GENERAL ABSTRACT

Jal Jeevan Mission (JJM)-JJM-WSS to Kudayathoor panchayath in Idukki District.-Supply and Laying Clear Water Pumping Mains,Construction of sump cum pump house, Construction of GLSR at various zones, Supply and erection of Pumpsets and Supply and erection of 400 KVA Transfomer-Package I-General Civil Work

Sl No	Head Description		Amount
1	Supply and laying of Clear Water Pumping Mains		102086252.26
2	Road restoration works(MORTH)		18375571.20
3	Road restoration charges (DAR CIVIL)		3336364.00
4	Road restoration charges to be remitted to other agencies		914880.00
5	Construction of Sump cum pump house at Blind school		6076153.84
6	Construction of 0.80 LL sump and pump house at Morkadu		2671432.46
7	Construction of 0.3 LL sump and pump house at Morkadu booster 2		1527128.28
8	Construction of 1.0 LL capacity steel tanks at Morkadu top		1165092.87
9	Construction of 1.80 LL capacity steel tank at Kaippa.		1987019.37
10	Construction of 2.20 LL capacity steel tank at Adoormala.		2440050.03
11	Supply, errection, commissioning of clear water pump sets and Transformer arrangements		11722759.10
12	Power allocation charges		1500000.00
	Total Estimation PAC		153802703.41
C	**Extra Charges**		
C.001	Provision for GST		
	153802703.41	18.00%	27684486.61
	Grand Total		181487190.02
	Round off		809.98
	Rounded Total(Rs)		181488000.00
	Rupees Eighteen Crore Fourteen Lakh Eighty Eight Thousand		

Approved By
Sudheer TS
(PEN:G45721), Chief Engineer

DETAILED ESTIMATE

Jal Jeevan Mission (JJM)-JJM-WSS to Kudayathoor panchayath in Idukki District.-Supply and Laying Clear Water Pumping Mains,Construction of sump cum pump house, Construction of GLSR at various zones, Supply and erection of Pumpsets and Supply and erection of 400 KVA Transfomer-Package I-General Civil Work

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
1	Supply and laying of Clear Water Pumping Mains						
1.001	100.98.119						
	Supply of DI K9 Pipe Conforming to IS 8329/2000, 300mm Dia.						
	For clear water pumping main from Plant at Perumattom to sump cum Pump House near Blind school						
	Pumping main (8100-1670)	1	6980.000				6980.000
	2% for future mace.	1	130.000				130.000
	Total						**7110.000**
						Total Quantity in metre	**7110.000**
1.002	100.98.117						
	Supply of DI K9 Pipe Conforming to IS 8329/2000, 200mm Dia.						
	Clear water pumping main from Sump to Morkkadu Booster 1						
	200 mm DI K9 pipe	1	3210+90				3300.000
	2% for future mace.	1	66.000				66.000
	Total						**3366.000**
						Total Quantity in metre	**3366.000**
1.003	100.98.116						
	Supply of DI K9 Pipe Conforming to IS 8329/2000, 150mm Dia.						
	CWPM from Sump to Adoormala,Sump to Kaipa						
	150 mm DI K9 Pipe	1	3950+5000				8950.000
	2% for future mace.	1	179.000				179.000
	Total						**9129.000**
						Total Quantity in metre	**9129.000**
1.004	100.98.115						
	Supply of DI K9 Pipe Conforming to IS 8329/2000, 100mm Dia.						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	CWPM from Morkkadu Booster 1 to 2, morkkadu Booster 2 to Morkkadu top,Morkkadu Booster 1 to Koovappally						
	100 mmDI K9 pipe	1	1100+1350+1320				3770.000
	2% for future mace.	1	75.000				75.000
	Total						**3845.000**
						Total Quantity in metre	**3845.000**
1.005	100.98.457						
	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.6, Size 80mm.						
	Sluice valve						
	For scour	3					3.000
	Total						**3.000**
						Total Quantity in no	**3.000**
1.006	100.98.458						
	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.6, Size 100mm.						
	Sluice valve						
	For scour	4					4.000
	Total						**4.000**
						Total Quantity in no	**4.000**
1.007	100.98.460						
	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.6, Size 150mm.						
	Sluice valve						
	For scour	2					2.000
	Total						**2.000**
						Total Quantity in no	**2.000**
1.008	100.98.461						
	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.6, Size 200mm.						
	Sluice valve						
	For scour	4					4.000
	Total						**4.000**
						Total Quantity in no	**4.000**
1.009	100.98.440						
	Supply of CI Air Valve, Conforming to IS 14848 - 2000, Single Orifice, Small Orifice Type S1, Size 25mm.						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Air valve						
		3					3.000
	Total						**3.000**
						Total Quantity in no	**3.000**
1.010	100.98.441						
	Supply of CI Air Valve, Conforming to IS 14848 - 2000, Single Orifice, Small Orifice Type S1, Size 40mm.						
	Air valve						
		18					18.000
	Total						**18.000**
						Total Quantity in no	**18.000**
1.011	100.98.446						
	Supply of CI Air Valve, Conforming to IS 14848 - 2000, Double Orifice Type DS2, Size 50mm.						
	Supply of 50mm D/O CI air valve						
	50mm D/O CI air valve	6					6.000
	Total						**6.000**
						Total Quantity in no	**6.000**
1.012	100.98.436						
	Supply of CI Air Valve, Conforming to IS 14848 - 2000, Kinetic Air Valve Type DK, Size 80mm.						
	For air valve in pumping mains						
		2					2.000
	Total						**2.000**
						Total Quantity in no	**2.000**
1.013	100.98.429						
	Supply of CI Non Return Valve, Conforming to IS 5312 Part I - 1984, PN 1.6, Size 100mm.						
	NR Valve						
		3					3.000
	Total						**3.000**
						Total Quantity in no	**3.000**
1.014	100.98.431						
	Supply of CI Non Return Valve, Conforming to IS 5312 Part I - 1984, PN 1.0, Size 150mm.						
	NR Valve						
		4					4.000

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Total						**4.000**
						Total Quantity in no	**4.000**
1.015	100.98.432						
	Supply of CI Non Return Valve, Conforming to IS 5312 Part I - 1984, PN 1.0, Size 200mm.						
	NR Valve						
		2					2.000
	Total						**2.000**
						Total Quantity in no	**2.000**
1.016	100.98.434						
	Supply of CI Non Return Valve, Conforming to IS 5312 Part I - 1984, PN 1.0, Size 300mm.						
	NR Valve						
		2					2.000
	Total						**2.000**
						Total Quantity in no	**2.000**
1.017	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.						
	Earthwork excavation in HS						
	300mmDI	1	6980.000	1.000	1.250	0.700000	6107.500
	200mmDI	1	3300.000	0.800	1.150	0.700000	2125.200
	150mmDI	1	8950.000	0.600	1.100	0.700000	4134.900
	100mmDI	1	3770.000	0.600	1.100	0.700000	1741.740
	Deduct dismantling	-1	2212.000		0.100		-221.200
	Total						**13888.140**
						Total Quantity in cum	**13888.140**
1.018	100.1.5						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	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.						
	Earthwork Excavation in Ordinary rock						
	300 mm DI	1	6980.000	1.000	1.250	0.200000	1745.000
	200 mm DI	1	3300.000	0.800	1.150	0.200000	607.200
	150 mm DI	1	8950.000	0.600	1.100	0.200000	1181.400
	100 mm DI	1	3770.000	0.600	1.100	0.200000	497.640
	Total						**4031.240**
						Total Quantity in cum	**4031.240**
1.019	100.2.2						
	Excavation work by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5m in width or 10m2 on plan), 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.						
	Earthwork excavation in MR						
	300 mm DI	1	6980.000	1.000	1.250	0.070000	610.750
	200 mm DI	1	3300.000	0.800	1.150	0.070000	212.520
	150 mm DI	1	8950.000	0.600	1.100	0.070000	413.490
	100 mm DI	1	3770.000	0.600	1.100	0.070000	174.174
	Total						**1410.934**
						Total Quantity in cum	**1410.934**
1.020	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.						
	Earthwork excavation in HR						
	300 mmDI	1	6980.000	1.000	1.200	0.030000	251.280

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	200 mmDI	1	3300.000	0.800	1.150	0.030000	91.080
	150 mmDI	1	8950.000	0.600	1.100	0.030000	177.210
	100 mmDI	1	3770.000	0.600	1.100	0.030000	74.646
	Total						**594.216**
						Total Quantity in cum	**594.216**
1.021	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.						
	Fencing						
		1	12000.000				12000.000
	Total						**12000.000**
						Total Quantity in metre	**12000.000**
1.022	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.						
	Cutting bituminous/ concrete road						
	for crossing	2	4.000				8.000
	for shoulder cutting	1	4420.000				4420.000
	Total						**4428.000**
						Total Quantity in metre	**4428.000**
1.023	15.43.2						
	Dismantling manually / by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer -in-Charge:Bituminous road						
	Dismsntling surviceable material and disposal of unserviceable material						
	for crossing	1	4.000	0.500			2.000
	for scholder cutting	1	4420.000	0.500			2210.000
	Total						**2212.000**
						Total Quantity in sqm	**2212.000**

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
1.024	50.2.25.1						
	Filling with contractor's own earth (excluding rock) in trenches, plinth, sides of foundations 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 as per direction of site Engineer-in-charge						
	Filling with contractor's own earth						
		1	600.000				600.000
	Total						**600.000**
						Total Quantity in cum	**600.000**
1.025	100.14.1						
	Conveying and laying S&S Centrifugally Cast (Spun) / Ductile Iron Pipes conforming to IS: 8329 excluding cost of pipes and specials: 100mm diameter Ductile Iron Class K-9 Pipes.						
	100 mm DI K9 Pipe laying						
	Morkkad booster 1 to 2	1	1100.000				1100.000
	Morkkad booster 1 to Koovappally	1	1320.000				1320.000
	Morkkad booster 2 to Morkkadu top	1	1350.000				1350.000
	Total						**3770.000**
						Total Quantity in metre	**3770.000**
1.026	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.						
	150 mm DI K9 Pipe						
	sump to Adoormala	1	3950.000				3950.000
	sump to Kaipa	1	5000.000				5000.000
	Total						**8950.000**
						Total Quantity in metre	**8950.000**
1.027	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.						
	200 mm DI K9 Pipe						
	Sump to Morkkadu Booster 1	1	3300.000				3300.000
	Total						**3300.000**

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
						Total Quantity in metre	**3300.000**
1.028	100.14.5						
	Conveying and laying S&S Centrifugally Cast (Spun) / Ductile Iron Pipes conforming to IS: 8329 excluding cost of pipes and specials: 300mm diameter Ductile Iron Class K-9 Pipes.						
	300 mm DI K9 Pipe						
	Muttom to Kudayathoor	1	6980.000				6980.000
	Total						**6980.000**
						Total Quantity in metre	**6980.000**
1.029	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						
	Providing and laying D.I specials						
	300 mm bend 90	6	0.680				4.080
	300 mm bend 45	12	0.500				6.000
	300 mm bend 22.5	70	0.440				30.800
	300 mm bend 11.25	140	0.400				56.000
	300 mm MJ Collar	12	0.480				5.760
	300 mm Tee	2	0.820				1.640
	300 mmTailpiece	4	0.430				1.720
	200 mm bend 90	6	0.320				1.920
	200 mm bend 45	12	0.260				3.120
	200 mm bend 22.5	30	0.230				6.900
	200 mm bend 11.25	60	0.210				12.600
	200 mm MJ collar	6	0.270				1.620
	200 mm Tailpiece	10	0.230				2.300
	200 mm Tee	5	0.410				2.050
	150 mm bend 90	18	0.200				3.600
	150 mm bend 45	36	0.160				5.760
	150 mm bend 22.5	90	0.150				13.500
	150 mm bend 11.25	180	0.140				25.200

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	150 mm bend MJ collar	18	0.200				3.600
	150 mm Tailpiece	12	0.160				1.920
	150 mm Tee	6	0.260				1.560
	100 mm bend 90	6	0.110				0.660
	100 mm bend 45	12	0.100				1.200
	100 mm bend 22.5	40	0.090				3.600
	100 mm bend 11.25	80	0.090				7.200
	100 mm MJ collar	8	0.130				1.040
	100 mm Tailpiece	14	0.100				1.400
	100 mm Tee	7	0.150				1.050
	Total						**207.800**
						Total Quantity in quintal	**207.800**
1.030	18.70.1						
	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:100 mm dia pipes						
	Push on joints						
		720					720.000
	Total						**720.000**
						Total Quantity in joint	**720.000**
1.031	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						
	Push on joints						
		1680					1680.000
	Total						**1680.000**
						Total Quantity in joint	**1680.000**
1.032	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						
	Push on joints						
		620					620.000
	Total						**620.000**

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
						Total Quantity in joint	**620.000**
1.033	18.70.5						
	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:300 mm dia pipe						
	Push on joints						
		1300					1300.000
	Total						**1300.000**
						Total Quantity in joint	**1300.000**
1.034	18.30.2						
	Providing flanged joints to double flanged C.I./ D.I pipes and specials, including testing of joints:100 mm diameter pipe						
	Flanged joints						
		35					35.000
	Total						**35.000**
						Total Quantity in no	**35.000**
1.035	18.30.4						
	Providing flanged joints to double flanged C.I./ D.I pipes and specials, including testing of joints:150 mm diameter pipe						
	Flanged joints						
		30					30.000
	Total						**30.000**
						Total Quantity in no	**30.000**
1.036	18.30.5						
	Providing flanged joints to double flanged C.I./ D.I pipes and specials, including testing of joints:200 mm diameter pipe						
	Flanged joints						
		25					25.000
	Total						**25.000**
						Total Quantity in no	**25.000**
1.037	18.30.7						
	Providing flanged joints to double flanged C.I./ D.I pipes and specials, including testing of joints:300 mm diameter pipe						
	Flanged joints						
		22					22.000
	Total						**22.000**
						Total Quantity in no	**22.000**
1.038	OD24793/2022-2023						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Labour for cutting D.I. pipe with steel saw. 100 mm diameter D.I. pipe						
	100 mm diameter DI. pipe						
		80					80.000
	Total						**80.000**
						Total Quantity in Each Cut	**80.000**
1.039	OD24816/2022-2023						
	Labour for cutting D.I. pipe with steel saw. 150 mm diameter D.I. pipe						
	150 mm diameter DI. pipe						
		150					150.000
	Total						**150.000**
						Total Quantity in Each Cut	**150.000**
1.040	OD24826/2022-2023						
	Labour for cutting D.I. pipe with steel saw. 200 mm diameter D.I. pipe						
	200 mm diameter DI. pipe						
		70					70.000
	Total						**70.000**
						Total Quantity in Each Cut	**70.000**
1.041	OD24836/2022-2023						
	Labour for cutting D.I. pipe with steel saw. 300 mm diameter D.I. pipe						
	300 mm diameter D.I. pipe						
		100					100.000
	Total						**100.000**
						Total Quantity in Each Cut	**100.000**
1.042	100.35.1						
	Testing 100mm DI/CI pipeline with potable water to the required test pressure 100 mm dia						
	Testing DI and MS						
		1	3770+90				3860.000
	Total						**3860.000**
						Total Quantity in metre	**3860.000**
1.043	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						
	Testing DI+MS						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
		1	8950+350				9300.000
	Total						**9300.000**
						Total Quantity in metre	**9300.000**
1.044	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						
	Testing DI+MS						
		1	3300+90				3390.000
	Total						**3390.000**
						Total Quantity in metre	**3390.000**
1.045	100.35.5						
	Testing 300mm DI/CI pipeline with potable water to the required test pressure. 300 mm dia Observed Data derived from item no.1023 of PHED DATA						
	Testing						
		1	6980+150				7130.000
	Total						**7130.000**
						Total Quantity in metre	**7130.000**
1.046	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.						
	Air valve						
		3					3.000
	Total						**3.000**
						Total Quantity in no	**3.000**
1.047	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.						
	Air valve						
		18					18.000
	Total						**18.000**
						Total Quantity in no	**18.000**
1.048	100.32.3						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Conveying and fixing C. I. Double 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): 50mm Double Acting Air Valve.						
	Air valve						
		6					6.000
	Total						**6.000**
						Total Quantity in no	**6.000**
1.049	100.32.4						
	Conveying and fixing C. I. Double 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): 80mm Double Acting Air Valve.						
	Air valve						
		2					2.000
	Total						**2.000**
						Total Quantity in no	**2.000**
1.050	100.31.1.1						
	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): 80mm diameter, Class I.						
	Sluice valve						
		3					3.000
	Total						**3.000**
						Total Quantity in no	**3.000**
1.051	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.						
	Sluice valve& NR Valve						
	Sluice valve	4					4.000
	NR valve	3					3.000
	Total						**7.000**
						Total Quantity in no	**7.000**
1.052	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.						
	Sluice valve& NR Valve						
	Sluice valve	2					2.000
	NR valve	4					4.000
	Total						**6.000**

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
						Total Quantity in no	**6.000**
1.053	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.						
	Sluice valve& NR Valve						
	Sluice valve	4					4.000
	NR valve	2					2.000
	Total						**6.000**
						Total Quantity in no	**6.000**
1.054	100.31.1.7						
	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): 300mm diameter, Class I.						
	NR Valve						
		2					2.000
	Total						**2.000**
						Total Quantity in no	**2.000**
1.055	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.						
	M.S pipe						
		1	90.000				90.000
	Total						**90.000**
						Total Quantity in metre	**90.000**
1.056	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.						
	M.S flange						
		1	20.000				20.000
	Total						**20.000**
						Total Quantity in no	**20.000**
1.057	100.37.5.3						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	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.						
	M.S pipe cutting						
		1	40.000				40.000
	Total						**40.000**
						Total Quantity in no	**40.000**
1.058	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.						
	M.S pipe welding						
		1	40.000				40.000
	Total						**40.000**
						Total Quantity in no	**40.000**
1.059	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.						
	M.S pipe Grinding						
		1	40.000				40.000
	Total						**40.000**
						Total Quantity in no	**40.000**
1.060	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.						
	M.S pipe						
		1	350.000				350.000
	Total						**350.000**
						Total Quantity in metre	**350.000**
1.061	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 even shade over an under-coat of primer etc., complete: For pipes fabricated with 8mm thick M.S. plates.						
	M.S flange						
		1	30.000				30.000
	Total						**30.000**

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
						Total Quantity in no	**30.000**
1.062	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.						
	M.S pipe cutting						
		1	60.000				60.000
	Total						**60.000**
						Total Quantity in no	**60.000**
1.063	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.						
	M.S pipe welding						
		1	60.000				60.000
	Total						**60.000**
						Total Quantity in no	**60.000**
1.064	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.						
	M.S pipe Grinding						
		1	60.000				60.000
	Total						**60.000**
						Total Quantity in no	**60.000**
1.065	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.						
	M.S pipe						
		1	90.000				90.000
	Total						**90.000**
						Total Quantity in metre	**90.000**
1.066	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.						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	M.S flange						
		1	20.000				20.000
	Total						**20.000**
						Total Quantity in no	**20.000**
1.067	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.						
	M.S pipe cutting						
		1	40.000				40.000
	Total						**40.000**
						Total Quantity in no	**40.000**
1.068	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.						
	M.S pipe welding						
		1	40.000				40.000
	Total						**40.000**
						Total Quantity in no	**40.000**
1.069	100.37.7.5						
	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.						
	M.S pipe Grinding						
		1	40.000				40.000
	Total						**40.000**
						Total Quantity in no	**40.000**
1.070	100.37.9.1						
	In situ fabrication of M.S. pipes of size 300mm (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.						
	M.S pipe						
		1	150.000				150.000
	Total						**150.000**
						Total Quantity in metre	**150.000**
1.071	100.37.9.2						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Fabricating M.S. flanges of diameter 300mm 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.						
	M.S flanges						
		1	30.000				30.000
	Total						**30.000**
						Total Quantity in no	**30.000**
1.072	100.37.9.3						
	Cutting 300mm (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.						
	M.S pipe cutting						
		1	60.000				60.000
	Total						**60.000**
						Total Quantity in no	**60.000**
1.073	100.37.9.4						
	Welding 300mm (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.						
	M.S pipe welding						
		1	60.000				60.000
	Total						**60.000**
						Total Quantity in no	**60.000**
1.074	100.37.9.5						
	Grinding cut and weld edges of 300mm (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.						
	M.S pipe Grinding						
		1	60.000				60.000
	Total						**60.000**
						Total Quantity in no	**60.000**
1.075	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						
	For valve chamber						
		50	1.800	1.800	1.500		243.000

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Total						**243.000**
						Total Quantity in cum	**243.000**
1.076	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)						
	PCC(1:3:6)						
	Valve chamber PCC	50	1.500	1.500	0.100		11.250
	Anchor block	300	0.600	0.600	0.600		64.800
	Total						**76.050**
						Total Quantity in cum	**76.050**
1.077	5.1.3						
	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:1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)						
	RCC Anchor block						
		340	1.000	1.000	1.000		340.000
	Total						**340.000**
						Total Quantity in cum	**340.000**
1.078	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						
	RCC Valve chamber						
	Floor	50	1.500	1.500	0.200		22.500
	Side wall	50	5.400	0.150	0.900		36.450
	Roof	50	1.800	1.800	0.200		32.400
	Total						**91.350**
						Total Quantity in cum	**91.350**
1.079	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						
	Steel Reinforcement						
		1	340+91.35			80.000000	34508.000
	Total						**34508.000**

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
						Total Quantity in kilogram	**34508.000**
1.080	4.3.1						
	Centering and shuttering including strutting, propping etc. and removal of form work for:Foundations, footings, bases for columns						
	Centering & shuttering						
	Inside	50	4.800		1.200		288.000
	Roof	50	7.200		0.200		72.000
	Anchor block(RCC)	340	4.000		1.000		1360.000
	Anchor block	300	2.400		0.600		432.000
	Total						**2152.000**
						Total Quantity in sqm	**2152.000**
2	Road restoration works(MORTH)						
2.001	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						
	Road work						
	Tar surface	1	8000.000	1.100	0.400		3520.000
	Total						**3520.000**
						Total Quantity in cum	**3520.000**
2.002	4.1.B.2						
	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-VI - For sub-base cum drainage layer - Mix in Place Method						
	Granular sub-base						
	Tar surface	1	8000.000	1.100	0.150		1320.000
	Total						**1320.000**
						Total Quantity in cum	**1320.000**
2.003	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.						
	WMM						
	Tar surface	1	8000.000	1.100	0.150		1320.000

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Total						**1320.000**
						Total Quantity in cum	**1320.000**
2.004	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.						
	Prime coat -2 times.						
	Tar surface	2	8000.000	1.300			20800.000
	Total						**20800.000**
						Total Quantity in sqm	**20800.000**
2.005	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.						
	Tack coat						
	For BM	1	6000.000	1.000			6000.000
	For BC	1	6000.000	1.500			9000.000
	Total						**15000.000**
						Total Quantity in sqm	**15000.000**
2.006	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)						
	BM						
		1	6000.000	1.000	0.030		180.000
	Total						**180.000**
						Total Quantity in cum	**180.000**
2.007	5.6.1.a						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	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) @ 5.2 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 - I (19 mm nominal size)						
	BC						
		1	6000.000	1.500	0.050		450.000
	Total						**450.000**
						Total Quantity in cum	**450.000**
2.008	OD5369/2022-2023						
	Taking out existing CC interlocking paver blocks from footpath/ central verge, including removal of rubbish etc., disposal of unserviceable material to the dumping ground, for which payment shall be made separately and stacking of serviceable material within 50 metre lead as per direction of Engineer-in-Charge.						
	Interlocking blocks						
		1	300.000	1.000			300.000
	Total						**300.000**
						Total Quantity in sqm	**300.000**
2.009	OD5371/2022-2023						
	Laying old cement concrete interlocking paver blocks of any design/ shape laid in required line, level, curvature, colour and pattern over and including 50 mm thick compacted bed of coarse sand, filling the joints with fine sand etc. all complete as per the direction of Engineer-in-charge. (Old CC paver blocks shall be supplied by the department free of cost.)						
	Interlocking blocks						
		1	300.000	1.000			300.000
	Total						**300.000**
						Total Quantity in sqm	**300.000**
3	Road restoration charges (DAR CIVIL)						
3.001	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)						
	Cement concrete						
		1	2000.000	1.000	0.200		400.000
	Total						**400.000**
						Total Quantity in cum	**400.000**
4	Road restoration charges to be remitted to other agencies						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
4.001	OD5391/2022-2023						
	Road restoration charges for Berm cutting as per 30.07.2020G.O(Ms) N0.59/2020/PWD dated						
	Berm cutting						
		1	3000.000	1.000			3000.000
	Total						**3000.000**
						Total Quantity in sqm	**3000.000**
5	Construction of Sump cum pump house at Blind school						
5.001	2.33.2						
	Felling trees of the girth (measured at a height of 1 m above ground level) including cutting of trunks and branches, removing the roots and stacking of serviceable material and disposal of unserviceable material.Beyound 60 cm girth up to and including 120 cm girth						
	Felling trees						
	Felling trees	2					2.000
	Total						**2.000**
						Total Quantity in each	**2.000**
5.002	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						
	Earth work in excavation by mechanical means						
	for sump	1	12.000	9.000	1.500		162.000
	Total						**162.000**
						Total Quantity in cum	**162.000**
5.003	OD25794/2022-2023						
	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-1st depth						
	Earth work in excavation by mechanical means						
	for sump	1	12.000	9.000	1.500		162.000
	Total						**162.000**
						Total Quantity in cum	**162.000**
5.004	OD25795/2022-2023						
	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-2nd depth						
	Earth work in excavation by mechanical means						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	for sump	1	12.000	9.000	1.000		108.000
	Total						**108.000**
						Total Quantity in cum	**108.000**
5.005	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						
	Earth work in excavation by mechanical means for foundation						
	for toilet	1	6.600	0.600	0.600		2.376
	for compound wall	1	62.600	0.600	0.600		22.536
	Total						**24.912**
						Total Quantity in cum	**24.912**
5.006	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.						
	Bailing out water with 5HP pump set						
	for sump earth work	2	5.000	15.000		0.785000	117.750
	Total						**117.750**
						Total Quantity in Kwh	**117.750**
5.007	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)						
	Random rubble masonry with hard stone in foundation and plinth						
	for toilet - foundation	1	6.600	0.600	0.600		2.376
	for toilet - basemaent	1	6.450	0.450	0.450		1.306
	for compound wall - foundation	1	62.600	0.600	0.600		22.536
	Total						**26.218**
						Total Quantity in cum	**26.218**
5.008	OD7798/2022-2023						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	DOWEL BARS - Supplying and providing MS dowel bars of size 16 mm dia of 2m long (1m in rock and 1m in concrete) including drilling holes of 20mm dia to a depth of 1m in rock and filling the gap with cement grout(0.10kg/each) etc complete.						
	DOWEL BARS - Supplying and providing MS dowel bars of size 16 mm dia						
	DOWEL BARS	200					200.000
	Total						**200.000**
						Total Quantity in no	**200.000**
5.009	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)						
	Providing and laying in position cement concrete of specified grade 1:2:4						
	for sump	1	11.300	8.300	0.150		14.069
	for toilet floor	1	2.000	1.600	0.150		0.480
	for compound wall	1	62.450	0.600	0.150		5.621
	Total						**20.170**
						Total Quantity in cum	**20.170**
5.010	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						
	Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using ce						
	for sump- bottom slab	1	11.100	8.100	0.300		26.973
	for sump- haunch	0.5	34.000	0.300	0.700		3.570
	Total						**30.543**
						Total Quantity in cum	**30.543**
5.011	5.33.2						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	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						
	Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using ce						
	for sump- side walls	2	17.500	0.250	4.000		35.000
	for sump-columns	12	0.300	0.300	4.000		4.320
	for sump-roof beams	9	3.100	0.300	0.250		2.093
	for sump- roof beams	8	3.300	0.300	0.250		1.980
	for sump- roof slab	1	11.100	8.100	0.200		17.982
	for pump house-column	12	0.300	0.300	4.500		4.860
	for pump house-beams	9	3.100	0.300	0.300		2.511
	for pump house-beams	8	3.300	0.300	0.300		2.376
	gantry beam	2	10.500	0.600	0.450		5.670
	for pump house-roof slab	1	11.100	8.100	0.150		13.487
	for pump house-lintel	2	10.500	0.200	0.150		0.630
	for pump house-lintel	2	7.500	0.200	0.150		0.450
	for toilet- lintel	1	6.200	0.200	0.150		0.186
	for pump house-sunshade	1	39.200	0.600	0.075		1.764
	for toilet- roof slab	1	3.200	2.800	0.100		0.896
	Total						**94.205**
						Total Quantity in cum	**94.205**
5.012	5.34.1						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	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).						
	Extra Providing and laying in position machine batched and machine mixed design mix M-30 grade cement concrete						
	As per item No10	1	30.543				30.543
	As per item No11	1	94.205				94.205
	Total						**124.748**
						Total Quantity in cum	**124.748**
5.013	5.9.1						
	Centering and shuttering including strutting, etc. and removal of form for:Foundations, footings, bases of columns, etc for mass concrete						
	Centering and shuttering including strutting, etc. and removal						
	for sump levelling PCC	1	39.200	0.150			5.880
	for sump floor	1	38.400	0.300			11.520
	for compound wall	2	62.450	0.150			18.735
	Total						**36.135**
						Total Quantity in sqm	**36.135**
5.014	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.						
	Centering and shuttering including strutting, etc. and removal						
	Haunch	1	34.000	0.700			23.800
	Side walls inner	1	34.000	4.000			136.000
	Side walls outer	1	36.000	4.000			144.000
	columns for sump	2	1.200	4.000			9.600
	columns for pump house	12	1.200	4.500			64.800
	Total						**378.200**
						Total Quantity in sqm	**378.200**
5.015	5.9.5						
	Centering and shuttering including strutting, etc. and removal of form for:Lintels, beams, plinth beams, girders bressumers and cantilevers						
	Centering and shuttering including strutting, etc. and removal						
	Roof beams of Sump	9	3.100	0.25*0.2			1.395
	Roof beams of Sump	8	3.300	0.25*0.2			1.320

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Roof beams of pump house	12	3.100	0.3*2			22.320
	Roof beams of pump house	8	3.300	0.3*2			15.840
	Gantry beam of pump house	1	10.500	1.500			15.750
	lintel of pump house	2	10.500	2*0.150			6.300
	lintel of pump house	2	7.500	2*0.150			4.500
	lintel of toilet	2	6.200	0.150			1.860
	Total						**69.285**
						Total Quantity in sqm	**69.285**
5.016	5.9.3						
	Centering and shuttering including strutting, etc. and removal of form for:Suspended floors, roofs, landings, balconies and access platform						
	Centering and shuttering including strutting, etc. and removal						
	roof slab of sump	1	11.100	8.100			89.910
	roof slab sides of sump	1	38.400	0.200			7.680
	roof slab of pump house	1	11.100	8.100			89.910
	roof slab sides of pump house	1	38.400	0.150			5.760
	Sunshade of pump house	1	38.400	0.600			23.040
	Sunshade sides of pump house	1	40.800	0.100			4.080
	slab of pump Toilet	1	3.200	2.800			8.960
	slab sides of pump Toilet	1	8.800	0.100			0.880
	Total						**230.220**
						Total Quantity in sqm	**230.220**
5.017	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						
	Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position						
	for sump & pump house	124.748				140.000000	17464.720

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Total						**17464.720**
						Total Quantity in kilogram	**17464.720**
5.018	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.						
	Solid block masonry using pre cast solid blocks (Factory made) of size 40x20x20cm						
	For pump house	6	3.100	0.200	4.200		15.624
	For pump house	4	3.300	0.200	4.200		11.088
	For toilet	1	6.200	0.200	2.400		2.976
	For parapet wall	1	36.000	0.200	0.750		5.400
	For compound wall	1	62.000	0.200	1.500		18.600
	Deduction - Windows	-8	1.500	0.200	1.400		-3.360
	Deduction - Door	-1	0.800	0.200	2.100		-0.336
	Deduction - Ventilator	-9	1.000	0.200	0.600		-1.080
	Deduction - Rolling Shutter	-1	3.000	0.200	2.500		-1.500
	Deduction - Lintels	-6	2.930	0.200	0.150		-0.527
	Deduction - Lintels	-4	3.050	0.200	0.150		-0.366
	Deduction - Lintels	-1	6.200	0.200	0.150		-0.186
	Total						**46.333**
						Total Quantity in cum	**46.333**
5.019	13.7.1						
	12 mm cement plaster finished with a floating coat of neat cement of mix:1:3 (1 cement : 3 fine sand)						
	12 mm cement plaster of mix 1:3						
	floor& ceiling of sump	2	10.000	7.000			140.000
	haunch of sump	1	34.000	0.700			23.800
	inside wall of sump	1	34.000	3.300			112.200
	outside wall of sump	1	36.000	4.000			144.000

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	columns of sump	12	1.200	4.000			57.600
	Cover slab projection	1	37.200	0.500			18.600
	floor of Pump house	1	11.100	8.100			89.910
	Pump house-outside	1	36.000	4.200			151.200
	Pump house-inside	1	34.000	4.200			142.800
	Toilet wall inner	1	2+2+1.6	2.400			13.440
	Toilet wall outer	1	2.2+2.2+1.8	2.400			14.880
	columns	12	1.200	4.200			60.480
	beams - Floor of pump house	9	3.100	2*0.2			11.160
	beams- Floor of pump house	8	3.300	2*0.2			10.560
	beams- roof of pump house	9	3.100	2*0.25			13.950
	beams- roof of pump house	8	3.300	2*0.25			13.200
	gantry beams	2	10.500	1.650			34.650
	Sunshade top bottom &Edge	2	39.200	1.300			101.920
	toilet slab	2	3.200	2.800			17.920
	roof slab T&B	2	11.100	8.100			179.820
	Parapet wall	2	38.400	0.750			57.600
	compound wall	2	62.000	1.600			198.400
	Deductions WINDOWS	-8	1.500	1.400			-16.800
	Deductions - ventilator	-9	1.000	0.600			-5.400
	Deductions - Rolling shutter	-1	3.000	2.500			-7.500
	Deductions -door	-1	0.800	2.100			-1.680
	Total						**1576.710**
						Total Quantity in sqm	**1576.710**
5.020	22.23.1						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	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						
	Providing water proofing treatment						
	haunch	1	34.000	0.700			23.800
	sidewall	1	34.000	3.300			112.200
	Total						**136.000**
						Total Quantity in sqm	**136.000**
5.021	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 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.						
	Providing water proofing treatment						
	base slab of sump	1	10.000	7.000			70.000
	Total						**70.000**
						Total Quantity in sqm	**70.000**
5.022	11.36						
	Providing and fixing I st quality ceramic glazed wall tiles conforming to IS : 15622 (thickness to be specified by the manufacturer), of approved make, in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer -in-Charge, in skirting, risers of steps and dados, over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3 kg per sqm, including pointing in white cement mixed with pigment of matching shade complete.						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Providing and fixing ceramic glazed wall tiles.						
	for toilet	1	7.200		2.400		17.280
	deduction- door	-1	0.900		2.100		-1.890
	deduction- ventilator	-1	1.000		0.600		-0.600
	Total						**14.790**
						Total Quantity in sqm	**14.790**
5.023	11.37						
	Providing and laying Ceramic glazed floor tiles of size 300x300 mm (thickness to be specified by the manufacturer), of 1st quality conforming to IS : 15622, of approved make, in colours such as White, Ivory, Grey, Fume Red Brown, laid on 20 mm thick cement mortar 1:4 (1 Cement : 4 Coarse sand), including pointing the joints with white cement and matching pigment etc., complete.						
	Providing and laying Ceramic glazed floor tiles						
	for toilet	1	2.000	1.600			3.200
	Total						**3.200**
						Total Quantity in sqm	**3.200**
5.024	17.2.1						
	Providing and fixing white vitreous china pedestal type water closet (European type W.C. pan) with seat and lid, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever), conforming to IS : 7231, with all fittings and fixtures complete, including cutting and making good the walls and floors wherever required:W.C. pan with ISI marked white solid plastic seat and lid						
	Providing and fixing water closet (European type)						
	Providing and fixing water closet (European type)	1					1.000
	Total						**1.000**
						Total Quantity in each	**1.000**
5.025	17.7.1						
	Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require:White Vitreous China Wash basin size 630x450 mm with a pair of 15 mm C.P. brass pillar taps						
	Providing and fixing Wash basin with C.I. brackets						
	Providing and fixing Wash basin with C.I. brackets	1					1.000
	Total						**1.000**
						Total Quantity in each	**1.000**

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
5.026	17.32.2						
	Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing :Rectangular shape 453x357 mm						
	Providing and fixing mirror of superior glass rectangular shape, 453X357 mm size						
	Providing and fixing mirror	1					1.000
	Total						**1.000**
						Total Quantity in each	**1.000**
5.027	13.43.1						
	Applying one coat of water thinnable cement primer of approved brand and manufacture on wall surface:Water thinnable cement primer						
	Applying one coat of water thinnable cement primer						
	Sump Cover slab projection	1	37.200	0.500			18.600
	pump house inside	1	34.000	4.200			142.800
	pump house out side	1	36.000	4.200			151.200
	Toilet wall outside	1	2.2+2.2+ 1.8	4.200			26.040
	Toilet wall inside	1	2+2+1.6	4.200			23.520
	beams	9	2.930	2*0.2			10.548
	beams	8	3.050	2*0.2			9.760
	gantry beam	2	10.500	1.650			34.650
	Column	2	1.200	4.500			10.800
	sunshade	2	39.200	1.300			101.920
	toilet roof slab	2	3.200	2.800			17.920
	roof slab of PH	2	11.100	8.100			179.820
	Parapet wall	2	38.400	0.750			57.600
	compound wall	2	62.000	1.600			198.400
	Deductions - door	-1	0.800	2.100			-1.680
	Deductions - windows	-8	1.500	1.400			-16.800
	Deductions - Ventilators	-9	1.000	0.600			-5.400
	Deductions - rolling shutter	-1	3.000	2.500			-7.500
	Total						**952.198**
						Total Quantity in sqm	**952.198**
5.028	13.60.1						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Wall painting with acrylic emulsion paint of approved brand and manufacture to give an even shade:Two or more coats on new work						
	Wall painting with acrylic emulsion paint.						
	Quantity same as Item No.24	1	966.783				966.783
	Total						**966.783**
						Total Quantity in sqm	**966.783**
5.029	13.71						
	Lettering with black Japan pint of approved brand and manufacture						
	Lettering						
	Lettering	100				15.000 000	1500.000
	Total						**1500.000**
						Total Quantity in per Letter per cm height	**1500.000**
5.030	50.9.1.1						
	Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with hold fast lugs or with dash fasteners of required dia & length (hold fast lugs or dash fastener shall be paid for separately), using good quality Anjili wood /jack wood						
	Providing wood work in frames of doors, windows & ventilators						
	door	1	6.100	0.100	0.075		0.046
	windows	8	9.000	0.100	0.075		0.540
	ventilators	9	4.200	0.100	0.075		0.284
	Total						**0.870**
						Total Quantity in cum	**0.870**
5.031	50.9.5.1						
	Providing and fixing glazed shutters for doors, windows and clerestory windows using 4 mm thick float glass panes including ISI marked M.S pressed butt hinges bright finished of required size with necessary screws. Using Anjili wood/ jack wood 35 mm thick shutters.						
	Providing and fixing glazed shutters for doors, windows & ventilators						
	door	1	0.800	2.100			1.680
	windows	8	1.500	1.400			16.800
	ventilators	9	1.000	0.600			5.400
	Total						**23.880**
						Total Quantity in sqm	**23.880**
5.032	13.48.2						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Finishing with Deluxe Multi surface paint system for interiors and exteriors using primer as per manufacturers specifications:Painting wood work with Deluxe Multi Surface Paint of required shade. Two or more coat applied @ 0.90 ltr/10 sqm over an under coat of primer applied @ 0.75 ltr/10 sqm of approved brand and manufacture						
	Painting wood work						
	Door	1	0.800	2.100		2.250000	3.780
	windows - fully glazed	8	1.500	1.400		1.000000	16.800
	ventilators - fully glazed	9	1.000	0.600		1.000000	5.400
	Total						**25.980**
						Total Quantity in sqm	**25.980**
5.033	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						
	Steel work welded in built up framed work including cutting hoistiing fixing in position.						
	for 2Nos. ladder and gate	250					250.000
	Total						**250.000**
						Total Quantity in kg	**250.000**
5.034	10.6.2						
	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.80x1.20 mm M.S. laths with 1.20 mm thick top cover						
	Supplying and fixing rolling shutter						
	rolling shutter	1	3.000	2.500			7.500
	Total						**7.500**
						Total Quantity in sqm	**7.500**
5.035	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						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Painting steel work						
	for rolling shutter	1	3.000	2.500		2.400000	18.000
	Total						**18.000**
						Total Quantity in sqm	**18.000**
5.036	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						
	Providing and laying C.I. standard specials						
	300 mm wall casting pipes for inlet, overflow, scour etc.	3				0.750000	2.250
	Total						**2.250**
						Total Quantity in quintal	**2.250**
5.037	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.						
	Supplying and fixing Rectangular C.I. manhole cover						
	C.I. manhole cover	2					2.000
	Total						**2.000**
						Total Quantity in no	**2.000**
5.038	OD8441/2022-2023						
	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, lettering etc complete including all charges for material and labour						
	Supplying and Providing level indicator to the tank						
	Supplying and Providing level indicator to the tank	1					1.000
	Total						**1.000**
						Total Quantity in no	**1.000**
5.039	100.36.1						
	Filling water with 5000 litre tankers fited 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.						
	Filling water for testing						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Filling water for testing	250					250.000
	Total						**250.000**
						Total Quantity in Kilo litre	**250.000**
5.040	OD26470/2022-2023						
	Water supply and sanitary arrangements						
	Water supply and sanitary arrangements						
	Water supply and sanitary arrangements	1					1.000
	Total						**1.000**
						Total Quantity in L.S	**1.000**
6	Construction of 0.80 LL sump and pump house at Morkadu						
6.001	2.33.2						
	Felling trees of the girth (measured at a height of 1 m above ground level) including cutting of trunks and branches, removing the roots and stacking of serviceable material and disposal of unserviceable material.Beyound 60 cm girth up to and including 120 cm girth						
	Cutting trees						
	Cutting trees	5					5.000
	Total						**5.000**
						Total Quantity in each	**5.000**
6.002	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						
	Earth work Excavation for levelling the site						
	for levelling	1	8.500	8.500	1.000		72.250
	Total						**72.250**
						Total Quantity in cum	**72.250**
6.003	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)						
	Hard rock						
		1	8.500	8.500	0.500		36.125
	Total						**36.125**
						Total Quantity in cum	**36.125**

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
6.004	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						
	Earth work in excavation by mechanical means						
	compound wall	1	30.000	0.600	0.600		10.800
	Retaining wall	1	10.000	0.600	0.600		3.600
	Total						**14.400**
						Total Quantity in cum	**14.400**
6.005	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)						
	RR masonry						
	compound wall	1	40.000	0.600	0.600		14.400
	Total						**14.400**
	for foundation of sump and pump house						
	Pump house foundation long side	1	7.550	0.600	0.600		2.718
	Pump house foundation for short side	2	3.850	0.600	0.600		2.772
	Pump house basement	1	7.550	0.450	0.450		1.529
	Pump house basement	2	3.850	0.450	0.450		1.559
	Total						**8.578**
						Total Quantity in cum	**22.978**
6.006	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)						
	PCC 1:2:4 Foundation Concrete						
	Sump levelling concrete	1	8.100	5.100	0.150		6.197
	Pump house levelling concrete	1	15.200	0.800	0.150		1.824
	Compound wall	1	30.000	0.450	0.150		2.025

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Retaining wall	1	10.000	0.600	0.150		0.900
	Total						**10.946**
						Total Quantity in cum	**10.946**
6.007	OD8402/2022-2023						
	DOWEL BARS - Supplying and providing MS dowel bars of size 16 mm dia of 2m long (1m in rock and 1m in concrete) including drilling holes of 20mm dia to a depth of 1m in rock and filling the gap with cement grout(0.10kg/each) etc complete.						
	Dowel bars						
		100					100.000
	Total						**100.000**
						Total Quantity in no	**100.000**
6.008	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						
	Design mix M-25						
	Sump-Bottom slab	1	8.100	5.000	0.300		12.150
	Retaining wall	1	10.000	0.600	0.200		1.200
	Total						**13.350**
						Total Quantity in cum	**13.350**
6.009	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						
	For side wall of GLSR						
	Sump-Long wall	2	7.500	0.250	3.450		12.938
	Sump - Short wall	2	4.000	0.250	3.450		6.900
	wall haunch	2	4.000	0.300	0.500	0.500000	0.600

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	wall haunch	2	7.000	0.300	0.500	0.500000	1.050
	Column	1	0.300	0.300	3.450		0.311
	Roof beam - long side	6	3.325	0.300	0.300		1.796
	Roof beam- short side	6	1.825	0.300	0.300		0.986
	Sump Roof Slab	1	8.100	4.800	0.150		5.832
	Pump house Column	3	0.300	0.300	4.500		1.215
	Pump house beam	3	3.600	0.300	0.300		0.972
	Pump house Beam long	2	3.325	0.300	0.300		0.599
	Pump house Roof Slab	1	8.100	3.800	0.150		4.617
	Pump house Lintel short side	2	3.600	0.200	0.200		0.288
	Pump house lintel long side	2	3.400	0.200	0.200		0.272
	Retaining wall	1	10.000	(0.25+0.15)/2	1.500		3.000
	Sun shade	1	7.6+4.1+4.1	0.600	0.075		0.711
	Total						**42.087**
						Total Quantity in cum	**42.087**
6.010	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).						
	Extra for M-30 mix						
	base slab	1	8.100	5.100	0.300		12.393
	long wall	2	7.500	0.250	3.450		12.938
	Short wall	2	4.000	0.250	3.450		6.900
	columns inside	1	0.300	0.300	3.450		0.311
	haunch	2	4.000	0.150	0.500	1.000000	0.600
	haunch	2	7.000	0.150	0.500	1.000000	1.050
	Sump roof slab	1	8.100	4.800	0.150	1.000000	5.832

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	roof beam	6	3.325	0.300	0.300	1.000000	1.796
	Sump roof beam	6	1.825	0.300	0.300	1.000000	0.986
	Total						**42.806**
						Total Quantity in cum	**42.806**
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						
	Centering & shuttering						
	Base slab	1	8.1+8.1+5.1+5.1		0.300		7.920
	Retaining wall-Foundation concrete	1	10.500		0.150		1.575
	Retaining wall-Base slab	1	10.500		0.200		2.100
	Total						**11.595**
						Total Quantity in sqm	**11.595**
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.						
	centering and shuttering						
	haunch long side	2	6.400		0.500	1.000000	6.400
	haunch short side	2	3.400		0.500	1.000000	3.400
	Retaining wall stem	2	10.250		1.500		30.750
	Sump long wall outside	2	7.500		3.450	1.000000	51.750
	Sump long wall inside	2	7.000		3.450	1.000000	48.300
	Sump short wall outside	2	4.000		3.450	1.000000	27.600
	Sump short wall inside	2	4.000		3.450	1.000000	27.600
	Total						**195.800**
						Total Quantity in sqm	**195.800**
6.013	5.9.3						
	Centering and shuttering including strutting, etc. and removal of form for:Suspended floors, roofs, landings, balconies and access platform						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	centering and shuttering						
	sunshade of pump house short side	2	4.300	0.600			5.160
	sunshade of pump house long side	1	8.000	0.750			6.000
	sump roof side	1	2*(7.8+4.8)		0.300		7.560
	sump roof	1	7.800	4.800			37.440
	pump house roof	1	7.800	4.200			32.760
	pump house roof side	1	2*(7.8+4.2)		0.150		3.600
	pump house main entry sunshade	1	4.000	1.000			4.000
	Total						**96.520**
						Total Quantity in sqm	**96.520**
6.014	5.9.5						
	Centering and shuttering including strutting, etc. and removal of form for:Lintels, beams, plinth beams, girders bressumers and cantilevers						
	Centering and shuttering including strutting						
	lintel long side	1	7.000		2*0.2		2.800
	lintel short side	2	3.600		2*0.2		2.880
	sump roof beam long	6	3.325		2*0.3		11.970
	sump roof beam short	6	1.825		2*0.3		6.570
	pump house beam long	2	3.325		2*0.3		3.990
	pump house beam short	3	3.600		2*0.3		6.480
	Total						**34.690**
						Total Quantity in sqm	**34.690**
6.015	5.9.6						
	Centering and shuttering including strutting, etc. and removal of form for:Columns, Pillars, Piers, Abutments, Posts and Struts						
	centering and shuttering						
	for tank centre colum	1	1.200		3.450	1.000000	4.140
	colum for pump house	3	1.200		4.500	1.000000	16.200
	Total						**20.340**

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
						Total Quantity in sqm	**20.340**
6.016	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						
	Steel reinforcement for base slab & and side wall of sump						
		1	13.35+42.087			140.000000	7761.180
	Total						**7761.180**
						Total Quantity in kilogram	**7761.180**
6.017	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.						
	side wall of pump house						
	wall long side	1	7.500	0.200	4.500		6.750
	wall short side	2	3.600	0.200	4.500		6.480
	deduction quantity for rolling shutter	-1	3.000	0.200	2.500		-1.500
	deduction quantity for windows	-2	1.500	0.200	1.500		-0.900
	Total						**10.830**
						Total Quantity in cum	**10.830**
6.018	13.1.1						
	12 mm cement plaster of mix:1:4 (1 cement : 4 fine sand)						
	Plastering inside and outside of sump and pump house						
	for floor slab of sump	1	7.000	4.000			28.000
	out side short wall of sump	2	4.500	3.5+0.15+0.3			35.550
	out side long wall of sump	2	7.500	3.5+0.15+0.3			59.250
	inside long wall of sump	2	7.000	3.500			49.000
	inside short wall of sump	2	4.000	3.500			28.000
	roof slab of sump top and bottom	2	7.600	4.600			69.920
	beams sump	1	7.000	0.3+0.3			4.200

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	beams sump	1	4.000	0.3+0.3			2.400
	pump house walls inside	2	7+3.6	4.500			95.400
	pump house walls out side	2	7.4+4	4.500			102.600
	PH roof top and bottom	2	8.600	5.600			96.320
	Beams inside PH	1	3.600	0.3+0.3			2.160
	PH walls sun shade (T, B & side)top and bottomoutside	2	3.800	1.300			9.880
	PH walls sun shade (T, B & side)top and bottomoutside	1	7.4+0.6+ 0.6	1.300			11.180
	column	1	3.450	1.200			4.140
	deduction for rolling shutter	-1	3.000		2.500		-7.500
	deduction for windows	-2	1.500		1.500		-4.500
	Total						**586.000**
						Total Quantity in sqm	**586.000**
6.019	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						
	Providing and applying integral crystalline slurry of hydrophilic in nature for waterproofing treatment						
	floor slab	1	7.000	4.000			28.000
	Total						**28.000**
						Total Quantity in sqm	**28.000**
6.020	22.23.2						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	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 horizontal surface one coat @1.10 kg per sqm.						
	Providing and applying integral crystalline slurry of hydrophilic in nature for waterproofing treatment						
	side wall of sump long	2	7.000		3.450		48.300
	side wall of sump short	2	4.000		3.450		27.600
	Total						**75.900**
						Total Quantity in sqm	**75.900**
6.021	13.43.1						
	Applying one coat of water thinnable cement primer of approved brand and manufacture on wall surface:Water thinnable cement primer						
	Applying one coat of water thinnable cement primer						
	out side wall of sump	2	4.600	3.5+0.3+ 0.15			36.340
	out side wall of sump	1	7.500	3.5+0.3+ 0.15			29.625
	outside long wall sump	2	7.000	3.500			49.000
	outside short wall sump	2	4.000	3.500			28.000
	sump roof	1	7.600	4.600			34.960
	PH roof top and bottom	2	8.600	5.600			96.320
	PH wall outside	1	7.5+3.8+ 3.8	4.500			67.950
	PH wall inside	2	7+3.6	4.500			95.400
	PH wall sun shade (T,B &SIDE) Top and bottom outside	2	3.800	1.300			9.880

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	PH wall sun shade (T,B &SIDE) Top and bottom outside	2	7.4+0.6+06	1.300			36.400
	deduction window	-3	1.500		1.500		-6.750
	deduction rolling shutter	-1	3.000		2.500		-7.500
	Total						**469.625**
						Total Quantity in sqm	**469.625**
6.022	13.60.1						
	Wall painting with acrylic emulsion paint of approved brand and manufacture to give an even shade:Two or more coats on new work						
	Wall painting with acrylic emulsion paint						
	out side wall of sump	1	7.5+4.5+4.5	4.000			66.000
	pump house wall outside	1	3.8+7.4+3.8	4.500			67.500
	pump house wall inside	2	7+3.6	4.500			95.400
	PH roof top and bottom	2	8.600	5.600			96.320
	pump house roof side	1	8.6+5.6+5.6	0.150			2.970
	Sump roof top	1	7.600	4.500			34.200
	sump roof edge	1	7.6+4.5+4.5	4.500			74.700
	sump roof edge	1	7.6+4.5+4.5	0.300			4.980
	PH wall sun shade (T,B&SIDE) Top and bottom outside	2	3.800	1.300			9.880
	PH wall sun shade (T,B&SIDE) Top and bottom outside	2	7.4+0.6+0.6	1.300			22.360
	deduction window	-3	1.500		1.500		-6.750
	deductionrolling shutter	-1	3.000		2.500		-7.500
	Total						**460.060**
						Total Quantity in sqm	**460.060**

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
6.023	50.9.1.1						
	Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with hold fast lugs or with dash fasteners of required dia & length (hold fast lugs or dash fastener shall be paid for separately), using good quality Anjili wood /jack wood						
	wood work for windows						
	for windows outer frame	2	1.500	0.100	0.075	1.000000	0.023
	for windows inner post	2	1.500	0.100	0.075	1.000000	0.023
	Total						**0.046**
						Total Quantity in cum	**0.046**
6.024	50.9.5.1						
	Providing and fixing glazed shutters for doors, windows and clerestory windows using 4 mm thick float glass panes including ISI marked M.S pressed butt hinges bright finished of required size with necessary screws. Using Anjili wood/ jack wood 35 mm thick shutters.						
	for windows						
	for shutters	2	1.500	1.500			4.500
	Total						**4.500**
						Total Quantity in sqm	**4.500**
6.025	10.6.2						
	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.80x1.20 mm M.S. laths with 1.20 mm thick top cover						
	for front rolling shutter						
	front door of PH	1	3.000		2.500		7.500
	Total						**7.500**
						Total Quantity in sqm	**7.500**
6.026	13.48.2						
	Finishing with Deluxe Multi surface paint system for interiors and exteriors using primer as per manufacturers specifications:Painting wood work with Deluxe Multi Surface Paint of required shade. Two or more coat applied @ 0.90 ltr/10 sqm over an under coat of primer applied @ 0.75 ltr/10 sqm of approved brand and manufacture						
	painting for wood work						
	Window	2	1.500		1.500	1.000000	4.500
	Total						**4.500**

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
						Total Quantity in sqm	**4.500**
6.027	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						
	painting steel work						
	Rolling shutter	1	3.000		2.500	2.400000	18.000
	Total						**18.000**
						Total Quantity in sqm	**18.000**
6.028	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						
	steel work						
	for compound wall gate	1	150.000				150.000
	Total						**150.000**
						Total Quantity in kg	**150.000**
6.029	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.						
	for roof slab of sump						
	manhole covr	4					4.000
	Total						**4.000**
						Total Quantity in no	**4.000**
6.030	13.71						
	Lettering with black Japan pint of approved brand and manufacture						
	lettering						
		100				15.000000	1500.000
	Total						**1500.000**
						Total Quantity in per Letter per cm height	**1500.000**
6.031	OD5547/2022-2023						
	Supply and Fitting 100 mm Vent cowl						
	for sump						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	vent cowl	4					4.000
	Total						**4.000**
						Total Quantity in no	**4.000**
6.032	OD5551/2022-2023						
	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, lettering etc complete including all charges for material and labour						
	water level indicator for sump						
	water level indicator for sump	1					1.000
	Total						**1.000**
						Total Quantity in no	**1.000**
6.033	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						
	Providing and laying flanged C.I. Standard specials						
	200 mm wall casting pipe for inlet overflow scour	3	0.510				1.530
	150mm wall casting pipe distribution	1	0.360				0.360
	Total						**1.890**
						Total Quantity in quintal	**1.890**
6.034	100.36.1						
	Filling water with 5000 litre tankers fited 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.						
	Filling water in reservoir						
	filling water	80					80.000
	Total						**80.000**
						Total Quantity in Kilo litre	**80.000**
6.035	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.						
	Conveying and fixing C.I. sluice valves						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	for distribution	1					1.000
	Total						**1.000**
						Total Quantity in no	**1.000**
6.036	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.						
	Conveying and fixing C.I. sluice valves						
	for scour valve	1					1.000
	Total						**1.000**
						Total Quantity in no	**1.000**
6.037	100.98.484						
	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Hand Wheel PN 1.6, Size 150mm.						
	Supply of CI Double Flanged Sluice Valve						
		1					1.000
	Total						**1.000**
						Total Quantity in no	**1.000**
6.038	100.98.485						
	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Hand Wheel PN 1.6, Size 200mm.						
	Supply of CI Double Flanged Sluice Valve						
		1					1.000
	Total						**1.000**
						Total Quantity in no	**1.000**
7	Construction of 0.3 LL sump and pump house at Morkadu booster 2						
7.001	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						
	Earth work excavation - all classes of soil						
	for site levelling	1	10.000	8.000	0.300		24.000
	Total						**24.000**
						Total Quantity in cum	**24.000**
7.002	2.7.1						
	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.Ordinary rock						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Earth work excavation - ordinary rock						
	Levelling tank & PH land	1	5.300	7.800	0.300		12.402
	Total						**12.402**
						Total Quantity in cum	**12.402**
7.003	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						
	Earth work excavation						
	for compound wall	1	36.000	0.600	0.300		6.480
	Total						**6.480**
						Total Quantity in cum	**6.480**
7.004	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)						
	RR masonry for compound wall						
	for compound wall	1	36.000	0.600	0.300		6.480
	Total						**6.480**
						Total Quantity in cum	**6.480**
7.005	OD8414/2022-2023						
	DOWEL BARS - Supplying and providing MS dowel bars of size 16 mm dia of 2m long (1m in rock and 1m in concrete) including drilling holes of 20mm dia to a depth of 1m in rock and filling the gap with cement grout(0.10kg/each) etc complete.						
	Dowel bars						
	Dowel bars	40					40.000
	Total						**40.000**
						Total Quantity in no	**40.000**
7.006	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)						
	Providing and laying PCC 1:2:4						
	for compound wall	1	36.000	0.600	0.100		2.160

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	for Sump	1	5.300	4.300	0.150		3.419
	for Pump house	1	5.300	4.300	0.150		3.419
	Total						**8.998**
						Total Quantity in cum	**8.998**
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						
	Providing and laying Design mix M-25						
	base slab of sump	1	5.100	4.100	0.300		6.273
	base slab of PH	1	3.100	4.100	0.200		2.542
	Haunch of sump	0.5	14.000	0.300	0.500		1.050
	Total						**9.865**
						Total Quantity in cum	**9.865**
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						
	Providing and laying design mix M-25						
	side wall of sump	1	15.000	0.250	3.5-0.3		12.000
	roof beam of sump	2	4.500	0.300	0.300		0.810
	roof beam of sump	2	3.000	0.300	0.300		0.540
	cover slab of sump	1	5.100	4.100	0.150		3.137
	columns for Pump house	2	0.300	0.300	4.5-0.3		0.756
	columns for Pump house sump side extra height	2	0.300	0.300	0.600		0.108

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	beam of PH	2	4.500	0.300	0.300		0.810
	beam of PH	2	3.100	0.300	0.300		0.558
	gantry beam	2	3.300	0.450	0.600		1.782
	lintel of PH	1	11.100	0.200	0.150		0.333
	Sunshade of PH	1	12.400	0.600	0.100		0.744
	roof slab of PH	1	5.100	4.100	0.150		3.137
	Total						**24.715**
						Total Quantity in cum	**24.715**
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).						
	Providing and laying desig mix M30						
	base slab of sump	1	5.100	4.100	0.300		6.273
	base slab of PH	1	5.100	4.100	0.200		4.182
	columns for sump	4	0.300	0.450	3.450		1.863
	side wall of sump	1	15.000	0.250	3.450		12.938
	Haunch of sump	0.5	14.000	0.300	0.500		1.050
	roof beam of sump	2	3.600	0.300	0.300		0.648
	roof beam of sump	2	2.900	0.300	0.300		0.522
	cover slab of sump	1	5.100	4.100	0.150		3.137
	columns for Pump house	2	0.300	0.450	4.050		1.094
	columns for Pump house sump side extra height	2	0.300	0.450	0.600		0.162
	beam of PH	2	3.600	0.300	0.300		0.648
	beam of PH	2	2.900	0.300	0.300		0.522
	lintel of PH	1	11.100	0.200	0.150		0.333
	roof slab of PH	1	5.100	4.100	0.150		3.137
	sunshade of PH	1	12.400	0.600	0.100		0.744
	Total						**37.253**
						Total Quantity in cum	**37.253**
7.010	5.9.1						
	Centering and shuttering including strutting, etc. and removal of form for:Foundations, footings, bases of columns, etc for mass concrete						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Centering and shuttering including strutting etc, and removal						
	Base slab of sump	1	18.400		0.300		5.520
	Base slab of PH	1	18.400		0.300		5.520
	Total						**11.040**
						Total Quantity in sqm	**11.040**
7.011	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.						
	Centering and shuttering including strutting etc, and removal						
	columns	2	1.200	3.450			8.280
	columns	4	1.200	4.5-0.3			20.160
	haunch	1	14.000	0.500			7.000
	side wall inside	1	14.000	2.950			41.300
	side wall out side	1	16.000	3.450			55.200
	Total						**131.940**
						Total Quantity in sqm	**131.940**
7.012	5.9.3						
	Centering and shuttering including strutting, etc. and removal of form for:Suspended floors, roofs, landings, balconies and access platform						
	Centering and shuttering including strutting etc, and removal						
	cover slab of sump	1	5.100	4.100			20.910
	cover slab sides of sump	2	5.1+4.1	0.150			2.760
	roof slab of PH	1	5.100	4.100			20.910
	roof slab sides of PH	2	5.1+4.1	0.150			2.760
	sunshade of PH	1	12.400	0.600			7.440
	sunshade sides of PH	1	12.700	0.100			1.270
	Total						**56.050**
						Total Quantity in sqm	**56.050**
7.013	5.9.5						
	Centering and shuttering including strutting, etc. and removal of form for:Lintels, beams, plinth beams, girders bressumers and cantilevers						
	Centering and shuttering including strutting etc, and removal						
	roof beam of sump &PH	4	4.500	0.3*2			10.800

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	roof beam of sump &PH	4	3.100	0.3*2			7.440
	lintel of PH	2	11.100	0.150			3.330
	Total						**21.570**
						Total Quantity in sqm	**21.570**
7.014	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						
	Steel reinforcement for R.C.C						
	Steel reinforcement for R.C.C	24.715				140.000000	3460.100
	Total						**3460.100**
						Total Quantity in kilogram	**3460.100**
7.015	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.						
	Slid block masonry 40x20x20cm block						
	for PH wall	1	11.100	0.200	4.050		8.991
	for PH parapet wall	1	17.200	0.200	0.750		2.580
	for sump parapet wall	1	11.700	0.200	0.750		1.755
	Deductions - Windows	-2	1.500	0.200	1.400		-0.840
	Deductions - rolling shutter	-1	3.000	0.200	2.500		-1.500
	Deductions -lintel	-1	11.100	0.200	0.150		-0.333
	Deductions - ventilator	-3	1.000	0.200	0.600		-0.360
	Total						**10.293**
						Total Quantity in cum	**10.293**
7.016	13.7.1						
	12 mm cement plaster finished with a floating coat of neat cement of mix:1:3 (1 cement : 3 fine sand)						
	12mm cement plaster finished withcement mix 1:3						
	sump floor	1	4.000	3.000			12.000
	sump haunch	1	14.000	0.500			7.000

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	sump inside wall	1	14.000	2.950			41.300
	sump outside wall	1	11.500	3.450			39.675
	top & bottom of cover slab	2	3.800	5.100			38.760
	columns	4	1.200	4.050			19.440
	floor of PH	1	4.100	3.100			12.710
	wall of PH-inside	2	7.200	4.500			64.800
	wall of PH-outside	1	11.100	4.500			49.950
	roof of PH	2	5.100	4.100			41.820
	parapet wall of PH	2	17.200	0.850			29.240
	parapet wall of sump	2	11.700	0.850			19.890
	sunshade of PH	2	12.400	0.650			16.120
	Deduction - rolling shutter	-1	3.000	2.500			-7.500
	Deduction - windows	-2	1.500	1.400			-4.200
	Deduction - ventilatos	-3	1.000	0.600			-1.800
	Total						**379.205**
						Total Quantity in sqm	**379.205**
7.017	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						
	Providing water proofing treatment						
	sidewall of sump	1	14.000	2.950			41.300
	haunch of sump	1	14.000	0.500			7.000

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Total						**48.300**
						Total Quantity in sqm	**48.300**
7.018	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 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.						
	Providing water proofing treatment						
	base slab of sump	1	4.000	3.000			12.000
	Total						**12.000**
						Total Quantity in sqm	**12.000**
7.019	13.43.1						
	Applying one coat of water thinnable cement primer of approved brand and manufacture on wall surface:Water thinnable cement primer						
	Applying one coat of water thinnable cement primer						
	Sump out side wall	1	11.500	3.450			39.675
	Sump top of cover slab	1	3.800	5.100			19.380
	inside wall of PH	2	7.200	4.500			64.800
	outside wall of PH	1	11.100	4.500			49.950
	roof of PH	2	5.100	4.100			41.820
	parapet wall of PH	2	11.700	0.850			19.890
	sunshade of PH	2	12.400	0.650			16.120
	Deductions - rolling shutter	-1	3.000	2.500			-7.500
	Deductions - windows	-2	1.500	1.400			-4.200
	Deductions - ventilators	-3	1.000	0.600			-1.800
	Total						**238.135**

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
						Total Quantity in sqm	**238.135**
7.020	13.60.1						
	Wall painting with acrylic emulsion paint of approved brand and manufacture to give an even shade:Two or more coats on new work						
	Wall painting with acrylic emulsion paint						
	Sump out side wall	1	11.500	3.450			39.675
	Sump top of cover slab	1	3.800	5.100			19.380
	inside wall of PH	2	7.200	4.500			64.800
	outside wall of PH	1	11.100	4.500			49.950
	roof of PH	2	5.100	4.100			41.820
	parapet wall of PH	2	11.700	0.850			19.890
	sunshade of PH	2	12.400	0.650			16.120
	Deductions - rolling shutter	-1	3.000	2.500			-7.500
	Deductions - windows	-2	1.500	1.400			-4.200
	Deductions - ventilators	-3	1.000	0.600			-1.800
	Total						**238.135**
						Total Quantity in sqm	**238.135**
7.021	13.71						
	Lettering with black Japan pint of approved brand and manufacture						
	Lettering						
	Lettering	100			15.000		1500.000
	Total						**1500.000**
						Total Quantity in per Letter per cm height	**1500.000**
7.022	50.9.1.1						
	Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with hold fast lugs or with dash fasteners of required dia & length (hold fast lugs or dash fastener shall be paid for separately), using good quality Anjili wood /jack wood						
	providing wood works in frames of door, windows etc.						
	windows	2	9.000	0.100	0.075		0.135
	ventilators	3	4.200	0.100	0.075		0.095
	Total						**0.230**
						Total Quantity in cum	**0.230**

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
7.023	50.9.5.1						
	Providing and fixing glazed shutters for doors, windows and clerestory windows using 4 mm thick float glass panes including ISI marked M.S pressed butt hinges bright finished of required size with necessary screws. Using Anjili wood/ jack wood 35 mm thick shutters.						
	providing and fixing glazed shutters						
	windows	2	1.500	1.400			4.200
	ventilators	3	1.000	0.600			1.800
	Total						**6.000**
						Total Quantity in sqm	**6.000**
7.024	13.48.2						
	Finishing with Deluxe Multi surface paint system for interiors and exteriors using primer as per manufacturers specifications:Painting wood work with Deluxe Multi Surface Paint of required shade. Two or more coat applied @ 0.90 ltr/10 sqm over an under coat of primer applied @ 0.75 ltr/10 sqm of approved brand and manufacture						
	Painting wood work						
	Windows	2	1.500	1.400		1.000000	4.200
	Ventilator	3	1.000	0.600		1.000000	1.800
	Total						**6.000**
						Total Quantity in sqm	**6.000**
7.025	10.6.2						
	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.80x1.20 mm M.S. laths with 1.20 mm thick top cover						
	supplying and fixing rolling shutters						
	Rolling shutter	1	3.000	2.500			7.500
	Total						**7.500**
						Total Quantity in sqm	**7.500**
7.026	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						
	steel work						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	for ladder	2				100.000000	200.000
	Total						**200.000**
						Total Quantity in kg	**200.000**
7.027	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						
	Steel work painting						
	for rolling shutter	1	3.000	2.500		2.400000	18.000
	Total						**18.000**
						Total Quantity in sqm	**18.000**
7.028	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						
	C.I. standard specials						
	100mm wall casting pipe for inlet out let, over flow, scour etc.	5				0.200000	1.000
	Total						**1.000**
						Total Quantity in quintal	**1.000**
7.029	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.						
	Supplying and fixing C.I.manhole cover						
	C.I.manhole cover	1					1.000
	Total						**1.000**
						Total Quantity in no	**1.000**
7.030	OD8439/2022-2023						
	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, lettering etc complete including all charges for material and labour						
	Supplying and fixing water level indicator						
	Supplying and fixing water level indicator	1					1.000

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Total						**1.000**
						Total Quantity in no	**1.000**
7.031	OD8440/2022-2023						
	Supply and Fitting 100 mm Vent cowl						
	Supplying and fixing vent cowl						
	Supplying and fixing vent cowl	1					1.000
	Total						**1.000**
						Total Quantity in no	**1.000**
7.032	100.36.1						
	Filling water with 5000 litre tankers fited 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.						
	Filling water for testing						
	Filling water for testing	30					30.000
	Total						**30.000**
						Total Quantity in Kilo litre	**30.000**
8	Construction of 1.0 LL capacity steel tanks at Morkadu top						
8.001	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						
	Earth work for site levelling						
	for site levelling	1	8.000	8.000	0.300		19.200
	for pcc	1	7.500	7.500	0.150		8.438
	Total						**27.638**
						Total Quantity in sqm	**27.638**
8.002	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)						
	PCC for levelling						
	PCC for levelling	1	7.500	7.500	0.150		8.438
	Total						**8.438**
						Total Quantity in cum	**8.438**
8.003	5.1.3						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	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:1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)						
	Providing and laying R.C.C. 1:2:4						
	for ring beam(3.14*(3.14 +2.69)(3.14-2.69)0.45	3.14	5.830	0.450	0.450		3.707
	Total						**3.707**
						Total Quantity in cum	**3.707**
8.004	5.9.1						
	Centering and shuttering including strutting, etc. and removal of form for:Foundations, footings, bases of columns, etc for mass concrete						
	Centering and Shuttering						
	Ring beam outer side	3.14	6.280	0.450			8.874
	Ring beam inside	3.14	5.380	0.450			7.602
	Total						**16.476**
						Total Quantity in sqm	**16.476**
8.005	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						
	Steel reinforcement						
	Steel reinforcement for ring beam	3.707				120.000000	444.840
	Total						**444.840**
						Total Quantity in kilogram	**444.840**
8.006	OD10217/2022-2023						
	Supplying,coveying & filling sand inside the platform for steel tank						
	Sand for filling						
		3.14	5.380	5.380	0.450	0.250000	10.225
	Total						**10.225**
						Total Quantity in cum	**10.225**
8.007	OD7414/2022-2023						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Supply,installation and commissioning of a pre-engineered, pre-fabricated, factory manufactured steel storage Water Tank having a capacity of 100000 L(1Nos.) thichness 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 & 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 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 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 TANK DIMENSIONS: The dimensions of the Tank shall be of 5.83m in diameter and 4.30m in height DESIGN LIFE: The tanks shall have a design life of 50 years. TANK CONNECTIONS: Standard design valve outlet connection : i) 100mm 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 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 0.8 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							

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	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',Cost for Poly ethylene infinity liner ,Geo synthetic Fibre withfood 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.						
	Supplying and installation of 1.0 LL capacity steel tank						
	steel tank	1	100000.000				100000.000
	Total						**100000.000**
						Total Quantity in Litre	**100000.000**
9	Construction of 1.80 LL capacity steel tank at Kaippa.						
9.001	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						
	Earth work						
	For site levelling	1	9.000	9.000	0.300		24.300
	For PCC	1	8.000	8.000	0.150		9.600
	Total						**33.900**
						Total Quantity in sqm	**33.900**
9.002	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)						
	PCC						
	For PCC	1	8.000	8.000	0.150		9.600
	Total						**9.600**
						Total Quantity in cum	**9.600**
9.003	5.1.3						
	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:1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)						
	RCC						
	Ring beam	3.14	6.770	0.450	0.450		4.305
	Total						**4.305**
						Total Quantity in cum	**4.305**

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
9.004	5.9.1						
	Centering and shuttering including strutting, etc. and removal of form for:Foundations, footings, bases of columns, etc for mass concrete						
	Centering & shuttering						
	Inside	3.14	6.350		0.450		8.973
	Outside	3.14	7.250		0.450		10.244
	Total						**19.217**
						Total Quantity in sqm	**19.217**
9.005	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						
	Steel						
	Ring beam	1	4.305			120.000000	516.600
	Total						**516.600**
						Total Quantity in kilogram	**516.600**
9.006	OD10242/2022-2023						
	Supplying,coveying & filling sand inside the platform for steel tank						
	Sand for Filling						
		3.14	6.350	6.350	0.450	0.250000	14.244
	Total						**14.244**
						Total Quantity in cum	**14.244**
9.007	OD9517/2022-2023						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Supply,installation and commissioning of a pre-engineered, pre-fabricated, factory manufactured steel storage Water Tank having a capacity of 180000 L(1Nos.) thichness 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 & 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 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 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 TANK DIMENSIONS: The dimensions of the Tank shall be of 6.80m in diameter and 5.00m in height DESIGN LIFE: The tanks shall have a design life of 50 years. TANK CONNECTIONS: Standard design valve outlet connection : i) 150mm 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 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 0.8 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							

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	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',Cost for Poly ethylene infinity liner ,Geo synthetic Fibre withfood 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.						
	Supplying and Installation of Steel Tank -1.80LL						
	Steel tank	1	180000.000				180000.000
	Total						**180000.000**
						Total Quantity in Litre	**180000.000**
10	Construction of 2.20 LL capacity steel tank at Adoormala.						
10.001	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						
	Earth work excavation						
	for levelling	1	10.000	10.000	0.300		30.000
	for PCC	1	9.500	9.500	0.150		13.538
	Total						**43.538**
						Total Quantity in sqm	**43.538**
10.002	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)						
	Providing PCC for levelling						
	for levelling	1	9.500	9.500	0.150		13.538
	Total						**13.538**
						Total Quantity in cum	**13.538**
10.003	5.1.3						
	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:1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)						
	Providing and laying RCC 1:2:4						
	for ring beam3.14(4.11+3.66)(4.11-3.66)0.45	3.14	7.770	0.450	0.450		4.941

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Total						**4.941**
						Total Quantity in cum	**4.941**
10.004	5.9.1						
	Centering and shuttering including strutting, etc. and removal of form for:Foundations, footings, bases of columns, etc for mass concrete						
	Centering and Shuttering						
	for ring beam inside	1	3.140	7.320	0.450		10.343
	for ring beam out side	1	3.140	8.220	0.450		11.615
	Total						**21.958**
						Total Quantity in sqm	**21.958**
10.005	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						
	Steel reinforcement						
	for ring beam	5				120.000000	600.000
	Total						**600.000**
						Total Quantity in kilogram	**600.000**
10.006	OD10245/2022-2023						
	Supplying,coveying & filling sand inside the platform for steel tank						
	Sand for filling						
		3.14	7.320	7.320	0.450	0.250000	18.928
	Total						**18.928**
						Total Quantity in cum	**18.928**
10.007	OD9526/2022-2023						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Supply,installation and commissioning of a pre-engineered, pre-fabricated, factory manufactured steel storage Water Tank having a capacity of 220000 L(1Nos.) thichness 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 & 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 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 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 TANK DIMENSIONS: The dimensions of the Tank shall be of 7.77m in diameter and 5.00m in height DESIGN LIFE: The tanks shall have a design life of 50 years. TANK CONNECTIONS: Standard design valve outlet connection : i) 150mm 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 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 0.8 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							

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	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',Cost for Poly ethylene infinity liner ,Geo synthetic Fibre withfood 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.						
	Supplying and Installation of Steel Tank -2.20LL						
	Steel Tank	1	220000.000				220000.000
	Total						**220000.000**
						Total Quantity in Litre	**220000.000**
11	Supply, errection, commissioning of clear water pump sets and Transformer arrangements						
11.001	OD10074/2022-2023						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Supply and erection of centrifugal pump set with following specifications. 1. Pump -Supply, erection, testing and commissioning of KWA pre qualified reputed make Centrifugal pump sets with bronze/SS impeller, SS shaft and CI pump casing with suitable type base plate with coupling, coupling guard foundation bolts& nuts etc. complete suitable for coupling the pump and motor above the base plate etc. complete including providing suitable foundation including cost of cement, sand and metal etc. complete. The duty condition is as follows Discharge –13.0lps Suction Head – 3 m Length of suction pipe - 3.20 m, Total head 142.0 m, Pumping main - 150mm DI K9, 3950.0 m. 2. Motor- Supply, erection , testing and commissioning of KWA pre qualified reputed make horizontal solid shaft foot mounted TEFC squirrel cage induction motor suitable for the above pump working 3 phase 50 Hz AC supply, working voltage 415 V. The motor shall conform to EEFI/IS 325 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. 3. Starter- Supply, erection , testing and commissioning of suitable rating fully automatic starter with air break contact suitable for the above motor with over voltage and under voltage protection, single phase preventer, over load relay with motor protection relay with main contactor and bypass contactor as per IE rules and code of practice etc. complete. 4. Panel board-(Suitable for operating two pump sets but one pump set at a time) Supply, Design, fabrication, erection, testing and commissioning of Cubicle type, floor mounted MS fabricated dust and vermin proof common control panel board consisting of 1 No. suitable capacity MCCB as incomer and 2 Nos. of suitable capacity MCCB as out going(the two MCCBs are interlocking with each other) providing suitable size aluminum bus bar to interconnect the above MCCBs and fitted with 3 Nos. of indicator lamps, 1 No. volt meter with selector switch etc. complete and provided with a common earth bus for the entire panel and interconnect with the MCCBs as per IE rules and code of practice. The panel shall be fitted on a common base frame on suitable foundation. 5. Cabling work- Supply, erection , testing and commissioning of suitable size XLPE cables for the above pump set panel board to starter and from starter to motor, considering energy conservation 6. Earthing- Supply of all materials and providing suitable earthing by using suitable size pipe or plate earthing GI/copper strip buried in ground and giving double earthing to motor, starter, panel board etc. as per IE standards. 7. Capacitor -Supply, erection , testing and commissioning of heavy duty APP capacitor for the motor to get a power factor above 0.95. The capacitor shall conform to IS 2834 8. Valves- Supply of suitable size best quality heavy duty ISI marked CI double flanged 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 9. Suction and delivery pipe connections- Supply and fitting of suitable size best quality GI/M.S pipe of thickness not less than 8mm for a total length of 10.00m suitable for the above pump set and connecting the suction pipe and valve with suitable flanges nut & bolts IR sheets etc. complete and connecting the delivery side of pump with the valves and suitable specials to connect with the pumping main. If the dia. of suction pipe is above 80mm, CI pipes and specials shall be provided. (rate include pump,motor,panel board, stater,10 m cable , capacitor,10 m suction pipe,foot valve, NRV, sluice valve, pipe connection upto valve, earthing , erection , trial run and commistioning, 2 year maintanence, factory inspection above 100 HP.)						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Centrifugal pump set at sump cum pump house at Blind school pumping to Adoormala GLSR						
	40 HP	80					80.000
	Total						**80.000**
						Total Quantity in HP (Horse power)	**80.000**
11.002	OD10014/2022-2023						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Supply and erection of centrifugal pump set with following specifications. 1.Pump -Supply, erection, testing and commissioning of KWA pre qualified reputed make Centrifugal pump sets with bronze/SS impeller, SS shaft and CI pump casing with suitable type base plate with coupling, coupling guard foundation bolts& nuts etc. complete suitable for coupling the pump and motor above the base plate etc. complete including providing suitable foundation including cost of cement, sand and metal etc. complete. The duty condition is as follows Discharge – 25.lps Suction Head – 3 m Length of suction pipe - 3.20 m, Total head 172.0 m, Pumping main - 200mm DI K9, 3210.0 m. 2. Motor- Supply, erection , testing and commissioning of KWA pre qualified reputed make horizontal solid shaft foot mounted TEFC squirrel cage induction motor suitable for the above pump working 3 phase 50 Hz AC supply, working voltage 415 V. The motor shall conform to EEFI/IS 325 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. 3. Starter- Supply, erection , testing and commissioning of suitable rating fully automatic starter with air break contact suitable for the above motor with over voltage and under voltage protection, single phase preventer, over load relay with motor protection relay with main contactor and bypass contactor as per IE rules and code of practice etc. complete. 4. Panel board-(Suitable for operating two pump sets but one pump set at a time) Supply, Design, fabrication, erection, testing and commissioning of Cubicle type, floor mounted MS fabricated dust and vermin proof common control panel board consisting of 1 No. suitable capacity MCCB as incomer and 2 Nos. of suitable capacity MCCB as out going(the two MCCBs are interlocking with each other) providing suitable size aluminum bus bar to interconnect the above MCCBs and fitted with 3 Nos. of indicator lamps, 1 No. volt meter with selector switch etc. complete and provided with a common earth bus for the entire panel and interconnect with the MCCBs as per IE rules and code of practice. The panel shall be fitted on a common base frame on suitable foundation. 5. Cabling work- Supply, erection , testing and commissioning of suitable size XLPE cables for the above pump set panel board to starter and from starter to motor, considering energy conservation 6. Earthing- Supply of all materials and providing suitable earthing by using suitable size pipe or plate earthing GI/copper strip buried in ground and giving double earthing to motor, starter, panel board etc. as per IE standards. 7. Capacitor -Supply, erection , testing and commissioning of heavy duty APP capacitor for the motor to get a power factor above 0.95. The capacitor shall conform to IS 2834 8. Valves- Supply of suitable size best quality heavy duty ISI marked CI double flanged 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 9. Suction and delivery pipe connections- Supply and fitting of suitable size best quality GI/M.S pipe of thickness not less than 8mm for a total length of 10.00m suitable for the above pump set and connecting the suction pipe and valve with suitable flanges nut & bolts IR sheets etc. complete and connecting the delivery side of pump with the valves and suitable specials to connect with the pumping main. If the dia. of suction pipe is above 80mm, CI pipes and specials shall be provided. (rate include pump,motor,panel board, stater,10 m cable , capacitor,10 m suction pipe,foot valve, NRV, sluice valve, pipe connection upto valve, earthing , erection , trial run and commistioning, 2 year maintanence, factory inspection above 100 HP.)						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Centifugal pump set at sump at Blind school pumping to Morkadu Booster 1						
	85 HP	170					170.000
	Total						**170.000**
						Total Quantity in HP (Horse power)	**170.000**
11.003	OD10116/2022-2023						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Supply and erection of centrifugal pump set with following specifications. 1. Pump -Supply, erection, testing and commissioning of KWA pre qualified reputed make Centrifugal pump sets with bronze/SS impeller, SS shaft and CI pump casing with suitable type base plate with coupling, coupling guard foundation bolts& nuts etc. complete suitable for coupling the pump and motor above the base plate etc. complete including providing suitable foundation including cost of cement, sand and metal etc. complete. The duty condition is as follows Discharge –6.0 lps Suction Head – 3 m Length of suction pipe - 3.4 m, Total head-148.0 m, Pumping main - 100mm DI K9, 1100.0 m. 2. Motor- Supply, erection , testing and commissioning of KWA pre qualified reputed make horizontal solid shaft foot mounted TEFC squirrel cage induction motor suitable for the above pump working 3 phase 50 Hz AC supply, working voltage 415 V. The motor shall conform to EEFI/IS 325 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. 3. Starter- Supply, erection , testing and commissioning of suitable rating fully automatic starter with air break contact suitable for the above motor with over voltage and under voltage protection, single phase preventer, over load relay with motor protection relay with main contactor and bypass contactor as per IE rules and code of practice etc. complete. 4. Panel board-(Suitable for operating two pump sets but one pump set at a time) Supply, Design, fabrication, erection, testing and commissioning of Cubicle type, floor mounted MS fabricated dust and vermin proof common control panel board consisting of 1 No. suitable capacity MCCB as incomer and 2 Nos. of suitable capacity MCCB as out going(the two MCCBs are interlocking with each other) providing suitable size aluminum bus bar to interconnect the above MCCBs and fitted with 3 Nos. of indicator lamps, 1 No. volt meter with selector switch etc. complete and provided with a common earth bus for the entire panel and interconnect with the MCCBs as per IE rules and code of practice. The panel shall be fitted on a common base frame on suitable foundation. 5. Cabling work- Supply, erection , testing and commissioning of suitable size XLPE cables for the above pump set panel board to starter and from starter to motor, considering energy conservation 6. Earthing- Supply of all materials and providing suitable earthing by using suitable size pipe or plate earthing GI/copper strip buried in ground and giving double earthing to motor, starter, panel board etc. as per IE standards. 7. Capacitor -Supply, erection , testing and commissioning of heavy duty APP capacitor for the motor to get a power factor above 0.95. The capacitor shall conform to IS 2834 8. Valves- Supply of suitable size best quality heavy duty ISI marked CI double flanged 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 9. Suction and delivery pipe connections- Supply and fitting of suitable size best quality GI/M.S pipe of thickness not less than 8mm for a total length of 10.00m suitable for the above pump set and connecting the suction pipe and valve with suitable flanges nut & bolts IR sheets etc. complete and connecting the delivery side of pump with the valves and suitable specials to connect with the pumping main. If the dia. of suction pipe is above 80mm, CI pipes and specials shall be provided. (rate include pump,motor,panel board, stater,10 m cable , capacitor,10 m suction pipe,foot valve, NRV, sluice valve, pipe connection upto valve, earthing , erection , trial run and commistioning, 2 year maintanence, factory inspection above 100 HP.)						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Centrifugal pump set at Morkadu booster 1 to Morkadu booster 2						
	20 HP	40					40.000
	Total						**40.000**
						Total Quantity in HP (Horse power)	**40.000**
11.004	OD10130/2022-2023						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Supply and erection of centrifugal pump set with following specifications. 1. Pump -Supply, erection, testing and commissioning of KWA pre qualified reputed make Centrifugal pump sets with bronze/SS impeller, SS shaft and CI pump casing with suitable type base plate with coupling, coupling guard foundation bolts& nuts etc. complete suitable for coupling the pump and motor above the base plate etc. complete including providing suitable foundation including cost of cement, sand and metal etc. complete. The duty condition is as follows Discharge –7.0 lps Suction Head – 3 m Length of suction pipe - 3.4 m, Total head-128.0 m, Pumping main - 100mm DI K9, 1350.0 m. 2. Motor- Supply, erection , testing and commissioning of KWA pre qualified reputed make horizontal solid shaft foot mounted TEFC squirrel cage induction motor suitable for the above pump working 3 phase 50 Hz AC supply, working voltage 415 V. The motor shall conform to EEFI/IS 325 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. 3. Starter- Supply, erection , testing and commissioning of suitable rating fully automatic starter with air break contact suitable for the above motor with over voltage and under voltage protection, single phase preventer, over load relay with motor protection relay with main contactor and bypass contactor as per IE rules and code of practice etc. complete. 4. Panel board-(Suitable for operating two pump sets but one pump set at a time) Supply, Design, fabrication, erection, testing and commissioning of Cubicle type, floor mounted MS fabricated dust and vermin proof common control panel board consisting of 1 No. suitable capacity MCCB as incomer and 2 Nos. of suitable capacity MCCB as out going(the two MCCBs are interlocking with each other) providing suitable size aluminum bus bar to interconnect the above MCCBs and fitted with 3 Nos. of indicator lamps, 1 No. volt meter with selector switch etc. complete and provided with a common earth bus for the entire panel and interconnect with the MCCBs as per IE rules and code of practice. The panel shall be fitted on a common base frame on suitable foundation. 5. Cabling work- Supply, erection , testing and commissioning of suitable size XLPE cables for the above pump set panel board to starter and from starter to motor, considering energy conservation 6. Earthing- Supply of all materials and providing suitable earthing by using suitable size pipe or plate earthing GI/copper strip buried in ground and giving double earthing to motor, starter, panel board etc. as per IE standards. 7. Capacitor -Supply, erection , testing and commissioning of heavy duty APP capacitor for the motor to get a power factor above 0.95. The capacitor shall conform to IS 2834 8. Valves- Supply of suitable size best quality heavy duty ISI marked CI double flanged 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 9. Suction and delivery pipe connections- Supply and fitting of suitable size best quality GI/M.S pipe of thickness not less than 8mm for a total length of 10.00m suitable for the above pump set and connecting the suction pipe and valve with suitable flanges nut & bolts IR sheets etc. complete and connecting the delivery side of pump with the valves and suitable specials to connect with the pumping main. If the dia. of suction pipe is above 80mm, CI pipes and specials shall be provided. (rate include pump,motor,panel board, stater,10 m cable , capacitor,10 m suction pipe,foot valve, NRV, sluice valve, pipe connection upto valve, earthing , erection , trial run and commistioning, 2 year maintanence, factory inspection above 100 HP.)						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Centrifugal pump set at Morkadu Booster No 2 to Morkadu top GLSR						
	20 HP	40					40.000
	Total						**40.000**
						Total Quantity in HP (Horse power)	**40.000**
11.005	OD10139/2022-2023						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Supply and erection of centrifugal pump set with following specifications. 1. Pump -Supply, erection, testing and commissioning of KWA pre qualified reputed make Centrifugal pump sets with bronze/SS impeller, SS shaft and CI pump casing with suitable type base plate with coupling, coupling guard foundation bolts& nuts etc. complete suitable for coupling the pump and motor above the base plate etc. complete including providing suitable foundation including cost of cement, sand and metal etc. complete. The duty condition is as follows Discharge –8.0 lps, Suction Head – 3 m, Length of suction pipe - 3.4 m, Total head-109.0 m, Pumping main - 100mm DI K9, 1320.0 m. 2. Motor- Supply, erection , testing and commissioning of KWA pre qualified reputed make horizontal solid shaft foot mounted TEFC squirrel cage induction motor suitable for the above pump working 3 phase 50 Hz AC supply, working voltage 415 V. The motor shall conform to EEFI/IS 325 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. 3. Starter- Supply, erection , testing and commissioning of suitable rating fully automatic starter with air break contact suitable for the above motor with over voltage and under voltage protection, single phase preventer, over load relay with motor protection relay with main contactor and bypass contactor as per IE rules and code of practice etc. complete. 4. Panel board-(Suitable for operating two pump sets but one pump set at a time) Supply, Design, fabrication, erection, testing and commissioning of Cubicle type, floor mounted MS fabricated dust and vermin proof common control panel board consisting of 1 No. suitable capacity MCCB as incomer and 2 Nos. of suitable capacity MCCB as out going(the two MCCBs are interlocking with each other) providing suitable size aluminum bus bar to interconnect the above MCCBs and fitted with 3 Nos. of indicator lamps, 1 No. volt meter with selector switch etc. complete and provided with a common earth bus for the entire panel and interconnect with the MCCBs as per IE rules and code of practice. The panel shall be fitted on a common base frame on suitable foundation. 5. Cabling work- Supply, erection , testing and commissioning of suitable size XLPE cables for the above pump set panel board to starter and from starter to motor, considering energy conservation 6. Earthing- Supply of all materials and providing suitable earthing by using suitable size pipe or plate earthing GI/copper strip buried in ground and giving double earthing to motor, starter, panel board etc. as per IE standards. 7. Capacitor -Supply, erection , testing and commissioning of heavy duty APP capacitor for the motor to get a power factor above 0.95. The capacitor shall conform to IS 2834 8. Valves- Supply of suitable size best quality heavy duty ISI marked CI double flanged 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 9. Suction and delivery pipe connections- Supply and fitting of suitable size best quality GI/M.S pipe of thickness not less than 8mm for a total length of 10.00m suitable for the above pump set and connecting the suction pipe and valve with suitable flanges nut & bolts IR sheets etc. complete and connecting the delivery side of pump with the valves and suitable specials to connect with the pumping main. If the dia. of suction pipe is above 80mm, CI pipes and specials shall be provided. (rate include pump,motor,panel board, stater,10 m cable , capacitor,10 m suction pipe,foot valve, NRV, sluice valve, pipe connection upto valve, earthing , erection ,						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	trial run and commistioning, 2 year maintanence, factory inspection above 100 HP.)						
	Centrifugal pump set at Morkadu Booster 1 to Koovapally						
	20 HP	40					40.000
	Total						**40.000**
						Total Quantity in HP (Horse power)	**40.000**
11.006	OD10168/2022-2023						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Supply and erection of centrifugal pump set with following specifications. 1. Pump -Supply, erection, testing and commissioning of KWA pre qualified reputed make Centrifugal pump sets with bronze/SS impeller, SS shaft and CI pump casing with suitable type base plate with coupling, coupling guard foundation bolts& nuts etc. complete suitable for coupling the pump and motor above the base plate etc. complete including providing suitable foundation including cost of cement, sand and metal etc. complete. The duty condition is as follows Discharge –12.0 lps, Suction Head – 3 m, Length of suction pipe - 3.4 m, Total head-153.0 m, Pumping main - 150mm DI K9, 5000m. 2. Motor- Supply, erection , testing and commissioning of KWA pre qualified reputed make horizontal solid shaft foot mounted TEFC squirrel cage induction motor suitable for the above pump working 3 phase 50 Hz AC supply, working voltage 415 V. The motor shall conform to EEFI/IS 325 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. 3. Starter- Supply, erection , testing and commissioning of suitable rating fully automatic starter with air break contact suitable for the above motor with over voltage and under voltage protection, single phase preventer, over load relay with motor protection relay with main contactor and bypass contactor as per IE rules and code of practice etc. complete. 4. Panel board-(Suitable for operating two pump sets but one pump set at a time) Supply, Design, fabrication, erection, testing and commissioning of Cubicle type, floor mounted MS fabricated dust and vermin proof common control panel board consisting of 1 No. suitable capacity MCCB as incomer and 2 Nos. of suitable capacity MCCB as out going(the two MCCBs are interlocking with each other) providing suitable size aluminum bus bar to interconnect the above MCCBs and fitted with 3 Nos. of indicator lamps, 1 No. volt meter with selector switch etc. complete and provided with a common earth bus for the entire panel and interconnect with the MCCBs as per IE rules and code of practice. The panel shall be fitted on a common base frame on suitable foundation. 5. Cabling work- Supply, erection , testing and commissioning of suitable size XLPE cables for the above pump set panel board to starter and from starter to motor, considering energy conservation 6. Earthing- Supply of all materials and providing suitable earthing by using suitable size pipe or plate earthing GI/copper strip buried in ground and giving double earthing to motor, starter, panel board etc. as per IE standards. 7. Capacitor -Supply, erection , testing and commissioning of heavy duty APP capacitor for the motor to get a power factor above 0.95. The capacitor shall conform to IS 2834 8. Valves- Supply of suitable size best quality heavy duty ISI marked CI double flanged 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 9. Suction and delivery pipe connections- Supply and fitting of suitable size best quality GI/M.S pipe of thickness not less than 8mm for a total length of 10.00m suitable for the above pump set and connecting the suction pipe and valve with suitable flanges nut & bolts IR sheets etc. complete and connecting the delivery side of pump with the valves and suitable specials to connect with the pumping main. If the dia. of suction pipe is above 80mm, CI pipes and specials shall be provided. (rate include pump,motor,panel board, stater,10 m cable , capacitor,10 m suction pipe,foot valve, NRV, sluice valve, pipe connection upto valve, earthing , erection , trial run and commistioning, 2 year maintanence, factory inspection above 100 HP.)						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Supply and erection of CF pump set from sump at Blind school to Kaippa						
	35 HP	70					70.000
	Total						**70.000**
						Total Quantity in HP (Horse power)	**70.000**
11.007	OD10763/2022-2023						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	Supply and erection of centrifugal pump set with following specifications. 1. Pump -Supply, erection, testing and commissioning of KWA pre qualified reputed make Centrifugal pump sets with bronze/SS impeller, SS shaft and CI pump casing with suitable type base plate with coupling, coupling guard foundation bolts& nuts etc. complete suitable for coupling the pump and motor above the base plate etc. complete including providing suitable foundation including cost of cement, sand and metal etc. complete. The duty condition is as follows Discharge –50.0lps Suction Head – 3 m Length of suction pipe - 3.40 m, Total head 20.0 m, Pumping main - 300 mm DI K9, 8650 m. 2. Motor- Supply, erection , testing and commissioning of KWA pre qualified reputed make horizontal solid shaft foot mounted TEFC squirrel cage induction motor suitable for the above pump working 3 phase 50 Hz AC supply, working voltage 415 V. The motor shall conform to EEFI/IS 325 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. 3. Starter- Supply, erection , testing and commissioning of suitable rating fully automatic starter with air break contact suitable for the above motor with over voltage and under voltage protection, single phase preventer, over load relay with motor protection relay with main contactor and bypass contactor as per IE rules and code of practice etc. complete. 4. Panel board-(Suitable for operating two pump sets but one pump set at a time) Supply, Design, fabrication, erection, testing and commissioning of Cubicle type, floor mounted MS fabricated dust and vermin proof common control panel board consisting of 1 No. suitable capacity MCCB as incomer and 2 Nos. of suitable capacity MCCB as out going(the two MCCBs are interlocking with each other) providing suitable size aluminum bus bar to interconnect the above MCCBs and fitted with 3 Nos. of indicator lamps, 1 No. volt meter with selector switch etc. complete and provided with a common earth bus for the entire panel and interconnect with the MCCBs as per IE rules and code of practice. The panel shall be fitted on a common base frame on suitable foundation. 5. Cabling work- Supply, erection , testing and commissioning of suitable size XLPE cables for the above pump set panel board to starter and from starter to motor, considering energy conservation 6. Earthing- Supply of all materials and providing suitable earthing by using suitable size pipe or plate earthing GI/copper strip buried in ground and giving double earthing to motor, starter, panel board etc. as per IE standards. 7. Capacitor -Supply, erection , testing and commissioning of heavy duty APP capacitor for the motor to get a power factor above 0.95. The capacitor shall conform to IS 2834 8. Valves- Supply of suitable size best quality heavy duty ISI marked CI double flanged 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 9. Suction and delivery pipe connections- Supply and fitting of suitable size best quality GI/M.S pipe of thickness not less than 8mm for a total length of 10.00m suitable for the above pump set and connecting the suction pipe and valve with suitable flanges nut & bolts IR sheets etc. complete and connecting the delivery side of pump with the valves and suitable specials to connect with the pumping main. If the dia. of suction pipe is above 80mm, CI pipes and specials shall be provided. (rate include pump,motor,panel board, stater,10 m cable , capacitor,10 m suction pipe,foot valve, NRV, sluice valve, pipe connection upto valve, earthing , erection , trial run and commistioning, 2 year maintanence, factory inspection above 100 HP.)						

Sl No	Specification	No	Length	Width	Depth	Cf	Quantity
	centrifugal pump set at proposed pump house at Muttom						
	20HP	2				20.000000	40.000
	Total						**40.000**
						Total Quantity in HP (Horse power)	**40.000**
11.008	OD10563/2022-2023						
	Construction of Transformer controll room and Supply and erection of 400 KVA Transformer with Panel board and required accessories						
	Supply, Erection of 400 KVA Indoor Transformer with panel board and required accessories and construction of transformer control room at Kudayathoor sump.						
		1					1.000
	Total						**1.000**
						Total Quantity in set	**1.000**
12	Power allocation charges						
12.001	OD13488/2022-2023						
	Power line Extension and Power connection charges to various pump houses, Line extension charges , as per demand from KSEBL .The necessary statutory fees, if any, payable to the Electrical Inspectorate / KSEB						
	Power connection charges						
	Power connection	3					3.000
	Total						**3.000**
						Total Quantity in L.S	**3.000**

ABSTRACT ESTIMATE

Jal Jeevan Mission (JJM)-JJM-WSS to Kudayathoor panchayath in Idukki District.-Supply and Laying Clear Water Pumping Mains,Construction of sump cum pump house, Construction of GLSR at various zones, Supply and erection of Pumpsets and Supply and erection of 400 KVA Transfomer-Package I-General Civil Work

Sl No	Specification	Quantity	Rate	Amount
1	**Supply and laying of Clear Water Pumping Mains**			
1.001	100.98.119			
	Supply of DI K9 Pipe Conforming to IS 8329/2000, 300mm Dia.			
	Net Total	7110.000metre	@4520.65/metre	32141821.50
1.002	100.98.117			
	Supply of DI K9 Pipe Conforming to IS 8329/2000, 200mm Dia.			
	Net Total	3366.000metre	@2589.09/metre	8714876.94
1.003	100.98.116			
	Supply of DI K9 Pipe Conforming to IS 8329/2000, 150mm Dia.			
	Net Total	9129.000metre	@1890.46/metre	17258009.34
1.004	100.98.115			
	Supply of DI K9 Pipe Conforming to IS 8329/2000, 100mm Dia.			
	Net Total	3845.000metre	@1257.56/metre	4835318.20
1.005	100.98.457			
	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.6, Size 80mm.			
	Net Total	3.000no	@6624.03/no	19872.09
1.006	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	4.000no	@9003.95/no	36015.80
1.007	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	2.000no	@13396.74/no	26793.48
1.008	100.98.461			

Sl No	Specification	Quantity	Rate	Amount
	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.6, Size 200mm.			
	Net Total	4.000no	@23723.64/no	94894.56
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	3.000no	@5636.76/no	16910.28
1.010	100.98.441			
	Supply of CI Air Valve, Conforming to IS 14848 - 2000, Single Orifice, Small Orifice Type S1, Size 40mm.			
	Net Total	18.000no	@6110.65/no	109991.70
1.011	100.98.446			
	Supply of CI Air Valve, Conforming to IS 14848 - 2000, Double Orifice Type DS2, Size 50mm.			
	Net Total	6.000no	@7946.98/no	47681.88
1.012	100.98.436			
	Supply of CI Air Valve, Conforming to IS 14848 - 2000, Kinetic Air Valve Type DK, Size 80mm.			
	Net Total	2.000no	@11748.57/no	23497.14
1.013	100.98.429			
	Supply of CI Non Return Valve, Conforming to IS 5312 Part I - 1984, PN 1.6, Size 100mm.			
	Net Total	3.000no	@8668.27/no	26004.81
1.014	100.98.431			
	Supply of CI Non Return Valve, Conforming to IS 5312 Part I - 1984, PN 1.0, Size 150mm.			
	Net Total	4.000no	@12275.89/no	49103.56
1.015	100.98.432			
	Supply of CI Non Return Valve, Conforming to IS 5312 Part I - 1984, PN 1.0, Size 200mm.			
	Net Total	2.000no	@23526.18/no	47052.36
1.016	100.98.434			
	Supply of CI Non Return Valve, Conforming to IS 5312 Part I - 1984, PN 1.0, Size 300mm.			
	Net Total	2.000no	@45483.18/no	90966.36
1.017	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			

Sl No	Specification	Quantity	Rate	Amount
	50m, in all kinds of soil.			
	Net Total	13888.140cum	@579.88/cum	8053454.62
1.018	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	4031.240cum	@842.08/cum	3394626.58
1.019	100.2.2			
	Excavation work by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5m in width or 10m2 on plan), 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	1410.934cum	@1106.31/cum	1560930.39
1.020	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	594.216cum	@1624.47/cum	965286.07
1.021	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	12000.000metre	@28.84/metre	346080.00
1.022	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	4428.000metre	@31.77/metre	140677.56
1.023	15.43.2			
	Dismantling manually / by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer -in-Charge:Bituminous road			
	Net Total	2212.000sqm	@376.74/sqm	833348.88

Sl No	Specification	Quantity	Rate	Amount
1.024	50.2.25.1			
	Filling with contractor's own earth (excluding rock) in trenches, plinth, sides of foundations 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 as per direction of site Engineer-in-charge			
	Net Total	600.000cum	@548.87/cum	329322.00
1.025	100.14.1			
	Conveying and laying S&S Centrifugally Cast (Spun) / Ductile Iron Pipes conforming to IS: 8329 excluding cost of pipes and specials: 100mm diameter Ductile Iron Class K-9 Pipes.			
	Net Total	3770.000metre	@61.40/metre	231478.00
1.026	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	8950.000metre	@91.51/metre	819014.50
1.027	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.			
	Net Total	3300.000metre	@127.49/metre	420717.00
1.028	100.14.5			
	Conveying and laying S&S Centrifugally Cast (Spun) / Ductile Iron Pipes conforming to IS: 8329 excluding cost of pipes and specials: 300mm diameter Ductile Iron Class K-9 Pipes.			
	Net Total	6980.000metre	@214.16/metre	1494836.80
1.029	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	207.800quintal	@21003.05/quintal	4364433.79
1.030	18.70.1			
	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:100 mm dia pipes			
	Net Total	720.000joint	@112.62/joint	81086.40
1.031	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			

Sl No	Specification	Quantity	Rate	Amount
	pipes			
	Net Total	1680.000joint	@184.10/joint	309288.00
1.032	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	620.000joint	@270.11/joint	167468.20
1.033	18.70.5			
	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:300 mm dia pipe			
	Net Total	1300.000joint	@430.66/joint	559858.00
1.034	18.30.2			
	Providing flanged joints to double flanged C.I./ D.I pipes and specials, including testing of joints:100 mm diameter pipe			
	Net Total	35.000no	@325.59/no	11395.65
1.035	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	30.000no	@402.30/no	12069.00
1.036	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	25.000no	@436.82/no	10920.50
1.037	18.30.7			
	Providing flanged joints to double flanged C.I./ D.I pipes and specials, including testing of joints:300 mm diameter pipe			
	Net Total	22.000no	@603.77/no	13282.94
1.038	OD24793/2022-2023			
	Labour for cutting D.I. pipe with steel saw. 100 mm diameter D.I. pipe			
	Net Total	80.000Each Cut	@179.40/Each Cut	14352.00
1.039	OD24816/2022-2023			
	Labour for cutting D.I. pipe with steel saw. 150 mm diameter D.I. pipe			
	Net Total	150.000Each Cut	@337.10/Each Cut	50565.00
1.040	OD24826/2022-2023			
	Labour for cutting D.I. pipe with steel saw. 200 mm diameter D.I. pipe			
	Net Total	70.000Each Cut	@449.61/Each Cut	31472.70

Sl No	Specification	Quantity	Rate	Amount
1.041	OD24836/2022-2023			
	Labour for cutting D.I. pipe with steel saw. 300 mm diameter D.I. pipe			
	Net Total	100.000Each Cut	@671.63/Each Cut	67163.00
1.042	100.35.1			
	Testing 100mm DI/CI pipeline with potable water to the required test pressure 100 mm dia			
	Net Total	3860.000metre	@24.36/metre	94029.60
1.043	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	9300.000metre	@32.86/metre	305598.00
1.044	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	3390.000metre	@41.66/metre	141227.40
1.045	100.35.5			
	Testing 300mm DI/CI pipeline with potable water to the required test pressure. 300 mm dia Observed Data derived from item no.1023 of PHED DATA			
	Net Total	7130.000metre	@57.78/metre	411971.40
1.046	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	3.000no	@146.63/no	439.89
1.047	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	18.000no	@184.44/no	3319.92
1.048	100.32.3			
	Conveying and fixing C. I. Double 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): 50mm Double Acting Air Valve.			

Sl No	Specification	Quantity	Rate	Amount
	Net Total	6.000no	@229.21/no	1375.26
1.049	100.32.4			
	Conveying and fixing C. I. Double 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): 80mm Double Acting Air Valve.			
	Net Total	2.000no	@229.21/no	458.42
1.050	100.31.1.1			
	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): 80mm diameter, Class I.			
	Net Total	3.000no	@613.80/no	1841.40
1.051	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	7.000no	@925.37/no	6477.59
1.052	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	6.000no	@1253.32/no	7519.92
1.053	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	6.000no	@1625.85/no	9755.10
1.054	100.31.1.7			
	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): 300mm diameter, Class I.			
	Net Total	2.000no	@2708.08/no	5416.16
1.055	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	90.000metre	@4182.35/metre	376411.50
1.056	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			

Sl No	Specification	Quantity	Rate	Amount
	8mm thick M.S. plates.			
	Net Total	20.000no	@1161.73/no	23234.60
1.057	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	40.000no	@119.81/no	4792.40
1.058	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	40.000no	@452.90/no	18116.00
1.059	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	40.000no	@85.07/no	3402.80
1.060	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	350.000metre	@5174.49/metre	1811071.50
1.061	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 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
1.062	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	60.000no	@171.45/no	10287.00
1.063	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	60.000no	@648.09/no	38885.40
1.064	100.37.6.5			
	Grinding cut and weld edges of 150mm (I.D.) M.S. pipes during fabrication work			

Sl No	Specification	Quantity	Rate	Amount
	including all labour and hire charges of tools etc., complete: For pipes fabricated with 8mm thick M.S. plates.			
	Net Total	60.000no	@121.73/no	7303.80
1.065	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	90.000metre	@6165.53/metre	554897.70
1.066	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	20.000no	@2081.10/no	41622.00
1.067	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	40.000no	@223.11/no	8924.40
1.068	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	40.000no	@843.32/no	33732.80
1.069	100.37.7.5			
	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	40.000no	@158.40/no	6336.00
1.070	100.37.9.1			
	In situ fabrication of M.S. pipes of size 300mm (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	150.000metre	@8154.17/metre	1223125.50
1.071	100.37.9.2			
	Fabricating M.S. flanges of diameter 300mm 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.			

Sl No	Specification	Quantity	Rate	Amount
	Net Total	30.000no	@3012.19/no	90365.70
1.072	100.37.9.3			
	Cutting 300mm (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	60.000no	@326.40/no	19584.00
1.073	100.37.9.4			
	Welding 300mm (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	60.000no	@1233.75/no	74025.00
1.074	100.37.9.5			
	Grinding cut and weld edges of 300mm (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	60.000no	@231.74/no	13904.40
1.075	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	243.000cum	@309.99/cum	75327.57
1.076	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	76.050cum	@7690.32/cum	584848.84
1.077	5.1.3			
	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:1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)			
	Net Total	340.000cum	@8964.75/cum	3048015.00
1.078	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	91.350cum	@9483.13/cum	866283.93
1.079	5.22.4			
	Steel reinforcement for R.C.C work including straightening, cutting, bending, placing			

Sl No	Specification	Quantity	Rate	Amount
	in position and binding all complete upto plinth levelHot rolled deformed bars			
	Net Total	34508.000kilogram	@102.61/kilogram	3540865.88
1.080	4.3.1			
	Centering and shuttering including strutting, propping etc. and removal of form work for:Foundations, footings, bases for columns			
	Net Total	2152.000sqm	@350.00/sqm	753200.00
	Heading Total(Rs)			102086252.26
2	**Road restoration works(MORTH)**			
2.001	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	3520.000cum	@48.79/cum	171740.80
2.002	4.1.B.2			
	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-VI - For sub-base cum drainage layer - Mix in Place Method			
	Net Total	1320.000cum	@3356.67/cum	4430804.40
2.003	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	1320.000cum	@3375.91/cum	4456201.20
2.004	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	20800.000sqm	@73.49/sqm	1528592.00
2.005	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	15000.000sqm	@11.95/sqm	179250.00
2.006	5.3.2.a			

Sl No	Specification	Quantity	Rate	Amount
	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	180.000cum	@8758.31/cum	1576495.80
2.007	5.6.1.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) @ 5.2 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 - I (19 mm nominal size)			
	Net Total	450.000cum	@13072.20/cum	5882490.00
2.008	OD5369/2022-2023			
	Taking out existing CC interlocking paver blocks from footpath/ central verge, including removal of rubbish etc., disposal of unserviceable material to the dumping ground, for which payment shall be made separately and stacking of serviceable material within 50 metre lead as per direction of Engineer-in-Charge.			
	Net Total	300.000sqm	@85.05/sqm	25515.00
2.009	OD5371/2022-2023			
	Laying old cement concrete interlocking paver blocks of any design/ shape laid in required line, level, curvature, colour and pattern over and including 50 mm thick compacted bed of coarse sand, filling the joints with fine sand etc. all complete as per the direction of Engineer-in-charge. (Old CC paver blocks shall be supplied by the department free of cost.)			
	Net Total	300.000sqm	@414.94/sqm	124482.00
			Heading Total(Rs)	18375571.20
3	**Road restoration charges (DAR CIVIL)**			
3.001	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	400.000cum	@8340.91/cum	3336364.00
			Heading Total(Rs)	3336364.00
4	**Road restoration charges to be remitted to other agencies**			
4.001	OD5391/2022-2023			
	Road restoration charges for Berm cutting as per 30.07.2020G.O(Ms) N0.59/2020/PWD dated			

Sl No	Specification	Quantity	Rate	Amount
	Net Total	3000.000sqm	@304.96/sqm	914880.00
			Heading Total(Rs)	914880.00
5	**Construction of Sump cum pump house at Blind school**			
5.001	2.33.2			
	Felling trees of the girth (measured at a height of 1 m above ground level) including cutting of trunks and branches, removing the roots and stacking of serviceable material and disposal of unserviceable material.Beyound 60 cm girth up to and including 120 cm girth			
	Net Total	2.000each	@2081.82/each	4163.64
5.002	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	162.000cum	@223.41/cum	36192.42
5.003	OD25794/2022-2023			
	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-1st depth			
	Net Total	162.000cum	@334.44/cum	54179.28
5.004	OD25795/2022-2023			
	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-2nd depth			
	Net Total	108.000cum	@445.49/cum	48112.92
5.005	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	24.912cum	@309.99/cum	7722.47
5.006	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	117.750Kwh	@38.55/Kwh	4539.26
5.007	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			

Sl No	Specification	Quantity	Rate	Amount
	sand)			
	Net Total	26.218cum	@7520.38/cum	197169.32
5.008	OD7798/2022-2023			
	DOWEL BARS - Supplying and providing MS dowel bars of size 16 mm dia of 2m long (1m in rock and 1m in concrete) including drilling holes of 20mm dia to a depth of 1m in rock and filling the gap with cement grout(0.10kg/each) etc complete.			
	Net Total	200.000no	@371.68/no	74336.00
5.009	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	20.170cum	@8340.91/cum	168236.15
5.010	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	30.543cum	@9825.93/cum	300113.38
5.011	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	94.205cum	@11550.42/cum	1088107.32
5.012	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	124.748cum	@85.68/cum	10688.41
5.013	5.9.1			
	Centering and shuttering including strutting, etc. and removal of form for:Foundations, footings, bases of columns, etc for mass concrete			

Sl No	Specification	Quantity	Rate	Amount
	Net Total	36.135sqm	@350.00/sqm	12647.25
5.014	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	378.200sqm	@748.62/sqm	283128.08
5.015	5.9.5			
	Centering and shuttering including strutting, etc. and removal of form for:Lintels, beams, plinth beams, girders bressumers and cantilevers			
	Net Total	69.285sqm	@678.27/sqm	46993.94
5.016	5.9.3			
	Centering and shuttering including strutting, etc. and removal of form for:Suspended floors, roofs, landings, balconies and access platform			
	Net Total	230.220sqm	@851.49/sqm	196030.03
5.017	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	17464.720kilogram	@102.61/kilogram	1792054.92
5.018	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	46.333cum	@6748.20/cum	312664.35
5.019	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	1576.710sqm	@418.80/sqm	660326.15
5.020	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-			

Sl No	Specification	Quantity	Rate	Amount
	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	136.000sqm	@595.25/sqm	80954.00
5.021	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 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	70.000sqm	@458.80/sqm	32116.00
5.022	11.36			
	Providing and fixing I st quality ceramic glazed wall tiles conforming to IS : 15622 (thickness to be specified by the manufacturer), of approved make, in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer -in-Charge, in skirting, risers of steps and dados, over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3 kg per sqm, including pointing in white cement mixed with pigment of matching shade complete.			
	Net Total	14.790sqm	@1265.87/sqm	18722.22
5.023	11.37			
	Providing and laying Ceramic glazed floor tiles of size 300x300 mm (thickness to be specified by the manufacturer), of 1st quality conforming to IS : 15622, of approved make, in colours such as White, Ivory, Grey, Fume Red Brown, laid on 20 mm thick cement mortar 1:4 (1 Cement : 4 Coarse sand), including pointing the joints with white cement and matching pigment etc., complete.			
	Net Total	3.200sqm	@1138.85/sqm	3644.32
5.024	17.2.1			
	Providing and fixing white vitreous china pedestal type water closet (European type W.C. pan) with seat and lid, 10 litre low level white P.V.C. flushing cistern, including flush pipe, with manually controlled device (handle lever), conforming to IS : 7231, with all fittings and fixtures complete, including cutting and making good the walls and floors wherever required:W.C. pan with ISI marked white solid plastic seat and lid			
	Net Total	1.000each	@6463.93/each	6463.93
5.025	17.7.1			
	Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brass pillar taps, 32			

Sl No	Specification	Quantity	Rate	Amount
	mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require:White Vitreous China Wash basin size 630x450 mm with a pair of 15 mm C.P. brass pillar taps			
	Net Total	1.000each	@3793.77/each	3793.77
5.026	17.32.2			
	Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing :Rectangular shape 453x357 mm			
	Net Total	1.000each	@1376.39/each	1376.39
5.027	13.43.1			
	Applying one coat of water thinnable cement primer of approved brand and manufacture on wall surface:Water thinnable cement primer			
	Net Total	952.198sqm	@73.75/sqm	70224.60
5.028	13.60.1			
	Wall painting with acrylic emulsion paint of approved brand and manufacture to give an even shade:Two or more coats on new work			
	Net Total	966.783sqm	@158.06/sqm	152809.72
5.029	13.71			
	Lettering with black Japan pint of approved brand and manufacture			
	Net Total	1500.000per Letter per cm height	@5.82/per Letter per cm height	8730.00
5.030	50.9.1.1			
	Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with hold fast lugs or with dash fasteners of required dia & length (hold fast lugs or dash fastener shall be paid for separately), using good quality Anjili wood /jack wood			
	Net Total	0.870cum	@110915.63/cum	96496.60
5.031	50.9.5.1			
	Providing and fixing glazed shutters for doors, windows and clerestory windows using 4 mm thick float glass panes including ISI marked M.S pressed butt hinges bright finished of required size with necessary screws. Using Anjili wood/ jack wood 35 mm thick shutters.			
	Net Total	23.880sqm	@4035.72/sqm	96372.99
5.032	13.48.2			
	Finishing with Deluxe Multi surface paint system for interiors and exteriors using primer as per manufacturers specifications:Painting wood work with Deluxe Multi Surface Paint of required shade. Two or more coat applied @ 0.90 ltr/10 sqm over an under coat of primer applied @ 0.75 ltr/10 sqm of approved brand and manufacture			
	Net Total	25.980sqm	@160.01/sqm	4157.06
5.033	10.25.2			

Sl No	Specification	Quantity	Rate	Amount
	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	250.000kg	@160.93/kg	40232.50
5.034	10.6.2			
	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.80x1.20 mm M.S. laths with 1.20 mm thick top cover			
	Net Total	7.500sqm	@3444.71/sqm	25835.33
5.035	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			
	Net Total	18.000sqm	@154.59/sqm	2782.62
5.036	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	2.250quintal	@9660.34/quintal	21735.77
5.037	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	2.000no	@2920.75/no	5841.50
5.038	OD8441/2022-2023			
	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, lettering etc complete including all charges for material and labour			
	Net Total	1.000no	@10453.50/no	10453.50
5.039	100.36.1			
	Filling water with 5000 litre tankers fited 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	250.000Kilo litre	@190.05/Kilo litre	47512.50

Sl No	Specification	Quantity	Rate	Amount
5.040	OD26470/2022-2023			
	Water supply and sanitary arrangements			
	Net Total	1.000L.S	@48493.23/L.S	48493.23
			Heading Total(Rs)	6076153.84
6	**Construction of 0.80 LL sump and pump house at Morkadu**			
6.001	2.33.2			
	Felling trees of the girth (measured at a height of 1 m above ground level) including cutting of trunks and branches, removing the roots and stacking of serviceable material and disposal of unserviceable material.Beyound 60 cm girth up to and including 120 cm girth			
	Net Total	5.000each	@2081.82/each	10409.10
6.002	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	72.250cum	@223.41/cum	16141.37
6.003	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	36.125cum	@749.05/cum	27059.43
6.004	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	14.400cum	@309.99/cum	4463.86
6.005	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	22.978cum	@7520.38/cum	172803.29
6.006	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	10.946cum	@8340.91/cum	91299.60
6.007	OD8402/2022-2023			

Sl No	Specification	Quantity	Rate	Amount
	DOWEL BARS - Supplying and providing MS dowel bars of size 16 mm dia of 2m long (1m in rock and 1m in concrete) including drilling holes of 20mm dia to a depth of 1m in rock and filling the gap with cement grout(0.10kg/each) etc complete.			
	Net Total	100.000no	@371.68/no	37168.00
6.008	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	13.350cum	@9825.93/cum	131176.17
6.009	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	42.087cum	@11550.42/cum	486122.53
6.010	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	42.806cum	@85.68/cum	3667.62
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	11.595sqm	@350.00/sqm	4058.25
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	195.800sqm	@748.62/sqm	146579.80
6.013	5.9.3			
	Centering and shuttering including strutting, etc. and removal of form for:Suspended floors, roofs, landings, balconies and access platform			

Sl No	Specification	Quantity	Rate	Amount
	Net Total	96.520sqm	@851.49/sqm	82185.81
6.014	5.9.5			
	Centering and shuttering including strutting, etc. and removal of form for:Lintels, beams, plinth beams, girders bressumers and cantilevers			
	Net Total	34.690sqm	@678.27/sqm	23529.19
6.015	5.9.6			
	Centering and shuttering including strutting, etc. and removal of form for:Columns, Pillars, Piers, Abutments, Posts and Struts			
	Net Total	20.340sqm	@901.45/sqm	18335.49
6.016	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	7761.180kilogram	@102.61/kilogram	796374.68
6.017	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	10.830cum	@6748.20/cum	73083.01
6.018	13.1.1			
	12 mm cement plaster of mix:1:4 (1 cement : 4 fine sand)			
	Net Total	586.000sqm	@327.87/sqm	192131.82
6.019	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	28.000sqm	@595.25/sqm	16667.00
6.020	22.23.2			
	Providing and applying integral crystalline slurry of hydrophilic in nature for			

Sl No	Specification	Quantity	Rate	Amount
	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 horizontal surface one coat @1.10 kg per sqm.			
	Net Total	75.900sqm	@458.80/sqm	34822.92
6.021	13.43.1			
	Applying one coat of water thinnable cement primer of approved brand and manufacture on wall surface:Water thinnable cement primer			
	Net Total	469.625sqm	@73.75/sqm	34634.84
6.022	13.60.1			
	Wall painting with acrylic emulsion paint of approved brand and manufacture to give an even shade:Two or more coats on new work			
	Net Total	460.060sqm	@158.06/sqm	72717.08
6.023	50.9.1.1			
	Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with hold fast lugs or with dash fasteners of required dia & length (hold fast lugs or dash fastener shall be paid for separately), using good quality Anjili wood /jack wood			
	Net Total	0.046cum	@110915.63/cum	5102.12
6.024	50.9.5.1			
	Providing and fixing glazed shutters for doors, windows and clerestory windows using 4 mm thick float glass panes including ISI marked M.S pressed butt hinges bright finished of required size with necessary screws. Using Anjili wood/ jack wood 35 mm thick shutters.			
	Net Total	4.500sqm	@4035.72/sqm	18160.74
6.025	10.6.2			
	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.80x1.20 mm M.S. laths with 1.20 mm thick top cover			

Sl No	Specification	Quantity	Rate	Amount
	Net Total	7.500sqm	@3444.71/sqm	25835.33
6.026	13.48.2			
	Finishing with Deluxe Multi surface paint system for interiors and exteriors using primer as per manufacturers specifications:Painting wood work with Deluxe Multi Surface Paint of required shade. Two or more coat applied @ 0.90 ltr/10 sqm over an under coat of primer applied @ 0.75 ltr/10 sqm of approved brand and manufacture			
	Net Total	4.500sqm	@160.01/sqm	720.05
6.027	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			
	Net Total	18.000sqm	@154.59/sqm	2782.62
6.028	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	150.000kg	@160.93/kg	24139.50
6.029	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
6.030	13.71			
	Lettering with black Japan pint of approved brand and manufacture			
	Net Total	1500.000per Letter per cm height	@5.82/per Letter per cm height	8730.00
6.031	OD5547/2022-2023			
	Supply and Fitting 100 mm Vent cowl			
	Net Total	4.000no	@3425.49/no	13701.96
6.032	OD5551/2022-2023			
	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, lettering etc complete including all charges for material and labour			
	Net Total	1.000no	@10453.50/no	10453.50
6.033	18.26.1			

Sl No	Specification	Quantity	Rate	Amount
	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	1.890quintal	@9660.34/quintal	18258.04
6.034	100.36.1			
	Filling water with 5000 litre tankers fited 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	80.000Kilo litre	@190.05/Kilo litre	15204.00
6.035	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	1.000no	@1253.32/no	1253.32
6.036	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	1.000no	@1625.85/no	1625.85
6.037	100.98.484			
	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Hand Wheel PN 1.6, Size 150mm.			
	Net Total	1.000no	@13852.05/no	13852.05
6.038	100.98.485			
	Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Hand Wheel PN 1.6, Size 200mm.			
	Net Total	1.000no	@24499.52/no	24499.52
			Heading Total(Rs)	2671432.46
7	**Construction of 0.3 LL sump and pump house at Morkadu booster 2**			
7.001	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	24.000cum	@223.41/cum	5361.84
7.002	2.7.1			
	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.Ordinary rock			

Sl No	Specification	Quantity	Rate	Amount
	Net Total	12.402cum	@433.04/cum	5370.56
7.003	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	6.480cum	@309.99/cum	2008.74
7.004	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	6.480cum	@7520.38/cum	48732.06
7.005	OD8414/2022-2023			
	DOWEL BARS - Supplying and providing MS dowel bars of size 16 mm dia of 2m long (1m in rock and 1m in concrete) including drilling holes of 20mm dia to a depth of 1m in rock and filling the gap with cement grout(0.10kg/each) etc complete.			
	Net Total	40.000no	@371.68/no	14867.20
7.006	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	8.998cum	@8340.91/cum	75051.51
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	9.865cum	@9825.93/cum	96932.80
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			

Sl No	Specification	Quantity	Rate	Amount
	separately.All work above plinth level upto floor V level			
	Net Total	24.715cum	@11550.42/cum	285468.63
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	37.253cum	@85.68/cum	3191.84
7.010	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	11.040sqm	@350.00/sqm	3864.00
7.011	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	131.940sqm	@748.62/sqm	98772.92
7.012	5.9.3			
	Centering and shuttering including strutting, etc. and removal of form for:Suspended floors, roofs, landings, balconies and access platform			
	Net Total	56.050sqm	@851.49/sqm	47726.01
7.013	5.9.5			
	Centering and shuttering including strutting, etc. and removal of form for:Lintels, beams, plinth beams, girders bressumers and cantilevers			
	Net Total	21.570sqm	@678.27/sqm	14630.28
7.014	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	3460.100kilogram	@102.61/kilogram	355040.86
7.015	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	10.293cum	@6748.20/cum	69459.22
7.016	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	379.205sqm	@418.80/sqm	158811.05
7.017	22.23.1			

Sl No	Specification	Quantity	Rate	Amount
	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	48.300sqm	@595.25/sqm	28750.58
7.018	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 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	12.000sqm	@458.80/sqm	5505.60
7.019	13.43.1			
	Applying one coat of water thinnable cement primer of approved brand and manufacture on wall surface:Water thinnable cement primer			
	Net Total	238.135sqm	@73.75/sqm	17562.46
7.020	13.60.1			
	Wall painting with acrylic emulsion paint of approved brand and manufacture to give an even shade:Two or more coats on new work			
	Net Total	238.135sqm	@158.06/sqm	37639.62
7.021	13.71			
	Lettering with black Japan pint of approved brand and manufacture			
	Net Total	1500.000per Letter per cm	@5.82/per Letter per cm height	8730.00

Sl No	Specification	Quantity	Rate	Amount
		height		
7.022	50.9.1.1			
	Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with hold fast lugs or with dash fasteners of required dia & length (hold fast lugs or dash fastener shall be paid for separately), using good quality Anjili wood /jack wood			
	Net Total	0.230cum	@110915.63/cum	25510.59
7.023	50.9.5.1			
	Providing and fixing glazed shutters for doors, windows and clerestory windows using 4 mm thick float glass panes including ISI marked M.S pressed butt hinges bright finished of required size with necessary screws. Using Anjili wood/ jack wood 35 mm thick shutters.			
	Net Total	6.000sqm	@4035.72/sqm	24214.32
7.024	13.48.2			
	Finishing with Deluxe Multi surface paint system for interiors and exteriors using primer as per manufacturers specifications:Painting wood work with Deluxe Multi Surface Paint of required shade. Two or more coat applied @ 0.90 ltr/10 sqm over an under coat of primer applied @ 0.75 ltr/10 sqm of approved brand and manufacture			
	Net Total	6.000sqm	@160.01/sqm	960.06
7.025	10.6.2			
	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.80x1.20 mm M.S. laths with 1.20 mm thick top cover			
	Net Total	7.500sqm	@3444.71/sqm	25835.33
7.026	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	200.000kg	@160.93/kg	32186.00
7.027	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			

Sl No	Specification	Quantity	Rate	Amount
	Net Total	18.000sqm	@154.59/sqm	2782.62
7.028	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	1.000quintal	@9660.34/quintal	9660.34
7.029	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	1.000no	@2920.75/no	2920.75
7.030	OD8439/2022-2023			
	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, lettering etc complete including all charges for material and labour			
	Net Total	1.000no	@10453.50/no	10453.50
7.031	OD8440/2022-2023			
	Supply and Fitting 100 mm Vent cowl			
	Net Total	1.000no	@3425.49/no	3425.49
7.032	100.36.1			
	Filling water with 5000 litre tankers fited 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	30.000Kilo litre	@190.05/Kilo litre	5701.50
			Heading Total(Rs)	1527128.28
8	**Construction of 1.0 LL capacity steel tanks at Morkadu top**			
8.001	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	27.638sqm	@113.73/sqm	3143.27
8.002	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	8.438cum	@8340.91/cum	70380.60
8.003	5.1.3			
	Providing and laying in position specified grade of reinforced cement concrete,			

Sl No	Specification	Quantity	Rate	Amount
	excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level:1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)			
	Net Total	3.707cum	@8964.75/cum	33232.33
8.004	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	16.476sqm	@350.00/sqm	5766.60
8.005	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	444.840kilogram	@102.61/kilogram	45645.03
8.006	OD10217/2022-2023			
	Supplying,coveying & filling sand inside the platform for steel tank			
	Net Total	10.225cum	@1850.86/cum	18925.04
8.007	OD7414/2022-2023			
	Supply,installation and commissioning of a pre-engineered, pre-fabricated, factory manufactured steel storage Water Tank having a capacity of 100000 L(1Nos.) thichness 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 & 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 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 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 TANK DIMENSIONS: The dimensions of the Tank shall be of 5.83m in diameter and 4.30m in height DESIGN LIFE: The tanks shall have a design life of 50 years. TANK CONNECTIONS: Standard design valve outlet connection : i) 100mm 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			

Sl No	Specification	Quantity	Rate	Amount
	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 0.8 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',Cost for Poly ethylene infinity liner ,Geo synthetic Fibre withfood 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.			
	Net Total	100000.000Litre	@9.88/Litre	988000.00
			Heading Total(Rs)	1165092.87
9	**Construction of 1.80 LL capacity steel tank at Kaippa.**			
9.001	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	33.900sqm	@113.73/sqm	3855.45
9.002	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	9.600cum	@8340.91/cum	80072.74
9.003	5.1.3			
	Providing and laying in position specified grade of reinforced cement concrete,			

Sl No	Specification	Quantity	Rate	Amount
	excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level:1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)			
	Net Total	4.305cum	@8964.75/cum	38593.25
9.004	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	19.217sqm	@350.00/sqm	6725.95
9.005	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	516.600kilogram	@102.61/kilogram	53008.33
9.006	OD10242/2022-2023			
	Supplying,coveying & filling sand inside the platform for steel tank			
	Net Total	14.244cum	@1850.86/cum	26363.65
9.007	OD9517/2022-2023			
	Supply,installation and commissioning of a pre-engineered, pre-fabricated, factory manufactured steel storage Water Tank having a capacity of 180000 L(1Nos.) thichness 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 & 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 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 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 TANK DIMENSIONS: The dimensions of the Tank shall be of 6.80m in diameter and 5.00m in height DESIGN LIFE: The tanks shall have a design life of 50 years. TANK CONNECTIONS: Standard design valve outlet connection : i) 150mm 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			

Sl No	Specification	Quantity	Rate	Amount
	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 0.8 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',Cost for Poly ethylene infinity liner ,Geo synthetic Fibre withfood 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.			
	Net Total	180000.000Litre	@9.88/Litre	1778400.00
			Heading Total(Rs)	1987019.37
10	**Construction of 2.20 LL capacity steel tank at Adoormala.**			
10.001	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	43.538sqm	@113.73/sqm	4951.58
10.002	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	13.538cum	@8340.91/cum	112919.24
10.003	5.1.3			
	Providing and laying in position specified grade of reinforced cement concrete,			

Sl No	Specification	Quantity	Rate	Amount
	excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level:1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size)			
	Net Total	4.941cum	@8964.75/cum	44294.83
10.004	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	21.958sqm	@350.00/sqm	7685.30
10.005	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	600.000kilogram	@102.61/kilogram	61566.00
10.006	OD10245/2022-2023			
	Supplying,coveying & filling sand inside the platform for steel tank			
	Net Total	18.928cum	@1850.86/cum	35033.08
10.007	OD9526/2022-2023			
	Supply,installation and commissioning of a pre-engineered, pre-fabricated, factory manufactured steel storage Water Tank having a capacity of 220000 L(1Nos.) thichness 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 & 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 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 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 TANK DIMENSIONS: The dimensions of the Tank shall be of 7.77m in diameter and 5.00m in height DESIGN LIFE: The tanks shall have a design life of 50 years. TANK CONNECTIONS: Standard design valve outlet connection : i) 150mm 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			

Sl No	Specification	Quantity	Rate	Amount
	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 0.8 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',Cost for Poly ethylene infinity liner ,Geo synthetic Fibre withfood 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.			
	Net Total	220000.000Litre	@9.88/Litre	2173600.00
			Heading Total(Rs)	2440050.03
11	**Supply, errection, commissioning of clear water pump sets and Transformer arrangements**			
11.001	OD10074/2022-2023			
	Supply and erection of centrifugal pump set with following specifications. 1. Pump -Supply, erection, testing and commissioning of KWA pre qualified reputed make Centrifugal pump sets with bronze/SS impeller, SS shaft and CI pump casing with suitable type base plate with coupling, coupling guard foundation bolts& nuts etc. complete suitable for coupling the pump and motor above the base plate etc. complete including providing suitable foundation including cost of cement, sand and metal etc. complete. The duty condition is as follows Discharge –13.0lps Suction Head – 3 m Length of suction pipe - 3.20 m, Total head 142.0 m, Pumping main - 150mm DI K9, 3950.0 m. 2. Motor- Supply, erection , testing and commissioning of KWA pre qualified reputed make horizontal solid shaft foot mounted TEFC squirrel cage induction motor suitable for the above pump working 3 phase 50 Hz AC supply, working voltage 415			

Sl No	Specification	Quantity	Rate	Amount
	V. The motor shall conform to EEFI/IS 325 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. 3. Starter- Supply, erection , testing and commissioning of suitable rating fully automatic starter with air break contact suitable for the above motor with over voltage and under voltage protection, single phase preventer, over load relay with motor protection relay with main contactor and bypass contactor as per IE rules and code of practice etc. complete. 4. Panel board-(Suitable for operating two pump sets but one pump set at a time) Supply, Design, fabrication, erection, testing and commissioning of Cubicle type, floor mounted MS fabricated dust and vermin proof common control panel board consisting of 1 No. suitable capacity MCCB as incomer and 2 Nos. of suitable capacity MCCB as out going(the two MCCBs are interlocking with each other) providing suitable size aluminum bus bar to interconnect the above MCCBs and fitted with 3 Nos. of indicator lamps, 1 No. volt meter with selector switch etc. complete and provided with a common earth bus for the entire panel and interconnect with the MCCBs as per IE rules and code of practice. The panel shall be fitted on a common base frame on suitable foundation. 5. Cabling work- Supply, erection , testing and commissioning of suitable size XLPE cables for the above pump set panel board to starter and from starter to motor, considering energy conservation 6. Earthing- Supply of all materials and providing suitable earthing by using suitable size pipe or plate earthing GI/copper strip buried in ground and giving double earthing to motor, starter, panel board etc. as per IE standards. 7. Capacitor -Supply, erection , testing and commissioning of heavy duty APP capacitor for the motor to get a power factor above 0.95. The capacitor shall conform to IS 2834 8. Valves- Supply of suitable size best quality heavy duty ISI marked CI double flanged 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 9. Suction and delivery pipe connections- Supply and fitting of suitable size best quality GI/M.S pipe of thickness not less than 8mm for a total length of 10.00m suitable for the above pump set and connecting the suction pipe and valve with suitable flanges nut & bolts IR sheets etc. complete and connecting the delivery side of pump with the valves and suitable specials to connect with the pumping main. If the dia. of suction pipe is above 80mm, CI pipes and specials shall be provided. (rate include pump,motor,panel board, stater,10 m cable , capacitor,10 m suction pipe,foot valve, NRV, sluice valve, pipe connection upto valve, earthing , erection , trial run and commistioning, 2 year maintanence, factory inspection above 100 HP.)			
	Net Total	80.000HP (Horse power)	@12773.73/HP (Horse power)	1021898.40
11.002	OD10014/2022-2023			
	Supply and erection of centrifugal pump set with following specifications. 1.Pump -Supply, erection, testing and commissioning of KWA pre qualified reputed make Centrifugal pump sets with bronze/SS impeller, SS shaft and CI pump casing with suitable type base plate with coupling, coupling guard foundation bolts& nuts etc. complete suitable for coupling the pump and motor above the base plate etc. complete including providing suitable foundation including cost of cement, sand and			

Sl No	Specification	Quantity	Rate	Amount
	metal etc. complete. The duty condition is as follows Discharge – 25.lps Suction Head – 3 m Length of suction pipe - 3.20 m, Total head 172.0 m, Pumping main - 200mm DI K9, 3210.0 m. 2. Motor- Supply, erection , testing and commissioning of KWA pre qualified reputed make horizontal solid shaft foot mounted TEFC squirrel cage induction motor suitable for the above pump working 3 phase 50 Hz AC supply, working voltage 415 V. The motor shall conform to EEFI/IS 325 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. 3. Starter- Supply, erection , testing and commissioning of suitable rating fully automatic starter with air break contact suitable for the above motor with over voltage and under voltage protection, single phase preventer, over load relay with motor protection relay with main contactor and bypass contactor as per IE rules and code of practice etc. complete. 4. Panel board-(Suitable for operating two pump sets but one pump set at a time) Supply, Design, fabrication, erection, testing and commissioning of Cubicle type, floor mounted MS fabricated dust and vermin proof common control panel board consisting of 1 No. suitable capacity MCCB as incomer and 2 Nos. of suitable capacity MCCB as out going(the two MCCBs are interlocking with each other) providing suitable size aluminum bus bar to interconnect the above MCCBs and fitted with 3 Nos. of indicator lamps, 1 No. volt meter with selector switch etc. complete and provided with a common earth bus for the entire panel and interconnect with the MCCBs as per IE rules and code of practice. The panel shall be fitted on a common base frame on suitable foundation. 5. Cabling work- Supply, erection , testing and commissioning of suitable size XLPE cables for the above pump set panel board to starter and from starter to motor, considering energy conservation 6. Earthing- Supply of all materials and providing suitable earthing by using suitable size pipe or plate earthing GI/copper strip buried in ground and giving double earthing to motor, starter, panel board etc. as per IE standards. 7. Capacitor -Supply, erection , testing and commissioning of heavy duty APP capacitor for the motor to get a power factor above 0.95. The capacitor shall conform to IS 2834 8. Valves- Supply of suitable size best quality heavy duty ISI marked CI double flanged 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 9. Suction and delivery pipe connections- Supply and fitting of suitable size best quality GI/M.S pipe of thickness not less than 8mm for a total length of 10.00m suitable for the above pump set and connecting the suction pipe and valve with suitable flanges nut & bolts IR sheets etc. complete and connecting the delivery side of pump with the valves and suitable specials to connect with the pumping main. If the dia. of suction pipe is above 80mm, CI pipes and specials shall be provided. (rate include pump,motor,panel board, stater,10 m cable , capacitor,10 m suction pipe,foot valve, NRV, sluice valve, pipe connection upto valve, earthing , erection , trial run and commistioning, 2 year maintanence, factory inspection above 100 HP.)			
	Net Total	170.000HP (Horse power)	@13707.56/HP (Horse power)	2330285.20
11.003	OD10116/2022-2023			

Sl No	Specification	Quantity	Rate	Amount
	Supply and erection of centrifugal pump set with following specifications. 1. Pump -Supply, erection, testing and commissioning of KWA pre qualified reputed make Centrifugal pump sets with bronze/SS impeller, SS shaft and CI pump casing with suitable type base plate with coupling, coupling guard foundation bolts& nuts etc. complete suitable for coupling the pump and motor above the base plate etc. complete including providing suitable foundation including cost of cement, sand and metal etc. complete. The duty condition is as follows Discharge –6.0 lps Suction Head – 3 m Length of suction pipe - 3.4 m, Total head-148.0 m, Pumping main - 100mm DI K9, 1100.0 m. 2. Motor- Supply, erection , testing and commissioning of KWA pre qualified reputed make horizontal solid shaft foot mounted TEFC squirrel cage induction motor suitable for the above pump working 3 phase 50 Hz AC supply, working voltage 415 V. The motor shall conform to EEFI/IS 325 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. 3. Starter- Supply, erection , testing and commissioning of suitable rating fully automatic starter with air break contact suitable for the above motor with over voltage and under voltage protection, single phase preventer, over load relay with motor protection relay with main contactor and bypass contactor as per IE rules and code of practice etc. complete. 4. Panel board-(Suitable for operating two pump sets but one pump set at a time) Supply, Design, fabrication, erection, testing and commissioning of Cubicle type, floor mounted MS fabricated dust and vermin proof common control panel board consisting of 1 No. suitable capacity MCCB as incomer and 2 Nos. of suitable capacity MCCB as out going(the two MCCBs are interlocking with each other) providing suitable size aluminum bus bar to interconnect the above MCCBs and fitted with 3 Nos. of indicator lamps, 1 No. volt meter with selector switch etc. complete and provided with a common earth bus for the entire panel and interconnect with the MCCBs as per IE rules and code of practice. The panel shall be fitted on a common base frame on suitable foundation. 5. Cabling work- Supply, erection , testing and commissioning of suitable size XLPE cables for the above pump set panel board to starter and from starter to motor, considering energy conservation 6. Earthing- Supply of all materials and providing suitable earthing by using suitable size pipe or plate earthing GI/copper strip buried in ground and giving double earthing to motor, starter, panel board etc. as per IE standards. 7. Capacitor -Supply, erection , testing and commissioning of heavy duty APP capacitor for the motor to get a power factor above 0.95. The capacitor shall conform to IS 2834 8. Valves- Supply of suitable size best quality heavy duty ISI marked CI double flanged 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 9. Suction and delivery pipe connections- Supply and fitting of suitable size best quality GI/M.S pipe of thickness not less than 8mm for a total length of 10.00m suitable for the above pump set and connecting the suction pipe and valve with suitable flanges nut & bolts IR sheets etc. complete and connecting the delivery side of pump with the valves and suitable specials to connect with the pumping main. If the dia. of suction pipe is above 80mm, CI pipes and specials shall be provided. (rate include pump,motor,panel board, stater,10 m cable , capacitor,10 m suction pipe,foot valve, NRV, sluice valve, pipe connection upto valve, earthing , erection , trial run and commistioning, 2 year maintanence, factory inspection above 100 HP.)			
	Net Total	40.000HP (Horse power)	@17241.52/HP (Horse power)	689660.80

Sl No	Specification	Quantity	Rate	Amount
11.004	OD10130/2022-2023			
	Supply and erection of centrifugal pump set with following specifications. 1. Pump -Supply, erection, testing and commissioning of KWA pre qualified reputed make Centrifugal pump sets with bronze/SS impeller, SS shaft and CI pump casing with suitable type base plate with coupling, coupling guard foundation bolts& nuts etc. complete suitable for coupling the pump and motor above the base plate etc. complete including providing suitable foundation including cost of cement, sand and metal etc. complete. The duty condition is as follows Discharge –7.0 lps Suction Head – 3 m Length of suction pipe - 3.4 m, Total head-128.0 m, Pumping main - 100mm DI K9, 1350.0 m. 2. Motor- Supply, erection , testing and commissioning of KWA pre qualified reputed make horizontal solid shaft foot mounted TEFC squirrel cage induction motor suitable for the above pump working 3 phase 50 Hz AC supply, working voltage 415 V. The motor shall conform to EEFI/IS 325 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. 3. Starter- Supply, erection , testing and commissioning of suitable rating fully automatic starter with air break contact suitable for the above motor with over voltage and under voltage protection, single phase preventer, over load relay with motor protection relay with main contactor and bypass contactor as per IE rules and code of practice etc. complete. 4. Panel board-(Suitable for operating two pump sets but one pump set at a time) Supply, Design, fabrication, erection, testing and commissioning of Cubicle type, floor mounted MS fabricated dust and vermin proof common control panel board consisting of 1 No. suitable capacity MCCB as incomer and 2 Nos. of suitable capacity MCCB as out going(the two MCCBs are interlocking with each other) providing suitable size aluminum bus bar to interconnect the above MCCBs and fitted with 3 Nos. of indicator lamps, 1 No. volt meter with selector switch etc. complete and provided with a common earth bus for the entire panel and interconnect with the MCCBs as per IE rules and code of practice. The panel shall be fitted on a common base frame on suitable foundation. 5. Cabling work- Supply, erection , testing and commissioning of suitable size XLPE cables for the above pump set panel board to starter and from starter to motor, considering energy conservation 6. Earthing- Supply of all materials and providing suitable earthing by using suitable size pipe or plate earthing GI/copper strip buried in ground and giving double earthing to motor, starter, panel board etc. as per IE standards. 7. Capacitor -Supply, erection , testing and commissioning of heavy duty APP capacitor for the motor to get a power factor above 0.95. The capacitor shall conform to IS 2834 8. Valves- Supply of suitable size best quality heavy duty ISI marked CI double flanged 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 9. Suction and delivery pipe connections- Supply and fitting of suitable size best quality GI/M.S pipe of thickness not less than 8mm for a total length of 10.00m suitable for the above pump set and connecting the suction pipe and valve with suitable flanges nut & bolts IR sheets etc. complete and connecting the delivery side of pump with the valves and suitable specials to connect with the pumping main. If the dia. of suction pipe is above 80mm, CI pipes and specials shall be provided. (rate include pump,motor,panel board, stater,10 m cable , capacitor,10 m suction			

Sl No	Specification	Quantity	Rate	Amount
	pipe,foot valve, NRV, sluice valve, pipe connection upto valve, earthing , erection , trial run and commistioning, 2 year maintanence, factory inspection above 100 HP.)			
	Net Total	40.000HP (Horse power)	@17241.52/HP (Horse power)	689660.80
11.005	OD10139/2022-2023			
	Supply and erection of centrifugal pump set with following specifications. 1. Pump -Supply, erection, testing and commissioning of KWA pre qualified reputed make Centrifugal pump sets with bronze/SS impeller, SS shaft and CI pump casing with suitable type base plate with coupling, coupling guard foundation bolts& nuts etc. complete suitable for coupling the pump and motor above the base plate etc. complete including providing suitable foundation including cost of cement, sand and metal etc. complete. The duty condition is as follows Discharge –8.0 lps, Suction Head – 3 m, Length of suction pipe - 3.4 m, Total head-109.0 m, Pumping main - 100mm DI K9, 1320.0 m. 2. Motor- Supply, erection , testing and commissioning of KWA pre qualified reputed make horizontal solid shaft foot mounted TEFC squirrel cage induction motor suitable for the above pump working 3 phase 50 Hz AC supply, working voltage 415 V. The motor shall conform to EEFI/IS 325 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. 3. Starter- Supply, erection , testing and commissioning of suitable rating fully automatic starter with air break contact suitable for the above motor with over voltage and under voltage protection, single phase preventer, over load relay with motor protection relay with main contactor and bypass contactor as per IE rules and code of practice etc. complete. 4. Panel board-(Suitable for operating two pump sets but one pump set at a time) Supply, Design, fabrication, erection, testing and commissioning of Cubicle type, floor mounted MS fabricated dust and vermin proof common control panel board consisting of 1 No. suitable capacity MCCB as incomer and 2 Nos. of suitable capacity MCCB as out going(the two MCCBs are interlocking with each other) providing suitable size aluminum bus bar to interconnect the above MCCBs and fitted with 3 Nos. of indicator lamps, 1 No. volt meter with selector switch etc. complete and provided with a common earth bus for the entire panel and interconnect with the MCCBs as per IE rules and code of practice. The panel shall be fitted on a common base frame on suitable foundation. 5. Cabling work- Supply, erection , testing and commissioning of suitable size XLPE cables for the above pump set panel board to starter and from starter to motor, considering energy conservation 6. Earthing- Supply of all materials and providing suitable earthing by using suitable size pipe or plate earthing GI/copper strip buried in ground and giving double earthing to motor, starter, panel board etc. as per IE standards. 7. Capacitor -Supply, erection , testing and commissioning of heavy duty APP capacitor for the motor to get a power factor above 0.95. The capacitor shall conform to IS 2834 8. Valves- Supply of suitable size best quality heavy duty ISI marked CI double flanged 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 9. Suction and delivery pipe connections- Supply and fitting of suitable size best			

Sl No	Specification	Quantity	Rate	Amount
	quality GI/M.S pipe of thickness not less than 8mm for a total length of 10.00m suitable for the above pump set and connecting the suction pipe and valve with suitable flanges nut & bolts IR sheets etc. complete and connecting the delivery side of pump with the valves and suitable specials to connect with the pumping main. If the dia. of suction pipe is above 80mm, CI pipes and specials shall be provided. (rate include pump,motor,panel board, stater,10 m cable , capacitor,10 m suction pipe,foot valve, NRV, sluice valve, pipe connection upto valve, earthing , erection , trial run and commistioning, 2 year maintanence, factory inspection above 100 HP.)			
	Net Total	40.000HP (Horse power)	@17241.52/HP (Horse power)	689660.80
11.006	OD10168/2022-2023			
	Supply and erection of centrifugal pump set with following specifications. 1. Pump -Supply, erection, testing and commissioning of KWA pre qualified reputed make Centrifugal pump sets with bronze/SS impeller, SS shaft and CI pump casing with suitable type base plate with coupling, coupling guard foundation bolts& nuts etc. complete suitable for coupling the pump and motor above the base plate etc. complete including providing suitable foundation including cost of cement, sand and metal etc. complete. The duty condition is as follows Discharge –12.0 lps, Suction Head – 3 m, Length of suction pipe - 3.4 m, Total head-153.0 m, Pumping main - 150mm DI K9, 5000m. 2. Motor- Supply, erection , testing and commissioning of KWA pre qualified reputed make horizontal solid shaft foot mounted TEFC squirrel cage induction motor suitable for the above pump working 3 phase 50 Hz AC supply, working voltage 415 V. The motor shall conform to EEFI/IS 325 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. 3. Starter- Supply, erection , testing and commissioning of suitable rating fully automatic starter with air break contact suitable for the above motor with over voltage and under voltage protection, single phase preventer, over load relay with motor protection relay with main contactor and bypass contactor as per IE rules and code of practice etc. complete. 4. Panel board-(Suitable for operating two pump sets but one pump set at a time) Supply, Design, fabrication, erection, testing and commissioning of Cubicle type, floor mounted MS fabricated dust and vermin proof common control panel board consisting of 1 No. suitable capacity MCCB as incomer and 2 Nos. of suitable capacity MCCB as out going(the two MCCBs are interlocking with each other) providing suitable size aluminum bus bar to interconnect the above MCCBs and fitted with 3 Nos. of indicator lamps, 1 No. volt meter with selector switch etc. complete and provided with a common earth bus for the entire panel and interconnect with the MCCBs as per IE rules and code of practice. The panel shall be fitted on a common base frame on suitable foundation. 5. Cabling work- Supply, erection , testing and commissioning of suitable size XLPE cables for the above pump set panel board to starter and from starter to motor, considering energy conservation 6. Earthing- Supply of all materials and providing suitable earthing by using suitable size pipe or plate earthing GI/copper strip buried in ground and giving double earthing to motor, starter, panel board etc. as per IE standards. 7. Capacitor -Supply, erection , testing and commissioning of heavy duty APP capacitor for the motor to get a power factor above 0.95. The capacitor shall conform			

Sl No	Specification	Quantity	Rate	Amount
	to IS 2834 8. Valves- Supply of suitable size best quality heavy duty ISI marked CI double flanged 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 9. Suction and delivery pipe connections- Supply and fitting of suitable size best quality GI/M.S pipe of thickness not less than 8mm for a total length of 10.00m suitable for the above pump set and connecting the suction pipe and valve with suitable flanges nut & bolts IR sheets etc. complete and connecting the delivery side of pump with the valves and suitable specials to connect with the pumping main. If the dia. of suction pipe is above 80mm, CI pipes and specials shall be provided. (rate include pump,motor,panel board, stater,10 m cable , capacitor,10 m suction pipe,foot valve, NRV, sluice valve, pipe connection upto valve, earthing , erection , trial run and commistioning, 2 year maintanence, factory inspection above 100 HP.)			
	Net Total	70.000HP (Horse power)	@14050.85/HP (Horse power)	983559.50
11.007	OD10763/2022-2023			
	Supply and erection of centrifugal pump set with following specifications. 1. Pump -Supply, erection, testing and commissioning of KWA pre qualified reputed make Centrifugal pump sets with bronze/SS impeller, SS shaft and CI pump casing with suitable type base plate with coupling, coupling guard foundation bolts& nuts etc. complete suitable for coupling the pump and motor above the base plate etc. complete including providing suitable foundation including cost of cement, sand and metal etc. complete. The duty condition is as follows Discharge –50.0lps Suction Head – 3 m Length of suction pipe - 3.40 m, Total head 20.0 m, Pumping main - 300 mm DI K9, 8650 m. 2. Motor- Supply, erection , testing and commissioning of KWA pre qualified reputed make horizontal solid shaft foot mounted TEFC squirrel cage induction motor suitable for the above pump working 3 phase 50 Hz AC supply, working voltage 415 V. The motor shall conform to EEFI/IS 325 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. 3. Starter- Supply, erection , testing and commissioning of suitable rating fully automatic starter with air break contact suitable for the above motor with over voltage and under voltage protection, single phase preventer, over load relay with motor protection relay with main contactor and bypass contactor as per IE rules and code of practice etc. complete. 4. Panel board-(Suitable for operating two pump sets but one pump set at a time) Supply, Design, fabrication, erection, testing and commissioning of Cubicle type, floor mounted MS fabricated dust and vermin proof common control panel board consisting of 1 No. suitable capacity MCCB as incomer and 2 Nos. of suitable capacity MCCB as out going(the two MCCBs are interlocking with each other) providing suitable size aluminum bus bar to interconnect the above MCCBs and fitted with 3 Nos. of indicator lamps, 1 No. volt meter with selector switch etc. complete and provided with a common earth bus for the entire panel and interconnect with the MCCBs as per IE rules and code of practice. The panel shall be fitted on a common base frame on suitable foundation. 5. Cabling work- Supply, erection , testing and commissioning of suitable size XLPE cables for the above pump set panel board to starter and from starter to motor,			

Sl No	Specification	Quantity	Rate	Amount
	considering energy conservation 6. Earthing- Supply of all materials and providing suitable earthing by using suitable size pipe or plate earthing GI/copper strip buried in ground and giving double earthing to motor, starter, panel board etc. as per IE standards. 7. Capacitor -Supply, erection , testing and commissioning of heavy duty APP capacitor for the motor to get a power factor above 0.95. The capacitor shall conform to IS 2834 8. Valves- Supply of suitable size best quality heavy duty ISI marked CI double flanged 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 9. Suction and delivery pipe connections- Supply and fitting of suitable size best quality GI/M.S pipe of thickness not less than 8mm for a total length of 10.00m suitable for the above pump set and connecting the suction pipe and valve with suitable flanges nut & bolts IR sheets etc. complete and connecting the delivery side of pump with the valves and suitable specials to connect with the pumping main. If the dia. of suction pipe is above 80mm, CI pipes and specials shall be provided. (rate include pump,motor,panel board, stater,10 m cable , capacitor,10 m suction pipe,foot valve, NRV, sluice valve, pipe connection upto valve, earthing , erection , trial run and commistioning, 2 year maintanence, factory inspection above 100 HP.)			
	Net Total	40.000HP (Horse power)	@16800.84/HP (Horse power)	672033.60
11.008	OD10563/2022-2023			
	Construction of Transformer controll room and Supply and erection of 400 KVA Transformer with Panel board and required accessories			
	Net Total	1.000set	@4646000.00/set	4646000.00
	Heading Total(Rs)			11722759.10
12	**Power allocation charges**			
12.001	OD13488/2022-2023			
	Power line Extension and Power connection charges to various pump houses, Line extension charges , as per demand from KSEBL .The necessary statutory fees, if any, payable to the Electrical Inspectorate / KSEB			
	Net Total	3.000L.S	@500000.00/L.S	1500000.00
	Heading Total(Rs)			1500000.00
	Total Estimation PAC			153802703.41
14	**Extra Charges**			
13.001	Provision for GST			
		153802703.41	18.00%	27684486.61
	Grand Total			181487190.02

Sl No	Specification	Quantity	Rate	Amount
			Round off	809.98
			Rounded Total(Rs)	181488000.00
	Rupees Eighteen Crore Fourteen Lakh Eighty Eight Thousand			