

**ABSTRACT ESTIMATE**

Jal Jeevan Mission (JJM)-WSS - to Santhanpara, Rajakumary (Part) and Senapathy (Part)  
Panchayaths in Idukki District-Package IV- Clear Water Pumping Main, Sump cum pump house,  
GLSR in Santhanpara GP-General Civil Work

SI No	Specification	Quantity	Rate	Amount
<b>1</b>	<b>Supply and laying Clear water pumping main-Cost of materials</b>			
1.001	100.98.118 Supply of DI K9 Pipe Conforming to IS 8329/2000, 250mm Dia.			
	Net Total	5435.000metre	@3616.52/metre	19655786.20
1.002	100.98.117 Supply of DI K9 Pipe Conforming to IS 8329/2000, 200mm Dia.			
	Net Total	4137.000metre	@2589.09/metre	10711065.33
1.003	100.98.116 Supply of DI K9 Pipe Conforming to IS 8329/2000, 150mm Dia.			
	Net Total	2252.000metre	@1890.46/metre	4257315.92
1.004	OD182653/2023-2024 Supply of 150mm GI medium pipe			
	Net Total	7434.000metre	@2090.70/metre	15542263.80
1.005	OD182904/2023-2024 Supply of 100 mm GI(m) pipe			
	Net Total	1085.000metre	@1341.53/metre	1455560.05
1.006	OD182905/2023-2024 Specials for 100 mm GI pipe excluding GST(5% of cost of pipe)			
	Net Total	1105.000L.S	@67.08/L.S	74123.40
1.007	OD182909/2023-2024 Supplying 150 mm G.I Medium pipe specials			
	Net Total	6117.000metre	@104.54/metre	639471.18
1.008	100.98.441 Supply of CI Air Valve, Conforming to IS 14848 - 2000, Single Orifice, Small Orifice Type S1, Size 40mm.			
	Net Total	20.000no	@6110.65/no	122213.00

SI No	Specification	Quantity	Rate	Amount
1.009	100.98.440			
	Supply of CI Air Valve, Conforming to IS 14848 - 2000, Single Orifice, Small Orifice Type S1, Size 25mm.			
	Net Total	22.000no	@5636.76/no	124008.72
1.010	100.98.458			
	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.6, Size 100mm.			
	Net Total	1.000no	@9003.95/no	9003.95
1.011	100.98.460			
	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.6, Size 150mm.			
	Net Total	3.000no	@13396.74/no	40190.22
1.012	100.98.461			
	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.6, Size 200mm.			
	Net Total	2.000no	@23723.64/no	47447.28
1.013	100.98.462			
	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.6, Size 250mm.			
	Net Total	1.000no	@34361.82/no	34361.82
			<b>Heading Total(Rs)</b>	52712810.87
<b>2</b>	<b>Supply and laying Clear water pumping main-Working charges</b>			
2.001	100.1.1			
	Excavating trenches of required width for pipes, cables, etc., including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20cm in depth, including consolidating each deposited layer by ramming, watering, etc., and disposing of surplus excavated soil as directed, within a lead of 50m, in all kinds of soil.			
	Net Total	8204.970cum	@579.88/cum	4757898.00
2.002	100.1.5			
	Excavating trenches of required width for pipes, cables, etc., including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20cm in depth, including consolidating each deposited layer by ramming, watering, etc., and disposing of surplus excavated soil as directed, within a lead of 50 m, in Ordinary Rock.			
	Net Total	1640.994cum	@842.08/cum	1381848.23
2.003	100.2.2			
	Excavation work by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5m in width or 10m <sup>2</sup> on plan),			

SI No	Specification	Quantity	Rate	Amount
	including dressing of sides and ramming of bottoms, lift up to 1.5m, including getting out the excavated soil and disposal of surplus excavated soils as directed, within a lead of 50m, in Medium Rock where Blasting is Prohibited.			
	Net Total	543.569cum	@1106.31/cum	601355.82
2.004	100.1.13			
	Excavating trenches of required width for pipes, cables, etc., including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20cm in depth, including consolidating each deposited layer by ramming, watering, etc., and disposing of surplus excavated soil as directed, within a lead of 50m, in Hard Rock where Blasting is Prohibited.			
	Net Total	546.998cum	@1624.47/cum	888581.84
2.005	100.8.1			
	Fencing one side of trenches, 1.50m height with two rows of 10cm plastic caution tape in vertical casuarina pole (girth 15cm to 24cm) fixed at 2m intervals.			
	Net Total	20341.000metre	@28.84/metre	586634.44
2.006	100.59.1			
	Cutting the bituminous / concrete roads with cutting machine for a minimum depth of 200mm along the sides of proposed alignment of the pipe to be laid without causing any damage to other utilities, including the charges for hire and conveyance of tools and plant, cost of consumables and charges for lighting, watching, ribbon fencing, caution boards, traffic diversion, and as per the direction of departmental officers etc. complete, before carrying out the demolition of bituminous / concrete road by mechanical means and carrying out the excavation.			
	Net Total	1850.000metre	@31.77/metre	58774.50
2.007	OD196216/2023-2024			
	Dismantling manually / by mechanical means and disposal of material within 50 metres lead as per direction of Engineer -in-Charge:&lt;br&gt;Bituminous road			
	Net Total	222.000sqm	@91.73/sqm	20364.06
2.008	15.2.1			
	Demolishing cement concrete manually / by mechanical means including disposal of material within 50 metres lead as per direction of Engineer - in-Charge.Nominal concrete 1:3:6 or richer mix (i/c equivalent design mix)			
	Net Total	76.500cum	@2134.74/cum	163307.61
2.009	100.12.9			
	Conveying and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc., but excluding cost of pipes and fittings for External work: 100mm diameter nominal bore.			
	Net Total	1105.000metre	@245.48/metre	271255.40
2.010	100.12.11			

SI No	Specification	Quantity	Rate	Amount
	Conveying and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc., but excluding cost of pipes and fittings for External work: 150mm diameter nominal bore.			
	Net Total	7434.000metre	@304.13/metre	2260902.42
2.011	OD196370/2023-2024			
	Testing 100mm GI/MS pipeline with potable water to the required test pressure			
	Net Total	1105.000metre	@24.36/metre	26917.80
2.012	OD196371/2023-2024			
	Testing 150mm GI/MS pipeline with potable water to the required test pressure			
	Net Total	7434.000metre	@32.86/metre	244281.24
2.013	100.14.2			
	Conveying and laying S&S Centrifugally Cast (Spun) / Ductile Iron Pipes conforming to IS: 8329 excluding cost of pipes and specials: 150mm diameter Ductile Iron Class K-9 Pipes.			
	Net Total	2286.000metre	@91.51/metre	209191.86
2.014	18.30.4			
	Providing flanged joints to double flanged C.I./ D.I pipes and specials, including testing of joints:150 mm diameter pipe			
	Net Total	15.000no	@402.30/no	6034.50
2.015	18.70.2			
	Providing push - on-joints to Centrifugally (Spun) Cast Iron Pipes or Ductile Iron Pipes including testing of joints and including the cost of rubber gasket:150 mm dia pipes			
	Net Total	425.000joint	@184.10/joint	78242.50
2.016	OD167295/2023-2024			
	Labour for cutting Ductile Iron pipe with steel saw.150 mm diameter Ductile Iron. pipe			
	Net Total	40.000no	@337.10/no	13484.00
2.017	100.35.2			
	Testing 150mm DI/CI pipeline with potable water to the required test pressure 150 mm dia Observed Data derived from item no.1018 of PHED DATA			
	Net Total	2286.000metre	@32.86/metre	75117.96
2.018	100.14.3			
	Conveying and laying S&S Centrifugally Cast (Spun) / Ductile Iron Pipes conforming to IS: 8329 excluding cost of pipes and specials: 200mm diameter Ductile Iron Class K-9 Pipes.			

SI No	Specification	Quantity	Rate	Amount
	Net Total	4109.000metre	@127.49/metre	523856.41
2.019	18.30.5	Providing flanged joints to double flanged C.I./ D.I pipes and specials, including testing of joints:200 mm diameter pipe		
	Net Total	15.000no	@436.82/no	6552.30
2.020	18.70.3	Providing push - on-joints to Centrifugally (Spun) Cast Iron Pipes or Ductile Iron Pipes including testing of joints and including the cost of rubber gasket:200 mm dia pipes		
	Net Total	760.000joint	@270.11/joint	205283.60
2.021	OD167296/2023-2024	Labour for cutting DI pipe with steel saw 200 mm diameter of DI Pipe		
	Net Total	26.000Each Cut	@449.61/Each Cut	11689.86
2.022	100.35.3	Testing 200mm DI/CI pipeline with potable water to the required test pressure 200 mm dia Observed Data derived from item no.1020 of PHED DATA		
	Net Total	4109.000metre	@41.66/metre	171180.94
2.023	100.14.4	Conveying and laying S&S Centrifugally Cast (Spun) / Ductile Iron Pipes conforming to IS: 8329 excluding cost of pipes and specials: 250mm diameter Ductile Iron Class K-9 Pipes.		
	Net Total	5407.000metre	@170.23/metre	920433.61
2.024	18.30.6	Providing flanged joints to double flanged C.I./ D.I pipes and specials, including testing of joints:250 mm diameter pipe		
	Net Total	7.000no	@595.56/no	4168.92
2.025	18.70.4	Providing push - on-joints to Centrifugally (Spun) Cast Iron Pipes or Ductile Iron Pipes including testing of joints and including the cost of rubber gasket:250 mm dia pipes		
	Net Total	990.000joint	@329.85/joint	326551.50
2.026	OD167297/2023-2024	Labour for cutting DI pipe with steel saw 250 mm diameter DI Pipe		
	Net Total	20.000Each Cut	@559.11/Each Cut	11182.20
2.027	100.35.4			

SI No	Specification	Quantity	Rate	Amount
	Testing 250mm DI/CI pipeline with potable water to the required test pressure . 250 mm dia Observed Data derived from item no.1022 of PHED DATA			
		Net Total	5407.000metre @53.00/metre	286571.00
2.028	100.37.5.1 In situ fabrication of M.S. pipes of size 100mm (I.D.) using 8mm thick M.S. plate including cost and conveyance charges of M.S. plate, all fabrication charges, charges of painting the steel work with two or more coat deluxe multi surface paint to give an even shade over an under-coat of primer etc., complete.			
		Net Total	48.000metre @4182.35/metre	200752.80
2.029	100.37.5.2 Fabricating M.S. flanges of diameter 100mm using 12mm thick M.S. plate including cost and conveyance charges of M.S. plate, all fabrication charges, charges of painting the steel work with two or more coat deluxe multi surface paint to give an even shade over an under-coat of primer etc., complete: For pipes fabricated with 8mm thick M.S. plates.			
		Net Total	20.000no @1161.73/no	23234.60
2.030	100.37.5.3 Cutting 100mm (I.D.) M.S. pipes for making bends and other specials by gas cutting including cost of gas, all labour and hire charges of tools etc., complete: For pipes fabricated with 8mm thick M.S. plates.			
		Net Total	24.000no @119.81/no	2875.44
2.031	100.37.5.4 Welding 100mm (I.D.) M.S. pipes for making bends and other specials by gas/electric welding machine including cost of gas and welding rods, all labour and hire charges of tools etc., complete: For pipes fabricated with 8mm thick M.S. plates.			
		Net Total	24.000no @452.90/no	10869.60
2.032	100.37.5.5 Grinding cut and weld edges of 100mm (I.D.) M.S. pipes during fabrication work including all labour and hire charges of tools etc., complete: For pipes fabricated with 8mm thick M.S. plates.			
		Net Total	48.000no @85.07/no	4083.36
2.033	100.37.6.1 In situ fabrication of M.S. pipes of size 150mm (I.D.) using 8mm thick M.S. plate including cost and conveyance charges of M.S. plate, all fabrication charges, charges of painting the steel work with two or more coat deluxe multi surface paint to give an even shade over an under-coat of primer etc., complete.			
		Net Total	80.000metre @5174.49/metre	413959.20
2.034	100.37.6.2 Fabricating M.S. flanges of diameter 150mm using 12mm thick M.S. plate including cost and conveyance charges of M.S. plate, all fabrication charges, charges of painting the steel work with two or more coat deluxe multi surface paint to give an			



SI No	Specification	Quantity	Rate	Amount
	even shade over an under-coat of primer etc., complete: For pipes fabricated with 8mm thick M.S. plates.			
	Net Total	30.000no	@1544.03/no	46320.90
2.035	100.37.6.3			
	Cutting 150mm (I.D.) M.S. pipes for making bends and other specials by gas cutting including cost of gas, all labour and hire charges of tools etc., complete: For pipes fabricated with 8mm thick M.S. plates.			
	Net Total	40.000no	@171.45/no	6858.00
2.036	100.37.6.4			
	Welding 150mm (I.D.) M.S. pipes for making bends and other specials by gas/electric welding machine including cost of gas and welding rods, all labour and hire charges of tools etc., complete: For pipes fabricated with 8mm thick M.S. plates.			
	Net Total	40.000no	@648.09/no	25923.60
2.037	100.37.6.5			
	Grinding cut and weld edges of 150mm (I.D.) M.S. pipes during fabrication work including all labour and hire charges of tools etc., complete: For pipes fabricated with 8mm thick M.S. plates.			
	Net Total	80.000no	@121.73/no	9738.40
2.038	100.37.7.1			
	In situ fabrication of M.S. pipes of size 200mm (I.D.) using 8mm thick M.S. plate including cost and conveyance charges of M.S. plate, all fabrication charges, charges of painting the steel work with two or more coat deluxe multi surface paint to give an even shade over an under-coat of primer etc., complete.			
	Net Total	72.000metre	@6165.53/metre	443918.16
2.039	100.37.7.2			
	Fabricating M.S. flanges of diameter 200mm using 12mm thick M.S. plate including cost and conveyance charges of M.S. plate, all fabrication charges, charges of painting the steel work with two or more coat deluxe multi surface paint to give an even shade over an under-coat of primer etc., complete: For pipes fabricated with 8mm thick M.S. plates.			
	Net Total	30.000no	@2081.10/no	62433.00
2.040	100.37.7.3			
	Cutting 200mm (I.D.) M.S. pipes for making bends and other specials by gas cutting including cost of gas, all labour and hire charges of tools etc., complete: For pipes fabricated with 8mm thick M.S. plates.			
	Net Total	36.000no	@223.11/no	8031.96
2.041	100.37.7.4			
	Welding 200mm (I.D.) M.S. pipes for making bends and other specials by gas/electric welding machine including cost of gas and welding rods, all labour and hire charges of tools etc., complete: For pipes fabricated with 8mm thick M.S. plates.			
	Net Total	36.000no	@843.32/no	30359.52
2.042	100.37.7.5			

SI No	Specification	Quantity	Rate	Amount
	Grinding cut and weld edges of 200mm (I.D.) M.S. pipes during fabrication work including all labour and hire charges of tools etc., complete: For pipes fabricated with 8mm thick M.S. plates.			
	Net Total	72.000no	@158.40/no	11404.80
2.043	100.37.8.1			
	In situ fabrication of M.S. pipes of size 250mm (I.D.) using 8mm thick M.S. plate including cost and conveyance charges of M.S. plate, all fabrication charges, charges of painting the steel work with two or more coat deluxe multi surface paint to give an even shade over an under-coat of primer etc., complete.			
	Net Total	40.000metre	@7163.12/metre	286524.80
2.044	100.37.8.2			
	Fabricating M.S. flanges of diameter 250mm using 12mm thick M.S. plate including cost and conveyance charges of M.S. plate, all fabrication charges, charges of painting the steel work with two or more coat deluxe multi surface paint to give an even shade over an under-coat of primer etc., complete: For pipes fabricated with 8mm thick M.S. plates.			
	Net Total	14.000no	@2555.47/no	35776.58
2.045	100.37.8.3			
	Cutting 250mm (I.D.) M.S. pipes for making bends and other specials by gas cutting including cost of gas, all labour and hire charges of tools etc., complete: For pipes fabricated with 8mm thick M.S. plates.			
	Net Total	18.000no	@274.74/no	4945.32
2.046	100.37.8.4			
	Welding 250mm (I.D.) M.S. pipes for making bends and other specials by gas/electric welding machine including cost of gas and welding rods, all labour and hire charges of tools etc., complete: For pipes fabricated with 8mm thick M.S. plates.			
	Net Total	18.000no	@1038.53/no	18693.54
2.047	100.37.8.5			
	Grinding cut and weld edges of 250mm (I.D.) M.S. pipes during fabrication work including all labour and hire charges of tools etc., complete: For pipes fabricated with 8mm thick M.S. plates.			
	Net Total	36.000no	@195.07/no	7022.52
2.048	18.68.1			
	Providing and laying D.I specials of class K - 12 suitable for push - on jointing as per IS : 9523 :Upt 600 mm dia			
	Net Total	53.190quintal	@21003.05/quintal	1117152.23
2.049	18.69.1			
	Providing and laying D.I Specials of Class K - 12 suitable for mechanical jointing as per IS : 9523 :Upto 600 mm dia			
	Net Total	9.570quintal	@22071.58/quintal	211225.02



SI No	Specification	Quantity	Rate	Amount
2.050	100.31.1.4			
	Conveying and fixing C.I. sluice valves (with cap) by providing bolts, nuts, rubber insertions etc., complete, but excluding the cost of the valve (tail pieces, if required, will be paid separately): 150mm diameter, Class I.			
	Net Total	3.000no	@1253.32/no	3759.96
2.051	100.31.1.2			
	Conveying and fixing C.I. sluice valves (with cap) by providing bolts, nuts, rubber insertions etc., complete, but excluding the cost of the valve (tail pieces, if required, will be paid separately): 100mm diameter, Class I.			
	Net Total	1.000no	@925.37/no	925.37
2.052	100.31.1.5			
	Conveying and fixing C.I. sluice valves (with cap) by providing bolts, nuts, rubber insertions etc., complete, but excluding the cost of the valve (tail pieces, if required, will be paid separately): 200mm diameter, Class I.			
	Net Total	2.000no	@1625.85/no	3251.70
2.053	100.31.1.6			
	Conveying and fixing C.I. sluice valves (with cap) by providing bolts, nuts, rubber insertions etc., complete, but excluding the cost of the valve (tail pieces, if required, will be paid separately): 250mm diameter, Class I.			
	Net Total	1.000no	@2304.80/no	2304.80
2.054	100.32.1			
	Conveying and fixing C. I. Single Acting Air Valve of approved quality with bolts, nuts, rubber insertions etc., complete, but excluding the cost of air valve (tail pieces, if required, will be paid separately): 25mm Single Acting Air Valve.			
	Net Total	22.000no	@146.63/no	3225.86
2.055	100.32.2			
	Conveying and fixing C. I. Single Acting Air Valve of approved quality with bolts, nuts, rubber insertions etc., complete, but excluding the cost of air valve (tail pieces, if required, will be paid separately): 40mm Single Acting Air Valve.			
	Net Total	20.000no	@184.44/no	3688.80
2.056	2.6.1			
	Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed. All kinds of soil			
	Net Total	26.880cum	@223.41/cum	6005.26
2.057	4.1.3			
	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level: 1:2:4 (cement : 2 coarse sand (zone-III) : 4 graded stone aggregate 20 mm nominal size)			
	Net Total	44.992cum	@8340.91/cum	375274.22
2.058	5.1.2			

SI No	Specification	Quantity	Rate	Amount
	Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level:1:1:5:3 (1 cement 1.5 coarse sand :3 graded stone aggregate 20 mm nominal size			
	Net Total	15.051cum	@9483.13/cum	142730.59
2.059	5.22.4			
	Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth levelHot rolled deformed bars			
	Net Total	1767.060kilo gram	@102.61/kilogra m	181318.03
2.060	5.9.2			
	Centering and shuttering including strutting, etc. and removal of form for:Walls (any thickness) including attached pilasters, buttresses, plinth and string courses etc.			
	Net Total	358.000sqm	@748.62/sqm	268005.96
2.061	5.9.3			
	Centering and shuttering including strutting, etc. and removal of form for:Suspended floors, roofs, landings, balconies and access platform			
	Net Total	21.000sqm	@851.49/sqm	17881.29
			<b>Heading Total(Rs)</b>	18102137.7 1
<b>3</b>	<b>Construction of 0.5 LL Capacity steel storage tank Near Magna Peak</b>			
3.001	2.31			
	Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth up to 30 cm measured at a height of 1 m above ground level and removal of rubbish up to a distance of 50 m outside the periphery of the area cleared			
	Net Total	36.000sqm	@15.40/sqm	554.40
3.002	2.6.1			
	Earth work in excavation by mechanical means (Hydraulic excavator)/manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed.All kinds of soil			
	Net Total	31.014cum	@223.41/cum	6928.84
3.003	4.1.8			
	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:4:8 (1 cement : 4 coarse sand : 8 graded stone aggregate 40 nominal size)			
	Net Total	3.701cum	@7113.43/cum	26326.80
3.004	5.2.2			
	Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. up tot floor five level excluding cost of centering, shuttering, finishing and reinforcement :1:1.5:3( 1 cement : 1.5 coarse sand : 3 graded			

SI No	Specification	Quantity	Rate	Amount
	stone aggregate 20 mm nominal size)			
	Net Total	3.087cum	@11433.90/cum	35296.45
3.005	5.9.3			
	Centering and shuttering including strutting, etc. and removal of form for:Suspended floors, roofs, landings, balconies and access platform			
	Net Total	13.720sqm	@851.49/sqm	11682.44
3.006	5.22.6			
	Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth levelThermo - Mechanically Treated bars of grade Fe-500D or more			
	Net Total	370.440kilogram	@102.61/kilogram	38010.85
3.007	2.25			
	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundation etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift up to 1.5 m.			
	Net Total	4.568cum	@269.88/cum	1232.81
3.008	OD167298/2023-2024			
	Supply of Sand including loading, unloading, transportation and other incidental charges as per the direction of departmental officers.1			
	Net Total	2.284cum	@1882.79/cum	4300.29
3.009	OD167299/2023-2024			
	Supply, installation and commissioning of a pre-engineered, pre-fabricated, factory manufactured steel storage Water Tank having a capacity of 50000 L(1Nos.) thickness of 0.6 mm, in multiple layers as required for the capacity and height of the tank and multiplelayered PE sheet/membrane for the inner containment liner. The Tank Shell / Body &&& the Liner material shall be manufactured in a facility certified and compliant to ISO 9001 - 2000 standards. The Tank shall be supplied with access points, penetrations for inlets, outlets, drains and fittings, overflow and drain, high and low water level indicators. All connections to the tanks shall be with flanged or threaded nozzles, placed to the KWA water mains TANK ROOF :The roof of the tank shall be of corrugated Galvalume sheet steel and shall be domed, with heavy- duty Hot-dip Galvanized truss frame for support, and capable of supporting 4-5 persons for maintenance and cleaning and tank shall have an access hatch with cover, on the roof, for operation and Maintenance TANK COVER :Tank covers shall be of approved			

SI No	Specification	Quantity	Rate	Amount
	<p>galvanized vermin proof construction. Roof ends shall be fitted with suitable vermin-proofing tape or other material, to prevent ingress of dust and foreign objects. Covers shall be firmly fixed to the top edge of the tank with galvanized bolts and nuts. LADDERS :Tanks shall be provided with Hotdip Galvanized ladders internally or externally. External roof supports shall be of an appropriately designed Hot-dip galvanized Steel construction. Tanks shall comply with relevant spill level, air gap and overflow requirements relative to Effective Capacity. All nuts and bolts used for the panels shall be a minimum of 12mm size and hot-dip galvanized/Case hardened. The tank shall have a circular angle fixed around the total circumference of the tanks, at the top, of minimum 2 mm thickness. Tanks shall be properly flushed out with clean water prior to being brought into service TANK DIMENSIONS: The dimensions of the Tank shall be of 4.855m in diameter and 2.9m in height DESIGN LIFE: The tanks shall have a design life of 40 years. TANK CONNECTIONS: Standard design valve outlet connection : i) Suitable size CI Flanged valve ii) Overflow connection including an Internal approved bell-mouth shaped bends to maximize the overflow capacity. One no. 100 mm, iii) One (1) scour drain outlet from the floor of the tank with isolation valve. One No. 100mm. TANK LINERS: Tank liners shall be purpose designed and manufactured and shall comply to AS/NZS 4020 (Appendix A )of 2005 and ANSI/NSF 61 - 2008, Section 5 Certificates of compliance to above standards shall be furnished by the manufacturer of the tanks. Tank liners shall: i) Be factory manufactured to onepiece construction, fabricated from multi-layer PE sheet, certified for potable drinking water, to (ANSI/ NSF 61) and duly UV Stabilized. ii) Be of PE (polyethylene) in multi-layer construction for strength, reinforced with woven scrim industrial fabric to prevent elongation and enhance tensile strength. The total liner material thickness shall be no less than 0.6 mm thick. The tensile strength shall not be less than 2266 N (warp) and 2495 N (weft) and heat sealing strength of 2056 N v) All the liner welded lap joints shall be strengthened with Metallocene encapsulating tape welded over the overlap. vi) The Metallocene tape shall cover and protect the exposed material at the edges of the liner joints to further prevent the ingress of water into the scrim. vii)</p>			

SI No	Specification	Quantity	Rate	Amount
	<p>Liners shall be positively and continuously attached to the top outer edge of the circumference of the tank to prevent entry of water from the runoff from the roof structure. viii) All liners on tanks over 2m in height shall have a continuous intermediate liner support designed out of nylon (or other material) cord, around the circumference of the tank, at vertical intervals corresponding to the level of each ring. ix) The intermediate liner support cords shall be firmly secured to the steel shell at each level, to prevent stress on the liner welded joints, and thereby eliminate possibility of failure CORROSION PROTECTION. The tank structure shall have a secondary corrosion protection system using sacrificial magnesium anodes. The number of anodes, their location around the tank and the mass of each anode shall be designed for anode replacement frequency of five years. The anodes shall be installed external to the tank and concrete apron with their location marked with a suitably label-Cost for Tank steel with 10years guarantee includes shel l, Steel wall, steel domed roof, Zinc Alum steel&amp; amp; 39;, Cost for Poly ethylene infinity liner , Geo synthetic Fibre with food grade plastics are used for inside coating and Support Arrangements, Cost for Fabricated items, attachments and accessories like steel ladder, Cost of Fabricated nozzles, over flow nozzles and drain arrangements, Cost for HDG nut and bolts, Freight Charges, Erection Installation and commissioning of tank components.</p>			
	Net Total	50000.000 Litre	@ 16.65/Litre	832500.00
3.010	OD167300/2023-2024			
	Dowel bars - Supplying and providing MS dowel bars of size 16mm dia of 2m long (1m in rock and 1m in concrete) including drilling holes of 20mm dia and filling the gap with cement grout (.5kg/each) etc...			
	Net Total	38.000no	@901.25/no	34247.50
<b>Heading Total(Rs)</b>				991080.38
<b>4 Construction of 2.6LL Capacity steel storage tank at Thondimala</b>				
4.001	2.31			
	Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth up to 30 cm measured at a height of 1 m above ground level and removal of rubbish up to a distance of 50 m outside the periphery of the area cleared			
	Net Total	121.000sqm	@ 15.40/sqm	1863.40
4.002	2.1.1			
	Earth work in surface excavation not exceeding 30 cm in depth but exceeding 1.5m in			

SI No	Specification	Quantity	Rate	Amount
	width as well as 10 sqm on plan including disposal of excavated earth up to 50 m and lift up to 1.5 m, disposed soil to be levelled and neatly dressed:All Kinds of soil			
	Net Total	180.690sqm	@113.73/sqm	20549.87
4.003	2.7.3			
	Earth work in excavation by mechanical means (Hydraulic excavator )/ manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed.Hard rock (blasting prohibited)			
	Net Total	30.000cum	@1248.59/cum	37457.70
4.004	4.1.3			
	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:2:4 (cement : 2 coarse sand (zone-III) : 4 graded stone aggregate 20 mm nominal size)			
	Net Total	13.254cum	@8340.91/cum	110550.42
4.005	5.1.2			
	Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level:1:1:5:3 (1 cement 1.5 coarse sand :3 graded stone aggregate 20 mm nominal size)			
	Net Total	5.557cum	@9483.13/cum	52697.75
4.006	5.9.1			
	Centering and shuttering including strutting, etc. and removal of form for:Foundations, footings, bases of columns, etc for mass concrete			
	Net Total	24.696sqm	@350.00/sqm	8643.60
4.007	5.22.6			
	Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth levelThermo - Mechanically Treated bars of grade Fe-500D or more			
	Net Total	666.840kilogram	@102.61/kilogram	68424.45
4.008	2.25			
	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundation etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift up to 1.5 m.			
	Net Total	16.146cum	@269.88/cum	4357.48
4.009	OD167301/2023-2024			
	Supply of Sand including loading, unloading, transportation and other incidental charges as per the direction of departmental officers.1			
	Net Total	8.073cum	@1882.79/cum	15199.76
4.010	OD167302/2023-2024			
	Supply, installation and commissioning of a pre-engineered, pre-fabricated, factory			



SI No	Specification	Quantity	Rate	Amount
	<p>manufactured steel storage Water Tank having a capacity of 260000 L(1Nos.) thickness of 0.6 mm, in multiple layers as required for the capacity and height of the tank and multiplelayered PE sheet/membrane for the inner containment liner. The Tank Shell / Body the Liner material shall be manufactured in a facility certified and compliant to ISO 9001 - 2000 standards. The Tank shall be supplied with access points, penetrations for inlets, outlets, drains and fittings, overflow and drain, high and low water level indicators. All connections to the tanks shall be with flanged or threaded nozzles, placed to the KWA water mains</p> <p><b>TANK ROOF</b>  :The roof of the tank shall be of corrugated Galvalume sheet steel and shall be domed, with heavy- duty Hot-dip Galvanized truss frame for support, and capable of supporting 4-5 persons for maintenance and cleaning and tank shall have an access hatch with cover, on the roof, for operation and Maintenance</p> <p><b>TANK COVER</b> :Tank covers shall be of approved galvanized vermin proof construction. Roof ends shall be fitted with suitable vermin-proofing tape or other material, to prevent ingress of dust and foreign objects. Covers shall be firmly fixed to the top edge of the tank with galvanized bolts and nuts.</p> <p><b>LADDERS</b> :Tanks shall be provided with Hotdip Galvanized ladders internally or externally. External roof supports shall be of an appropriately designed Hot-dip galvanized Steel construction. Tanks shall comply with relevant spill level, air gap and overflow requirements relative to Effective Capacity. All nuts and bolts used for the panels shall be a minimum of 12mm size and hot-dip galvanized/Case hardened. The tank shall have a circular angle fixed around the total circumference of the tanks, at the top, of minimum 2 mm thickness. Tanks shall be properly flushed out with clean water prior to being brought into service</p> <p><b>TANK DIMENSIONS</b>: The dimensions of the Tank shall be of 8.739m in diameter and 4.3m in height</p> <p><b>DESIGN LIFE</b>: The tanks shall have a design life of 40 years.</p> <p><b>TANK CONNECTIONS</b>: Standard design valve outlet connection : i) Suitable CI Flanged valve  ii) Overflow connection including an Internal approved bell-mouth shaped bends to maximize the overflow capacity. One no. 100 mm, iii) One (1) scour drain outlet from the floor of the tank with isolation valve. One No. 100mm.</p> <p><b>TANK LINERS</b>:Tank liners shall be purposedesigned</p>			

SI No	Specification	Quantity	Rate	Amount
	<p>and manufactured and shall comply to AS/NZS 4020 (Appendix A )of 2005 and ANSI/NSF 61 - 2008, Section 5 Certificates of compliance to above standards shall be furnished by the manufacturer of the tanks. Tank liners shall: i) Be factory manufactured to onepiece construction, fabricated from multi-layer PE sheet, certified for potable drinking water, to (ANSI/ NSF 61) and duly UV Stabilized. ii) Be of PE (polyethylene) in multi-layer construction for strength, reinforced with woven scrim industrial fabric to prevent elongation and enhance tensile strength. The total liner material thickness shall be no less than 0.6 mm thick. The tensile strength shall not be less than 2266 N (warp) and 2495 N (weft) and heat sealing strength of 2056 N v) All the liner welded lap joints shall be strengthened with Metallocene encapsulating tape welded over the overlap. vi) The Metallocene tape shall cover and protect the exposed material at the edges of the liner joints to further prevent the ingress of water into the scrim. vii) Liners shall be positively and continuously attached to the top outer edge of the circumference of the tank to prevent entry of water from the runoff from the roof structure. viii) All liners on tanks over 2m in height shall have a continuous intermediate liner support designed out of nylon (or other material)cord, around the circumference of the tank, at vertical intervals corresponding to the level of each ring. ix) The intermediate liner support cords shall be firmly secured to the steel shell at each level, to prevent stress on the liner welded joints, and thereby eliminate possibility of failure CORROSSION PROTECTION. The tank structure shall have a secondary corrosion protection system using sacrificial magnesium anodes. The number of anodes, their location around the tank and the mass of each anode shall be designed for anode replacement frequency of five years. The anodes shall be installed external to the tank and concrete apron with their location marked with a suitably label-Cost for Tank steel with 10years guarantee includes shel l,Steel wall,steel domed roof,Zinc Alum steel&amp;amp;39;,Cost for Poly ethylene infinity liner ,Geo synthetic Fibre with food grade plastics are used for inside coating and Support Arrangements, Cost for Fabricated items, attachments and accessories like steel ladder, Cost of Fabricated nozzles, over flow nozzles and drain arrangements, Cost for HDG nut and bolts, Freight Charges, Erection Installation and commissioning of tank components.</p>			
	Net Total	260000.000Li tre	@7.06/Litre	1835600.00

SI No	Specification	Quantity	Rate	Amount
4.011	OD167303/2023-2024 Dowel bars - Supplying and providing MS dowel bars of size 16mm dia of 2m long (1m in rock and 1m in concrete) including drilling holes of 20mm dia and filling the gap with cement grout (.5kg/each) etc...			
	Net Total	60.000no	@901.25/no	54075.00
<b>Heading Total(Rs)</b>				2209419.43
<b>5 Construction of 2.9LL Steel storage tank at Puthadi Top</b>				
5.001	2.1.1 Earth work in surface excavation not exceeding 30 cm in depth but exceeding 1.5m in width as well as 10 sqm on plan including disposal of excavated earth up to 50 m and lift up to 1.5 m, disposed soil to be levelled and neatly dressed:All Kinds of soil			
	Net Total	271.220sqm	@113.73/sqm	30845.85
5.002	4.1.3 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:2:4 (cement : 2 coarse sand (zone-III) : 4 graded stone aggregate 20 mm nominal size)			
	Net Total	17.245cum	@8340.91/cum	143838.99
5.003	5.1.2 Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level:1:1:5:3 (1 cement 1.5 coarse sand :3 graded stone aggregate 20 mm nominal size)			
	Net Total	7.409cum	@9483.13/cum	70260.51
5.004	5.9.1 Centering and shuttering including strutting, etc. and removal of form for:Foundations, footings, bases of columns, etc for mass concrete			
	Net Total	32.928sqm	@350.00/sqm	11524.80
5.005	5.22.6 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth levelThermo - Mechanically Treated bars of grade Fe-500D or more			
	Net Total	889.080kilogram	@102.61/kilogram	91228.50
5.006	2.25 Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundation etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift up to 1.5 m.			
	Net Total	29.552cum	@269.88/cum	7975.49
5.007	OD167304/2023-2024 Supply of Sand including loading, unloading, transportation and other incidental charges as per the direction of departmental officers.1			

SI No	Specification	Quantity	Rate	Amount
	Net Total	14.776cum	@1882.79/cum	27820.11
5.008	<p>OD167305/2023-2024</p> <p>Supply, installation and commissioning of a pre-engineered, pre-fabricated, factory manufactured steel storage Water Tank having a capacity of 2.9 LL(1Nos.) thickness of 0.6 mm, in multiple layers as required for the capacity and height of the tank and multiple layered PE sheet/membrane for the inner containment liner. The Tank Shell / Body &amp; the Liner material shall be manufactured in a facility certified and compliant to ISO 9001 - 2000 standards. The Tank shall be supplied with access points, penetrations for inlets, outlets, drains and fittings, overflow and drain, high and low water level indicators. All connections to the tanks shall be with flanged or threaded nozzles, placed to the KWA water mains</p> <p><b>TANK ROOF</b>                      :The roof of the tank shall be of corrugated Galvalume sheet steel and shall be domed, with heavy-duty Hot-dip Galvanized truss frame for support, and capable of supporting 4-5 persons for maintenance and cleaning and tank shall have an access hatch with cover, on the roof, for operation and Maintenance</p> <p><b>TANK COVER</b> :Tank covers shall be of approved galvanized vermin proof construction. Roof ends shall be fitted with suitable vermin-proofing tape or other material, to prevent ingress of dust and foreign objects. Covers shall be firmly fixed to the top edge of the tank with galvanized bolts and nuts. <b>LADDERS</b> :Tanks shall be provided with Hot dip Galvanized ladders internally or externally. External roof supports shall be of an appropriately designed Hot-dip galvanized Steel construction. Tanks shall comply with relevant spill level, air gap and overflow requirements relative to Effective Capacity. All nuts and bolts used for the panels shall be a minimum of 12mm size and hot-dip galvanized/Case hardened. The tank shall have a circular angle fixed around the total circumference of the tanks, at the top, of minimum 2 mm thickness. Tanks shall be properly flushed out with clean water prior to being brought into service</p> <p><b>TANK DIMENSIONS</b>: The dimensions of the Tank shall be of 11.652m in diameter and 2.9m in height</p> <p><b>DESIGN LIFE</b>: The tanks shall have a design life of 40 years.</p> <p><b>TANK CONNECTIONS</b>: Standard design valve outlet connection : i) suitable size CI Flanged valve                      ii) Overflow connection including an Internal approved bell-mouth shaped bends to maximize</p>			

SI No	Specification	Quantity	Rate	Amount
	<p>the overflow capacity. One no. 100 mm, iii) One (1) scour drain outlet from the floor of the tank with isolation valve. One No. 100mm. TANK LINERS: Tank liners shall be purpose designed and manufactured and shall comply to AS/NZS 4020 (Appendix A ) of 2005 and ANSI/NSF 61 - 2008, Section 5 Certificates of compliance to above standards shall be furnished by the manufacturer of the tanks. Tank liners shall: i) Be factory manufactured to one piece construction, fabricated from multi-layer PE sheet, certified for potable drinking water, to (ANSI/ NSF 61) and duly UV Stabilized. ii) Be of PE (polyethylene) in multi-layer construction for strength, reinforced with woven scrim industrial fabric to prevent elongation and enhance tensile strength. The total liner material thickness shall be no less than 0.6 mm thick. The tensile strength shall not be less than 2266 N (warp) and 2495 N (weft) and heat sealing strength of 2056 N v) All the liner welded lap joints shall be strengthened with Metallocene encapsulating tape welded over the overlap. vi) The Metallocene tape shall cover and protect the exposed material at the edges of the liner joints to further prevent the ingress of water into the scrim. vii) Liners shall be positively and continuously attached to the top outer edge of the circumference of the tank to prevent entry of water from the runoff from the roof structure. viii) All liners on tanks over 2m in height shall have a continuous intermediate liner support designed out of nylon (or other material) cord, around the circumference of the tank, at vertical intervals corresponding to the level of each ring. ix) The intermediate liner support cords shall be firmly secured to the steel shell at each level, to prevent stress on the liner welded joints, and thereby eliminate possibility of failure CORROSION PROTECTION. The tank structure shall have a secondary corrosion protection system using sacrificial magnesium anodes. The number of anodes, their location around the tank and the mass of each anode shall be designed for anode replacement frequency of five years. The anodes shall be installed external to the tank and concrete apron with their location marked with a suitably label-Cost for Tank steel with 10years guarantee includes shel l, Steel wall, steel domed roof, Zinc Alum steel&amp;amp;39;, Cost for Poly ethylene infinity liner , Geo synthetic Fibre with food grade plastics are used for inside coating and Support Arrangements, Cost for Fabricated items, attachments and accessories like</p>			

SI No	Specification	Quantity	Rate	Amount
	steel ladder, Cost of Fabricated nozzles, over flow nozzles and drain arrangements, Cost for HDG nut and bolts, Freight Charges, Erection Installation and commissioning of tank components.			
	Net Total	290000.000 Litre	@6.57/Litre	1905300.00
5.009	OD167306/2023-2024 Dowel bars - Supplying and providing MS dowel bars of size 16mm dia of 2m long (1m in rock and 1m in concrete) including drilling holes of 20mm dia and filling the gap with cement grout (.5kg/each) etc...			
	Net Total	90.000no	@901.25/no	81112.50
<b>Heading Total(Rs)</b>				2369906.75
<b>6 Construction of 4LL Sump cum Pump house at Pooppara</b>				
6.001	2.31 Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth up to 30 cm measured at a height of 1 m above ground level and removal of rubbish up to a distance of 50 m outside the periphery of the area cleared			
	Net Total	160.000sqm	@15.40/sqm	2464.00
6.002	2.8.1 Earth work in excavation by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. All kinds of soil			
	Net Total	14.844cum	@309.99/cum	4601.49
6.003	2.7.3 Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed. Hard rock (blasting prohibited)			
	Net Total	44.531cum	@1248.59/cum	55600.96
6.004	OD167312/2023-2024 :DOWEL BARS_ Supplying and providing MS dowel bars of size 16 mm dia , 200 cm long including drilling holes of 20 mm dia to a depth of 100 cm in rock and filling the gap with cement grout (0.100kg/hole) etc complete			
	Net Total	200.000no	@424.58/no	84916.00
6.005	4.1.3 Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level: 1:2:4 (cement : 2 coarse sand (zone-III) : 4 graded stone aggregate 20 mm nominal size)			
	Net Total	21.406cum	@8340.91/cum	178545.52



SI No	Specification	Quantity	Rate	Amount
6.006	5.33.1 Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer - in-charge. Note:- Cement content considered in this item is @ 330 kg/ cum. Excess or less cement used as per design mix is payable or recoverable separately. All work upto plinth level			
	Net Total	46.167cum	@9825.93/cum	453633.71
6.007	5.33.2 Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer - in-charge. Note:- Cement content considered in this item is @ 330 kg/ cum. Excess or less cement used as per design mix is payable or recoverable separately. All work above plinth level upto floor V level			
	Net Total	86.938cum	@11550.42/cum	1004170.41
6.008	5.34.1 Extra for providing richer mixes at all floor levels. Note:- Excess/less cement over the specified cement content used is payable/ recoverable separately. Providing M-30 grade concrete instead of M-25 grade BMC/RMC. (Note:- Cement content considered in M-30 is @ 340 kg/cum).			
	Net Total	131.575cum	@85.68/cum	11273.35
6.009	22.23.1 Providing and applying integral crystalline slurry of hydrophilic in nature for waterproofing treatment to the RCC structures like retaining walls of the basement, water tanks, roof slabs, podiums, reservoir, sewage & water treatment plant, tunnels / subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 parts integral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 parts integral crystalline slurry : 1 part water) for horizontal surfaces and applying the same from negative (internal) side with the help of synthetic fiber brush. The material shall meet the requirements as specified in ACI-212-3R-2010 i.e by reducing permeability of concrete by more than 90% compared with control concrete as per DIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystalline slurry shall be capable of self-healing of cracks up to a width of 0.50mm. The work shall be carried out all complete as per specification and the direction of the engineer-in-charge. The product performance shall carry guarantee for 10 years against any leakage. For vertical surface two coats @0.70 kg per sqm			
	Net Total	218.400sqm	@595.25/sqm	130002.60

SI No	Specification	Quantity	Rate	Amount
6.010	22.23.2 Providing and applying integral crystalline slurry of hydrophilic in nature for waterproofing treatment to the RCC structures like retaining walls of the basement, water tanks, roof slabs, podiums, reservoir, sewage & water treatment plant, tunnels / subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 parts integral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 parts integral crystalline slurry : 1 part water) for horizontal surfaces and applying the same from negative (internal) side with the help of synthetic fiber brush. The material shall meet the requirements as specified in ACI-212-3R-2010 i.e by reducing permeability of concrete by more than 90% compared with control concrete as per DIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystalline slurry shall be capable of self-healing of cracks up to a width of 0.50mm. The work shall be carried out all complete as per specification and the direction of the engineerin-charge. The product performance shall carry guarantee for 10 years against any leakage.For horizontal surface one coat @ 1.10 kg per sqm.			
	Net Total	123.250sqm	@458.80/sqm	56547.10
6.011	5.9.1 Centering and shuttering including strutting, etc. and removal of form for:Foundations, footings, bases of columns, etc for mass concrete			
	Net Total	57.580sqm	@350.00/sqm	20153.00
6.012	5.9.2 Centering and shuttering including strutting, etc. and removal of form for:Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.			
	Net Total	394.110sqm	@748.62/sqm	295038.63
6.013	5.9.3 Centering and shuttering including strutting, etc. and removal of form for:Suspended floors, roofs, landings, balconies and access platform			
	Net Total	339.794sqm	@851.49/sqm	289331.19
6.014	5.22.6 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth levelThermo - Mechanically Treated bars of grade Fe-500D or more			
	Net Total	15877.200kilogram	@102.61/kilogram	1629159.49
6.015	50.6.1.2 Solid block masonry using pre cast solid blocks (Factory made) of size 40x20x20cm or nearest available size confirming to IS 2185 part I of 1979 for super structure up to floor two level thickness 20cm and above in: CM 1:6 ( 1 cement: 6 coarse sand) etc complete.			
	Net Total	5.418cum	@6748.20/cum	36561.75
6.016	50.6.1.8			

SI No	Specification	Quantity	Rate	Amount
	Solid block masonry using pre cast solid blocks (Factory made) of size 40x20x15cm or nearest available size confirming to IS 2185 part I of 1979 for super structure up to floor two level with thickness 15cm in: CM 1:6 ( 1 cement : 6 coarse sand etc complete			
	Net Total	16.500cum	@7136.86/cum	117758.19
6.017	13.7.1			
	12 mm cement plaster finished with a floating coat of neat cement of mix:1:3 ( 1 cement : 3 fine sand)			
	Net Total	848.474sqm	@418.80/sqm	355340.91
6.018	13.16.1			
	6 mm cement plaster of mix:1:3 ( 1 cement : 3 fine sand)			
	Net Total	244.030sqm	@279.31/sqm	68160.02
6.019	13.47.1			
	Finishing walls with Premium Acrylic Smooth exterior paint with Silicone additives of required shade:New work (Two or more coats applied @ 1.43 ltr/ 10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/ 10 sqm)			
	Net Total	472.774sqm	@198.01/sqm	93613.98
6.020	13.44.1			
	Finishing walls with water proofing cement paint of required shade:New work (Two or more coats applied @ 3.84 kg/10 sqm)			
	Net Total	285.720sqm	@112.08/sqm	32023.50
6.021	13.71			
	Lettering with black Japan pint of approved brand and manufacture			
	Net Total	100.000per Letter per cm height	@5.82/per Letter per cm height	582.00
6.022	10.25.2			
	Item Shifted to Sub head 14 as item 14.73 Item Shifted to head 14 as item 14.74 Steel work welded in built up sections/framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required.In gratings, frames, guard bar, ladder, railings, brackets, gates and similar works			
	Net Total	950.000kg	@160.93/kg	152883.50
6.023	100.41.34			
	Supplying and fixing Rectangular C.I. manhole cover 455mm x 610mm with frame (low duty) charges including all cost, labour charges etc., complete.			
	Net Total	8.000no	@2920.75/no	23366.00
6.024	9.48.2			
	Providing and fixing M.S. Grills of required pattern in frames of windows etc. with M.S. flats, square or round bars etc. including priming coat with approved steel primer all complete.Fixed to openings/ wooden frames with rawl plugs screws etc			

SI No	Specification	Quantity	Rate	Amount
	Net Total	150.000kg	@225.44/kg	33816.00
6.025	10.6.1			
	Supplying and fixing rolling shutters of approved make, made of required size M.S. laths, interlocked together through their entire length and jointed together at the end by end locks, mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete, including the cost of providing and fixing necessary 27.5 cm long wire springs manufactured from high tensile steel wire of adequate strength conforming to IS: 4454 - part 1 and M.S. top cover of required thickness for rolling shutters.80x1.25 mm M.S. laths with 1.25 mm thick top cover			
	Net Total	6.480sqm	@3617.31/sqm	23440.17
6.026	OD167313/2023-2024			
	:Providing suitable size ventilating arrangements by using 100 mm CI vent cowls as per the direction of departmental officers			
	Net Total	2.000no	@2735.10/no	5470.20
6.027	21.1.1.2			
	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS : 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing /paneling, C.P. brass/ stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge.(Glazing, paneling and dash fasteners to be paid for separately): For fixed portion Powder coated aluminium (minimum thickness of powder coating 50 micron)			
	Net Total	12.000kg	@560.61/kg	6727.32
6.028	21.1.2.2			
	For shutters of doors, windows & ventilators including providing and fixing hinges / pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber/ neoprene gasket required (Fittings shall be paid for separately) Powder coated aluminium (minimum thickness of powder coating 50 micron)			
	Net Total	12.000kg	@671.29/kg	8055.48
6.029	21.3.1			
	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of Engineer - in -Charge. ( Cost of aluminium snap beading shall be paid in basic item):With float glass panes of 4.0 mm thickness			
	Net Total	6.750sqm	@1228.18/sqm	8290.22
6.030	21.15.2			

SI No	Specification	Quantity	Rate	Amount
	Providing and fixing aluminium casement windows fastener of required length for aluminium windows with necessary screws etc. complete. Powder coated minimum thickness 50 micron aluminium			
	Net Total	10.000no	@87.92/no	879.20
6.031	18.26.1			
	Providing and laying flanged C.I. Standard specials such as tees, bends, collars, tapers, caps etc., suitable for flanged jointing as per IS : 1538 :Upto 300 mm dia			
	Net Total	1.340quintal	@9660.34/quintal	12944.86
6.032	100.36.1			
	Filling water with 5000 litre tankers fitted in lorry and conveying water from a distance of 5 km (average) to the reservoir site and pumping the water into the reservoir of height not less than 3 m using 5 HP diesel engine pump set , hire for tanker lorry, tools and other appliances and cost of water etc. complete.			
	Net Total	400.000Kilo litre	@190.05/Kilo litre	76020.00
6.033	OD167314/2023-2024			
	Supplying and providing water level indicator to the tank using scale fabricated out of 2mm thick MS plate with in the frame work of suitable size MS square tube, 160mm PVC pipe for guiding the float, necessary pullies, suitable nylon thread for connecting float and level indicator, painting the entire structure,			
	Net Total	1.000each	@10453.50/each	10453.50
<b>Heading Total(Rs)</b>				5281824.25
<b>7 Construction of 0.4LL Sump cum Pump house at Erachilpara</b>				
7.001	2.31			
	Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth up to 30 cm measured at a height of 1 m above ground level and removal of rubbish up to a distance of 50 m outside the periphery of the area cleared			
	Net Total	80.000sqm	@15.40/sqm	1232.00
7.002	2.8.1			
	Earth work in excavation by mechanical means (Hydraulic excavator) /manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.All kinds of soil			
	Net Total	41.624cum	@309.99/cum	12903.02
7.003	2.7.3			
	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed.Hard rock (blasting prohibited)			
	Net Total	13.606cum	@1248.59/cum	16988.32
7.004	OD167307/2023-2024			

SI No	Specification	Quantity	Rate	Amount
	:DOWEL BARS_ Supplying and providing MS dowel bars of size 16 mm dia , 200 cm long including drilling holes of 20 mm dia to a depth of 100 cm in rock and filling the gap with cement grout (0.100kg/hole) etc complete			
	Net Total	80.000no	@424.58/no	33966.40
7.005	4.1.3			
	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:2:4 (cement : 2 coarse sand (zone-III) : 4 graded stone aggregate 20 mm nominal size)			
	Net Total	6.632cum	@8340.91/cum	55316.92
7.006	7.1.1			
	Random rubble masonry with hard stone in foundation and plinth including levelling up with cement concrete 1:6:12 (1 cement : 6 coarse sand : 12 graded stone aggregate 20 mm nominal size) up to plinth level with:Cement mortar 1:6 (1 cement : 6 coarse sand)			
	Net Total	25.835cum	@7520.38/cum	194289.02
7.007	5.33.1			
	Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer - in-charge. Note:- Cement content considered in this item is @ 330 kg/ cum. Excess or less cement used as per design mix is payable or recoverable separately.All work upto plinth level			
	Net Total	9.178cum	@9825.93/cum	90182.39
7.008	5.33.2			
	Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer - in-charge. Note:- Cement content considered in this item is @ 330 kg/ cum. Excess or less cement used as per design mix is payable or recoverable separately.All work above plinth level upto floor V level			
	Net Total	25.906cum	@11550.42/cum	299225.18
7.009	5.34.1			
	Extra for providing richer mixes at all floor levels. Note:- Excess/less cement over the specified cement content used is payable/ recoverable separately.Providing M-30 grade concrete instead of M-25 grade BMC/RMC. (Note:- Cement content considered in M-30 is @ 340 kg/cum).			
	Net Total	31.756cum	@85.68/cum	2720.85



SI No	Specification	Quantity	Rate	Amount
7.010	22.23.1 Providing and applying integral crystalline slurry of hydrophilic in nature for waterproofing treatment to the RCC structures like retaining walls of the basement, water tanks, roof slabs, podiums, reservoir, sewage & water treatment plant, tunnels / subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 parts integral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 parts integral crystalline slurry : 1 part water) for horizontal surfaces and applying the same from negative (internal) side with the help of synthetic fiber brush. The material shall meet the requirements as specified in ACI-212-3R-2010 i.e by reducing permeability of concrete by more than 90% compared with control concrete as per DIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystalline slurry shall be capable of self-healing of cracks up to a width of 0.50mm. The work shall be carried out all complete as per specification and the direction of the engineerin-charge. The product performance shall carry guarantee for 10 years against any leakage.For vertical surface two coats @0.70 kg per sqm			
	Net Total	55.140sqm	@595.25/sqm	32822.09
7.011	22.23.2 Providing and applying integral crystalline slurry of hydrophilic in nature for waterproofing treatment to the RCC structures like retaining walls of the basement, water tanks, roof slabs, podiums, reservoir, sewage & water treatment plant, tunnels / subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 parts integral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 parts integral crystalline slurry : 1 part water) for horizontal surfaces and applying the same from negative (internal) side with the help of synthetic fiber brush. The material shall meet the requirements as specified in ACI-212-3R-2010 i.e by reducing permeability of concrete by more than 90% compared with control concrete as per DIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystalline slurry shall be capable of self-healing of cracks up to a width of 0.50mm. The work shall be carried out all complete as per specification and the direction of the engineerin-charge. The product performance shall carry guarantee for 10 years against any leakage.For horizontal surface one coat @ 1.10 kg per sqm.			
	Net Total	5.850sqm	@458.80/sqm	2683.98
7.012	50.6.1.2 Solid block masonry using pre cast solid blocks (Factory made) of size 40x20x20cm or nearest available size confirming to IS 2185 part I of 1979 for super structure up to floor two level thickness 20cm and above in: CM 1:6 ( 1 cement: 6 coarse sand) etc complete.			
	Net Total	5.881cum	@6748.20/cum	39686.16
7.013	50.6.1.8 Solid block masonry using pre cast solid blocks (Factory made) of size 40x20x15cm or nearest available size confirming to IS 2185 part I of 1979 for super structure up to floor two level with thickness 15cm in: CM 1:6 ( 1 cement : 6 coarse sand etc			

SI No	Specification	Quantity	Rate	Amount
	complete			
	Net Total	10.755cum	@7136.86/cum	76756.93
7.014	5.9.1			
	Centering and shuttering including strutting, etc. and removal of form for: Foundations, footings, bases of columns, etc for mass concrete			
	Net Total	25.960sqm	@350.00/sqm	9086.00
7.015	5.9.2			
	Centering and shuttering including strutting, etc. and removal of form for: Walls (any thickness) including attached pilasters, buttresses, plinth and string courses etc.			
	Net Total	107.640sqm	@748.62/sqm	80581.46
7.016	5.9.3			
	Centering and shuttering including strutting, etc. and removal of form for: Suspended floors, roofs, landings, balconies and access platform			
	Net Total	76.198sqm	@851.49/sqm	64881.84
7.017	5.22.6			
	Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth level Thermo - Mechanically Treated bars of grade Fe-500D or more			
	Net Total	4210.080kilo gram	@102.61/kilogram	431996.31
7.018	13.7.1			
	12 mm cement plaster finished with a floating coat of neat cement of mix: 1:3 ( 1 cement : 3 fine sand)			
	Net Total	468.832sqm	@418.80/sqm	196346.84
7.019	13.47.1			
	Finishing walls with Premium Acrylic Smooth exterior paint with Silicone additives of required shade: New work (Two or more coats applied @ 1.43 ltr/ 10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/ 10 sqm)			
	Net Total	397.408sqm	@198.01/sqm	78690.76
7.020	13.71			
	Lettering with black Japan pint of approved brand and manufacture			
	Net Total	80.000per Letter per cm height	@5.82/per Letter per cm height	465.60
7.021	10.25.2			
	Item Shifted to Sub head 14 as item 14.73 Item Shifted to head 14 as item 14.74 Steel work welded in built up sections/framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required. In gratings, frames, guard bar, ladder, railings, brackets, gates and similar works			
	Net Total			

SI No	Specification	Quantity	Rate	Amount
	Net Total	600.000kg	@160.93/kg	96558.00
7.022	100.41.34			
	Supplying and fixing Rectangular C.I. manhole cover 455mm x 610mm with frame (low duty) charges including all cost, labour charges etc., complete.			
	Net Total	4.000no	@2920.75/no	11683.00
7.023	9.48.2			
	Providing and fixing M.S. Grills of required pattern in frames of windows etc. with M.S. flats, square or round bars etc. including priming coat with approved steel primer all complete. Fixed to openings/ wooden frames with rawl plugs screws etc			
	Net Total	70.000kg	@225.44/kg	15780.80
7.024	10.6.1			
	Supplying and fixing rolling shutters of approved make, made of required size M.S. laths, interlocked together through their entire length and jointed together at the end by end locks, mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete, including the cost of providing and fixing necessary 27.5 cm long wire springs manufactured from high tensile steel wire of adequate strength conforming to IS: 4454 - part 1 and M.S. top cover of required thickness for rolling shutters. 80x1.25 mm M.S. laths with 1.25 mm thick top cover			
	Net Total	7.200sqm	@3617.31/sqm	26044.63
7.025	21.1.1.2			
	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS : 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing /paneling, C.P. brass/ stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge.(Glazing, paneling and dash fasteners to be paid for separately): For fixed portion Powder coated aluminium (minimum thickness of powder coating 50 micron)			
	Net Total	12.000kg	@560.61/kg	6727.32
7.026	21.1.2.2			
	For shutters of doors, windows & ventilators including providing and fixing hinges / pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber/ neoprene gasket required (Fittings shall be paid for separately) Powder coated aluminium (minimum thickness of powder coating 50 micron)			
	Net Total	10.000kg	@671.29/kg	6712.90
7.027	21.3.1			
	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of Engineer - in -Charge. ( Cost of			

SI No	Specification	Quantity	Rate	Amount
	aluminium snap beading shall be paid in basic item):With float glass panes of 4.0 mm thickness			
	Net Total	8.438sqm	@1228.18/sqm	10363.38
7.028	OD167308/2023-2024			
	Supply conveyance ,installation testing and commissioning of36/40 W LED street/Yard light out put greater than105 lumen/watts 4000-6000K with IP66 protection with LED chip make cree/Lumilled/Nichea with powerfactor greater than 0.95 at full load ,internal surge protection up to 8 kv and alluminium preasure die cast powder coated housing acryliccover complete with THD less than 10% power factor greater than 0.98 R0HS compliant duly wired up for use on 230v AC supply.Driver compartment should be separately accessible for maintanance(LM 79&80 Certificate from NABL acredited third party lab produced mentioning chip manufacturer)			
	Net Total	4.000no	@4297.55/no	17190.20
7.029	OD167309/2023-2024			
	Taking new electrical connection from KSEBL			
	Net Total	1.0001 nos	@23230.00/1 nos	23230.00
7.030	OD167310/2023-2024			
	Charges for Supply, Installation, Trial run and commissioning of CCTV cameras in Raw water pump houses which includes providing 2Nos 5 MP camera with motion sensor and 30m vision, 5 MP or Higher HD out DVR,1TB HDD,4G Router, Cable 10m,Rack, 500VA UPS, etc complete			
	Net Total	1.0001 nos	@36521.88/1 nos	36521.88
7.031	18.26.1			
	Providing and laying flanged C.I. Standard specials such as tees, bends, collars, tapers, caps etc., suitable for flanged jointing as per IS : 1538 :Upto 300 mm dia			
	Net Total	1.340quintal	@9660.34/quinta l	12944.86
7.032	100.36.1			
	Filling water with 5000 litre tankers fitted in lorry and conveying water from a distance of 5 km (average) to the reservoir site and pumping the water into the reservoir of height not less than 3 m using 5 HP diesel engine pump set , hire for tanker lorry, tools and other appliences and cost of water etc. complete.			
	Net Total	40.000Kilo litre	@190.05/Kilo litre	7602.00
7.033	OD167311/2023-2024			
	Supplying and providing water level indicator to the tank using scale fabricated out of 2mm thick MS plate with in the frame work of suitable size MS square tube, 160mm PVC pipe for guiding the float,&lt;br>necessary pullies, suitable nylon thread for connecting float and level indicator, painting the entire structure,			
	Net Total	1.000each	@10453.50/each	10453.50
	<b>Heading Total(Rs)</b>			2002634.54
<b>8</b>	<b>Construction of 3LL Sump cum Pump house at James padi</b>			

SI No	Specification	Quantity	Rate	Amount
8.001	2.31			
	Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth up to 30 cm measured at a height of 1 m above ground level and removal of rubbish up to a distance of 50 m outside the periphery of the area cleared			
	Net Total	120.000sqm	@15.40/sqm	1848.00
8.002	2.8.1			
	Earth work in excavation by mechanical means (Hydraulic excavator) /manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.All kinds of soil			
	Net Total	33.000cum	@309.99/cum	10229.67
8.003	2.7.2			
	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed.Hard rock (requiring blasting)			
	Net Total	36.528cum	@749.05/cum	27361.30
8.004	OD167331/2023-2024			
	Dowel bars - Supplying and providing MS dowel bars of size 16mm dia of 2m long (1m in rock and 1m in concrete) including drilling holes of 20mm dia and filling the gap with cement grout (.5kg/each) etc...			
	Net Total	150.000no	@901.25/no	135187.50
8.005	4.1.3			
	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:2:4 (cement : 2 coarse sand (zone-III) : 4 graded stone aggregate 20 mm nominal size)			
	Net Total	14.554cum	@8340.91/cum	121393.60
8.006	5.33.1			
	Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer - in-charge. Note:- Cement content considered in this item is @ 330 kg/ cum. Excess or less cement used as per design mix is payable or recoverable separately.All work upto plinth level			
	Net Total	19.146cum	@9825.93/cum	188127.26
8.007	5.33.2			
	Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including			



SI No	Specification	Quantity	Rate	Amount	
	admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer - in-charge. Note:- Cement content considered in this item is @ 330 kg/ cum. Excess or less cement used as per design mix is payable or recoverable separately.All work above plinth level upto floor V level				
		Net Total	67.727cum	@11550.42/cum	782275.30
8.008	5.34.1				
	Extra for providing richer mixes at all floor levels. Note:- Excess/less cement over the specified cement content used is payable/ recoverable separately.Providing M-30 grade concrete instead of M-25 grade BMC/RMC. (Note:- Cement content considered in M-30 is @ 340 kg/cum).				
		Net Total	85.577cum	@85.68/cum	7332.24
8.009	50.6.1.3				
	Solid block masonry using pre cast solid blocks (Factory made) of size 40x20x20cm or nearest available size confirming to IS 2185 Part I of 1979 for super structure above floor two level up to floor V level thickness 20cm and above in: CM 1:6 ( 1 cement :6 coarse sand) etc complete				
		Net Total	8.310cum	@7784.73/cum	64691.11
8.010	50.6.1.9				
	Solid block masonry using pre cast solid blocks( Factory made) of size 40x20x15 cm or nearest available size confirming to IS 2185 part I of 1979 for super structure above floor two level upto floor five level with thickness 15cm in: CM 1:6 ( 1 cement : 6 coarse sand) etc complete				
		Net Total	11.311cum	@8173.38/cum	92449.10
8.011	21.1.1.2				
	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS : 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing /paneling, C.P. brass/ stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge.(Glazing, paneling and dash fasteners to be paid for separately): For fixed portion Powder coated aluminium (minimum thickness of powder coating 50 micron)				
		Net Total	12.000kg	@560.61/kg	6727.32
8.012	21.1.2.2				
	For shutters of doors, windows & ventilators including providing and fixing hinges / pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber/ neoprene gasket required (Fittings shall be paid for separately) Powder coated aluminium (minimum thickness of powder coating 50 micron)				
		Net Total	9.000kg	@671.29/kg	6041.61



SI No	Specification	Quantity	Rate	Amount
8.013	21.3.1 Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of Engineer - in -Charge. ( Cost of aluminium snap beading shall be paid in basic item):With float glass panes of 4.0 mm thickness			
		Net Total	8.438sqm @1228.18/sqm	10363.38
8.014	5.9.1 Centering and shuttering including strutting, etc. and removal of form for:Foundations, footings, bases of columns, etc for mass concrete			
		Net Total	14.400sqm @350.00/sqm	5040.00
8.015	5.9.3 Centering and shuttering including strutting, etc. and removal of form for:Suspended floors, roofs, landings, balconies and access platform			
		Net Total	482.674sqm @851.49/sqm	410992.08
8.016	5.22.6 Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth levelThermo - Mechanically Treated bars of grade Fe-500D or more			
		Net Total	10424.760kilogram @102.61/kilogram	1069684.62
8.017	13.7.1 12 mm cement plaster finished with a floating coat of neat cement of mix:1:3 ( 1 cement : 3 fine sand)			
		Net Total	842.041sqm @418.80/sqm	352646.77
8.018	22.23.1 Providing and applying integral crystalline slurry of hydrophilic in nature for waterproofing treatment to the RCC structures like retaining walls of the basement, water tanks, roof slabs, podiums, reservior, sewage & water treatment plant, tunnels / subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 parts integral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 parts integral crystalline slurry : 1 part water) for horizontal surfaces and applying the same from negative (internal) side with the help of synthetic fiber brush. The material shall meet the requirements as specified in ACI-212-3R-2010 i.e by reducing permeability of concrete by more than 90% compared with control concrete as per DIN 1048 and resistant to 16 bar hydrostatic pressure on negative side. The crystalline slurry shall be capable of self-healing of cracks up to a width of 0.50mm. The work shall be carried out all complete as per specification and the direction of the engineerin-charge. The product performance shall carry guarantee for 10 years against any leakage.For vertical surface two coats @0.70 kg per sqm			
		Net Total	162.040sqm @595.25/sqm	96454.31
8.019	22.23.2 Providing and applying integral crystalline slurry of hydrophilic in nature for waterproofing treatment to the RCC structures like retaining walls of the basement, water tanks, roof slabs, podiums, reservior, sewage & water treatment plant, tunnels / subway and bridge deck etc., prepared by mixing in the ratio of 5 : 2 (5 parts integral crystalline slurry : 2 parts water) for vertical surfaces and 3 : 1 (3 parts			

SI No	Specification	Quantity	Rate	Amount
	Net Total	89.250sqm	@458.80/sqm	40947.90
8.020	13.47.1	Finishing walls with Premium Acrylic Smooth exterior paint with Silicone additives of required shade:New work (Two or more coats applied @ 1.43 ltr/ 10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/ 10 sqm)		
	Net Total	492.931sqm	@198.01/sqm	97605.27
8.021	13.71	Lettering with black Japan pint of approved brand and manufacture		
	Net Total	80.000per Letter per cm height	@5.82/per Letter per cm height	465.60
8.022	10.25.2	Item Shifted to Sub head 14 as item 14.73 Item Shifted to head 14 as item 14.74 Steel work welded in built up sections/framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required.In gratings, frames, guard bar, ladder, railings, brackets, gates and similar works		
	Net Total	850.000kg	@160.93/kg	136790.50
8.023	100.41.34	Supplying and fixing Rectangular C.I. manhole cover 455mm x 610mm with frame (low duty) charges including all cost, labour charges etc., complete.		
	Net Total	6.000no	@2920.75/no	17524.50
8.024	10.6.1	Supplying and fixing rolling shutters of approved make, made of required size M.S. laths, interlocked together through their entire length and jointed together at the end by end locks, mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete, including the cost of providing and fixing necessary 27.5 cm long wire springs manufactured from high tensile steel wire of adequate strength conforming to IS: 4454 - part 1 and M.S. top cover of required thickness for rolling shutters.80x1.25 mm M.S. laths with 1.25 mm thick top cover		
	Net Total	8.100sqm	@3617.31/sqm	29300.21
8.025	9.48.2	Providing and fixing M.S. Grills of required pattern in frames of windows etc. with M.S. flats, square or round bars etc. including priming coat with approved steel primer all complete.Fixed to openings/ wooden frames with rawl plugs screws etc		
	Net Total	80.000kg	@225.44/kg	18035.20
8.026	18.26.1	Providing and laying flanged C.I. Standard specials such as tees, bends, collars, tapers, caps etc., suitable for flanged jointing as per IS : 1538 :Upto 300 mm dia		
	Net Total	1.340quintal	@9660.34/quintal	12944.86

SI No	Specification	Quantity	Rate	Amount
8.027	OD167332/2023-2024 Supplying and providing water level indicator to the tank using scale fabricated out of 2mm thick MS plate with in the frame work of suitable size MS square tube, 160mm PVC pipe for guiding the float, necessary pullies, suitable nylon thread for connecting float and level indicator, painting the entire structure,			
		Net Total	1.000each @10453.50/each	10453.50
8.028	100.36.1 Filling water with 5000 litre tankers fitted in lorry and conveying water from a distance of 5 km (average) to the reservoir site and pumping the water into the reservoir of height not less than 3 m using 5 HP diesel engine pump set , hire for tanker lorry, tools and other appliances and cost of water etc. complete.			
		Net Total	300.000Kilo litre @190.05/Kilo litre	57015.00
<b>Heading Total(Rs)</b>				3809927.71
<b>9 Road restoration charges PWD/SH/NH</b>				
9.001	3.6 Excavation for roadwork in soil with hydraulic excavator of 0.9 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transporting to the embankment location within all lifts and lead upto 1000m			
		Net Total	1368.450cum @48.79/cum	66766.68
9.002	4.2.A.1 Construction of granular sub-base by providing graded material, spreading in uniform layers with a motor grader on a prepared surface, mixing by mix in-place method with rotavator at OMC, and compacting with a vibratory roller to achieve the desired density, complete as per clause 401. Grading-III -For lower sub-base - Mix in Place Method			
		Net Total	699.975cum @3283.03/cum	2298038.92
9.003	4.12 Providing, laying, spreading and compacting graded stone aggregate to Wet Mix Macadam specification including premixing the Material with water at OMC in mechanical mix plant carriage of mixed Material by tipper to site, laying in uniform layers with paver in sub- base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density.			
		Net Total	36.000cum @3375.91/cum	121532.76
9.004	5.1.a Providing and applying primer coat with bitumen emulsion ( SS) on prepared surface of granular Base including clearing of road surface and spraying primer at the rate of 0.70 - 1.0 kg/sqm using mechanical means.			
		Net Total	510.000sqm @61.55/sqm	31390.50
9.005	5.2.b Providing and applying tack coat with bitumen emulsion (RS) using emulsion pressure distributor at the rate of 0.25 - 0.30 kg per sqm on the prepared Granular			

SI No	Specification	Quantity	Rate	Amount
	Surface cleaned with mechanical broom.			
		Net Total	510.000sqm @14.05/sqm	7165.50
9.006	5.3.2.a			
	Providing and laying bituminous macadam with 80-100 TPH hot mix plant producing an average output of 75 tonnes per hour using crushed aggregates of specified grading premixed with a bituminous binder (VG 30), transported to the site, laid over a previously prepared surface with paver finisher to the required grade, level, and alignment and rolled as per clauses 501.6 and 501.7 to achieve the desired compaction For Grading II - (19 mm nominal size)			
		Net Total	18.750cum @8465.71/cum	158732.06
9.007	5.2.a			
	Providing and applying tack coat with bitumen emulsion( RS) using emulsion pressure distributor at the rate of 0.20 - 0.30 kg per sqm on the prepared bituminous surface cleaned with mechanical broom.			
		Net Total	375.000sqm @11.60/sqm	4350.00
9.008	5.6.2.a			
	Providing and laying bituminous concrete with 80-100 TPH hot mix plant producing an average output of 75 tonnes per hour using crushed aggregates of specified grading, premixed with a bituminous binder( NRMB) @ 5.4 percent of mix and filler, transporting the hot mix to work site, laying with a hydrostatic paver finisher with sensor control to the required grade, level, and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction as per MORTH specification clause No. 507 complete in all respects For Grading - II (13.2 mm Nominal Size)			
		Net Total	11.250cum @12886.67/cum	144975.04
9.009	5.7.1			
	Providing, laying and rolling of close-graded premix surfacing material of 20 mm thickness composed of 11.2 mm to 0.09 mm (Type-A) aggregates using viscosity grade bitumen ( VG - 30) to the required line, grade, and level to serve as wearing course on a previously prepared base, including mixing in a suitable HMP of appropriate capacity not less than 75 tonnes/hour., laying and rolling with a Smooth wheeled roller 8-10 tonne capacity, and finishing to the required level and grade.			
		Net Total	135.000sqm @203.29/sqm	27444.15
9.010	5.8.a			
	Providing and laying surface dressing as wearing course in single coat using crushed stone aggregates of specified size on a layer of bituminous binder (VG 30) laid on the prepared surface and rolling with 8-10 tonne smooth wheeled steel roller. Grading I - 19 mm nominal chipping size			
		Net Total	135.000sqm @109.04/sqm	14720.40
9.011	12.4			
	Plain cement concrete 1:3:6 nominal mix in foundation with crushed stone aggregate 40 mm nominal size mechanically mixed, placed in foundation and compacted by vibration including curing for 14 days.			
		Net Total	421.650cum @6718.30/cum	2832771.20

SI No	Specification	Quantity	Rate	Amount	
9.012	12.8.B.1				
	Plain/Reinforced Cement Concrete in Open Foundation complete as per Drawing and Technical Specifications PCC Grade M20				
		Net Total	316.238cum	@8377.76/cum	2649366.07
			<b>Heading Total(Rs)</b>		8357253.28
<b>10 Road restoration charges -LSGD</b>					
10.001	3.5.3				
	Excavation in Soil using Hydraulic Excavator and Tippers with disposal upto 1000 m Excavation for roadwork in soil with hydraulic excavator of 0.9 cum bucket capacity including cutting and loading in tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross-sections, and transporting to the embankment location with a lift upto 1.5 m and lead upto 1000 m as per Technical Specification Clause 302.3				
		Net Total	127.500cum	@37.83/cum	4823.33
10.002	4.1.A.1				
	Granular Sub-base with Well Graded Material (Table 400.1) (A) By Mix in Place Method Construction of granular sub-base by providing well graded material, spreading in uniform layers with motor grader on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density, complete as per Technical Specification Clause 401. (i) For Grading I Material				
		Net Total	63.750cum	@3094.44/cum	197270.55
10.003	4.9				
	Wet Mix Macadam Providing, laying, spreading and compacting graded stone aggregate to wet mix macadam specification including premixing the material with water at OMC in mechanical mixer (Pug Mill), carriage of mixed material by tipper to site, laying in uniform layers in sub-base/base course on a well prepared sub-base and compacting with smooth wheel roller of 80 to 100kN weight to achieve the desired density including lighting, barricading and maintenance of diversion, etc as per Tables 400.11 & 400.12 and Technical Specification Clause 406. By Mechanical Means with 1 km lead				
		Net Total	22.500cum	@3459.12/cum	77830.20
10.004	5.1.1a				
	Prime Coat :- Low porosity Providing and applying primer coat with bitumen emulsion (SS-1) on prepared surface of granular base including cleaning of road surface and spraying primer at the rate of 0.70-1.0 kg/sqm using mechanical means as per Technical Specification Clause 502				
		Net Total	250.000sqm	@74.09/sqm	18522.50
10.005	5.2.3a				
	Tack Coat Providing and applying tack coat with Bitumen emulsion (RS-1) using emulsion distributor at the rate of 0.25 to 0.30 kg per sqm on the prepared granular surfaces treated with primer & cleaned with Hydraulic broom as per Technical Specification Clause 503.				
		Net Total	250.000sqm	@15.63/sqm	3907.50



SI No	Specification	Quantity	Rate	Amount
10.006	5.9.1.2a			
	20mm thick Open-Graded Premix Carpet using Bituminous (penetration grade/modified bitumen) Binder - Bitumen S-65 Providing, laying and rolling of open-graded premix carpet of 20 mm thickness composed of 13.2 mm to 5.6 mm aggregates either using penetration grade bitumen or emulsion to required line, grade and level to serve as wearing course on a previously prepared base, including mixing in a suitable plant, laying and rolling with a three wheel 80-100 kN static roller capacity, finished to required level and grades to be followed by seal coat of either Type A or Type B or Type C as per Technical Specification Clause 508. Case - I By Manual Means (II) Bitumen (S-65)			
	Net Total	337.500sqm	@200.97/sqm	67827.38
10.007	5.12.A.3.2a			
	Seal Coat - Manual Means - Type C - Bitumen S-65 Providing and laying seal coat sealing the voids in a bituminous surface laid to the specified levels, grade and cross fall using Type A, Type B and Type C as per Technical Specification Clause 510 A. By Manual Means :- Case - III : Type C (II) Bitumen (S-65)			
	Net Total	337.500sqm	@85.09/sqm	28717.88
10.008	11.4.3.1			
	Providing concrete for plain/reinforced concrete in open foundations complete as per drawings and technical specifications Clause 802, 803, 1202 & 1203 III. P.C.C. grade M 20 (i) Nominal mix (1:2:4)			
	Net Total	74.250cum	@8633.95/cum	641070.79
			<b>Heading Total(Rs)</b>	1039970.13
<b>11</b>	<b>Electrification works and Supply erection testing and commissioning of pump sets at Erachilpara</b>			
11.001	OD167333/2023-2024			
	Supply, erection & commissioning of best quality KWA approved make ISI marked centrifugal pumpset having a 15 LPS discharge against 130 M head at its maximum efficiency working at 230/415V at 50 Hz, 1450 rpm with bronze impeller, stainless steel shaft, CI/SS pump casing with suitable type base plate, including suitable fully Automatic starter with dry run, under voltage, over voltage & over current protection relay, MS panel board with MCCB, ELCB, Capacitor, Indicator lamps, voltmeter, ammeter, change over switch etc suitable for the above motor pump set including necessary copper cable for wiring, earthing, suitable size GM/CI non return & sluice valves, suction & delivery connections etc as per ISI and IE regulations & KSEB standard and erected & trial run conducted for 7days as per the direction of dept. officers and 2 years of free maintenance. If any documentation is required, that should be arranged by the supplier.A). PUMP:- Supply , erection , testing and commissioning of Kirloskar reputed make centrifugal pumpsets with Bronze/SS impeller , SS shaft and CI pump casing with suitable type of base plate with coupling ,coupling guard foundation bolts and nuts etc. complete suitable for coupling the pump and motor above the base plate etc complete including providing suitable concrete foundation including cost of cement , sand and metal etc complete the duty condition is as follows discharge -15 lps, total head - 130m,Speed -1460 rpm,  (B). MOTOR:- supply , erection , testing and commissioning of Kirloskar reputed make horizontal solid shaft foot mounted TEFC squaral cage induction motor suitable for the above pump working 3 phase 50HZ AC			



SI No	Specification	Quantity	Rate	Amount
	<p>supply , working voltage&amp;lt;br&amp;gt;415 V / 3300 V . The motor shall confirm to IE2/IE3 as per IS 12615-2018 including providing suitable concrete foundation including cost of cement, sand and metal etc complete. Flexible coupling shall be used for coupling of pumps and motors&amp;lt;br&amp;gt;(C).STARTER:- Supply ,erection, testing and commissioning of dry type copper wound auto transformer having 40,60,80% taping mounded with powder coated 2 mm thick steel sheath dust and vermin proof floor mounted control cubical panel associated with in/out cable entry boxes for accommodating the following parameters for controlling functions of the the fully automatic auto transformer starter. suitable for above motor - L&amp;amp;T or equivalent reputed co. make MNX 225 contactor unit -1 No L&amp;amp;T or equivalent Co make MNX 95 contactor unit- 2 Nos Timer and supervisory trip relay 1 No OV/UV control relays Minilac or equivalent Co make single phasing preventer AVF digital meter 1 No and selector switch - 1 set ON/Off ,trip &amp; 3 phase indication lamps, Digital or numerical motor protection relay Power Circuit wiring with 25 x 4mm PVC sleeve insulated copper bar and 2.5 sq.mm control wiring &amp;lt;br&amp;gt;(D).PANNEL BOARD :- Supply, erection,testing and commissioning of cubical type floor mounted MS fabricated dust and vermin proof common control panel board consisting of 1 No. suitable rating of 3 pole MCCB as incomer providing suitable size Aluminium bus bar inter connect the above MCCB and fitted with 3 Nos of indicator lamps, 1 No. volt meter with selector switch, 1 No. Ammeter with selector switch etc. complete and provided with duplicate earth point as per CEA regulation and code of practice. the panel shall be fitted on a common base frame on suitable foundation &amp;lt;br&amp;gt;(E).CABLING WORK:- Supply, laying, testing and commissioning of suitable size Aluminium conductor armoured cables for the above pump set from panel board to starter and suitable size cable through PVC pipe, flexible hose and accessories from starter to motor.considering energy conservation &amp;lt;br&amp;gt;( F). EARTHING:- Supply of all material and providing duplicate earthing by 25 x 3mm copper strip on wall /column/floor/buried (Appx. 20 mtrs) in ground and giving double earthing to motor,starter,panel board etc. and connect with existing earthbus. As per IE standards &amp;lt;br&amp;gt;(G).CAPACITOR:- Supply,erection,testing and commissioning suitable rating of of heavy duty APP capacitor for the above motor to get unity&amp;lt;br&amp;gt;power factor . The capacitor shall confirm to IS 2834 &amp;lt;br&amp;gt;(H).VALVE:- Supply of suitable size best quality heavy duty ISI Marked CI double fanged sluice valve and Non return valve with suitable pressure rating.fitting of valves shall include proper RCC support especially for Non return valves. In case of positive suction pump set sluice valve should be in suction as well as delivery sides for easy repair works. Pressure gauge on both suction and delivery side &amp;lt;br&amp;gt;&amp;lt;br&amp;gt;(I).SUCTION AND DELIVERY PIPE CONNECTIONS:- Supply and fitting of suitable size best quality MS pipe of thickness not less than 8 mm for a total length of 8 m (approx). suitable for the above pump set and suitable size foot valve and connecting the suction pipe of size 200mm MS and valve with suitable flanges, nut and bolts IR sheet etc. complete and connecting the delivery side of the pump with 150mm MS pipe of thickness not less than 8 mm for a total length of 8 m (approx) , vales and suitable specials to connect with the pumping main</p>			
	Net Total	2.000no	@1350831.00/no	2701662.00
11.002	OD167334/2023-2024			

SI No	Specification	Quantity	Rate	Amount
	Supply & installation of light fittings on TW round block Supply, conveyance installation testing and commissioning the light fittings of following types made of CRCA with 0.5mm thickness complete with all accessories and lamps etc. directly on wall or ceiling with PVC round block neatly painted to suit the fitting and giving connection with required length of 16/0.20mm 3 core copper conductor flex wire conforming to relevant ISS and giving connections as required. 1x28wT5 fitting with APF electronic ballast suitable for continuous operation with THD less than 10%, power factor greater than 0.98, RoHS compliant, high lumen tube .			
	Net Total	6.000no	@1055.99/no	6335.94
11.003	OD167335/2023-2024 Providing and fixing 25 mm X 5 mm copper strip on surface or in recess for connections etc. as required. As per Databook DAR Electrical-5.14.			
	Net Total	8.000metre	@1251.12/metre	10008.96
11.004	OD167336/2023-2024 25mm PVC Conduit- Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/ recessincluding cutting the wall and making good the same in case of recessed conduit as required. 25 mm .As per Databook DAR Electrical-1.21.2.			
	Net Total	6.000metre	@111.80/metre	670.80
11.005	OD167337/2023-2024 Wiring with 3x 4 sq mm FRLS PVC insulated copper conductor-Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existingsurface / recessed steel/ PVC conduit as required. 3 x 4 sq. mm As per databook DAR Electrical-1.17.21.			
	Net Total	6.000metre	@144.35/metre	866.10
11.006	OD167338/2023-2024 12 Way MCB DB 240V -Supplying and fixing following way, single pole and neutral, sheet steel, MCB distribution board, 240 V, on surface/recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCBIRCCB/Isolator 12 way, Double door. As per Databook DAR Electrical-2.3.3.			
	Net Total	1.000no	@2060.67/no	2060.67
11.007	OD167339/2023-2024 SPN 5-32A MCB-Supplying and fixing 5 amps to 32 amps rating, 240/415 volts, &quot;C&quot; curve, miniature circuit breaker suitable forinductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. asrequired. Single pole and netural .As per Databook DAR Electrical-2.10.2.			
	Net Total	2.000no	@675.08/no	1350.16
11.008	OD167340/2023-2024 DP Isolator 40A -Supplying and fixing following rating, double pole, 240 volts, isolator in the existing MCB DB complete withconnections, testing and commissioning etc. as required. 40 amps .As per Databook DAR Electrical-2.12.1.			
	Net Total			

SI No	Specification	Quantity	Rate	Amount
	Net Total	1.000no	@420.34/no	420.34
11.009	OD167341/2023-2024 RCCB DP 40A - Supplying and fixing following rating, double pole, (single phase and neutral), 240 volts, residual current circuitbreaker (RCCB), having a sensitivity current upto 300 milliampere in the existing MCB DB complete with connections, testing and commissioning etc. as required. 40 amps . As per Databook DAR Electrical 2.14.2.			
	Net Total	1.000no	@2599.90/no	2599.90
11.010	OD167342/2023-2024 Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copperconductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitableGI box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc as required.Group B. As per Databook DAR Electrical 1.10.2.			
	Net Total	14.000point	@970.89/point	13592.46
11.011	OD167343/2023-2024 Earthing with copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required. As per Data book Electrical 5.6			
	Net Total	2.000set	@14635.61/set	29271.22
11.012	OD167344/2023-2024 Expenses of getting electrical connection from KSEB including documentation fee, service charges, energization charges etc			
	Net Total	1.000job	@19977.80/job	19977.80
11.013	OD167345/2023-2024 Supply, conveyance, installation and commissioning of light duty Exhaust fan of 300/305mm sweep in metal frame working on 230V A/C 300 sweep including making good the damages etc as required as directed by the departmental officers			
	Net Total	2.000no	@2633.90/no	5267.80
11.014	OD167346/2023-2024 Supply conveyance ,installation testing and commissioning of36/40 W LED street/Yard light out put greater than105 lumen/watts 4000-6000K with IP66 protection with LED chip make cree/Lumiled/Nichea with powerfactor greater than 0.95 at full load ,internal surge protection up to 8 kv and alluminium preasure die cast powder coated housing acryliccover complete with THD less than 10% power factor greater than 0.98 ROHS compliant duly wired up for use on 230v AC supply.Driver compartment should be separately accessible for maintanance(LM 79&80 Certificate from NABL acredited third party lab produced mentioning chip manufacturer)			

SI No	Specification	Quantity	Rate	Amount
	Net Total	4.000no	@4546.00/no	18184.00
11.015	OD167347/2023-2024			
	Supply , delivery and fixing of 3 T or suitable capacity Electrically and manually working on single girder with overhead travelling trolley and clear lift as per site conditions for lifting the chemicals, Chlorine, pumps etc.. and fitting as required, supplied with one set of crane slings with GI D shackle and clamps etc. complete as per the instruction of the Engineer in charge.&lt;br&gt;			
	Net Total	1.000no	@284722.27/no	284722.27
	<b>Heading Total(Rs)</b>			3096990.42
<b>12</b>	<b>Electrification works and Supply erection testing and commissioning of pump sets at Poopara</b>			
12.001	OD167315/2023-2024			
	Supply, erection & commissioning of best quality KWA approved make ISI marked centrifugal pumpset having a 15 LPS discharge against 145 M head at its maximum efficiency working at 230/415V at 50 Hz, 1450 rpm with bronze impeller, stainless steel shaft, CI/SS pump casing with suitable type base plate, including suitable fully Automatic starter with dry run, under voltage, over voltage & over current protection relay, MS panel board with MCCB, ELCB, Capacitor, Indicator lamps, voltmeter, ammeter, change over switch etc suitable for the above motor pump set including necessary copper cable for wiring, earthing, suitable size GM/CI non return & sluice valves, suction & delivery connections etc as per ISI and IE regulations & KSEB standard and erected & trial run conducted for 7days as per the direction of dept. officers and 2 years of free maintenance. If any documentation is required, that should be arranged by the supplier.A). PUMP:- Supply , erection , testing and commissioning of Kirloskar reputed make centrifugal pumpsets with Bronze/SS impeller , SS shaft and CI pump casing with suitable type of base plate with coupling ,coupling guard foundation bolts and nuts etc. complete suitable for coupling the pump and motor above the base&lt;br&gt;plate etc complete including providing suitable concrete foundation including cost of cement , sand and metal etc complete the duty condition is as follows discharge - 15 lps, total head - 145m,Speed -1460 rpm, &lt;br&gt;(B). MOTOR:- supply , erection , testing and commissioning of Kirloskar reputed make horizontal solid shaft foot mounted TEFC squaral cage induction motor suitable for the above pump working 3 phase 50HZ AC supply , working voltage&lt;br&gt;415 V / 3300 V . The motor shall confirm to IE2/IE3 as per IS 12615-2018 including providing suitable concrete foundation including cost of cement, sand and metal etc complete. Flexible coupling shall be used for coupling of pumps and motors&lt;br&gt;(C).STARTER:- Supply ,erection, testing and commissioning of dry type copper wound auto transformer having 40,60,80% taping mounded with powder coated 2 mm thick steel sheath dust and vermin proof floor mounted control cubical panel associated with in/out cable entry boxes for accommodating the following parameters for controlling functions of the the fully automatic auto transformer starter. suitable for above motor - L&T or equivalent reputed co. make MNX 225 contactor unit -1 No L&T or equivalent Co make MNX 95 contactor unit- 2 Nos Timer and supervisory trip relay 1 No OV/UV control relays Minilac or equivalent Co make single phasing preventer AVF digital meter 1 No and selector switch - 1 set ON/Off ,trip & 3 phase indication lamps, Digital or numerical motor protection relay Power Circuit wiring with 25 x 4mm PVC sleeve insulated copper bar and 2.5 sq.mm			

SI No	Specification	Quantity	Rate	Amount
	<p>control wiring &amp;lt;br&amp;gt;</p> <p>(D).PANNEL BOARD :- Supply, erection,testing and commissioning of cubical type floor mounted MS fabricated dust and vermin proof common control panel board consisting of 1 No. suitable rating of 3 pole MCCB as incomer providing suitable size Aluminium bus bar inter connect the above MCCB and fitted with 3 Nos of indicator lamps, 1 No. volt meter with selector switch, 1 No. Ammeter with selector switch etc. complete and provided with duplicate earth point as per CEA regulation and code of practice. the panel shall be fitted on a common base frame on suitable foundation &amp;lt;br&amp;gt;(E).CABLING WORK:- Supply, laying, testing and commissioning of suitable size Aluminium conductor armoured cables for the above pump set from panel board to starter and suitable size cable through PVC pipe, flexible hose and accessories from starter to motor.considering energy conservation &amp;lt;br&amp;gt;</p> <p>( F). EARTHING:-  Supply of all material and providing duplicate earthing by 25 x 3mm copper strip on wall /column/floor/buried (Appx. 20 mtrs) in ground and giving double earthing to motor,starter,panel board etc. and connect with existing earthbus. As per IE standards &amp;lt;br&amp;gt;</p> <p>(G).CAPACITOR:-  Supply,erection,testing and commissioning suitable rating of of heavy duty APP capacitor for the above motor to get unity&amp;lt;br&amp;gt;power factor . The capacitor shall confirm to IS 2834 &amp;lt;br&amp;gt;</p> <p>(H).VALVE:- Supply of suitable size best quality heavy duty ISI Marked CI double fanged sluice valve and Non return valve with suitable pressure rating.fitting of valves shall include proper RCC support especially for Non return valves. In case of positive suction pump set sluice valve should be in suction as well as delivery sides for easy repair works. Pressure gauge on both suction and delivery side &amp;lt;br&amp;gt;&amp;lt;br&amp;gt;</p> <p>(I).SUCTION AND DELIVERY PIPE CONNECTIONS:- Supply and fitting of suitable size best quality MS pipe of thickness not less than 8 mm for a total length of 8 m (approx). suitable for the above pump set and suitable size foot valve and connecting the suction pipe of size 200mm MS and valve with suitable flanges, nut and bolts IR sheet etc. complete and connecting the delivery side of the pump with 150mm MS pipe of thickness not less than 8 mm for a total length of 8 m (approx) , vales and suitable specials to connect with the pumping main</p>			
	Net Total	2.000no	@1486803.50/no	2973607.00
12.002	OD167316/2023-2024			
	<p>Supply, erection &amp; commissioning of best quality KWA approved make ISI marked centrifugal pumpset having a 3 LPS discharge against 180 M head at its maximum efficiency working at 230/415V at 50 Hz, 1450 rpm with bronze impeller, stainless steel shaft, CI/SS pump casing with suitable type base plate, including suitable fully Automatic starter with dry run, under voltage, over voltage &amp; over current protection relay, MS panel board with MCCB, ELCB, Capacitor, Indicator lamps, voltmeter, ammeter, change over switch etc suitable for the above motor pump set including necessary copper cable for wiring, earthing, suitable size GM/CI non return &amp; sluice valves, suction &amp; delivery connections etc as per ISI and IE regulations &amp; KSEB standard and erected &amp; trial run conducted for 7days as per the direction of dept. officers and 2 years of free maintenance. If any documentation is required, that should be arranged by the supplier. A). PUMP:-</p>			



SI No	Specification	Quantity	Rate	Amount
	<p>Supply , erection , testing and commissioning of Kirloskar reputed make centrifugal pumpsets with Bronze/SS impeller , SS shaft and CI pump casing with suitable type of base plate with coupling ,coupling guard foundation bolts and nuts etc. complete suitable for coupling the pump and motor above the base&amp;lt;br&amp;gt;plate etc complete including providing suitable concrete foundation including cost of cement , sand and metal etc complete the duty condition is as follows discharge - 3 lps, total head - 180m,Speed -1460 rpm, &amp;lt;br&amp;gt;</p> <p>(B). MOTOR:- supply , erection , testing and commissioning of Kirloskar reputed make horizontal solid shaft foot mounted TEFC squaral cage induction motor suitable for the above pump working 3 phase 50HZ AC supply , working voltage&amp;lt;br&amp;gt;415 V / 3300 V . The motor shall confirm to IE2/IE3 as per IS 12615-2018 including providing suitable concrete foundation including cost of cement, sand and metal etc complete. Flexible coupling shall be used for coupling of pumps and motors&amp;lt;br&amp;gt;</p> <p>(C).STARTER:- Supply ,erection, testing and commissioning of dry type copper wound auto transformer having 40,60,80% taping mounded with powder coated 2 mm thick steel sheath dust and vermin proof floor mounted control cubical panel associated with in/out cable entry boxes for accommodating the following parameters for controlling functions of the the fully automatic auto transformer starter. suitable for above motor - L&amp;amp;T or equivalent reputed co. make MNX 225 contactor unit -1 No L&amp;amp;T or equivalent Co make MNX 95 contactor unit- 2 Nos Timer and supervisory trip relay 1 No OV/UV control relays Minilac or equivalent Co make single phasing preventer AVF digital meter 1 No and selector switch - 1 set ON/Off ,trip &amp;amp; 3 phase indication lamps, Digital or numerical motor protection relay Power Circuit wiring with 25 x 4mm PVC sleeve insulated copper bar and 2.5 sq.mm control wiring &amp;lt;br&amp;gt;</p> <p>(D).PANNEL BOARD :- Supply, erection,testing and commissioning of cubical type floor mounted MS fabricated dust and vermin proof common control panel board consisting of 1 No. suitable rating of 3 pole MCCB as incomer providing suitable size Aluminium bus bar inter connect the above MCCB and fitted with 3 Nos of indicator lamps, 1 No. volt meter with selector switch, 1 No. Ammeter with selector switch etc. complete and provided with duplicate earth point as per CEA regulation and code of practice. the panel shall be fitted on a common base frame on suitable foundation &amp;lt;br&amp;gt;</p> <p>(E).CABLING WORK:- Supply, laying, testing and commissioning of suitable size Aluminium conductor armoured cables for the above pump set from panel board to starter and suitable size cable through PVC pipe, flexible hose and accessories from starter to motor.considering energy conservation &amp;lt;br&amp;gt;</p> <p>( F). EARTHING:-  Supply of all material and providing duplicate earthing by 25 x 3mm copper strip on wall /column/floor/buried (Appx. 20 mtrs) in ground and giving double earthing to motor,starter,panel board etc. and connect with existing earthbus. As per IE standards &amp;lt;br&amp;gt;</p> <p>(G).CAPACITOR:-  Supply,erection,testing and commissioning suitable rating of of heavy duty APP capacitor for the above motor to get unity&amp;lt;br&amp;gt;power factor . The capacitor shall confirm to IS 2834 &amp;lt;br&amp;gt;</p> <p>(H).VALVE:- Supply of suitable size best quality heavy duty ISI Marked CI double fanged sluice valve and Non return valve with suitable pressure rating.fitting of valves shall include proper RCC support especially for Non return valves. In case of positive suction pump set sluice valve should be in suction as well as delivery sides for easy repair works. Pressure gauge on both suction and delivery side</p>			



SI No	Specification	Quantity	Rate	Amount
	&lt;br&gt;&lt;br&gt; (I).SUCTION AND DELIVERY PIPE CONNECTIONS:- Supply and fitting of suitable size best quality MS pipe of thickness not less than 8 mm for a total length of 8 m (approx). suitable for the above pump set and suitable size foot valve and connecting the suction pipe of size 200mm MS and valve with suitable flanges, nut and bolts IR sheet etc. complete and connecting the delivery side of the pump with 150mm MS pipe of thickness not less than 8 mm for a total length of 8 m (approx) , vales and suitable specials to connect with the pumping main (15% RATE)			
	Net Total	2.000no	@409347.62/no	818695.24
12.003	OD167317/2023-2024			
	Supply & installation of light fittings on TW round block Supply, conveyance installation testing and commissioning the light fittings of following types made of CRCA with 0.5mm thickness complete with all accessories and lamps etc. directly on wall or ceiling with PVC round block neatly painted to suit the fitting and giving connection with required length of 16/0.20mm 3 core copper conductor flex wire conforming to relevant ISS and giving connections as required. 1x28wT5 fitting with APF electronic ballast suitable for continuous operation with THD less than 10%, power factor greater than 0.98, RoHS compliant, high lumen tube .			
	Net Total	6.000no	@1055.99/no	6335.94
12.004	OD167318/2023-2024			
	Providing and fixing 25 mm X 5 mm copper strip on surface or in recess for connections etc. as required. As per Databook DAR Electrical-5.14.			
	Net Total	8.000metre	@1251.12/metre	10008.96
12.005	OD167319/2023-2024			
	25mm PVC Conduit- Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/ recessincluding cutting the wall and making good the same in case of recessed conduit as required. 25 mm .As per Databook DAR Electrical-1.21.2.			
	Net Total	6.000metre	@111.80/metre	670.80
12.006	OD167320/2023-2024			
	Wiring with 3x 4 sq mm FRLS PVC insulated copper conductor-Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existingsurface / recessed steel/ PVC conduit as required. 3 x 4 sq. mm As per databook DAR Electrical-1.17.21.			
	Net Total	6.000metre	@144.35/metre	866.10
12.007	OD167321/2023-2024			
	12 Way MCB DB 240V -Supplying and fixing following way, single pole and neutral, sheet steel, MCB distribution board, 240 V, on surface/recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCBIRCCB/Isolator 12 way, Double door. As per Databook DAR Electrical-2.3.3.			
	Net Total	1.000no	@2060.67/no	2060.67
12.008	OD167322/2023-2024			

SI No	Specification	Quantity	Rate	Amount
	SPN 5-32A MCB-Supplying and fixing 5 amps to 32 amps rating, 240/415 volts, &quot;C&quot; curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required. Single pole and neutral .As per Databook DAR Electrical-2.10.2.			
	Net Total	2.000no	@675.08/no	1350.16
12.009	OD167323/2023-2024			
	DP Isolator 40A -Supplying and fixing following rating, double pole, 240 volts, isolator in the existing MCB DB complete with connections, testing and commissioning etc. as required. 40 amps .As per Databook DAR Electrical-2.12.1.			
	Net Total	1.000no	@420.34/no	420.34
12.010	OD167324/2023-2024			
	RCCB DP 40A - Supplying and fixing following rating, double pole, (single phase and neutral), 240 volts, residual current circuitbreaker (RCCB), having a sensitivity current upto 300 milliamperes in the existing MCB DB complete with connections, testing and commissioning etc. as required. 40 amps . As per Databook DAR Electrical 2.14.2.			
	Net Total	1.000no	@2599.90/no	2599.90
12.011	OD167325/2023-2024			
	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc as required. Group B. As per Databook DAR Electrical 1.10.2.			
	Net Total	14.000point	@970.89/point	13592.46
12.012	OD167326/2023-2024			
	Earthing with copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required. As per Data book Electrical 5.6			
	Net Total	1.000set	@14635.61/set	14635.61
12.013	OD167327/2023-2024			
	Expenses of getting electrical connection from KSEB including documentation fee, service charges, energization charges etc			
	Net Total	1.000job	@19977.80/job	19977.80
12.014	OD167328/2023-2024			
	Supply, conveyance, installation and commissioning of light duty Exhaust fan of 300/305mm sweep in metal frame working on 230V A/C 300 sweep including making good the damages etc as required as directed by the departmental officers			
	Net Total	2.000no	@2633.90/no	5267.80

SI No	Specification	Quantity	Rate	Amount
12.015	OD167329/2023-2024 Supply conveyance ,installation testing and commissioning of36/40 W LED street/Yard light out put greater than105 lumen/watts 4000-6000K with IP66 protection with LED chip make cree/Lumilled/Nichea with powerfactor greater than 0.95 at full load ,internal surge protection up to 8 kv and alluminium preasure die cast powder coated housing acryliccover complete with THD less than 10% power factor greater than 0.98 ROHS compliant duly wired up for use on 230v AC supply.Driver compartment should be separately accessible for maintanance(LM 79&80 Certificate from NABL acredited third party lab produced mentioning chip manufacturer)			
	Net Total	4.000no	@4546.00/no	18184.00
12.016	OD167330/2023-2024 Supply , delivery and fixing of 3 T or suitable capacity Electrically and manually working on single girder with overhead travelling trolley and clear lift as per site conditions for lifting the chemicals, Chlorine, pumps etc.. and fitting as required, supplied with one set of crane slings with GI D shackle and clamps etc. complete as per the instruction of the Engineer in charge.&lt;br&gt;			
	Net Total	1.000no	@284722.27/no	284722.27
	<b>Heading Total(Rs)</b>			4172995.05
<b>13</b>	<b>Electrification works and Supply erection testing and commissioning of pump sets at Jamespadi</b>			
13.001	OD167348/2023-2024 Supply, erection & commissioning of best quality KWA approved make ISI marked centrifugal pumpset having a 17 LPS discharge against 140 M head at its maximum efficiency working at 230/415V at 50 Hz, 1450 rpm with bronze impeller, stainless steel shaft, CI/SS pump casing with suitable type base plate, including suitable fully Automatic starter with dry run, under voltage, over voltage & over current protection relay, MS panel board with MCCB, ELCB, Capacitor, Indicator lamps, voltmeter, ammeter, change over switch etc suitable for the above motor pump set including necessary copper cable for wiring, earthing, suitable size GM/CI non return & sluice valves, suction & delivery connections etc as per ISI and IE regulations & KSEB standard and erected & trial run conducted for 7days as per the direction of dept. officers and 2 years of free maintenance. If any documentation is required, that should be arranged by the supplier. A). PUMP:- Supply , erection , testing and commissioning of Kirloskar reputed make centrifugal pumpsets with Bronze/SS impeller , SS shaft and CI pump casing with suitable type of base plate with coupling ,coupling guard foundation bolts and nuts etc. complete suitable for coupling the pump and motor above the base&lt;br&gt;plate etc complete including providing suitable concrete foundation including cost of cement , sand and metal etc complete the duty condition is as follows discharge - 17 lps, total head - 140m,Speed -1460 rpm, &lt;br&gt;(B). MOTOR:- supply , erection , testing and commissioning of Kirloskar reputed make horizontal solid shaft foot mounted TEFC squaral cage induction motor suitable for the above pump working 3 phase 50HZ AC supply , working voltage&lt;br&gt;415 V / 3300 V . The motor shall confirm to IE2/IE3 as per IS 12615-2018 including providing suitable concrete foundation including cost of cement, sand and metal etc complete. Flexible coupling shall be used for coupling of pumps and motors&lt;br&gt;			

SI No	Specification	Quantity	Rate	Amount
	<p>(C).STARTER:- Supply ,erection, testing and commissioning of dry type copper wound auto transformer having 40,60,80% taping mounded with powder coated 2 mm thick steel sheath dust and vermin proof floor mounted control cubical panel associated with in/out cable entry boxes for accommodating the following parameters for controlling functions of the the fully automatic auto transformer starter. suitable for above motor - L&amp;T or equivalent reputed co. make MNX 225 contactor unit -1 No L&amp;T or equivalent Co make MNX 95 contactor unit- 2 Nos Timer and supervisory trip relay 1 No OV/UV control relays Minilac or equivalent Co make single phasing preventer AVF digital meter 1 No and selector switch - 1 set ON/Off ,trip &amp; 3 phase indication lamps, Digital or numerical motor protection relay Power Circuit wiring with 25 x 4mm PVC sleeve insulated copper bar and 2.5 sq.mm control wiring &amp;lt;br&amp;gt;</p> <p>(D).PANNEL BOARD :- Supply, erection,testing and commissioning of cubical type floor mounted MS fabricated dust and vermin proof common control panel board consisting of 1 No. suitable rating of 3 pole MCCB as incomer providing suitable size Aluminium bus bar inter connect the above MCCB and fitted with 3 Nos of indicator lamps, 1 No. volt meter with selector switch, 1 No. Ammeter with selector switch etc. complete and provided with duplicate earth point as per CEA regulation and code of practice. the panel shall be fitted on a common base frame on suitable foundation &amp;lt;br&amp;gt;(E).CABLING WORK:- Supply, laying, testing and commissioning of suitable size Aluminium conductor armoured cables for the above pump set from panel board to starter and suitable size cable through PVC pipe, flexible hose and accessories from starter to motor.considering energy conservation &amp;lt;br&amp;gt;</p> <p>( F). EARTHING:-  Supply of all material and providing duplicate earthing by 25 x 3mm copper strip on wall /column/floor/buried (Appx. 20 mtrs) in ground and giving double earthing to motor,starter,panel board etc. and connect with existing earthbus. As per IE standards &amp;lt;br&amp;gt;</p> <p>(G).CAPACITOR:-  Supply,erection,testing and commissioning suitable rating of of heavy duty APP capacitor for the above motor to get unity&amp;lt;br&amp;gt;power factor . The capacitor shall confirm to IS 2834 &amp;lt;br&amp;gt;</p> <p>(H).VALVE:- Supply of suitable size best quality heavy duty ISI Marked CI double fanged sluice valve and Non return valve with suitable pressure rating.fitting of valves shall include proper RCC support especially for Non return valves. In case of positive suction pump set sluice valve should be in suction as well as delivery sides for easy repair works. Pressure gauge on both suction and delivery side &amp;lt;br&amp;gt;&amp;lt;br&amp;gt;</p> <p>(I).SUCTION AND DELIVERY PIPE CONNECTIONS:- Supply and fitting of suitable size best quality MS pipe of thickness not less than 8 mm for a total length of 8 m (approx). suitable for the above pump set and suitable size foot valve and connecting the suction pipe of size 200mm MS and valve with suitable flanges, nut and bolts IR sheet etc. complete and connecting the delivery side of the pump with 150mm MS pipe of thickness not less than 8 mm for a total length of 8 m (approx) , vales and suitable specials to connect with the pumping main</p>			
	Net Total	2.000no	@1596737.15/no	3193474.30
13.002	OD167349/2023-2024			
	Supply & installation of light fittings on TW round block Supply, conveyance installation testing and commissioning the light fittings of			

SI No	Specification	Quantity	Rate	Amount
	following types made of CRCA with 0.5mm thickness complete with all accessories and lamps etc. directly on wall or ceiling with PVC round block neatly painted to suit the fitting and giving connection with required length of 16/0.20mm 3 core copper conductor flex wire conforming to relevant ISS and giving connections as required. 1x28wT5 fitting with APF electronic ballast suitable for continuous operation with THD less than 10%, power factor greater than 0.98, RoHS compliant, high lumen tube .			
	Net Total	6.000no	@1055.99/no	6335.94
13.003	OD167350/2023-2024			
	Providing and fixing 25 mm X 5 mm copper strip on surface or in recess for connections etc. as required. As per Databook DAR Electrical-5.14.			
	Net Total	8.000metre	@1251.12/metre	10008.96
13.004	OD167351/2023-2024			
	25mm PVC Conduit- Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/ recessincluding cutting the wall and making good the same in case of recessed conduit as required. 25 mm .As per Databook DAR Electrical-1.21.2.			
	Net Total	6.000metre	@111.80/metre	670.80
13.005	OD167352/2023-2024			
	Wiring with 3x 4 sq mm FRLS PVC insulated copper conductor-Supplying and drawing following sizes of FRLS PVC insulated copper conductor, single core cable in the existingsurface / recessed steel/ PVC conduit as required. 3 x 4 sq. mm As per databook DAR Electrical-1.17.21.			
	Net Total	6.000metre	@144.35/metre	866.10
13.006	OD167353/2023-2024			
	12 Way MCB DB 240V -Supplying and fixing following way, single pole and neutral, sheet steel, MCB distribution board, 240 V, on surface/recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCBIRCCB/Isolator 12 way, Double door. As per Databook DAR Electrical-2.3.3.			
	Net Total	1.000no	@2060.67/no	2060.67
13.007	OD167354/2023-2024			
	SPN 5-32A MCB-Supplying and fixing 5 amps to 32 amps rating, 240/415 volts, &quot;C&quot; curve, miniature circuit breaker suitable forinductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. asrequired. Single pole and netural .As per Databook DAR Electrical-2.10.2.			
	Net Total	2.000no	@675.08/no	1350.16
13.008	OD167355/2023-2024			
	DP Isolator 40A -Supplying and fixing following rating, double pole, 240 volts, isolator in the existing MCB DB complete withconnections, testing and commissioning etc. as required. 40 amps .As per Databook DAR Electrical-2.12.1.			
	Net Total	1.000no	@420.34/no	420.34
13.009	OD167356/2023-2024			



SI No	Specification	Quantity	Rate	Amount
	RCCB DP 40A - Supplying and fixing following rating, double pole, (single phase and neutral), 240 volts, residual current circuitbreaker (RCCB), having a sensitivity current upto 300 milliamperes in the existing MCB DB complete with connections, testing and commissioning etc. as required. 40 amps . As per Databook DAR Electrical 2.14.2.			
	Net Total	1.000no	@2599.90/no	2599.90
13.010	OD167357/2023-2024 Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copperconductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitableGI box and earthing the point with 1.5 sq.mm. FRLS PVC insulated copper conductor single core cable etc as required.Group B. As per Databook DAR Electrical 1.10.2.			
	Net Total	14.000point	@970.89/point	13592.46
13.011	OD167358/2023-2024 Earthing with copper earth plate 600 mm X 600 mm X 3 mm thick including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe of 2.7 metre long etc. with charcoal/ coke and salt as required. As per Data book Electrical 5.6			
	Net Total	1.000set	@14635.61/set	14635.61
13.012	OD167359/2023-2024 Expenses of getting electrical connection from KSEB including documentation fee, service charges, energization charges etc			
	Net Total	1.000job	@19977.80/job	19977.80
13.013	OD167360/2023-2024 Supply, conveyance, installation and commissioning of light duty Exhaust fan of 300/305mm sweep in metal frame working on 230V A/C 300 sweep including making good the damages etc as required as directed by the departmental officers			
	Net Total	2.000no	@2633.90/no	5267.80
13.014	OD167361/2023-2024 Supply conveyance ,installation testing and commissioning of36/40 W LED street/Yard light out put greater than105 lumen/watts 4000-6000K with IP66 protection with LED chip make cree/Lumilled/Nichea with powerfactor greater than 0.95 at full load ,internal surge protection up to 8 kv and alluminium preasure die cast powder coated housing acryliccover complete with THD less than 10% power factor greater than 0.98 ROHS compliant duly wired up for use on 230v AC supply.Driver compartment should be separately accessible for maintanance(LM 79&80 Certificate from NABL acredited third party lab produced mentioning chip manufacturer)			
	Net Total	4.000no	@4546.00/no	18184.00
13.015	OD167362/2023-2024 Supply , delivery and fixing of 3 T or suitable capacity Electrically and manually			



SI No	Specification	Quantity	Rate	Amount
	working on single girder with overhead travelling trolley and clear lift as per site conditions for lifting the chemicals, Chlorine, pumps etc.. and fitting as required, supplied with one set of crane slings with GI D shackle and clamps etc. complete as per the instruction of the Engineer in charge.&lt;br&gt;			
	Net Total	1.000no	@284722.27/no	284722.27
	<b>Heading Total(Rs)</b>			3574167.11
<b>14</b>	<b>Supply erection testing and commissioning of pump sets at Poopara for magnapeak</b>			
14.001	OD167977/2023-2024			
	<p>Supply, erection &amp;amp; commissioning of best quality KWA approved make ISI marked centrifugal pumpset having a 3 LPS discharge against 176 M head at its maximum efficiency working at 230/415V at 50 Hz, 1450 rpm with bronze impeller, stainless steel shaft, CI/SS pump casing with suitable type base plate, including suitable fully Automatic starter with dry run, under voltage, over voltage &amp;amp; over current protection relay, MS panel board with MCCB, ELCB, Capacitor, Indicator lamps, voltmeter, ammeter, change over switch etc suitable for the above motor pump set including necessary copper cable for wiring, earthing, suitable size GM/CI non return &amp;amp; sluice valves, suction &amp;amp; delivery connections etc as per ISI and IE regulations &amp;amp; KSEB standard and erected &amp;amp; trial run conducted for 7days as per the direction of dept. officers and 2 years of free maintenance. If any documentation is required, that should be arranged by the supplier. A). PUMP:- Supply , erection , testing and commissioning of Kirloskar reputed make centrifugal pumpsets with Bronze/SS impeller , SS shaft and CI pump casing with suitable type of base plate with coupling ,coupling guard foundation bolts and nuts etc. complete suitable for coupling the pump and motor above the base&amp;lt;br&amp;gt;plate etc complete including providing suitable concrete foundation including cost of cement , sand and metal etc complete the duty condition is as follows discharge - 3 lps, total head - 176m,Speed -1460 rpm, &amp;lt;br&amp;gt;(B). MOTOR:- supply , erection , testing and commissioning of Kirloskar reputed make horizontal solid shaft foot mounted TEFC squaral cage induction motor suitable for the above pump working 3 phase 50HZ AC supply , working voltage&amp;lt;br&amp;gt;415 V / 3300 V . The motor shall confirm to IE2/IE3 as per IS 12615-2018 including providing suitable concrete foundation including cost of cement, sand and metal etc complete. Flexible coupling</p>			

SI No	Specification	Quantity	Rate	Amount
	<p>shall be used for coupling of pumps and motors&amp;lt;br&amp;gt;  (C).STARTER:- Supply ,erection, testing and commissioning of dry type copper wound auto transformer having 40,60,80% taping mounded with powder coated 2 mm thick steel sheath dust and vermin proof floor mounted control cubical panel associated with in/out cable entry boxes for accommodating the following parameters for controlling functions of the the fully automatic auto transformer starter. suitable for above motor - L&amp;amp;T or equivalent reputed co. make MNX 225 contactor unit -1 No L&amp;amp;T or equivalent Co make MNX 95 contactor unit- 2 Nos Timer and supervisory trip relay 1 No OV/UV control relays Minilac or equivalent Co make single phasing preventer AVF digital meter 1 No and selector switch - 1 set ON/Off ,trip &amp;amp; 3 phase indication lamps, Digital or numerical motor protection relay Power Circuit wiring with 25 x 4mm PVC sleeve insulated copper bar and 2.5 sq.mm control wiring &amp;lt;br&amp;gt;  (D).PANNEL BOARD :- Supply, erection,testing and commissioning of cubical type floor mounted MS fabricated dust and vermin proof common control panel board consisting of 1 No. suitable rating of 3 pole MCCB as incomer providing suitable size Aluminium bus bar inter connect the above MCCB and fitted with 3 Nos of indicator lamps, 1 No. volt meter with selector switch, 1 No. Ammeter with selector switch etc. complete and provided with duplicate earth point as per CEA regulation and code of practice. the panel shall be fitted on a common base frame on suitable foundation &amp;lt;br&amp;gt;(E).CABLING WORK:- Supply, laying, testing and commissioning of suitable size Aluminium conductor armoured cables for the above pump set from panel board to starter and suitable size cable through PVC pipe, flexible hose and accessories from starter to motor.considering energy conservation &amp;lt;br&amp;gt;  (F). EARTHING:- Supply of all material and providing duplicate earthing by 25 x 3mm copper strip on wall /column/floor/buried (Appx. 20 mtrs) in ground and giving double earthing to motor,starter,panel board etc. and connect with existing earthbus. As per IE standards &amp;lt;br&amp;gt;  (G).CAPACITOR:- Supply,erection,testing and commissioning suitable rating of of heavy duty APP capacitor for the above motor to get unity&amp;lt;br&amp;gt;power factor . The capacitor shall confirm to IS 2834</p>			

SI No	Specification	Quantity	Rate	Amount
	&lt;br&gt; (H). VALVE:- Supply of suitable size best quality heavy duty ISI Marked CI double fanged sluice valve and Non return valve with suitable pressure rating. fitting of valves shall include proper RCC support especially for Non return valves. In case of positive suction pump set sluice valve should be in suction as well as delivery sides for easy repair works. Pressure gauge on both suction and delivery side &lt;br&gt;&lt;br&gt; (I). SUCTION AND DELIVERY PIPE CONNECTIONS:- Supply and fitting of suitable size best quality MS pipe of thickness not less than 8 mm for a total length of 8 m (approx). suitable for the above pump set and suitable size foot valve and connecting the suction pipe of size 200mm MS and valve with suitable flanges, nut and bolts IR sheet etc. complete and connecting the delivery side of the pump with 150mm MS pipe of thickness not less than 8 mm for a total length of 8 m (approx) , vales and suitable specials to connect with the pumping main			
	Net Total	4.000set	@482962.88/set	1931851.52
14.002	OD168051/2023-2024			
	Approval from Electrical Inspectorate including preparation of drawings, obtaining approval for the drawings, arranging inspection of the installations and obtaining safety certificate et; after completion of the works. The necessary statutory fees, if any, payable to the Electrical Inspectorate / KSEB will be paid by KWA. (Note : Scheme approval from the Electrical Inspectorate has to be obtained before supplying the equipments. Payment for the supply of materials will be released only on production of scheme approval) including Energization approval from inspectorate and approvals from KSEBL. - Actual rate = 10000.00/L.S For avoiding CPOH 16% = $0.84 * 10000 = 8400/L.S$			
	Net Total	1.000L.S	@9756.60/L.S	9756.60
<b>Heading Total(Rs)</b>				1941608.12
<b>15</b>	<b>Construction of pipe line bridge</b>			
15.001	2.31			
	Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth up to 30 cm measured at a height of 1 m above ground level and removal of rubbish up to a distance of 50 m outside the periphery of the area cleared			
	Net Total	85.000sqm	@15.40/sqm	1309.00
15.002	2.8.1			
	Earth work in excavation by mechanical means (Hydraulic excavator) /manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan),			

SI No	Specification	Quantity	Rate	Amount
	including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m. All kinds of soil			
	Net Total	5.292cum	@309.99/cum	1640.47
15.003	2.9.3			
	Excavation work by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift up to 1.5 m, including getting out the excavated soil and disposal of surplus excavated soils as directed, within a lead of 50 m. Hard rock (blasting prohibited)			
	Net Total	5.292cum	@1327.61/cum	7025.71
15.004	4.1.5			
	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level: 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 20 mm nominal size)			
	Net Total	4.410cum	@7690.32/cum	33914.31
15.005	OD182803/2023-2024			
	Dowel Bar-Supplying and providing MS dowel bars of size 20mm dia. of 1m long. (0.5m in rock and 0.5m in concrete) including drilling holes of 20mm dia. and filling the gap with cement grout (100kg/hole) etc.			
	Net Total	48.000no	@72.50/no	3480.00
15.006	5.1.2			
	Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level: 1:1:5:3 (1 cement 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size)			
	Net Total	6.786cum	@9483.13/cum	64352.52
15.007	5.2.2			
	Reinforced cement concrete work in walls (any thickness), including attached pilasters, buttresses, plinth and string courses, fillets, columns, pillars, piers, abutments, posts and struts etc. up to floor five level excluding cost of centering, shuttering, finishing and reinforcement : 1:1.5:3 (1 cement : 1.5 coarse sand : 3 graded stone aggregate 20 mm nominal size)			
	Net Total	14.205cum	@11433.90/cum	162418.55
15.008	5.22.1			
	Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth level Mild steel and Medium Tensile steel bars			
	Net Total	2099.100kg	@100.88/kg	211757.21
15.009	5.9.1			
	Centering and shuttering including strutting, etc. and removal of form			

SI No	Specification	Quantity	Rate	Amount
	for: Foundations, footings, bases of columns, etc for mass concrete			
	Net Total	15.120sqm	@350.00/sqm	5292.00
15.010	5.9.3			
	Centering and shuttering including strutting, etc. and removal of form for: Suspended floors, roofs, landings, balconies and access platform			
	Net Total	114.000sqm	@851.49/sqm	97069.86
15.011	13.7.1			
	12 mm cement plaster finished with a floating coat of neat cement of mix: 1:3 ( 1 cement : 3 fine sand)			
	Net Total	157.160sqm	@418.80/sqm	65818.61
15.012	10.26.3			
	Providing and fixing hand rail of approved size by welding etc. to steel ladder railing, balcony railing, staircase railing and similar works, including applying priming coat of approved steel primer. G.I. pipes			
	Net Total	467.200kg	@194.15/kg	90706.88
15.013	100.52.S.1			
	Sub Data for providing Earth filled cement bags including cutting of the Earth, filling, conveying and placing in position.			
	Net Total	4800.000each	@97.50/each	468000.00
15.014	100.52.S.3			
	Sub Data for Supplying, conveying and covering using best quality polythene sheet on bund to protect bund from seasonal changes.			
	Net Total	120.000sqm	@26.30/sqm	3156.00
15.015	100.52.S.5			
	Sub Data for Dismantling the sand / earth filled cement bag from the foundation site of bund, apron on both sides, counter wall and removing the sand/earth from the bag and disposing the damaged cement bags properly as per the direction of the department officers including all cost of labour charges etc complete.			
	Net Total	120.000cum	@458.64/cum	55036.80
15.016	100.7.1			
	Bailing out water with 5HP engine and pump set including conveyance to the site, erecting, dismantling and taking back of engine and pump, cost of fuel lubricating oil and other stores pay of staff etc., complete.			
	Net Total	10742.000Kwh	@38.55/Kwh	414104.10
15.017	13.48.3			
	Finishing with Deluxe Multi surface paint system for interiors and exteriors using primer as per manufacturers specifications: Painting Steel work with Deluxe Multi Surface Paint to give an even shade. Two or more coat applied @ 0.90 ltr/10 sqm over an under coat of primer applied @ 0.80 ltr/10 sqm of approved brand and manufacture			



SI No	Specification	Quantity	Rate	Amount
	Net Total	160.760sqm	@154.59/sqm	24851.89
	<b>Heading Total(Rs)</b>			1709933.91
	<b>Total Estimation PAC</b>			111372659.6 6
<b>17</b>	<b>Extra Charges</b>			
16.001	Provision for GST			
		111372659.66	18.00%	20047078.7 4
	<b>Grand Total</b>			131419738. 40
	<b>Round off</b>			80261.60
	<b>Rounded Total(Rs)</b>			131500000.0 0
	Rupees Thirteen Crore Fifteen Lakh			

