness, hand packing, rolling with vibratory roller 80-100 kN in stages to proper grade and camber, applying and brooming, stone screening/binding materials to fill up the interstices of coarses aggregate, watering and compacting to the required density (with an initial lead of 5 km)								
(A) By Manual means.											
I) Grading-II											
(b) Using Screening Type-A (13.2 mm Agg.)						m ³	498.85	2,336.00	47.00	1,165,314	23,446
II) Grading-III											
(a) Using Screening Crushable type such as Moorum or Gravel						m ³	374.14	2,142.00	43.00	801,408	16,088
BASES & SURFACE COURSES (BITUMINOUS)											
Prime Coat											
Providing and applying primer coat with Bituminous emulsion on prepared surface of granular base including cleaning of road surface and spraying primer at the rate of 0.60kg/sqm using mechanical means.(including cost of testing of materials at site and at laboratory as directed by the dept.)											
I)With bitumen emulsion-CSS-1h						m ²	4988.52	26.00	1.00	129,702	4,989
17	5.1A	502	Prime Coat Providing and applying primer coat with Bituminous emulsion on prepared surface of granular base including cleaning of road surface and spraying primer at the rate of 0.60kg/sqm using mechanical means.(including cost of testing of materials at site and at laboratory as directed by the dept.)								
18	5.2	503	Tack Coat i) Providing and applying Tack Coat with bitumen emulsion using emulsion pressure distributor at the rate of 0.20kg per sqm. on the prepared bituminous surface cleaned with mechanical broom as per Technical Specification Clause 503(including cost of testing of materials at site and at laboratory as directed by the								
I)With bitumen emulsion-CSS-1h											
a) Normal bituminous surface						m ²	4988.52	13.00	1.00	64,851	4,989



Chief Executive Officer
Guwahati Metropolitan Dev. Authority

**Contract-4 Reservoirs, Transmission main, Access Road - South Central Zone
Ramsahill - Access Road
Bill of Quantities**

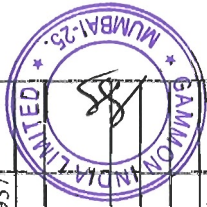
Sr no.	Item No.	Reference of MoSRT&H Specification	Description	Unit	Quantity	Rate				Amount	
						Local		Foreign		Local	Foreign
						Basic Rate	Applicable taxes and duties	Basic Rate	Applicable taxes and duties	Basic Rate	Applicable taxes and duties
19	5.10 A	511	Open Graded Premix Surfacing Providing, laying and rolling of open - graded premix surfacing of 20 mm thickness of 13.2 mm to 5.6 mm aggregates either using penetration grade bitumen (60/70 grade) or bitumen emulsion to required line, grade and level to serve as wearing course or a previously prepared base, including mixing in a suitable plant, laying and rolling with a smooth wheeled roller 8-10 T static roller capacity to required level and grades (Including carriage upto initial lead of 5 km from quarry and carriage of mixed materials upto 10.0 km initial lead from mixing plant)(including cost of testing of materials at site and at laboratory as directed by the deptt.)								
			a) Without anti-stripping agent 1) Case 1: Mechanical Method using Penetration grade Bitumen and HMP of appropriate capacity not less than 75 tonnes/hour	m ²	4988.52	176.00	4.00	877,980	19,954		
20	5.12	513	Seal Coat Providing and laying seal coat sealing the voids in a bituminous surface laid to the specified levels, grade and cross fall using Type A & B seal coats(including cost of testing of materials at site and at laboratory as directed by the deptt.)								
			a) Without anti-stripping agent 1) Case 1: Type A providing and laying liquid seal coat comprising of a layer of bituminous binder (paving bitumen 60/70 grade) followed by a cover of crushed stone chipping of specified grade (including carriage upto initial lead of 5 km from quarry)	m ²	4988.52	91.00	2.00	453,955	9,977		
			Sub Total					11,331,795	308,632		



Chief Executive Officer
Guwahati Metropolitan Dev. Authority

**Contract-4 Reservoirs, Transmission main, Access Road - South Central Zone
Ramsahill - Access Road
Bill of Quantities**

Sr no.	Item No.	Reference of MoSRT&H Specification	Description	Unit	Quantity	Rate		Amount	
						Local	Foreign	Local	Foreign
						Basic Rate	Applicable taxes and duties	Basic Rate	Applicable taxes and duties
CROSS DRAINAGE WORKS (BOX CULVERT)									
Name of Road: Approach Road At Ramsa Hill									
Length of Road = 907.131 m									
21	12.1	304	Foundation Excavation for Structures Earthwork in excavation of foundation of structures as per drawing and technical specification clause including setting out, construction of shoring and bracing, removal of stumps and other deleterious material, dressing of sides & bottom and backfilling with approved material I. in Ordinary Soil A. Manual Means (i) Upto 3 m depth	m ³	36.41	124.00	3.00	4,515	109
22	12.8 A	1500, 1700 & 2100	Providing concrete for plain/reinforced concrete in open foundation complete as per drawing and technical specification N, Without Plasticiser A. P.C.C. grade M15 C. R.C.C. Grade M20 CASE I Using Concrete Mixer	m ³	3.84	5,840.00	117.00	22,426	449
23	12.40	1600	Supplying fitting & placing TMT bar reinforcement in super-structure including splicing complete as per drawing and technical specifications c. With other make ISI marked TMT rebars	Tonne	0.86	54,500.00	1,090.00	46,870	937
24	13.5 A	1500, 1700 & 2200	Plain/reinforced Cement concrete in substructure complete as per drawings & technical specification Clause 802, 805, 807, 1202 & 1204 N, Without Plasticiser E. RCC M20 grade a. height upto 5 m CASE I Using Concrete Mixer	m ³	38.04	5,840.00	117.00	222,154	4,451



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**Contract-4 Reservoirs, Transmission main, Access Road - South Central Zone
Ramsahill - Access Road
Bill of Quantities**

Sr no.	Item No.	Reference of MoSRT&H Specification	Description	Unit	Quantity	Rate				Amount	
						Local		Foreign		Local	Foreign
						Basic Rate	Applicable taxes and duties	Basic Rate	Applicable taxes and duties	Basic Rate	Applicable taxes and duties
25	13.6 (B)	1600 & 2200	Supplying fitting & placing TMT bar reinforcement in sub-structure complete as per drawing and technical specifications c With other make ISI marked TMT rebars	Tonne	3.80	54,500.00	1,090.00			207,100	4,142
26	13.10	710.i.4 of IRC:78 & 2200	Providing & laying filter media with granular materials/stone crushed aggregate satisfying the requirements laid down in clause 2504.2.2 of MoRTH specification to a thickness not less than 600 mm with smaller size towards the soil & bigger size towards the wall & providing over entire surface behind abutment, wing wall, return wall to full height compacted to firm condition complete as per drawing and technical specification	m ³	72.00	2,985.00	60.00			214,920	4,320
27	14.1	1500, 1600 & 1700	Superstructure Furnishing and Placing Reinforced/Prestressed cement concrete in super-structure as per drawing and Technical Specification including providing plasticiser (Masterplast PL - 1/SPL - 2 or equivalent), air entraining and water reducing plasticiser (Masterplast PAE or equivalent) and accelerating plasticiser (Masterplast ACPL or equivalent) conforming to IS-9103-1999 and steel shuttering framework N, Without Plasticiser A RCC m20 grade CASE I Using Concrete Mixer I) FOR SOLID SLAB (p) Height upto 5 m								
28	14.2	1600	Supplying fitting & placing TMT bar reinforcement in super-structure including splicing complete as per drawing and technical specifications c With other make ISI marked TMT rebars	Tonne	0.75	54,500.00	1,090.00			40,875	818



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**Contract-4 Reservoirs, Transmission main, Access Road - South Central Zone
Ramsahill - Access Road
Bill of Quantities**

Sr no.	Item No.	Reference of MoSRT&H Specification	Description	Unit	Quantity	Rate		Amount	
						Local	Foreign	Local	Foreign
						Basic Rate	Applicable taxes and duties	Basic Rate	Applicable taxes and duties
29	14.9	2705	Drainage spout complete as per drawing & Technical specification	m ³	24.00	325.00	7.00	7,800	168
Sub Total								872,211	17,513
CONSTRUCTION OF ROAD SIDE STONE MASONRY BREAST WALL									
Name of Road: Approach Road At Ramsa Hill									
Length of Road = 907.131 m									
30	12.1	304	Foundation Excavation for Structures Earthwork in excavation of foundation in structures as per drawing and technical specification, including setting out, construction of shoring and bracing, removal of stumps and other deleterious matter, dressing of sides and bottom and backfilling with approved material						
	i		Ordinary Soil						
	A		Manual Means						
	a		Without Dewatering						
	i		upto a height of 3m	m ³	5770.92	124.00	3.00	715,594	17,313
31	17.56		Providing brick 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. (c). Stone soling 150mm thick	m ²	1089.27	1,428.00	29.00	1,555,478	31,580
32	12.4	2100	PCC 1:3:6 in Foundation Plain cement concrete 1:3:6 nominal mix in foundation with crushed stone aggregates 40mm nominal size mechanically mixed, placed in foundation and compacted by vibration including curing for 14 days	m ³	163.39	4,283.00	86.00	699,799	14,052
33	13.1	1300 & 2200	Sub-Structure Stone Masonry work in cement mortar 1:3 in sub-structure complete as per drawing and technical specification A. Random Rubble Masonry	m ³	2819.35	2,596.00	52.00	7,319,033	146,606

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