LETTER OF ACCEPTANCE

To,
Sri/Smt M/s.George Martin Jose
PAN : BBMPG7266C

Your **e-Tender** No **WRD/KWA-CE(CR)/TR/822/2022_26_2_1/1** dated **11-08-2023** for the **Jal Jeevan Mission (JJM)-JJM PROVIDING FHTCS TO ALL HOUSEHOLD IN ERATTAYAR AND KAMAKSHI (PART) PANCHAYATHS IN IDUKKI DISTRICTS-Supply and Laying CWPM's -200 mm D I Pipe from WTP to Hero pady ,150 mm DI Pipe from Heropady to Adayalakkallu ,80mm GI(M) pipe from Kurissummotil padi to Kurissummotil padi Top and Construction of Sump cum Pump house at Heropady.Supply and Installation of Steel Tanks at Adayalkallu,Vazhavara ,Nanguthotty and Kurissummootilpadi Top.-Pipeline Work** has been accepted for a quoted amount of **Rs. 32447223/- (Rupees Three Crore Twenty Four Lakh Forty Seven Thousand Two Hundred and Twenty Three only)** based on rates quoted for **individual items** which is mentioned in the accompanying schedule. You are directed to submit the stamp GRN ID/Stamp paper, Performance Guarantee and Additional Performance Guarantee as mentioned below and execute an agreement and start the work within a week after getting necessary instructions from the **Executive Engineer(Project Division Kattapana)**. The time allowed for executing agreement without fine will be **14 (Fourteen)** days from the date of issue of letter of acceptance and a further period of **10 (Ten)**days time will be allowed to execute the agreement after realizing a fine of **Rs. 25000/- (Twenty Five Thousand Only) .**This fine shall be remitted in favour of the Managing Director, Kerala Water Authority, Account No - STSB 701011400000181, District Treasury, Thiruvananthapuram through e-treasury payment gateway.

1. stamp paper required value RS. **32450/- (Thirty Two Thousand Four Hundred and Fifty Only)** shall be submitted to the Agreement Authority. (subject to govt orders)

2. Before executing the agreement, you should deposit a Performance Guarantee of **3%** of contract value, ie. Rs. **973417/- (Rupees Nine Lakh Seventy Three Thousand Four Hundred and Seventeen only)** and should be submitted within **14 (Fourteen) days** of receipt of this LOA (Letter of Acceptance) as below.

a) At least **Fifty (50%)** of Performance Guarantee shall be in the form of Treasury Fixed Deposit in the name of Agreement Authority for a period not less than 28 (twenty eight) days after the completion of defect liability period.

b) Balance Performance Guarantee shall be in the form of bank guarantee. Bank Guarantee is to be submitted in the format prescribed by the Employer in the bid document. Bank Guarantee shall be unconditional and it shall be from any Nationalized/ Scheduled Bank/ Kerala Financial Corporation/ District Co-operative Banks, Primary Co-operative Banks, Urban Co-operative Banks or any other forms prescribed in the revised PWD Manual to be submitted before executing agreement and shall be valid till 28 (twenty eight) days after the completion of defect liability of the Work, in approved format. The Bank Guarantee on instalment basis with lesser period of validity shall not be accepted.

3. An Additional Performance Guarantee of Rs. **769956/- (Rupees Seven Lakh Sixty Nine Thousand Nine Hundred and Fifty Six only)** shall be also deposited for unbalanced price in addition to the normal Performance Guarantee in the following form and it should be to be submitted before executing agreement.

a) At least Fifty percent (50%) of Additional Performance Guarantee shall be in the form of Treasury Fixed Deposit in the name of Agreement Authority for a period not less than 28 (twenty eight) days after the completion of the work.

b) Balance Additional Performance Guarantee Treasury shall be in the form of bank guarantee. Bank Guarantee is to be submitted in the format prescribed by the Employer in the bid document. Bank Guarantee shall be unconditional and it shall be from any Nationalized/ Scheduled Bank/ Kerala Financial Corporation/ District Co-operative Banks, Primary Co-operative Banks, Urban Co-operative Banks or any other forms prescribed in the revised PWD Manual and shall be valid till 28(twenty eight) days after the completion of the Work, in approved format. The Bank Guarantee on

instalment basis with lesser period of validity shall not be accepted.

OR

a) Full amount of additional performance guarantee shall be accepted in case of guarantees issued by Kerala Financial Corporation

4. In addition to Performance Guarantee and Additional Performance Guarantee, Performance Security Deposit at the rate 2.5% of Bill amount will be deducted from running bills .

5. Solicitor's fee, if any, to be paid to the Law Officers of Government for scrutinising or drawing up of agreements- will be paid and the same recovered from the successful bidder.

6. You are requested to take an Insurance cover for this work for an amount of Rs. **200000 /- (Rupees Two Lakh only)** and submit the same within 15 days of Start of work subjected to the provisions provided in the Bid Document. 0.2% of the Contract Amount will be deducted in the event of failure to submit the Insurance to the concerned Authorities as noted above. (The value shall be generally 0.5% of the Contract Value subject to a minimum of Rs. 2.00 lakh and maximum of Rs. 5.00 lakh.).

7. Engineering personnel in addition to other supporting staff as detailed below for tenure of the contract for works supervision shall be employed.

Works Manager- 1no(Civil Engineering Graduate with minimum 5 yrs experience) and Site Engineers- 3 nos (one Civil Engineering graduate and two civil diploma holder with minimum 2 year experience).

8. The Contractor shall enter into a Contract Agreement with the Agreement Authority within 14 Fourteenworking days from the date of 'Acceptance of Tender' or within such extended time as may be granted by the Agreement Authority. The date of despatch of Letter of Acceptance through Contractors Portal shall be the date of Acceptance of Tender.

9. In the eventuality of failure to produce the original documents, or submit the performance security, or enter into agreement with the Agreement Authority within the specified time limit, the Bidder shall be debarred in future from participating in all Government Bids for three years and will be recommended for blacklisting by the competent authority. In such cases, the Government may rearrange the work otherwise or get it done departmentally at the risk and the cost of the Bidder and the loss so sustained by the Government can be realized from the Bidder under the Revenue recovery Act or otherwise the Government may decide.

10. The work should be completed in all respects within **8 months** from the date of handing over the site.

11. Defect Liability period will be **2 years**

12. All the details mentioned above shall be submitted to the Agreement Authority within 14 (fourteen) days from the date of 'Acceptance of Tender' or within such extended time as may be granted by the Agreement Authority.

13. All the terms and conditions of the Notice Inviting tenders and tender shall be binding on the Contractor.

Pradeep V.K.(G14136)
Superintending Engineer

Digitally signed by PRADEEP V K
Date:2023.11.03 12:38:45 +05:30

ACCEPTED SCHEDULE

Name of Work: Jal Jeevan Mission (JJM)-JJM PROVIDING FHTCS TO ALL HOUSEHOLD IN ERATTAYAR AND KAMAKSHI (PART) PANCHAYATHS IN IDUKKI DISTRICTS-Supply and Laying CWPM's -200 mm D I Pipe from WTP to Hero pady ,150 mm DI Pipe from Heropady to Adayalakkallu ,80mm GI(M) pipe from Kurissummotil padi to Kurissummotil padi Top and Construction of Sump cum Pump house at Heropady.Supply and Installation of Steel Tanks at Adayalkallu,Vazhavara ,Nanguthotty and Kurissummootilpadi Top.-Pipeline Work (DSR 2018 with Cost Index 141.53)

Sl No	Description of work	No. or Qty.	Unit	Accepted Rate	TOTAL AMOUNT	TOTAL AMOUNT in words
1	**Part I - Supply and Laying CWPM 200 mm DI Pipe from WTP to Heropady and CWPM 150 mm DI Pipe from Heropady to Adayalakkallu- Cost of materials**					
1.001	100.98.116 - Supply of DI K9 Pipe Conforming to IS 8329/2000, 150mm Dia.	3001.000	metre	2558.00	7676558.00	Rupees Seventy Six Lakh Seventy Six Thousand Five Hundred Fifty Eight Only
1.002	100.98.117 - Supply of DI K9 Pipe Conforming to IS 8329/2000, 200mm Dia.	2188.000	metre	3178.00	6953464.00	Rupees Sixty Nine Lakh Fifty Three Thousand Four Hundred Sixty Four Only
1.003	100.98.460 - Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.6, Size 150mm.	1.000	no	16000.00	16000.00	Rupees Sixteen Thousand Zero Zero Only
1.004	100.98.461 - Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.6, Size 200mm.	1.000	no	25000.00	25000.00	Rupees Twenty Five Thousand Zero Zero Only
1.005	100.98.444 - Supply of CI Air Valve, Conforming to IS 14848 - 2000, Single Orifice, Large Orifice Type S2, Size 50mm.	8.000	no	10000.00	80000.00	Rupees Eighty Zero Thousand Zero Zero Only
1.006	100.98.441 - Supply of CI Air Valve, Conforming to IS 14848 - 2000, Single Orifice, Small Orifice Type S1, Size 40mm.	10.000	no	6000.00	60000.00	Rupees Sixty Zero Thousand Zero Zero Only
1.007	100.98.469 - Supply of CI Double Flanged Sluice Valve Conforming to IS 14846 - 2000, Sluice Valve with Cap PN 1.0, Size 80mm.	1.000	no	8000.00	8000.00	Rupees Eight Thousand Zero Zero Only
2	**Part II - Working charges**					

Sl No	Description of work	No. or Qty.	Unit	Accepted Rate	TOTAL AMOUNT	TOTAL AMOUNT in words
2.001	100.1.1 - Excavating trenches of required width for pipes, cables, etc., including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20cm in depth, including consolidating each deposited layer by ramming, watering, etc., and disposing of surplus excavated soil as directed, within a lead of 50m, in all kinds of soil.	2544.828	cum	500.00	1272414.00	Rupees Twelve Lakh Seventy Two Thousand Four Hundred Fourteen Only
2.002	100.1.5 - Excavating trenches of required width for pipes, cables, etc., including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20cm in depth, including consolidating each deposited layer by ramming, watering, etc., and disposing of surplus excavated soil as directed, within a lead of 50 m, in Ordinary Rock.	978.780	cum	750.00	734085.00	Rupees Seven Lakh Thirty Four Thousand Zero Eighty Five Only
2.003	100.2.2 - Excavation work by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5m in width or 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.	195.756	cum	1181.00	231187.84	Rupees Two Lakh Thirty One Thousand One Hundred Eighty Seven And Eighty Four paise Only
2.004	100.1.13 - Excavating trenches of required width for pipes, cables, etc., including excavation for sockets, and dressing of sides, ramming of bottoms, depth up to 1.5m, including getting out the excavated soil, and then returning the soil as required, in layers not exceeding 20cm in depth, including consolidating each deposited	195.756	cum	1100.00	215331.60	Rupees Two Lakh Fifteen Thousand Three Hundred Thirty One And Sixty Zero paise Only

Sl No	Description of work	No. or Qty.	Unit	Accepted Rate	TOTAL AMOUNT	TOTAL AMOUNT in words
	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.					
2.005	100.8.1 - Fencing one side of trenches, 1.50m height with two rows of 10cm plastic caution tape in vertical casuarina pole (girth 15cm to 24cm) fixed at 2m intervals.	3000.000	metre	29.00	87000.00	Rupees Eighty Seven Thousand Zero Zero Only
2.006	18.12.8 - Providing and fixing G.I. pipes complete with G.I fittings including trenching and refilling etc. External work80 mm dia nominal bore	659.000	metre	975.00	642525.00	Rupees Six Lakh Forty Two Thousand Five Hundred Twenty Five Only
2.007	100.31.2.1 - 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 II.	1.000	no	594.00	594.00	Rupees Five Hundred Ninety Four Only
2.008	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.	2000.000	metre	30.50	61000.00	Rupees Sixty One Thousand Zero Zero Only
2.009	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	700.000	sqm	50.00	35000.00	Rupees Thirty Five Thousand Zero Zero Only
2.010	15.2.1 - Demolishing cement concrete manually / by mechanical means including	225.000	cum	500.00	112500.00	Rupees One Lakh Twelve Thousand Five

Sl No	Description of work	No. or Qty.	Unit	Accepted Rate	TOTAL AMOUNT	TOTAL AMOUNT in words
	disposal of material within 50 metres lead as per direction of Engineer - in-Charge.Nominal concrete 1:3:6 or richer mix (i/c equivalent design mix)					Hundred Zero Only
2.011	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.	2942.000	metre	120.00	353040.00	Rupees Three Lakh Fifty Three Thousand Zero Forty Zero Only
2.012	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.	2145.000	metre	170.00	364650.00	Rupees Three Lakh Sixty Four Thousand Six Hundred Fifty Zero Only
2.013	18.30.4 - Providing flanged joints to double flanged C.I./ D.I pipes and specials, including testing of joints:150 mm diameter pipe	6.000	no	400.00	2400.00	Rupees Two Thousand Four Hundred Zero Only
2.014	18.30.5 - Providing flanged joints to double flanged C.I./ D.I pipes and specials, including testing of joints:200 mm diameter pipe	6.000	no	400.00	2400.00	Rupees Two Thousand Four Hundred Zero Only
2.015	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	20.230	quintal	19000.00	384370.00	Rupees Three Lakh Eighty Four Thousand Three Hundred Seventy Zero Only
2.016	18.67.1 - Providing and laying S & S C.I. Standard specials suitable for mechanical jointing as per IS 13382:Upto 300 mm dia	1.250	quintal	15000.00	18750.00	Rupees Eighteen Thousand Seven Hundred Fifty Zero Only
2.017	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	530.000	joint	200.00	106000.00	Rupees One Lakh Six Thousand Zero Zero Only
2.018	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	390.000	joint	300.00	117000.00	Rupees One Lakh Seventeen Thousand Zero Zero Only
2.019	OD107091/2022-2023 - Labour for Cutting DI Pipe	15.000	Each Cut	350.00	5250.00	Rupees Five Thousand Two

Sl No	Description of work	No. or Qty.	Unit	Accepted Rate	TOTAL AMOUNT	TOTAL AMOUNT in words
	with steel saw 150 mm diameter DI Pipe					Hundred Fifty Zero Only
2.020	OD107078/2022-2023 - Labour for Cutting DI Pipe with steel saw 200 mm diameter DI Pipe	12.000	each	500.00	6000.00	Rupees Six Thousand Zero Zero Only
2.021	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	2942.000	metre	46.00	135332.00	Rupees One Lakh Thirty Five Thousand Three Hundred Thirty Two Only
2.022	100.35.3 - Testing 200mm DI/CI pipeline with potable water to the required test pressure 200 mm dia Observed Data derived from item no.1020 of PHED DATA	2145.000	metre	56.00	120120.00	Rupees One Lakh Twenty Thousand One Hundred Twenty Only
2.023	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.	8.000	no	250.00	2000.00	Rupees Two Thousand Zero Zero Only
2.024	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.	10.000	no	230.00	2300.00	Rupees Two Thousand Three Hundred Zero Only
2.025	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.	1.000	no	1300.00	1300.00	Rupees One Thousand Three Hundred Zero Only
2.026	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.	1.000	no	1500.00	1500.00	Rupees One Thousand Five Hundred Zero Only

Sl No	Description of work	No. or Qty.	Unit	Accepted Rate	TOTAL AMOUNT	TOTAL AMOUNT in words
2.027	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	15.876	cum	250.00	3969.00	Rupees Three Thousand Nine Hundred Sixty Nine Only
2.028	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)	63.882	cum	8700.00	555773.40	Rupees Five Lakh Fifty Five Thousand Seven Hundred Seventy Three And Forty Zero paise Only
2.029	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	231.875	cum	9000.00	2086875.00	Rupees Twenty Lakh Eighty Six Thousand Eight Hundred Seventy Five Only
2.030	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	1460.000	kilogram	110.00	160600.00	Rupees One Lakh Sixty Zero Thousand Six Hundred Zero Only
2.031	4.3.1 - Centering and shuttering including strutting, propping etc. and removal of form work for:Foundations, footings, bases for columns	126.800	sqm	335.00	42478.00	Rupees Forty Two Thousand Four Hundred Seventy Eight Only
2.032	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.	60.000	metre	4704.00	282240.00	Rupees Two Lakh Eighty Two Thousand Two Hundred Forty Zero Only
2.033	100.37.6.2 - Fabricating M.S. flanges of diameter 150mm	6.000	no	1400.00	8400.00	Rupees Eight Thousand Four

Sl No	Description of work	No. or Qty.	Unit	Accepted Rate	TOTAL AMOUNT	TOTAL AMOUNT in words
	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.					Hundred Zero Only
2.034	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.	8.000	no	300.00	2400.00	Rupees Two Thousand Four Hundred Zero Only
2.035	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.	10.000	no	650.00	6500.00	Rupees Six Thousand Five Hundred Zero Only
2.036	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.	20.000	no	200.00	4000.00	Rupees Four Thousand Zero Zero Only
2.037	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.	30.000	metre	5600.00	168000.00	Rupees One Lakh Sixty Eight Thousand Zero Zero Only
2.038	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	6.000	no	1800.00	10800.00	Rupees Ten Thousand Eight Hundred Zero Only

Sl No	Description of work	No. or Qty.	Unit	Accepted Rate	TOTAL AMOUNT	TOTAL AMOUNT in words
	with 8mm thick M.S. plates.					
2.039	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.	10.000	no	300.00	3000.00	Rupees Three Thousand Zero Zero Only
2.040	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.	12.000	no	850.00	10200.00	Rupees Ten Thousand Two Hundred Zero Only
2.041	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.	24.000	no	100.00	2400.00	Rupees Two Thousand Four Hundred Zero Only
2.042	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)	12.960	cum	9500.00	123120.00	Rupees One Lakh Twenty Three Thousand One Hundred Twenty Only
2.043	OD111602/2022-2023 - Supply and Installation of Surge Arrestor 200 mm as per direction	1.000	job	200000.00	200000.00	Rupees Two Lakh Zero Zero Zero Only
3	**Part III - Construction of 2.6LL GLSR AND PUMP HOUSE at Heropady**					
3.001	2.31 - Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth up to 30 cm measured at a height of 1 m above ground level and removal of rubbish up to a distance of 50 m outside the periphery of the area cleared	70.000	sqm	15.00	1050.00	Rupees One Thousand Zero Fifty Zero Only
3.002	2.8.1 - Earth work in excavation by mechanical means (Hydraulic excavator) /manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and	7.000	cum	310.00	2170.00	Rupees Two Thousand One Hundred Seventy Zero Only

Sl No	Description of work	No. or Qty.	Unit	Accepted Rate	TOTAL AMOUNT	TOTAL AMOUNT in words
	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					
3.003	2.7.3 - Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including disposal of excavated earth, lead up to 50 m and lift up to 1.5 m, disposed earth to be levelled and neatly dressed.Hard rock (blasting prohibited)	48.000	cum	1100.00	52800.00	Rupees Fifty Two Thousand Eight Hundred Zero Only
3.004	OD76090/2022-2023 - DOWEL BARS - Supplying and Providing MS dowel bars of size 16 mm dia of 2.0m long (1m in rock and 1m in concrete) including drilling holes of 20mm dia and filling the gap with cement grout(0.50kg/each) etc	300.000	no	640.00	192000.00	Rupees One Lakh Ninety Two Thousand Zero Zero Only
3.005	4.1.3 - Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:2:4 (cement : 2 coarse sand (zone-III) : 4 graded stone aggregate 20 mm nominal size)	55.200	cum	8900.00	491280.00	Rupees Four Lakh Ninety One Thousand Two Hundred Eighty Zero Only
3.006	5.33.1 - Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer - in-charge. Note:- Cement content considered in	23.433	cum	9700.00	227300.10	Rupees Two Lakh Twenty Seven Thousand Three Hundred Zero And Ten paise Only

Sl No	Description of work	No. or Qty.	Unit	Accepted Rate	TOTAL AMOUNT	TOTAL AMOUNT in words
	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					
3.007	5.33.2 - Providing and laying in position machine batched and machine mixed design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer - in-charge. Note:- Cement content considered in this item is @ 330 kg/ cum. Excess or less cement used as per design mix is payable or recoverable separately.All work above plinth level upto floor V level	60.659	cum	11000.00	667249.00	Rupees Six Lakh Sixty Seven Thousand Two Hundred Forty Nine Only
3.008	5.34.1 - Extra for providing richer mixes at all floor levels. Note:- Excess/less cement over the specified cement content used is payable/ recoverable separately.Providing M-30 grade concrete instead of M-25 grade BMC/RMC. (Note:- Cement content considered in M-30 is @ 340 kg/cum).	60.659	cum	65.00	3942.84	Rupees Three Thousand Nine Hundred Forty Two And Eighty Four paise Only
3.009	5.9.1 - Centering and shuttering including strutting, etc. and removal of form for:Foundations, footings, bases of columns, etc for mass concrete	37.700	sqm	350.00	13195.00	Rupees Thirteen Thousand One Hundred Ninety Five Only
3.010	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.	263.260	sqm	750.00	197445.00	Rupees One Lakh Ninety Seven Thousand Four Hundred Forty Five Only
3.011	5.9.3 - Centering and shuttering including strutting,	186.665	sqm	600.00	111999.00	Rupees One Lakh Eleven

Sl No	Description of work	No. or Qty.	Unit	Accepted Rate	TOTAL AMOUNT	TOTAL AMOUNT in words
	etc. and removal of form for:Suspended floors, roofs, landings, balconies and access platform					Thousand Nine Hundred Ninety Nine Only
3.012	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	6065.900	kilogram	110.00	667249.00	Rupees Six Lakh Sixty Seven Thousand Two Hundred Forty Nine Only
3.013	13.7.1 - 12 mm cement plaster finished with a floating coat of neat cement of mix:1:3 (1 cement : 3 fine sand)	577.164	sqm	415.00	239523.06	Rupees Two Lakh Thirty Nine Thousand Five Hundred Twenty Three And Six paise Only
3.014	13.16.1 - 6 mm cement plaster of mix:1:3 (1 cement : 3 fine sand)	18.910	sqm	285.00	5389.35	Rupees Five Thousand Three Hundred Eighty Nine And Thirty Five paise Only
3.015	13.44.1 - Finishing walls with water proofing cement paint of required shade:New work (Two or more coats applied @ 3.84 kg/10 sqm)	202.400	sqm	120.00	24288.00	Rupees Twenty Four Thousand Two Hundred Eighty Eight Only
3.016	13.47.1 - Finishing walls with Premium Acrylic Smooth exterior paint with Silicone additives of required shade:New work (Two or more coats applied @ 1.43 ltr/ 10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/ 10 sqm)	194.310	sqm	250.00	48577.50	Rupees Forty Eight Thousand Five Hundred Seventy Seven And Fifty Zero paise Only
3.017	13.71 - Lettering with black Japan pint of approved brand and manufacture	100.000	per Letter per cm height	5.80	580.00	Rupees Five Hundred Eighty Zero Only
3.018	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	250.000	kg	190.00	47500.00	Rupees Forty Seven Thousand Five Hundred Zero Only

Sl No	Description of work	No. or Qty.	Unit	Accepted Rate	TOTAL AMOUNT	TOTAL AMOUNT in words
	works					
3.019	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.	4.000	no	15000.00	60000.00	Rupees Sixty Zero Thousand Zero Zero Only
3.020	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.	10.228	cum	6525.00	66737.70	Rupees Sixty Six Thousand Seven Hundred Thirty Seven And Seventy Zero paise Only
3.021	10.6.1 - Supplying and fixing rolling shutters of approved make, made of required size M.S. laths, interlocked together through their entire length and jointed together at the end by end locks, mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete, including the cost of providing and fixing necessary 27.5 cm long wire springs manufactured from high tensile steel wire of adequate strength conforming to IS: 4454 - part 1 and M.S. top cover of required thickness for rolling shutters.80x1.25 mm M.S. laths with 1.25 mm thick top cover	6.720	sqm	3500.00	23520.00	Rupees Twenty Three Thousand Five Hundred Twenty Only
3.022	21.1.1.1 - Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS : 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight,	18.000	kg	750.00	13500.00	Rupees Thirteen Thousand Five Hundred Zero Only

Sl No	Description of work	No. or Qty.	Unit	Accepted Rate	TOTAL AMOUNT	TOTAL AMOUNT in words
	mitred and jointed mechanically wherever required including cleat angle, Aluminnium snap beading for glazing /paneling, C.P. brass/ stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge.(Glazing, paneling and dash fasteners to be paid for separately): For fixed portionAnodised aluminium (anodised transparent or dyed to required shade according to IS : 1868, Minimum anodic coating of grade AC 15)					
3.023	21.1.1.2 - Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS : 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminnium snap beading for glazing /paneling, C.P. brass/ stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge.(Glazing, paneling and dash fasteners to be paid for separately): For fixed portionPowder coated aluminium (minimum thickness of powder coating 50 micron)	12.000	kg	750.00	9000.00	Rupees Nine Thousand Zero Zero Only
3.024	21.3.1 - Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of Engineer - in - Charge. (Cost of aluminium snap beading shall be paid in basic item):With float glass	5.103	sqm	1875.00	9568.13	Rupees Nine Thousand Five Hundred Sixty Eight And Thirteen paise Only

Sl No	Description of work	No. or Qty.	Unit	Accepted Rate	TOTAL AMOUNT	TOTAL AMOUNT in words
	panes of 4.0 mm thickness					
3.025	21.15.2 - Providing and fixing aluminium casement windows fastener of required length for aluminium windows with necessary necessary screws etc. complete.Powder coated minimum thickness 50 micron aluminium	4.000	no	140.00	560.00	Rupees Five Hundred Sixty Zero Only
3.026	9.48.1 - Providing and fixing M.S. Grills of required pattern in frames of windows etc. with M.S. flats, square or round bars etc. including priming coat with approved steel primer all complete.Fixed to steel windows by welding	80.000	kg	210.00	16800.00	Rupees Sixteen Thousand Eight Hundred Zero Only
4	**Part - IV - Road restoration charges**					
4.001	3.11 - Removal of unserviceable soil including excavation, loading and disposal upto 1000 metres lead but excluding replacement by suitable soil which shall be paid separately as per clause 305.	202.500	cum	50.00	10125.00	Rupees Ten Thousand One Hundred Twenty Five Only
4.002	10.2 - Maintenance of Earthen Shoulder (filling with fresh soil) Making up the loss of material/ irregularities on the shoulder to the design level by adding fresh approved soil and compacting it with appropriate equipment.	90.000	sqm	55.00	4950.00	Rupees Four Thousand Nine Hundred Fifty Zero Only
4.003	4.2.A.1 - Construction of granular sub-base by providing graded material, spreading in uniform layers with a motor grader on a prepared surface, mixing by mix in-place method with rotavator at OMC, and compacting with a vibratory roller to achieve the desired density, complete as per clause 401. Grading-III -For lower sub-base - Mix in Place Method	112.500	cum	2800.00	315000.00	Rupees Three Lakh Fifteen Thousand Zero Zero Only
4.004	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.	13.500	sqm	73.00	985.50	Rupees Nine Hundred Eighty Five And Fifty Zero paise Only
4.005	4.12 - Providing, laying,	4.500	cum	3069.00	13810.50	Rupees Thirteen

Sl No	Description of work	No. or Qty.	Unit	Accepted Rate	TOTAL AMOUNT	TOTAL AMOUNT in words
	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.					Thousand Eight Hundred Ten And Fifty Zero paise Only
4.006	5.2.b - Providing and applying tack coat with bitumen emulsion (RS) using emulsion pressure distributor at the rate of 0.25 - 0.30 kg per sqm on the prepared Granular Surface cleaned with mechanical broom.	13.500	sqm	14.49	195.62	Rupees One Hundred Ninety Five And Sixty Two paise Only
4.007	5.7.1 - Providing, laying and rolling of close-graded premix surfacing material of 20 mm thickness composed of 11.2 mm to 0.09 mm (Type-A) aggregates using viscosity grade bitumen (VG - 30) to the required line, grade, and level to serve as wearing course on a previously prepared base, including mixing in a suitable HMP of appropriate capacity not less than 75 tonnes/hour., laying and rolling with a Smooth wheeled roller 8-10 tonne capacity, and finishing to the required level and grade.	13.500	sqm	212.00	2862.00	Rupees Two Thousand Eight Hundred Sixty Two Only
4.008	5.8.a - Providing and laying surface dressing as wearing course in single coat using crushed stone aggregates of specified size on a layer of bituminous binder (VG 30) laid on the prepared surface and rolling with 8-10 tonne smooth wheeled steel roller. Grading I - 19 mm nominal chipping size	13.500	sqm	115.00	1552.50	Rupees One Thousand Five Hundred Fifty Two And Fifty Zero paise Only
4.009	12.4 - Plain cement concrete 1:3:6 nominal mix in foundation with crushed stone aggregate 40 mm nominal size mechanically mixed, placed in foundation and compacted by vibration including curing for 14 days.	60.750	cum	5200.00	315900.00	Rupees Three Lakh Fifteen Thousand Nine Hundred Zero Only

Sl No	Description of work	No. or Qty.	Unit	Accepted Rate	TOTAL AMOUNT	TOTAL AMOUNT in words
4.010	12.8.B.1 - Plain/Reinforced Cement Concrete in Open Foundation complete as per Drawing and Technical Specifications PCC Grade M20 	30.375	cum	7200.00	218700.00	Rupees Two Lakh Eighteen Thousand Seven Hundred Zero Only
5	**Construction of Steel Tanks in Nanguthotty,Vazhavara,Adayalakkallu and Kurishumoottil pady**					
5.001	2.1.1 - Earth work in surface excavation not exceeding 30 cm in depth but exceeding 1.5m in width as well as 10 sqm on plan including disposal of excavated earth up to 50 m and lift up to 1.5 m, disposed soil to be levelled and neatly dressed:All Kinds of soil	136.535	sqm	200.00	27307.00	Rupees Twenty Seven Thousand Three Hundred Seven Only
5.002	4.1.3 - Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level:1:2:4 (cement : 2 coarse sand (zone-III) : 4 graded stone aggregate 20 mm nominal size)	32.735	cum	8900.00	291341.50	Rupees Two Lakh Ninety One Thousand Three Hundred Forty One And Fifty Zero paise Only
5.003	5.1.2 - Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level:1:1:5:3 (1 cement 1.5 coarse sand :3 graded stone aggregate 20 mm nominal size	17.905	cum	9900.00	177259.50	Rupees One Lakh Seventy Seven Thousand Two Hundred Fifty Nine And Fifty Zero paise Only
5.004	5.9.1 - Centering and shuttering including strutting, etc. and removal of form for:Foundations, footings, bases of columns, etc for mass concrete	78.940	sqm	350.00	27629.00	Rupees Twenty Seven Thousand Six Hundred Twenty Nine Only
5.005	5.22.6 - Steel reinforcement for R.C.C work including straightening, cutting, bending, placing in position and binding all complete upto plinth levelThermo - Mechanically Treated bars of grade Fe-500D or more	1790.500	kilogram	110.00	196955.00	Rupees One Lakh Ninety Six Thousand Nine Hundred Fifty Five Only
5.006	2.25 - Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundation etc. in layers not exceeding 20 cm in depth, consolidating each deposited layer by ramming and	65.866	cum	285.00	18771.81	Rupees Eighteen Thousand Seven Hundred Seventy One And Eighty One paise Only

Sl No	Description of work	No. or Qty.	Unit	Accepted Rate	TOTAL AMOUNT	TOTAL AMOUNT in words
	watering, lead up to 50 m and lift up to 1.5 m.					
5.007	OD78600/2022-2023 - Supply of Sand including loading, unloading, transportation and other incidental charges as per the direction of departmental officers.1	98.799	cum	2000.00	197598.00	Rupees One Lakh Ninety Seven Thousand Five Hundred Ninety Eight Only
5.008	OD78727/2022-2023 - Supply,installation and commissioning of a pre-engineered, pre-fabricated, factory manufactured steel storage Water Tank having a capacity of 104250 L(1Nos.) thickness of 0.6 mm, in multiple layers as required for the capacity and height of the tank and multiple-layered PE sheet/membrane for the inner containment liner. The Tank Shell / Body & 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	104250.000	Litre	9.70	1011225.00	Rupees Ten Lakh Eleven Thousand Two Hundred Twenty Five Only

Sl No	Description of work	No. or Qty.	Unit	Accepted Rate	TOTAL AMOUNT	TOTAL AMOUNT in words
	or other material, to prevent ingress of dust and foreign objects. Covers shall be firmly fixed to the top edge of the tank with galvanized bolts and nuts. LADDERS :Tanks shall be provided with Hotdip Galvanized ladders internally or externally. External roof supports shall be of an appropriately designed Hot-dip galvanized Steel construction. Tanks shall comply with relevant spill level, air gap and overflow requirements relative to Effective Capacity. All nuts and bolts used for the panels shall be a minimum of 12mm size and hot-dip galvanized/Case hardened. The tank shall have a circular angle fixed around the total circumference of the tanks, at the top, of minimum 2 mm thickness.Tanks shall be properly flushed out with clean water prior to being brought into service TANK DIMENSIONS: The dimensions of the Tank shall be of 7.768m in diameter and 2.200m in height DESIGN LIFE: The tanks shall have a design life of 50 years. TANK CONNECTIONS: Standard design valve outlet connection : i) 200mm 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 purposedesigned 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					

Sl No	Description of work	No. or Qty.	Unit	Accepted Rate	TOTAL AMOUNT	TOTAL AMOUNT in words
	furnished by the manufacturer of the tanks. Tank liners shall: i) Be factory manufactured to onepiece construction, fabricated from multi-layer PE sheet, certified for potable drinking water, to (ANSI/ NSF 61) and duly UV Stabilized. ii) Be of PE (polyethylene) in multi-layer construction for strength, reinforced with woven scrim industrial fabric to prevent elongation and enhance tensile strength. The total liner material thickness shall be no less than 0.6 mm thick. The tensile strength shall not be less than 2266 N (warp) and 2495 N (weft) and heat sealing strength of 2056 N v) All the liner welded lap joints shall be strengthened with Metallocene encapsulating tape welded over the overlap. vi) The Metallocene tape shall cover and protect the exposed material at the edges of the liner joints to further prevent the ingress of water into the scrim. vii) Liners shall be positively and continuously attached to the top outer edge of the circumference of the tank to prevent entry of water from the runoff from the roof structure. viii) All liners on tanks over 2m in height shall have a continuous intermediate liner support designed out of nylon (or other material)cord, around the circumference of the tank, at vertical intervals corresponding to the level of each ring. ix) The intermediate liner support cords shall be firmly secured to the steel shell at each level, to prevent stress on the liner welded joints, and thereby eliminate possibility of failure CORROSSION PROTECTION. The tank structure shall have a					

Sl No	Description of work	No. or Qty.	Unit	Accepted Rate	TOTAL AMOUNT	TOTAL AMOUNT in words
	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&39;,Cost for Poly ethylene infinity liner ,Geo synthetic Fibre with food grade plastics are used for inside coating and Support Arrangements,Cost for Fabricated items,attachments and accessories like steel ladder,Cost of Fabricated nozzles,over flow nozzles and drain arrangements, Cost for HDG nut and bolts, Freight Charges,Erection Installation and commissioning of tank components including charges of extra 1 no 200 mm MS HDG Nozzle type BS10E table and 200 mm MS HDG anti vortex type E table and Transportation charges.					
5.009	OD78968/2022-2023 - Supply,installation and commissioning of a pre-engineered, pre-fabricated, factory manufactured steel storage Water Tank having a capacity of 137420 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	137420.000	Litre	8.80	1209296.00	Rupees Twelve Lakh Nine Thousand Two Hundred Ninety Six Only

Sl No	Description of work	No. or Qty.	Unit	Accepted Rate	TOTAL AMOUNT	TOTAL AMOUNT in words
	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 heavyduty 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 7.768m in diameter and 2.9 m in height DESIGN LIFE: The tanks shall have a design life of 50 years. TANK CONNECTIONS: Standard					

Sl No	Description of work	No. or Qty.	Unit	Accepted Rate	TOTAL AMOUNT	TOTAL AMOUNT in words
	design valve outlet connection : i) 200mm 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 multilayer PE sheet, certified for potable drinking water, to (ANSI/ NSF 61) and duly UV Stabilized. ii) Be of PE (polyethylene) in multi-layer construction for strength, reinforced with woven scrim industrial fabric to prevent elongation and enhance tensile strength. The total liner material thickness shall be no less than 0.6 mm thick. The tensile strength shall not be less than 2266 N (warp) and 2495 N (weft) and heat sealing strength of 2056 N v) All the liner welded lap joints shall be strengthened with Metallocene encapsulating tape welded over the overlap. vi) The Metallocene tape shall cover and protect the exposed material at the edges of the liner joints to further prevent the ingress of water into the scrim. vii) Liners shall be positively and continuously attached to the top outer edge of the circumference of the tank to prevent entry of water from the runoff from the roof structure. viii) All liners on tanks over 2m in height shall have a continuous intermediate liner support designed out of nylon (or other material)cord, around the circumference of the tank,					

Sl No	Description of work	No. or Qty.	Unit	Accepted Rate	TOTAL AMOUNT	TOTAL AMOUNT in words
	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 and including charges of extra 1 no 200 mm MS HDG Nozzle type BS10E table and 200 mm MS HDG anti vortex type E table and Transportation charges.					
5.010	OD78979/2022-2023 - Supply,installation and commissioning of a pre-engineered, pre-fabricated, factory manufactured steel storage Water Tank having a capacity of 131941L(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	131941.000	Litre	9.00	1187469.00	Rupees Eleven Lakh Eighty Seven Thousand Four Hundred Sixty Nine Only

Sl No	Description of work	No. or Qty.	Unit	Accepted Rate	TOTAL AMOUNT	TOTAL AMOUNT in words
	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 heavyduty 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					

Sl No	Description of work	No. or Qty.	Unit	Accepted Rate	TOTAL AMOUNT	TOTAL AMOUNT in words
	dimensions of the Tank shall be of 8.739m in diameter and 2.200m 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 multilayer PE sheet, certified for potable drinking water, to (ANSI/ NSF 61) and duly UV Stabilized. ii) Be of PE (polyethylene) in multi-layer construction for strength, reinforced with woven scrim industrial fabric to prevent elongation and enhance tensile strength. The total liner material thickness shall be no less than 0.6 mm thick. The tensile strength shall not be less than 2266 N (warp) and 2495 N (weft) and heat sealing strength of 2056 N v) All the liner welded lap joints shall be strengthened with Metallocene encapsulating tape welded over the overlap. vi) The Metallocene tape shall cover and protect the exposed material at the edges of the liner joints to further prevent the ingress of water into the scrim. vii) Liners shall be positively and continuously attached to the top outer edge of the circumference of the tank to prevent entry of water from the runoff from the roof structure. viii) All liners on					

Sl No	Description of work	No. or Qty.	Unit	Accepted Rate	TOTAL AMOUNT	TOTAL AMOUNT in words
	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 including charges of extra 1 no150 mm MS HDG Nozzle type BS10E table and 150 mm MS HDG anti vortex type E table and Transportation charges.					
5.011	OD78992/2022-2023 - Supply,installation and commissioning of a pre-engineered, pre-fabricated, factory manufactured steel storage Water Tank having a capacity of 26062 L(1Nos.)	26062.000	Litre	20.00	521240.00	Rupees Five Lakh Twenty One Thousand Two Hundred Forty Zero Only

Sl No	Description of work	No. or Qty.	Unit	Accepted Rate	TOTAL AMOUNT	TOTAL AMOUNT in words
	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 heavyduty 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					

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	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 3.884m in diameter and 2.20m 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 multilayer PE sheet, certified for potable drinking water, to (ANSI/ NSF 61) and duly UV Stabilized. ii) Be of PE (polyethylene) in multi-layer construction for strength, reinforced with woven scrim industrial fabric to prevent elongation and enhance tensile strength. The total liner material thickness shall be no less than 0.6 mm thick. The tensile strength shall not be less than 2266 N (warp) and 2495 N (weft) and heat sealing strength of 2056 N v) All the liner welded lap joints shall be strengthened with Metallocene encapsulating tape welded over the overlap. vi) The Metallocene tape shall cover and protect the exposed material at the edges of the liner joints to further prevent the ingress of water into the scrim. vii) Liners shall be					

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	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 and Transportation charges					

The above work awarded to the contractor George Martin Jose,BBMPG7266C, at his quoted rate for individual items at a total accepted PAC 32447223(Three Crore Twenty Four Lakh Forty Seven Thousand Two Hundred and Twenty Three Only) as per the condition of the contract.