

CONTRACT NO.

GUJARAT WATERSUPPLY & SEWERAGE BOARD

GANDHINAGAR

(A WHOLLY OWNED GOVERNMENT OF GUJARAT UNDERTAKING)



BID DOCUMENTS For Comprehensive Operation & Maintenance of Civil & Electromechanical assets such as intake wells structures, HR on NMC Canal, elevated service reservoirs (E.S.R), HGLR, sump, water treatment plant (Satun 60.00 mld & Zazam 6.00 mld), chemical house, staff quarters, pump house, all bulk transmission and distribution pipelines, valves, all Head works, TW, Canal pumping machinery & electrical equipment etc. for the Radhanpur & Santalpur RWSS water supply schemes, including supply of potable water to all the 126 villages/11 habitations/1 towns for 60 months period. Taluka: Radhanapur, Santlapur, District: Patan based on NMC at Rankpur hw. Including supply of chlorine gas & PAC 10% Liquid. (Excluding the cost of Electricity Bill, Raw Water Charges, All type of Pipes, Sluice Valves, air Valves).

Estimated Cost: - Rs. 20,22,72,820.61

VOLUME- II

PRICE-BID

Chief Engineer

Zone –2Ahmedabad

BID DOCUMENTS For Comprehensive Operation & Maintenance of Civil & Electromechanical assets such as intake wells structures, HR on NMC Canal, elevated service reservoirs (E.S.R), HGLR, sump, water treatment plant (Satun 60.00 mld & Zazam 6.00 mld), chemical house, staff quarters, pump house, all bulk transmission and distribution pipelines, valves, all Head works, TW, Canal pumping machinery & electrical equipment etc. for the Radhanpur & Santalpur RWSS water supply schemes, including supply of potable water to all the 126 villages/11 habitations/1 towns for 60 months period. Taluka: Radhanapur, Santlapur, District: Patan based on NMC at Rankpur hw. Including supply of chlorine gas & PAC 10% Liquid. (Excluding the cost of Electricity Bill, Raw Water Charges, All type of Pipes, Sluice Valves, air Valves).

VOLUME - III

Contents

CONTRACT NO.....	1
PREAMBLE TO PRICE SCHEDULE.....	3
BID FORM.....	7
BREAK UP FOR INTERIM PAYMENTS	Error! Bookmark not defined.

PREAMBLE TO PRICE SCHEDULE

Name of work: **“Comprehensive Operation & Maintenance of Civil & Electromechanical assets such as intake wells structures, HR on NMC Canal, elevated service reservoirs (E.S.R), HGLR, sump, water treatment plant (Satun 60.00 mld & Zazam 6.00 mld), chemical house, staff quarters, pump house, all bulk transmission and distribution pipelines, valves, all Head works, TW, Canal pumping machinery & electrical equipment etc. for the Radhanpur & Santalpur RWSS water supply schemes, including supply of potable water to all the 126 villages/11 habitations/1 towns for 60 months period. Taluka: Radhanapur, Santlapur, District: Patan based on NMC at Rankpur hw. Including supply of chlorine gas & PAC 10% Liquid. (Excluding the cost of Electricity Bill, Raw Water Charges, All type of Pipes, Sluice Valves, air Valves).”**

1. The bidder shall quote his firm and fixed price for the entire work under this Contract, defined in more details in various sections of this bid document.
2. The rates and prices shall be submitted in the electronic formats given by n-procure which is called **Schedule-B** rates and prices received in any other formats will be rejected and the Bids will be disqualified.
3. It will be entirely at the discretion of the Employer to accept or reject the bidder's proposal, without giving any reasons whatsoever and the bidder shall Not be permitted to withdraw his bid on this account.
4. Price **Schedule-A** gives the Schedule showing approximately the materials to be free supplied from the by client.
5. In **Schedule-B** the Bidder shall quote prices for the items on lump sum / unit rate as called for against the BOQ item.
6. In Price Schedule-B, bidder shall quote his price for entire work. Prices quoted in Schedule-B only will be considered for price evaluation & shall form a part of the Contract Agreement.
7. In the Price **Schedule B1..., Schedule B2**, bidder shall furnish breakup of his prices quoted in Price Schedule-B and shall be carried forward to Schedule-B for comparison and evaluation.
8. The Bidder shall quote his prices for Operation & Maintenance in Schedule-C. Bidder shall give year wise break up of cost for 5 years O&M in Schedule-C separately for Schedule-C. The total shall be in line to the price quoted in Schedule-C. The total shall be carried

forward to Schedule-B for comparison and evaluation.

9. Wherever for a particular item the quantities have been specified payment shall be on unit rate basis and unit variation in quantity will be paid with pro rata basis.
10. Each item is to be individually priced online and the amounts shall be added up to arrive at the “Total of each Price Schedule”. No column in the Schedules of prices shall be left blank except where the item description requires the item to be priced on “as applicable” basis. The item shall Not be priced if it is “Not applicable” to the bidder’s design, in which case the bidder shall add the words “NOT APPLICABLE”. The wording in the item description is for subject matter guidance only; clause references are indicative only and all other relevant clauses shall also be referred to. The prices shall allow for all the works covered under the bid and all liabilities and contractual obligations whether separately specified or not. Items against which No prices are quoted shall Not be separately paid for and the bidder shall be deemed to have covered the cost of execution of such items (according to the requirements of the bid document) in the prices quoted for other items.
11. Items Not specifically listed in his Price Schedules, but required to be executed for satisfactory working/safety of the system as specified, will Not be separately paid for by the Employer when executed and shall be deemed to be already covered by other items and rates listed in the price sheets No extra payment shall be given for any item which is required to complete and perform the project.
12. The total of the item prices in Price Schedule B shall be equal to the price quoted by the bidder in Price Schedule B and shall be firm and fixed, during the pendency of the Contract. In case of any discrepancy Noted in the various price schedules, those in Schedule B will be considered and binding on the Contractor. The prices in Price Schedule Schedule B of the successful bidder shall be corrected accordingly. Only Price Schedule-B after carried over and arithmetic corrections if any will be considered for financial evaluation of the bid.
13. Schedule ‘D gives the basis of interim payment for construction of civil works.
14. The bidder shall be deemed to have allowed in his price for provision, maintenance and final removal of all temporary works of whatsoever nature required for construction including temporary bunds, diverting water, pumping, de-watering etc. for the proper execution of works. The rates shall also be deemed to include any works and setting out that may be required to be carried out for laying out of all the works involved.
15. Prices shall be filled online only.
16. The Price Schedules are to be read in conjunction with the Conditions of Contract, the

Specifications and other sections of these bid documents and these documents are to be taken as mutually explanatory of one another.

17. The bidder shall interpret the data furnished and carry out any additional survey work, or investigation work required at his own cost.
18. The prices quoted shall also include the cost of materials utilized for testing.
19. The bidder should acquaint himself with the site conditions including the access to Work site. The successful bidder shall have to make suitable access to work sites at his own cost. These accesses will be used by the other contractors working for GWSSB.
20. The item descriptions in price schedule are for subject matter guidance only and the prices shall include all the equipment's / materials / accessories and services required as per the specifications. The bidder shall fill in the price schedule furnished.
21. The Amount to be Quoted for O & M /Year Shall be As per Volume -1, Technical Bid, General Condition of Contract Clause No.1 Security Deposit.
22. 1% of the value of work will be deducted from the Running bill against labour cess which is non-refundable.
23. Third Party Inspection / CSC agency will be deployed by GWSSB and charges of the same will be borne by GWSSB.
24. Any expenditure incurred by inspection/ CSC agency for the work misinformed by the contractor and charges of inspection/ CSC agency without any work due to misinformation shall be recovered from the contractor.
25. The rates to be quoted by the Contractor must be exclusive of GST but inclusive of all other taxes. GST should be paid extra on the admissible payment as per the approved tender rates and condition of price variation; GST should be paid as per prevailing rates at the time of payment. The TDS as per provision of IT rules and GWSSB policy.
26. The rates Should be quoted exclusive of GST but inclusive of all other taxes as per Volume - 1, Technical Bid, General Condition of Contract Clause No.16.3. Rates to be exclusive of GST but inclusive of all other taxes.
27. The process requires that the bidder shall quote his price for the work components contained in the price schedules for the entire work. Such prices shall remain firm and fix during the entire period of performance of the contract except price variation allowed for supply of MS/DI/PVC/HDPE pipe as per Volume-II (A), General Conditions of Contract.

28. Payment shall be made for the components for which lump sum prices are quoted, as per the schedule of payment. Total cost will be worked out on the basis of work done of individual items and rates quoted against those particular items only.
29. Royalties: The contractor shall be liable to pay the royalty of the quarried materials/minerals used in the construction of works at the rates specified in the industries mines department sachivalay Gandhinagar Dt. 18/06/2016 (English Version Copy enclosed) and shall be recovered from the running bills of the work from time to time and remaining amount if any shall be recovered from the final bill before releasing the security deposit of the work. The contractor shall furnish the statement showing the quantity of quarried materials / minerals from whom purchased (with full address of the seller) and copies of the bills for purchase to the Executive Engineer of the in charge of the work. The contractor shall also furnish such additional information as regards royalty payment to the competent authority.
30. Agency shall have to take Insurance policy and intimate to GWSSB along with the evidence within time limit. In case of Noncompliance entire responsibility shall be rest with the agency and required amount shall be recovered from any due amount of the agency.
31. GWSSB can recover penalty amount from the agency for Not taking the insurance. Though the penalty amount is recovered, responsibility of the agency for taking insurance shall be continued and will Not be escaped from the responsibility.
32. The contractor shall apply fair means of stock maintenance and shall adopt accounting standard as may be prescribed under GST Act as applicable in the state of Gujarat. For arriving at the difference in procurement prices due to introduction of GST it will be open for the Board to ask for original invoices, lorry receipt, weigh bridge slips, payment details and such other documents as may be required for the purpose.

The claim of contractor regarding GST shall have to be backed by documentary evidence substantiating the actual payment of tax duly certified by the competent tax authority. The final decision regarding the quantum of the claim amount to be recovered or reimbursed shall be of the competent authority of the GWSSB and shall be binding on the contractor.

Signature of Contractor

Executive Engineer

BID FORM

Bidders are required to fill up all the blank spaces in this Bid Form.

To,

The Executive Engineer

Public Health Works Division,

Radhanpur

Dear Sir,

SUB : “Comprehensive Operation & Maintenance of Civil & Electromechanical assets such as intake wells structures, HR on NMC Canal, elevated service reservoirs (E.S.R), HGLR, sump, water treatment plant (Satun 60.00 mld & Zazam 6.00 mld), chemical house, staff quarters, pump house, all bulk transmission and distribution pipelines, valves, all Head works, TW, Canal pumping machinery & electrical equipment etc. for the Radhanpur & Santalpur RWSS water supply schemes, including supply of potable water to all the 126 villages/11 habitations/1 towns for 60 months period. Taluka: Radhanpur, Santlapur, District: Patan based on NMC at Rankpur hw. Including supply of chlorine gas & PAC 10% Liquid. (Excluding the cost of Electricity Bill, Raw Water Charges, All type of Pipes, Sluice Valves, air Valves).”

1. Having visited the site and examined the Bid Documents, Drawings, Conditions of Contract, Specifications, Schedules, Annexure, Preamble to Price Schedules, Price Schedules etc. including Addenda / Amendments to the above, for the execution of the above Contract, we the undersigned offer to Design, Engineer, Procure, Construct, Complete, Commission, operate, maintain and Run the whole of the said works for **60 Months** from the date of commissioning including defects liability period as given in Conditions of Contract and in conformity with the drawings, conditions of Contract, specifications, Preamble to Price Schedules, Price Schedules, Annexure, Bidding Documents, including Addenda Nos. _____ (insert numbers) for Lump sum fixed price of Rs. _____. (Rupees _____) for Construction including free trial run **(If Applicable)** for One Month or such other sum as may be ascertained in accordance with the conditions.
2. I / We agree that
 - (a) If we fail to provide required facilities to the Employer's representative or any other person / Agency by the Employer to perform on his behalf for carrying out the inspection and testing of materials and workmanship.

Or

(b) If we incorporate into the Works, materials before they are tested and approved by the Engineer's representative

Or

(c) If we fail to deliver pure water of required quantity according to the conditions / stipulations of the Contract, the Engineer will be at liberty to take any action including termination of Contract and impose at his absolute discretion any penalties, and / or reject the work.

3. We undertake, if our Bid is accepted, to complete and deliver the works in accordance with the Contract with in **Months**, inclusive of monsoons, from the date or receipt of Letter of Acceptance issued to us by you.
4. We agree to abide by this Bid for a period of **180 days** from the last date of submission of bid and it shall remain binding upon us and may be accepted at any time before the expiry of that period.
5. In the event of our Bid being accepted, we agree to enter into a formal Contract Agreement with you incorporating the conditions of Contract thereto annexed but until such agreement is prepared this Bid together with your written acceptance thereof shall constitute a binding Contract between us.
6. We agree, if our Bid is accepted, to furnish performance Security in the forms and of value specified in the Clause 1 of Volume-IB, General Conditions of Contract.
7. We have independently considered the amounts of liquidated damages shown in Appendix to Bid and agree that they represent a fair estimate of the damages likely to be suffered by you in the event of the work Not being completed by us in time.
8. We understand that you are Not bound to accept the lowest or any bid you may receive.

Dated this _____ day of _____ 20__

(Signature)

(Name of the person)

(In the capacity of)

Company Seal

(Name of firm)

Duly authorized to sign Bid for and on behalf of (Fill in block capitals)

Witness:

Signature

Name

GUJARAT WATERSUPPLY & SEWERAGE BOARD GANDHINAGAR

Name of Work:- “Comprehensive Operation & Maintenance of Civil & Electromechanical assets such as intake wells structures, HR on NMC Canal, elevated service reservoirs (E.S.R), HGLR, sump, water treatment plant (Satun 60.00 mld & Zazam 6.00 mld), chemical house, staff quarters, pump house, all bulk transmission and distribution pipelines, valves, all Head works, TW, Canal pumping machinery & electrical equipment etc. for the Radhanpur & Santalpur RWSS water supply schemes, including supply of potable water to all the 126 villages/11 habitations/1 towns for 60 months period. Taluka: Radhanapur, Santlapur, District: Patan based on NMC at Rankpur hw. Including supply of chlorine gas & PAC 10% Liquid. (Excluding the cost of Electricity Bill, Raw Water Charges, All type of Pipes, Sluice Valves, air Valves).”

SCHEDULE - A

Sr. No	Particulars	Quantity	Unit	Rate at Which the materials will be charged to the Agency		Place of Delivery
				Rate	Unit	
1	Pipes	As required	RMT	Free of Cost	RMT	Departmental Store or Head Works / Sub Head Works Any GWSSB AND GWIL store
2	Valves	As required	No.	Free of Cost	No.	
3	Sub Pump Set	As required	No.	Free of Cost	No.	---Do---Do--
4	G.I.Column Pipe	As required	RMT	Free of Cost	RMT	---Do---Do--
5	Flat PVC Cable	As required	RMT.	Free of Cost	RMT.	---Do---Do--
6	Control Panel Board	As required	No.	Free of Cost	No.	---Do---Do--
1	The Contractor submitting the tender should see that the rate in Schedule - A (of tender documents) are filled by the Engineer in charge prior of the time of issue of tender.					
2	Any additional materials to be supplied free of cost as per Schedule-A if found necessary at the time of execution will be supplied to the contractor free of cost.					
3	Any materials other than that provided in Schedule-A if required for the labour items of Schedule-B issued on request to the contractor provided the same are available with department at prevailing market rate or department issue rate whichever is higher.					
4	The contractor shall provide his own arrangement at his own cost for loading, unloading and transport to the site of work for the material stipulated in Schedule-A.					

5	Those works will be executed which are found necessary at the time of execution, contractor will not be entitle for any claim for saving in any items as per site condition.
6	The rate of recovery for short fall or damage of material issued free of cost will be present S.O.R. plus 3% storage charge or rates of Board R/C Plus 3 % storage whichever is higher.
7	No negotiation at present in from and hence contractor should quote their rates accordingly.
8	The sub contract, if any given by the contractor would not create any right against the Board.
9	The Amount Recoverable from the contractor by the Gujarat water supply and sewerage board on any account shall be liable to be recovered from the amount payable to the contractor / suppliers.
10	After passing the bill fund shall be demanded to higher authority payment shall be made after getting fund from higher authority.
11	Labour Cess under the prevailing rules of the Government Resolution shall be borne by the bidder. (Present rate is 1%).
12	Royalty on Minerals Consumed in works from End User under the prevailing rules of the Government Industries mines department sachivalay Gandhinagar Dt. 18/06/2016 (English Version Copy enclosed) shall be borne by the bidder.

Deputy Executive Engineer
P. H.Mech.Sub Division
Shankheshwar

Deputy Executive Engineer
P. H.S.Sub Division
Radhanpur

Deputy Executive Engineer
P. H.S.Sub Division
Varahi

Sign of Contractor

Executive Engineer
P. H. Works Division
Radhanpur

Annexure-A

LIST FOR EQUIPMENTS/INSTRUMENTS REQUIRED FOR SITE OFFICE WORK		
Free Of Cost		
Item Description		
Agency Has to Procure and must supply at site free of cost and hand over to Engineer in charge within one month from date of work order given as under.		
No.	Description	Nos Of item.
1	All In One Computer not less than 24 All-in-One QC24251 with Core Ultra 35W CPU, Non-touch, FHD HDR Camera, Processor Intel® Core™ Ultra 5 235T (13 TOPS NPU, 14 cores, up to 5.0GHz), Windows 11 Pro Operating System, both preinstalled from brand DELL, HP as approved by Engineer in Charge, Office of the, Executive Engineer PH Works Division Radhanpur- 1.0Nos, DEE PH Sub Division Radhanpur -1Nos, DEE PH Sub Division Varahi -1Nos,	03 Nos.
3	Multifunction Printer With 28 PPM Speed from brand like Canon, HP or equivalent with all necessary accessories etc.	03 Nos.
Note: - all above item must be provide by Agency at free of cost.		
<div style="display: flex; justify-content: space-between;"> <div style="width: 40%;"> Signature of Contractor </div> <div style="width: 50%; text-align: right;"> Executive Engineer P.H. Works Division Radhanpur. </div> </div>		

PRICE SCHEDULE B

NAME OF SCHEME: RADHANPUR & SANTALPUR RWSS TA: RADHANPUR, SANTALPUR, DIST: PATAN					
Name of Work: Comprehensive Operation & Maintenance of Civil & Electromechanical assets such as intake wells structures, HR on NMC Canal, elevated service reservoirs (E.S.R), HGLR, sump, water treatment plant (Satun 60.00 mld & Zazam 6.00 mld), chemical house, staff quarters, pump house, all bulk transmission and distribution pipelines, valves, all Head works, TW, Canal pumping machinery & electrical equipment etc. for the Radhanpur & Santalpur RWSS water supply schemes, including supply of potable water to all the 126 villages/11 habitations/1 towns for 60 months period. Taluka: Radhanapur, Santlapur, District: Patan based on NMC at Rankpur hw. Including supply of chlorine gas & PAC 10% Liquid. (Excluding the cost of Electricity Bill, Raw Water Charges, All type of Pipes, Sluice Valves, air Valves,)					
SCHEDULE - B					
It. No.	ITEM DESCRIPTION	Qty.	Unit	Rate	Amount
	PART -A				
1.0	Comprehensive Operation & Maintenance of Civil & Electro-mechanical assets such as intake wells structures, HR on NMC Canal, elevated service reservoirs (E.S.R), HGLR, sump, water treatment plant (Satun 60.00 mld & Zazam 6.00 mld), chemical house, staff quarters, pump house, all bulk transmission and distribution pipelines, valves, all Head works, TW, Canal pumping machinery & electrical equipment etc. for the Radhanpur-Santalpur RWSS water supply schemes, including supply of potable water to all the 126 villages/11 habitations/1 towns for 60 months period. Taluka: Radhanapur, Santlapur, District: Patan based on NMC at Rankpur hw.				
1.1	1st Year	12.00	Month	25,15,448.69	3,01,85,384.292
1.2	2nd Year	12.00	Month	26,66,375.61	3,19,96,507.320
1.3	3rd Year	12.00	Month	28,26,358.15	3,39,16,297.800
1.4	4th Year	12.00	Month	29,95,939.64	3,59,51,275.680
1.5	5th Year	12.00	Month	31,75,696.02	3,81,08,352.240

	PART - B				
B	Maintenance activities, measured and paid separately such as Chemical and Bacteriological Analysis, cleaning of reservoirs/tanks, procurement and replacement of filter media, providing PAC, Chlorine gas etc. complete as per this tender document.				
2.0	Providing, Supplying & Procurement and necessary dosing of PAC 10% Liquid for removing of turbidity from raw water. including all taxes & Carting. Satun WTP (60 mld) & Zazam WTP (6 mld) in Contract Period				
	1st Year	44,298.00	Liter	9.00	3,98,682.00
	2nd Year	45,108.00	Liter	9.54	4,30,330.32
	3rd Year	45,684.00	Liter	10.11	4,61,865.24
	4th Year	46,548.00	Liter	10.72	4,98,994.56
	5th Year	47,214.00	Liter	11.36	5,36,351.04
3.00	Refilling of Chlorine gas in Cylinder including transportation to and from factory and back. 900kg Cylinder Satun WTP (60 mld) in Contract Period				
	1st Year	47.00	No.	7,737.00	3,63,639.00
	2nd Year	48.00	No.	8,201.22	3,93,658.56
	3rd Year	49.00	No.	8,693.29	4,25,971.21
	4th Year	50.00	No.	9,214.89	4,60,744.50
	5th Year	51.00	No.	9,767.78	4,98,156.78
4.00	Refilling of Chlorine gas in Cylinder including transportation to and from factory and back. 100kg Cylinder at All Sub Head Work, Zazam WTP (6 mld) of Radhanpur and Santalpur Section				
	1st Year	230.00	No.	1,741.00	4,00,430.00
	2nd Year	234.00	No.	1,845.46	4,31,837.64
	3rd Year	236.00	No.	1,956.19	4,61,660.84
	4th Year	240.00	No.	2,073.56	4,97,654.40
	5th Year	243.00	No.	2,197.97	5,34,106.71

5.0	Procurement & replacement of filter media: Effective size of filter sand 0.45 to 0.70 mm uniformity coefficient not more than 1.7 nor less than 1.3, depth of filter 0.75 M, freeboard 50 cm, gravel 0.45 M in depth, sand and gravel conforming to IS: 8491(i)-77. in Filter bed of required depth as per design and drawing inclusive of all lead Sand				
5.1	(a) for 1st Year Satun WTP (60 MLD)	240.00	Cum	1,308.93	3,14,143.20
5.2	(b) for 1st Year Zazam WTP (6 MLD)	18.75	Cum	1,308.93	24,542.44
5.3	(c) For 4th Year Satun WTP (60 MLD)	240.00	Cum	1,558.950	3,74,148.00
5.4	(d) For 4th Year Zazam WTP (6 MLD)	18.75	Cum	1,558.950	29,230.31
6.0	Providing & supplying gravels of different size as per design and drawing and laying in layers in filter beds Inclusive of all lead. (twice in contract period) (30% Head Loss)				
6.1	(a) for 1st Year Satun WTP (60 MLD)	144.00	Cum	1,308.930	1,88,485.92
6.2	(b) for 1st Year Zazam WTP (6 MLD)	11.25	Cum	1,308.930	14,725.46
6.3	(c) For 4th Year Satun WTP (60 MLD)	144.00	Cum	1,558.950	2,24,488.80
6.4	(d) For 4th Year Zazam WTP (6 MLD)	11.25	Cum	1,558.950	17,538.19
7.0	Labour charges for cleaning of sump / GL cistern with cleaning and removing algae calcinations, sludge, dirt deposition from bottom and as well as from wall of sump with necessary tools and plants required including labours etc. with dis-infection by chlorine powder as required. etc. comp. Radhanpur Section & Santalpur Section				
A	1st Year				
7.1	RANAKPUR OFFTEK Under Ground Sump 75 Lac Lit. - 1 Nos (Twice in a Year)	2.00	No.	64,507.35	1,29,014.70
7.2	SATUN WTP Under Ground Sump 100 Lac Lit. - 1 Nos	1.00	No.	85,503.46	85,503.46
7.3	SATUN WTP Under Ground Sump 50 Lac Lit. - 1 Nos	1.00	No.	43,743.93	43,743.93
7.4	Satun wtp CLR-1/ 40 Lac Litr	1.00	No.	35,345.08	35,345.08
7.5	Satun wtp CLR-1/ 40 Lac Litr	1.00	No.	35,345.08	35,345.08
7.6	Satun wtprecycleaing Sump/ 6 lac litr	1.00	No.	6,065.95	6,065.95
7.7	DHARAVADI SUB H/W Under Ground Sump 10 Lac Lit. - 1 Nos	1.00	No.	9,332.65	9,332.65
7.8	DHARAVADI SUB H/W Under Ground Sump 5 Lac Lit. - 1 Nos	1.00	No.	5,599.58	5,599.58

7.9	SINAD SUB H/W Under Ground Sump 10 Lac. Lit.	1.00	No.	9,332.64	9,332.64
7.10	SHERGANJ SUB H/W Under Ground Sump 20 Lac Lit.	1.00	No.	18,196.84	18,196.84
7.11	SHERGANJ SUB H/W Under Ground Sump 3 Lac Lit.	1.00	No.	3,499.35	3,499.35
7.12	BHILOT SUB H/W Under Ground Sump 15 Lac. Lit.	1.00	No.	13,764.73	13,764.73
7.13	DAHISAR SUB H/W Under Ground Sump 17 Lac. Lit.	1.00	No.	16,330.32	16,330.32
7.14	MOTI PIPALI SUB H/W Under Ground Sump 25 Lac Lit.	1.00	No.	22,397.28	22,397.28
7.15	GOTARKA SUB H/W Under Ground Sump 7.5 Lac Lit.	1.00	No.	7,466.12	7,466.12
7.16	VARAHI SUB H/W Under Ground Sump 20 Lac Lit. - 2 Nos	2.00	No.	18,196.83	36,393.66
7.17	ABIYANA SUB H/W Under Ground Sump 20 Lac. Lit.	1.00	No.	18,196.83	18,196.83
7.18	SIDHADA SUB H/W Under Ground Sump 15 Lac Lit.	1.00	No.	13,764.74	13,764.74
7.19	SIDHADA SUB H/W Under Ground Sump 10 Lac Lit.	1.00	No.	9,332.63	9,332.63
7.20	SIDHADA SUB H/W Under Ground Sump 25 Lac Lit.	1.00	No.	22,397.28	22,397.28
7.21	ZAZAM SUB H/W Under Ground Sump 20 Lac. Lit.	1.00	No.	18,196.83	18,196.83
7.22	ZAZAM WTP CLR/10 Lac Liter	1.00	No.	9,332.64	9,332.64
7.23	SANTALPUR SUB H/W Under Ground Sump 50 Lac Lit.	1.00	No.	43,743.93	43,743.93
7.24	KALYANPURA SUB H/W Under Ground Sump 8 Lac Lit.	1.00	No.	7,698.78	7,698.78
7.25	KALYANPURA SUB H/W Under Ground Sump 5 Lac Lit.	1.00	No.	5,599.58	5,599.58
7.26	DHOKAVADA SUB H/W Under Ground Sump 10 Lac Lit.	1.00	No.	9,332.63	9,332.63
7.27	GARAMADI SUB H/W Under Ground Sump 10 Lac. Lit.	1.00	No.	9,332.63	9,332.63
B	2nd Year				
7.1	RANAKPUR OFFTEK Under Ground Sump 75 Lac Lit. - 1 Nos (Twice in a Year)	2.00	No.	68,377.79	1,36,755.58
7.2	SATUN WTP Under Ground Sump 100 Lac Lit. - 1 Nos	1.00	No.	90,633.67	90,633.67
7.3	SATUN WTP Under Ground Sump 50 Lac Lit. - 1 Nos	1.00	No.	46,368.57	46,368.57
7.4	Satun wtp CLR-1/ 40 Lac Lit	1.00	No.	37,465.78	37,465.78
7.5	Satun wtp CLR-1/ 40 Lac Lit	1.00	No.	37,465.78	37,465.78
7.6	Satun wtp re-cycleaig Sump/ 6 lac litr	1.00	No.	6,429.91	6,429.91
7.7	DHARAVADI SUB H/W Under Ground Sump 10 Lac Lit. - 1 Nos	1.00	No.	9,892.61	9,892.61
7.8	DHARAVADI SUB H/W Under Ground Sump 5 Lac Lit. - 1 Nos	1.00	No.	5,935.55	5,935.55
7.9	SINAD SUB H/W Under Ground Sump 10 Lac. Lit.	1.00	No.	9,892.60	9,892.60
7.10	SHERGANJ SUB H/W Under Ground Sump 20 Lac Lit.	1.00	No.	19,288.65	19,288.65

7.11	SHERGANJ SUB H/W Under Ground Sump 3 Lac Lit.	1.00	No.	3,709.31	3,709.31
7.12	BHILOT SUB H/W Under Ground Sump 15 Lac. Lit.	1.00	No.	14,590.61	14,590.61
7.13	DAHISAR SUB H/W Under Ground Sump 17 Lac. Lit.	1.00	No.	17,310.14	17,310.14
7.14	MOTI PIPALI SUB H/W Under Ground Sump 25 Lac Lit.	1.00	No.	23,741.12	23,741.12
7.15	GOTARKA SUB H/W Under Ground Sump 7.5 Lac Lit.	1.00	No.	7,914.09	7,914.09
7.16	VARAHI SUB H/W Under Ground Sump 20 Lac Lit. - 2 Nos	2.00	No.	19,288.64	38,577.28
7.17	ABIYANA SUB H/W Under Ground Sump 20 Lac. Lit.	1.00	No.	19,288.64	19,288.64
7.18	SIDHADA SUB H/W Under Ground Sump 15 Lac Lit.	1.00	No.	14,590.62	14,590.62
7.19	SIDHADA SUB H/W Under Ground Sump 10 Lac Lit.	1.00	No.	9,892.59	9,892.59
7.20	SIDHADA SUB H/W Under Ground Sump 25 Lac Lit.	1.00	No.	23,741.12	23,741.12
7.21	ZAZAM SUB H/W Under Ground Sump 20 Lac. Lit.	1.00	No.	19,288.64	19,288.64
7.22	ZAZAM WTP CLR/10 Lac Liter	1.00	No.	9,892.60	9,892.60
7.23	SANTALPUR SUB H/W Under Ground Sump 50 Lac Lit.	1.00	No.	46,368.57	46,368.57
7.24	KALYANPURA SUB H/W Under Ground Sump 8 Lac Lit.	1.00	No.	8,160.71	8,160.71
7.25	KALYANPURA SUB H/W Under Ground Sump 5 Lac Lit.	1.00	No.	5,935.55	5,935.55
7.26	DHOKAVADA SUB H/W Under Ground Sump 10 Lac Lit.	1.00	No.	9,892.59	9,892.59
7.27	GARAMADI SUB H/W Under Ground Sump 10 Lac. Lit.	1.00	No.	9,892.59	9,892.59
C	3rd Year				
7.1	RANAKPUR OFFTEK Under Ground Sump 75 Lac Lit. - 1 Nos (Twice in a Year)	2.00	No.	72,480.46	1,44,960.92
7.2	SATUN WTP Under Ground Sump 100 Lac Lit. - 1 Nos	1.00	No.	96,071.69	96,071.69
7.3	SATUN WTP Under Ground Sump 50 Lac Lit. - 1 Nos	1.00	No.	49,150.68	49,150.68
7.4	Satun wtp CLR-1/ 40 Lac Lit	1.00	No.	39,713.73	39,713.73
7.5	Satun wtp CLR-1/ 40 Lac Lit	1.00	No.	39,713.73	39,713.73
7.6	Satun wtp recycleaing Sump/ 6 lac litr	1.00	No.	6,815.70	6,815.70
7.7	DHARAVADI SUB H/W Under Ground Sump 10 Lac Lit. - 1 Nos	1.00	No.	10,486.17	10,486.17
7.8	DHARAVADI SUB H/W Under Ground Sump 5 Lac Lit. - 1 Nos	1.00	No.	6,291.68	6,291.68
7.9	SINAD SUB H/W Under Ground Sump 10 Lac. Lit.	1.00	No.	10,486.16	10,486.16
7.10	SHERGANJ SUB H/W Under Ground Sump 20 Lac Lit.	1.00	No.	20,445.97	20,445.97
7.11	SHERGANJ SUB H/W Under Ground Sump 3 Lac Lit.	1.00	No.	3,931.87	3,931.87
7.12	BHILOT SUB H/W Under Ground Sump 15 Lac. Lit.	1.00	No.	15,466.05	15,466.05

7.13	DAHISAR SUB H/W Under Ground Sump 17 Lac. Lit.	1.00	No.	18,348.75	18,348.75
7.14	MOTI PIPALI SUB H/W Under Ground Sump 25 Lac Lit.	1.00	No.	25,165.59	25,165.59
7.15	GOTARKA SUB H/W Under Ground Sump 7.5 Lac Lit.	1.00	No.	8,388.94	8,388.94
7.16	VARAHI SUB H/W Under Ground Sump 20 Lac Lit. - 2 Nos	2.00	No.	20,445.96	40,891.92
7.17	ABIYANA SUB H/W Under Ground Sump 20 Lac. Lit.	1.00	No.	20,445.96	20,445.96
7.18	SIDHADA SUB H/W Under Ground Sump 15 Lac Lit.	1.00	No.	15,466.06	15,466.06
7.19	SIDHADA SUB H/W Under Ground Sump 10 Lac Lit.	1.00	No.	10,486.15	10,486.15
7.20	SIDHADA SUB H/W Under Ground Sump 25 Lac Lit.	1.00	No.	25,165.59	25,165.59
7.21	ZAZAM SUB H/W Under Ground Sump 20 Lac. Lit.	1.00	No.	20,445.96	20,445.96
7.22	ZAZAM WTP CLR/10 Lac Liter	1.00	No.	10,486.16	10,486.16
7.23	SANTALPUR SUB H/W Under Ground Sump 50 Lac Lit.	1.00	No.	49,150.68	49,150.68
7.24	KALYANPURA SUB H/W Under Ground Sump 8 Lac Lit.	1.00	No.	8,650.35	8,650.35
7.25	KALYANPURA SUB H/W Under Ground Sump 5 Lac Lit.	1.00	No.	6,291.68	6,291.68
7.26	DHOKAVADA SUB H/W Under Ground Sump 10 Lac Lit.	1.00	No.	10,486.15	10,486.15
7.27	GARAMADI SUB H/W Under Ground Sump 10 Lac. Lit.	1.00	No.	10,486.15	10,486.15
D	4th Year				
7.1	RANAKPUR OFFTEK Under Ground Sump 75 Lac Lit. - 1 Nos (Twice in a Year)	2.00	No.	76,829.29	1,53,658.58
7.2	SATUN WTP Under Ground Sump 100 Lac Lit. - 1 Nos	1.00	No.	1,01,835.99	1,01,835.99
7.3	SATUN WTP Under Ground Sump 50 Lac Lit. - 1 Nos	1.00	No.	52,099.72	52,099.72
7.4	Satun wtp CLR-1/ 40 Lac Lit	1.00	No.	42,096.55	42,096.55
7.5	Satun wtp CLR-1/ 40 Lac Lit	1.00	No.	42,096.55	42,096.55
7.6	Satun wtp recycleaing Sump/ 6 lac litr	1.00	No.	7,224.64	7,224.64
7.7	DHARAVADI SUB H/W Under Ground Sump 10 Lac Lit. - 1 Nos	1.00	No.	11,115.34	11,115.34
7.8	DHARAVADI SUB H/W Under Ground Sump 5 Lac Lit. - 1 Nos	1.00	No.	6,669.18	6,669.18
7.9	SINAD SUB H/W Under Ground Sump 10 Lac. Lit.	1.00	No.	11,115.33	11,115.33
7.10	SHERGANJ SUB H/W Under Ground Sump 20 Lac Lit.	1.00	No.	21,672.73	21,672.73
7.11	SHERGANJ SUB H/W Under Ground Sump 3 Lac Lit.	1.00	No.	4,167.78	4,167.78
7.12	BHILOT SUB H/W Under Ground Sump 15 Lac. Lit.	1.00	No.	16,394.01	16,394.01
7.13	DAHISAR SUB H/W Under Ground Sump 17 Lac. Lit.	1.00	No.	19,449.68	19,449.68
7.14	MOTI PIPALI SUB H/W Under Ground Sump 25 Lac Lit.	1.00	No.	26,675.53	26,675.53

7.15	GOTARKA SUB H/W Under Ground Sump 7.5 Lac Lit.	1.00	No.	8,892.28	8,892.28
7.16	VARAHI SUB H/W Under Ground Sump 20 Lac Lit. - 2 Nos	2.00	No.	21,672.72	43,345.44
7.17	ABIYANA SUB H/W Under Ground Sump 20 Lac. Lit.	1.00	No.	21,672.72	21,672.72
7.18	SIDHADA SUB H/W Under Ground Sump 15 Lac Lit.	1.00	No.	16,394.02	16,394.02
7.19	SIDHADA SUB H/W Under Ground Sump 10 Lac Lit.	1.00	No.	11,115.32	11,115.32
7.20	SIDHADA SUB H/W Under Ground Sump 25 Lac Lit.	1.00	No.	26,675.53	26,675.53
7.21	ZAZAM SUB H/W Under Ground Sump 20 Lac. Lit.	1.00	No.	21,672.72	21,672.72
7.22	ZAZAM WTP CLR/10 Lac Liter	1.00	No.	11,115.33	11,115.33
7.23	SANTALPUR SUB H/W Under Ground Sump 50 Lac Lit.	1.00	No.	52,099.72	52,099.72
7.24	KALYANPURA SUB H/W Under Ground Sump 8 Lac Lit.	1.00	No.	9,169.37	9,169.37
7.25	KALYANPURA SUB H/W Under Ground Sump 5 Lac Lit.	1.00	No.	6,669.18	6,669.18
7.26	DHOKAVADA SUB H/W Under Ground Sump 10 Lac Lit.	1.00	No.	11,115.32	11,115.32
7.27	GARAMADI SUB H/W Under Ground Sump 10 Lac. Lit.	1.00	No.	11,115.32	11,115.32
E	5th Year				
7.1	RANAKPUR OFFTEK Under Ground Sump 75 Lac Lit. - 1 Nos (Twice in a Year)	2.00	No.	81,439.05	1,62,878.10
7.2	SATUN WTP Under Ground Sump 100 Lac Lit. - 1 Nos	1.00	No.	1,07,946.15	1,07,946.15
7.3	SATUN WTP Under Ground Sump 50 Lac Lit. - 1 Nos	1.00	No.	55,225.70	55,225.70
7.4	Satun wtp CLR-1/ 40 Lac Litr	1.00	No.	44,622.34	44,622.34
7.5	Satun wtp CLR-1/ 40 Lac Litr	1.00	No.	44,622.34	44,622.34
7.6	Satun wtp recycleaing Sump/ 6 lac litr	1.00	No.	7,658.12	7,658.12
7.7	DHARAVADI SUB H/W Under Ground Sump 10 Lac Lit. - 1 Nos	1.00	No.	11,782.26	11,782.26
7.8	DHARAVADI SUB H/W Under Ground Sump 5 Lac Lit. - 1 Nos	1.00	No.	7,069.33	7,069.33
7.9	SINAD SUB H/W Under Ground Sump 10 Lac. Lit.	1.00	No.	11,782.25	11,782.25
7.10	SHERGANJ SUB H/W Under Ground Sump 20 Lac Lit.	1.00	No.	22,973.09	22,973.09
7.11	SHERGANJ SUB H/W Under Ground Sump 3 Lac Lit.	1.00	No.	4,417.85	4,417.85
7.12	BHILOT SUB H/W Under Ground Sump 15 Lac. Lit.	1.00	No.	17,377.65	17,377.65
7.13	DAHISAR SUB H/W Under Ground Sump 17 Lac. Lit.	1.00	No.	20,616.66	20,616.66
7.14	MOTI PIPALI SUB H/W Under Ground Sump 25 Lac Lit.	1.00	No.	28,276.06	28,276.06
7.15	GOTARKA SUB H/W Under Ground Sump 7.5 Lac Lit.	1.00	No.	9,425.82	9,425.82
7.16	VARAHI SUB H/W Under Ground Sump 20 Lac Lit. - 2 Nos	2.00	No.	22,973.08	45,946.16

7.17	ABIYANA SUB H/W Under Ground Sump 20 Lac. Lit.	1.00	No.	22,973.08	22,973.08
7.18	SIDHADA SUB H/W Under Ground Sump 15 Lac Lit.	1.00	No.	17,377.66	17,377.66
7.19	SIDHADA SUB H/W Under Ground Sump 10 Lac Lit.	1.00	No.	11,782.24	11,782.24
7.20	SIDHADA SUB H/W Under Ground Sump 25 Lac Lit.	1.00	No.	28,276.06	28,276.06
7.21	ZAZAM SUB H/W Under Ground Sump 20 Lac. Lit.	1.00	No.	22,973.08	22,973.08
7.22	ZAZAM WTP CLR/10 Lac Liter	1.00	No.	11,782.25	11,782.25
7.23	SANTALPUR SUB H/W Under Ground Sump 50 Lac Lit.	1.00	No.	55,225.70	55,225.70
7.24	KALYANPURA SUB H/W Under Ground Sump 8 Lac Lit.	1.00	No.	9,719.53	9,719.53
7.25	KALYANPURA SUB H/W Under Ground Sump 5 Lac Lit.	1.00	No.	7,069.33	7,069.33
7.26	DHOKAVADA SUB H/W Under Ground Sump 10 Lac Lit.	1.00	No.	11,782.24	11,782.24
7.27	GARAMADI SUB H/W Under Ground Sump 10 Lac. Lit.	1.00	No.	11,782.24	11,782.24
8.0	Labour charges for cleaning of RCC ESR with cleaning and removing alga calcinations, sludge, dirt deposition from bottom and as well as from wall of ESR with necessary scaffolding tools and plants required including labours etc. with dis-infection by chlorine powder as required. etc. comp. Radhanpur Section & Santalpur Section (Once in Year)				
A	1st Year				
8.1	SATUN WTP ESR 3 Lac Lit- 20 Mt Ht.	1.00	No.	3,266.68	3,266.68
8.2	DHARAVADI SUB H/W ESR 5 Lac Lit- 25 Mt Ht.	1.00	No.	4,782.66	4,782.66
8.3	DHARAVADI SUB H/W ESR 2.5 Lac Lit- 20 Mt Ht.	1.00	No.	3,032.98	3,032.98
8.4	SINAD SUB H/W ESR 5 Lac Lit- 25 Mt Ht.	1.00	No.	4,782.65	4,782.65
8.5	SHERGANJ SUB H/W ESR 5 Lac Lit- 25 Mt Ht.	1.00	No.	4,782.65	4,782.65
8.6	SHERGANJ SUB H/W ESR 2.5 Lac Lit- 25 Mt Ht.	1.00	No.	3,032.98	3,032.98
8.7	BHILOT SUB H/W ESR 5 Lac Lit- 25 Mt Ht.	1.00	No.	4,782.65	4,782.65
8.8	DAISAR SUB H/W ESR 5 Lac Lit- 20 Mt Ht.	1.00	No.	4,782.65	4,782.65
8.9	MOTI PIPALI SUB H/W ESR 3 Lac Lit- 25 Mt Ht.	1.00	No.	3,266.68	3,266.68
8.10	GOTARKA SUB H/W ESR 3 Lac Lit- 20 Mt Ht.	1.00	No.	3,266.68	3,266.68
8.11	VARAHI SUB H/W ESR 10 Lac Lit- 18 Mt Ht.	1.00	No.	7,932.48	7,932.48
8.12	VARAHI SUB H/W ESR 5 Lac Lit- 20 Mt Ht.	1.00	No.	4,782.65	4,782.65
8.13	ABIYANA SUB H/W ESR5 Lac Lit- 20 Mt Ht.	1.00	No.	4,782.65	4,782.65

8.14	SIDHADA SUB H/W ESR 1.5 Lac Lit- 28 Mt Ht.	1.00	No.	1,658.45	1,658.45
8.15	SIDHADA SUB H/W ESR 5 Lac Lit- 25 Mt Ht.	1.00	No.	4,782.65	4,782.65
8.16	ZAZAM SUB H/W ESR5 Lac Lit- 25 Mt Ht.	1.00	No.	4,782.65	4,782.65
8.17	SANTALPUR SUB H/W ESR 3 Lac Lit- 28 Mt Ht.	1.00	No.	3,266.68	3,266.68
8.18	KALYANPURA SUB H/W ESR 4 Lac Lit- 21 Mt Ht.	1.00	No.	4,083.60	4,083.60
8.19	DHOKAVADA SUB H/W ESR2 Lac Lit-12 Mt Ht.	1.00	No.	2,799.28	2,799.28
8.20	DHOKAVADA SUB H/W ESR3 Lac Lit-18 Mt Ht.	1.00	No.	3,266.68	3,266.68
8.21	GARAMADI SUB H/W ESR2 Lac Lit- 28 Mt Ht.	1.00	No.	2,799.28	2,799.28
B	2nd Year				
8.1	SATUN WTP ESR 3 Lac Lit- 20 Mt Ht.	1.00	No.	3,462.68	3,462.68
8.2	DHARAVADI SUB H/W ESR 5 Lac Lit- 25 Mt Ht.	1.00	No.	5,069.62	5,069.62
8.3	DHARAVADI SUB H/W ESR 2.5 Lac Lit- 20 Mt Ht.	1.00	No.	3,214.96	3,214.96
8.4	SINAD SUB H/W ESR 5 Lac Lit- 25 Mt Ht.	1.00	No.	5,069.61	5,069.61
8.5	SHERGANJ SUB H/W ESR 5 Lac Lit- 25 Mt Ht.	1.00	No.	5,069.61	5,069.61
8.6	SHERGANJ SUB H/W ESR 2.5 Lac Lit- 25 Mt Ht.	1.00	No.	3,214.96	3,214.96
8.7	BHILOT SUB H/W ESR 5 Lac Lit- 25 Mt Ht.	1.00	No.	5,069.61	5,069.61
8.8	DAISAR SUB H/W ESR 5 Lac Lit- 20 Mt Ht.	1.00	No.	5,069.61	5,069.61
8.9	MOTI PIPALI SUB H/W ESR 3 Lac Lit- 25 Mt Ht.	1.00	No.	3,462.68	3,462.68
8.10	GOTARKA SUB H/W ESR 3 Lac Lit- 20 Mt Ht.	1.00	No.	3,462.68	3,462.68
8.11	VARAHI SUB H/W ESR 10 Lac Lit- 18 Mt Ht.	1.00	No.	8,408.43	8,408.43
8.12	VARAHI SUB H/W ESR 5 Lac Lit- 20 Mt Ht.	1.00	No.	5,069.61	5,069.61
8.13	ABIYANA SUB H/W ESR5 Lac Lit- 20 Mt Ht.	1.00	No.	5,069.61	5,069.61
8.14	SIDHADA SUB H/W ESR 1.5 Lac Lit- 28 Mt Ht.	1.00	No.	1,757.96	1,757.96
8.15	SIDHADA SUB H/W ESR 5 Lac Lit- 25 Mt Ht.	1.00	No.	5,069.61	5,069.61
8.16	ZAZAM SUB H/W ESR5 Lac Lit- 25 Mt Ht.	1.00	No.	5,069.61	5,069.61
8.17	SANTALPUR SUB H/W ESR 3 Lac Lit- 28 Mt Ht.	1.00	No.	3,462.68	3,462.68
8.18	KALYANPURA SUB H/W ESR 4 Lac Lit- 21 Mt Ht.	1.00	No.	4,328.62	4,328.62
8.19	DHOKAVADA SUB H/W ESR2 Lac Lit-12 Mt Ht.	1.00	No.	2,967.24	2,967.24
8.20	DHOKAVADA SUB H/W ESR3 Lac Lit-18 Mt Ht.	1.00	No.	3,462.68	3,462.68
8.21	GARAMADI SUB H/W ESR2 Lac Lit- 28 Mt Ht.	1.00	No.	2,967.24	2,967.24

C	3rd Year				
8.1	SATUN WTP ESR 3 Lac Lit- 20 Mt Ht.	1.00	No.	3,670.44	3,670.44
8.2	DHARAVADI SUB H/W ESR 5 Lac Lit- 25 Mt Ht.	1.00	No.	5,373.80	5,373.80
8.3	DHARAVADI SUB H/W ESR 2.5 Lac Lit- 20 Mt Ht.	1.00	No.	3,407.86	3,407.86
8.4	SINAD SUB H/W ESR 5 Lac Lit- 25 Mt Ht.	1.00	No.	5,373.79	5,373.79
8.5	SHERGANJ SUB H/W ESR 5 Lac Lit- 25 Mt Ht.	1.00	No.	5,373.79	5,373.79
8.6	SHERGANJ SUB H/W ESR 2.5 Lac Lit- 25 Mt Ht.	1.00	No.	3,407.86	3,407.86
8.7	BHILOT SUB H/W ESR 5 Lac Lit- 25 Mt Ht.	1.00	No.	5,373.79	5,373.79
8.8	DAISAR SUB H/W ESR 5 Lac Lit- 20 Mt Ht.	1.00	No.	5,373.79	5,373.79
8.9	MOTI PIPALI SUB H/W ESR 3 Lac Lit- 25 Mt Ht.	1.00	No.	3,670.44	3,670.44
8.10	GOTARKA SUB H/W ESR 3 Lac Lit- 20 Mt Ht.	1.00	No.	3,670.44	3,670.44
8.11	VARAHI SUB H/W ESR 10 Lac Lit- 18 Mt Ht.	1.00	No.	8,912.94	8,912.94
8.12	VARAHI SUB H/W ESR 5 Lac Lit- 20 Mt Ht.	1.00	No.	5,373.79	5,373.79
8.13	ABIYANA SUB H/W ESR5 Lac Lit- 20 Mt Ht.	1.00	No.	5,373.79	5,373.79
8.14	SIDHADA SUB H/W ESR 1.5 Lac Lit- 28 Mt Ht.	1.00	No.	1,863.44	1,863.44
8.15	SIDHADA SUB H/W ESR 5 Lac Lit- 25 Mt Ht.	1.00	No.	5,373.79	5,373.79
8.16	ZAZAM SUB H/W ESR5 Lac Lit- 25 Mt Ht.	1.00	No.	5,373.79	5,373.79
8.17	SANTALPUR SUB H/W ESR 3 Lac Lit- 28 Mt Ht.	1.00	No.	3,670.44	3,670.44
8.18	KALYANPURA SUB H/W ESR 4 Lac Lit- 21 Mt Ht.	1.00	No.	4,588.34	4,588.34
8.19	DHOKAVADA SUB H/W ESR2 Lac Lit-12 Mt Ht.	1.00	No.	3,145.27	3,145.27
8.20	DHOKAVADA SUB H/W ESR3 Lac Lit-18 Mt Ht.	1.00	No.	3,670.44	3,670.44
8.21	GARAMADI SUB H/W ESR2 Lac Lit- 28 Mt Ht.	1.00	No.	3,145.27	3,145.27
D	4th Year				
8.1	SATUN WTP ESR 3 Lac Lit- 20 Mt Ht.	1.00	No.	3,890.67	3,890.67
8.2	DHARAVADI SUB H/W ESR 5 Lac Lit- 25 Mt Ht.	1.00	No.	5,696.23	5,696.23
8.3	DHARAVADI SUB H/W ESR 2.5 Lac Lit- 20 Mt Ht.	1.00	No.	3,612.33	3,612.33
8.4	SINAD SUB H/W ESR 5 Lac Lit- 25 Mt Ht.	1.00	No.	5,696.22	5,696.22
8.5	SHERGANJ SUB H/W ESR 5 Lac Lit- 25 Mt Ht.	1.00	No.	5,696.22	5,696.22
8.6	SHERGANJ SUB H/W ESR 2.5 Lac Lit- 25 Mt Ht.	1.00	No.	3,612.33	3,612.33
8.7	BHILOT SUB H/W ESR 5 Lac Lit- 25 Mt Ht.	1.00	No.	5,696.22	5,696.22
8.8	DAISAR SUB H/W ESR 5 Lac Lit- 20 Mt Ht.	1.00	No.	5,696.22	5,696.22

8.9	MOTI PIPALI SUB H/W ESR 3 Lac Lit- 25 Mt Ht.	1.00	No.	3,890.67	3,890.67
8.10	GOTARKA SUB H/W ESR 3 Lac Lit- 20 Mt Ht.	1.00	No.	3,890.67	3,890.67
8.11	VARAHI SUB H/W ESR 10 Lac Lit- 18 Mt Ht.	1.00	No.	9,447.72	9,447.72
8.12	VARAHI SUB H/W ESR 5 Lac Lit- 20 Mt Ht.	1.00	No.	5,696.22	5,696.22
8.13	ABIYANA SUB H/W ESR5 Lac Lit- 20 Mt Ht.	1.00	No.	5,696.22	5,696.22
8.14	SIDHADA SUB H/W ESR 1.5 Lac Lit- 28 Mt Ht.	1.00	No.	1,975.25	1,975.25
8.15	SIDHADA SUB H/W ESR 5 Lac Lit- 25 Mt Ht.	1.00	No.	5,696.22	5,696.22
8.16	ZAZAM SUB H/W ESR5 Lac Lit- 25 Mt Ht.	1.00	No.	5,696.22	5,696.22
8.17	SANTALPUR SUB H/W ESR 3 Lac Lit- 28 Mt Ht.	1.00	No.	3,890.67	3,890.67
8.18	KALYANPURA SUB H/W ESR 4 Lac Lit- 21 Mt Ht.	1.00	No.	4,863.64	4,863.64
8.19	DHOKAVADA SUB H/W ESR2 Lac Lit-12 Mt Ht.	1.00	No.	3,333.99	3,333.99
8.20	DHOKAVADA SUB H/W ESR3 Lac Lit-18 Mt Ht.	1.00	No.	3,890.67	3,890.67
8.21	GARAMADI SUB H/W ESR2 Lac Lit- 28 Mt Ht.	1.00	No.	3,333.99	3,333.99
E	5th Year				
8.1	SATUN WTP ESR 3 Lac Lit- 20 Mt Ht.	1.00	No.	4,124.11	4,124.11
8.2	DHARAVADI SUB H/W ESR 5 Lac Lit- 25 Mt Ht.	1.00	No.	6,038.00	6,038.00
8.3	DHARAVADI SUB H/W ESR 2.5 Lac Lit- 20 Mt Ht.	1.00	No.	3,829.07	3,829.07
8.4	SINAD SUB H/W ESR 5 Lac Lit- 25 Mt Ht.	1.00	No.	6,037.99	6,037.99
8.5	SHERGANJ SUB H/W ESR 5 Lac Lit- 25 Mt Ht.	1.00	No.	6,037.99	6,037.99
8.6	SHERGANJ SUB H/W ESR 2.5 Lac Lit- 25 Mt Ht.	1.00	No.	3,829.07	3,829.07
8.7	BHILOT SUB H/W ESR 5 Lac Lit- 25 Mt Ht.	1.00	No.	6,037.99	6,037.99
8.8	DAISAR SUB H/W ESR 5 Lac Lit- 20 Mt Ht.	1.00	No.	6,037.99	6,037.99
8.9	MOTI PIPALI SUB H/W ESR 3 Lac Lit- 25 Mt Ht.	1.00	No.	4,124.11	4,124.11
8.10	GOTARKA SUB H/W ESR 3 Lac Lit- 20 Mt Ht.	1.00	No.	4,124.11	4,124.11
8.11	VARAHI SUB H/W ESR 10 Lac Lit- 18 Mt Ht.	1.00	No.	10,014.58	10,014.58
8.12	VARAHI SUB H/W ESR 5 Lac Lit- 20 Mt Ht.	1.00	No.	6,037.99	6,037.99
8.13	ABIYANA SUB H/W ESR5 Lac Lit- 20 Mt Ht.	1.00	No.	6,037.99	6,037.99
8.14	SIDHADA SUB H/W ESR 1.5 Lac Lit- 28 Mt Ht.	1.00	No.	2,093.77	2,093.77
8.15	SIDHADA SUB H/W ESR 5 Lac Lit- 25 Mt Ht.	1.00	No.	6,037.99	6,037.99
8.16	ZAZAM SUB H/W ESR5 Lac Lit- 25 Mt Ht.	1.00	No.	6,037.99	6,037.99
8.17	SANTALPUR SUB H/W ESR 3 Lac Lit- 28 Mt Ht.	1.00	No.	4,124.11	4,124.11

8.18	KALYANPURA SUB H/W ESR 4 Lac Lit- 21 Mt Ht.	1.00	No.	5,155.46	5,155.46
8.19	DHOKAVADA SUB H/W ESR2 Lac Lit-12 Mt Ht.	1.00	No.	3,534.03	3,534.03
8.20	DHOKAVADA SUB H/W ESR3 Lac Lit-18 Mt Ht.	1.00	No.	4,124.11	4,124.11
8.21	GARAMADI SUB H/W ESR2 Lac Lit- 28 Mt Ht.	1.00	No.	3,534.03	3,534.03
9.0	Distempering (Two Coats) with oil bound distemper of approved brand and manufacture and of required shade on wall surfaces to give an even shade, over and including a priming coat with distemper primer of approved brand and manufacture after thoroughly brushing the surface free from mortar dropping and other foreign matter and also including preparing the surface even and sand papered smooth (UG sump, Pump house, Staff Quarter, Compound wall etc. & Painting Inside/Outside to WTP inc. all buildings, RCC UG Sump, Pump room, Staff-Quarters, Compound Wall etc.) Radhanpur & Santlpur Section				
A	1st Year				
9.1	Dharavadi HW	5,092.18	Sq.mt	82.31	4,19,137.34
9.2	Sinad HW	2,621.06	Sq.mt	82.31	2,15,739.45
9.3	Sherganj HW	6,149.95	Sq.mt	82.31	5,06,202.38
9.4	Bhilot HW	4,572.15	Sq.mt	82.31	3,76,333.67
9.5	Daisar HW	2,101.25	Sq.mt	82.31	1,72,953.89
9.6	Moti Pipali HW	3,534.65	Sq.mt	82.31	2,90,937.04
9.7	Gotarka HW	2,867.36	Sq.mt	82.31	2,36,012.40
9.8	Satun 60 MLD WTP	28,935.49	Sq.mt	82.31	23,81,680.18
9.9	Varahi H/W	6,108.45	Sq.mt	82.31	5,02,786.52
9.10	Abiyana H/W	2,729.36	Sq.mt	82.31	2,24,653.62
9.11	Sidhada H/W	4,868.94	Sq.mt	82.31	4,00,762.45
9.12	Santalpur HW	4,331.20	Sq.mt	82.31	3,56,501.07
9.13	Garamdi HW	2,809.23	Sq.mt	82.31	2,31,227.72
9.14	Kalyanpura HW	2,832.27	Sq.mt	82.31	2,33,124.14
9.15	Dhokawada HW	2,528.55	Sq.mt	82.31	2,08,124.95
9.16	Zazam 6.0 MLD WTP	4,973.09	Sq.mt	82.31	4,09,335.04

B	4th Year				
9.1	Dharavadi HW	5,092.18	Sq.mt	98.03	4,99,186.41
9.2	Sinad HW	2,621.06	Sq.mt	98.03	2,56,942.51
9.3	Sherganj HW	6,149.95	Sq.mt	98.03	6,02,879.60
9.4	Bhilot HW	4,572.15	Sq.mt	98.03	4,48,207.86
9.5	Daisar HW	2,101.25	Sq.mt	98.03	2,05,985.54
9.6	Moti Pipali HW	3,534.65	Sq.mt	98.03	3,46,501.74
9.7	Gotarka HW	2,867.36	Sq.mt	98.03	2,81,087.30
9.8	Satun 60 MLD WTP	28,935.49	Sq.mt	98.03	28,36,546.08
9.9	Varahi H/W	6,108.45	Sq.mt	98.03	5,98,811.35
9.10	Abiyana H/W	2,729.36	Sq.mt	98.03	2,67,559.16
9.11	Sidhada H/W	4,868.94	Sq.mt	98.03	4,77,302.19
9.12	Santalpur HW	4,331.20	Sq.mt	98.03	4,24,587.54
9.13	Garamdi HW	2,809.23	Sq.mt	98.03	2,75,388.82
9.14	Kalyanpura HW	2,832.27	Sq.mt	98.03	2,77,647.43
9.15	Dhokawada HW	2,528.55	Sq.mt	98.03	2,47,873.76
9.16	Zazam 6.0 MLD WTP	4,973.09	Sq.mt	98.03	4,87,512.01
10.0	Applying any approve quality of cement paint in three coats incl. cleaning, washing etc. complete for ESR Only. For Existing ESR Incl. Scaffolding. (For ESR Only with Scaffolding) Radhanpur & Santlpur Section				
A	1st Year				
10.1	SATUN WTP ESR 3 Lac Lit- 20 Mt Ht.	876.84	Sq.mt	80.98	71,006.50
10.2	DHARAVADI SUB H/W ESR 5 Lac Lit- 25 Mt Ht.	1,029.99	Sq.mt	80.98	83,408.59
10.3	DHARAVADI SUB H/W ESR 2.5 Lac Lit- 20 Mt Ht.	686.88	Sq.mt	80.98	55,623.54
10.4	SINAD SUB H/W ESR 5 Lac Lit- 25 Mt Ht.	1,384.73	Sq.mt	80.98	1,12,135.44
10.5	SHERGANJ SUB H/W ESR 5 Lac Lit- 25 Mt Ht.	942.79	Sq.mt	80.98	76,347.13
10.6	SHERGANJ SUB H/W ESR 2.5 Lac Lit- 25 Mt Ht.	578.55	Sq.mt	80.98	46,850.98
10.7	BHILOT SUB H/W ESR 5 Lac Lit- 25 Mt Ht.	1,384.74	Sq.mt	80.98	1,12,136.25
10.8	DAISAR SUB H/W ESR 5 Lac Lit- 20 Mt Ht.	920.08	Sq.mt	80.98	74,508.08
10.9	MOTI PIPALI SUB H/W ESR 3 Lac Lit- 25 Mt Ht.	857.22	Sq.mt	80.98	69,417.68

10.10	GOTARKA SUB H/W ESR 3 Lac Lit- 20 Mt Ht.	763.09	Sq.mt	80.98	61,795.03
10.11	VARAHI SUB H/W ESR 10 Lac Lit- 18 Mt Ht.	1,051.90	Sq.mt	80.98	85,182.86
10.12	VARAHI SUB H/W ESR 5 Lac Lit- 20 Mt Ht.	995.76	Sq.mt	80.98	80,636.64
10.13	ABİYANA SUB H/W ESR5 Lac Lit- 20 Mt Ht.	862.35	Sq.mt	80.98	69,833.10
10.14	SIDHADA SUB H/W ESR 1.5 Lac Lit- 28 Mt Ht.	617.26	Sq.mt	80.98	49,985.71
10.15	SIDHADA SUB H/W ESR 5 Lac Lit- 25 Mt Ht.	1,237.36	Sq.mt	80.98	1,00,201.41
10.16	ZAZAM SUB H/W ESR5 Lac Lit- 25 Mt Ht.	1,024.18	Sq.mt	80.98	82,938.10
10.17	SANTALPUR SUB H/W ESR 3 Lac Lit- 28 Mt Ht.	884.76	Sq.mt	80.98	71,647.86
10.18	KALYANPURA SUB H/W ESR 4 Lac Lit- 21 Mt Ht.	1,399.56	Sq.mt	80.98	1,13,336.37
10.19	DHOKAVADA SUB H/W ESR2 Lac Lit-12 Mt Ht.	864.29	Sq.mt	80.98	69,990.20
10.20	DHOKAVADA SUB H/W ESR3 Lac Lit-18 Mt Ht.	428.84	Sq.mt	80.98	34,727.46
10.21	GARAMADI SUB H/W ESR2 Lac Lit- 28 Mt Ht.	691.07	Sq.mt	80.98	55,962.85
B	4th Year				
10.1	SATUN WTP ESR 3 Lac Lit- 20 Mt Ht.	876.84	Sq.mt	96.45	84,571.22
10.2	DHARAVADI SUB H/W ESR 5 Lac Lit- 25 Mt Ht.	1,029.99	Sq.mt	96.45	99,342.54
10.3	DHARAVADI SUB H/W ESR 2.5 Lac Lit- 20 Mt Ht.	686.88	Sq.mt	96.45	66,249.58
10.4	SINAD SUB H/W ESR 5 Lac Lit- 25 Mt Ht.	1,384.73	Sq.mt	96.45	1,33,557.21
10.5	SHERGANJ SUB H/W ESR 5 Lac Lit- 25 Mt Ht.	942.79	Sq.mt	96.45	90,932.10
10.6	SHERGANJ SUB H/W ESR 2.5 Lac Lit- 25 Mt Ht.	578.55	Sq.mt	96.45	55,801.15
10.7	BHILOT SUB H/W ESR 5 Lac Lit- 25 Mt Ht.	1,384.74	Sq.mt	96.45	1,33,558.17
10.8	DAISAR SUB H/W ESR 5 Lac Lit- 20 Mt Ht.	920.08	Sq.mt	96.45	88,741.72
10.9	MOTI PIPALI SUB H/W ESR 3 Lac Lit- 25 Mt Ht.	857.22	Sq.mt	96.45	82,678.87
10.10	GOTARKA SUB H/W ESR 3 Lac Lit- 20 Mt Ht.	763.09	Sq.mt	96.45	73,600.03
10.11	VARAHI SUB H/W ESR 10 Lac Lit- 18 Mt Ht.	1,051.90	Sq.mt	96.45	1,01,455.76
10.12	VARAHI SUB H/W ESR 5 Lac Lit- 20 Mt Ht.	995.76	Sq.mt	96.45	96,041.05
10.13	ABİYANA SUB H/W ESR5 Lac Lit- 20 Mt Ht.	862.35	Sq.mt	96.45	83,173.66
10.14	SIDHADA SUB H/W ESR 1.5 Lac Lit- 28 Mt Ht.	617.26	Sq.mt	96.45	59,534.73
10.15	SIDHADA SUB H/W ESR 5 Lac Lit- 25 Mt Ht.	1,237.36	Sq.mt	96.45	1,19,343.37
10.16	ZAZAM SUB H/W ESR5 Lac Lit- 25 Mt Ht.	1,024.18	Sq.mt	96.45	98,782.16
10.17	SANTALPUR SUB H/W ESR 3 Lac Lit- 28 Mt Ht.	884.76	Sq.mt	96.45	85,335.10
10.18	KALYANPURA SUB H/W ESR 4 Lac Lit- 21 Mt Ht.	1,399.56	Sq.mt	96.45	1,34,987.56

10.19	DHOKAVADA SUB H/W ESR2 Lac Lit-12 Mt Ht.	864.29	Sq.mt	96.45	83,360.77
10.20	DHOKAVADA SUB H/W ESR3 Lac Lit-18 Mt Ht.	428.84	Sq.mt	96.45	41,361.62
10.21	GARAMADI SUB H/W ESR2 Lac Lit- 28 Mt Ht.	691.07	Sq.mt	96.45	66,653.70
11.0	Painting Two Coat (Excluding Priming Coat) on Previously Printed Steel and Other Metal Surface with Synthetic Enamel Paint, Brushing to Give an Even shade including cleaning the surface of all dirt, dust and Other foreign Matter. Radhanpur and Santalpur Section				
A	1st Year				
11.1	Dharavadi HW	489.95	Sq.mt	62.05	30,401.40
11.2	Sinad HW	192.87	Sq.mt	62.05	11,967.58
11.3	Sherganj HW	500.39	Sq.mt	62.05	31,049.20
11.4	Bhilot HW	373.79	Sq.mt	62.05	23,193.67
11.5	Daisar HW	79.87	Sq.mt	62.05	4,955.93
11.6	Moti Pipali HW	246.47	Sq.mt	62.05	15,293.46
11.7	Gotarka HW	188.16	Sq.mt	62.05	11,675.33
11.8	Satun 60 MLD WTP	1,944.07	Sq.mt	62.05	1,20,629.54
11.9	Varahi H/W	386.39	Sq.mt	62.05	23,975.50
11.10	Abiyana H/W	228.99	Sq.mt	62.05	14,208.83
11.11	Sidhada H/W	282.09	Sq.mt	62.05	17,503.68
11.12	Santalpur HW	300.18	Sq.mt	62.05	18,626.17
11.13	Garamdi HW	273.89	Sq.mt	62.05	16,994.87
11.14	Kalyanpura HW	237.19	Sq.mt	62.05	14,717.64
11.15	Dhokawada HW	216.26	Sq.mt	62.05	13,418.93
11.16	Zazam 6.0 MLD WTP	444.48	Sq.mt	62.05	27,579.98
B	4th Year				
11.1	Dharavadi HW	489.95	Sq.mt	73.90	36,207.31
11.2	Sinad HW	192.87	Sq.mt	73.90	14,253.09
11.3	Sherganj HW	500.39	Sq.mt	73.90	36,978.82
11.4	Bhilot HW	373.79	Sq.mt	73.90	27,623.08
11.5	Daisar HW	79.87	Sq.mt	73.90	5,902.39
11.6	Moti Pipali HW	246.47	Sq.mt	73.90	18,214.13

11.7	Gotarka HW	188.16	Sq.mt	73.90	13,905.02
11.8	Satun 60 MLD WTP	1,944.07	Sq.mt	73.90	1,43,666.77
11.9	Varahi H/W	386.39	Sq.mt	73.90	28,554.22
11.10	Abiyana H/W	228.99	Sq.mt	73.90	16,922.36
11.11	Sidhada H/W	282.09	Sq.mt	73.90	20,846.45
11.12	Santalpur HW	300.18	Sq.mt	73.90	22,183.30
11.13	Garamdi HW	273.89	Sq.mt	73.90	20,240.47
11.14	Kalyanpura HW	237.19	Sq.mt	73.90	17,528.34
11.15	Dhokawada HW	216.26	Sq.mt	73.90	15,981.61
11.16	Zazam 6.0 MLD WTP	444.48	Sq.mt	73.90	32,847.07
				Total	20,22,72,820.61

I / We, am / are willing of carry out the work % above / below %..... age (Percentage should be writing in figure and word below above at the tender rate mentioned above amount my / our tender work as under

Dated ...

1. Estimated cost put to tender
2. Tender Cost. 20,22,72,820.61
3. Below Rs.....% below
4. Net Rs.....
5. In word Rs.....

1. Estimated cost put to tender
2. Tender Cost .20,22,72,820.61
3. Above Rs..... % above
4. Net Rs.....
5. In word Rs.....

Deputy Executive Engineer
P. H. San Sub division
Radhanpur

Deputy Executive Engineer
P. H. San Sub division
Varahi

Deputy Executive Engineer
P.H.Mech.Sub.Dn.
Shankheshwar

Executive Engineer
P. H. Works Division
Radhanpur

Superintending Engineer
P.H.Circle
Palanpur

NAME OF SCHEME: RADHANPUR&SANTALPUR RWSS TA: RADHANPUR, SANTALPUR, DIST: PATAN

Schedule: B. (Part- B.4 Color Work)

RADHANPUR AND SANTALPUR SECTION

Sr.No.	IT.	Qty.	Item
1	1		Distempering (Two Coat) with oil bound distemper of approved brand and manufacture and of required shade on wall surfaces to give an even shade, over and including a priming coat with distemper primer of approved brand and manufacture after thoroughly brushing the surface free from mortar dropping and other foreign matter and also including preparing the surface even and sand papered smooth.
	a	55,873.73	(1) Radhanpur Section (WTP, UG sump, Pump house, Staff Quarter, Compound wall etc. 8 Head Work)
	b	31,181.05	(2) Santalpur Section (WTP, UG sump, Pump house, Staff Quarter Compound wall etc. 8 Head Work)
2	2		applying any approve quality of Cement paint in Three coats including cleaning washing etc. Complete For E.S.R. only For Existing ESR including Scaffolding.
	a	9,424.71	(1) ESR at 8 Head Work Radhanpur Section
	b	10,057.03	(2) ESR at 8 Head Work Santalpur Section
3	3		Painting one coats (excluding priming coat) on previously painted steel and other metal surface with enamel paint, brushing to give an even shade including cleaning the surface of all dirt, dust and other foreign matter.
	a	4,015.45	(1) Radhanpur Section 8 Head Work WTP, UG sump, Pump house, Staff Quarter, Compound wall, valve, other metallic Materials etc.
	b	2,369.24	(2) Santlapur Section 8 Head Work WTP, UG sump, Pump house, Staff Quarter, Compound wall, valve, other metallic Materials etc. 8 Head Work Satalpur Section

Note:

- Rates to be quoted exclusive of GST.
- Part A is payable on monthly basis whereas part B & C are subject to completion of activities and approval of the measurement.
- Water supply of target quantity of water to all habitations (village, towns and hamlets) on a daily basis. If due to breakdown, agency is not capable of supplying water then such quantity should be supplied the next day to cope up with the shortage. Such that the water supplied on the next day will be 2 times the regular per day target.
- Contractor should quote rate in words & figure both.
- The agency shall be responsible for the repair and maintenance of any pipelines, pumping machinery, or other components that may be newly installed under the scheme in the future.
- The agency shall be required to comply with all circulars issued from time to time by the Government and any future circulars issued by the department for the improvement of the scheme.
- If Any Technically Issue of water is not supplied to any village or hamlet, deductions will be made from the maintenance cost for the related non-use pipeline, civil components, valve system, pumping machinery, etc., as per the current SOR.
- Insurance Policy should be procured in favour of **Executive Engineer, PH Works Division, Radhanpur** and contractor has to produce it before entering into agreement with department, for the full period of O&M.
- The bidders should strictly note that rate will be fixed and firm. No escalation will be given during the maintenance period.
- The work should be carried out as per the terms and conditions laid down in the tender specification.
- The cost of raw water, electricity will be borne by GWSSB.
- All other required material for O&M work shall be brought by the contractor at his own cost including loading, unloading and carting and the same material shall get approval from the Engineer-in-charge before use in the work.
- The cost is including all type of taxes (other than GST), octroi, freight, loading, unloading, carting labour charges payment to labour including insurance, P.F. and all other liabilities for the staff engaged for the O&M work.
- All replaced material (provided from the department's store) shall be returned to department store by the contractor at his own cost.

Item Vise Technical Specification.

Part-B

ITEM NO.2

Providing, Supplying & Procurement and necessary dosing of PAC 10% Liquid for removing of turbidity from raw water. including all taxes & Carting. Satun WTP (60 mld) & Zazam WTP (6 mld) in Contract Period (1st to 5 Year).

1. Providing, supplying, transportation, loading and carting all type of work for PAC is included in the scope of work of Agency.

2. The Payment shall be made on litre. basis of work done.

ITEM NO.3

Refilling of Chlorine gas in Cylinder including transportation to and from factory and back. 900kg Cylinder Satun WTP (60 mld) in Contract Period (1st to 5 Year).

1. Providing, supplying, transportation, loading and carting and refilling of chlorine gas work for chlorine gas is included in the scope of work of Agency.

2. The Payment shall be made on No. basis of work done.

ITEM NO.4

Refilling of Chlorine gas in Cylinder including transportation to and from factory and back. 100kg Cylinder at All Sub Head Work, Zazam WTP (6 mld) Radhanpur and Santalpur Section 1st Year.

1. Providing, supplying, transportation, loading and carting and refilling of chlorine gas work for chlorine gas is included in the scope of work of Agency.

2. The Payment shall be made on No. basis of work done.

ITEM NO.5

Procurement & replacement of filter media: Effective size of filter sand 0.45 to 0.70 mm uniformity coefficient not more than 1.7 nor less than 1.3, depth of filter 0.75 M, freeboard 50 cm, gravel 0.45 M in depth, sand and gravel conforming to IS: 8491(i)-77. in Filter bed of required depth as per design and drawing inclusive of all lead Sand.

1. Filter sand shall consist of hard, durable grains of silica and shall have a specific gravity of not less than 2.5. All grains of sand shall preferably be water worn. The minimum silica content in sand as determined by method given in 7 of IS: 2000-1962† shall be 90 percent.
2. Any sample of filter sand shall not contain more than 5 percent by volume of impurities, such as clay, loam, silt, etc, in one hour settlement after shaking in water in accordance with procedure described here.

Fill a 1000 ml calibrated measuring cylinder with filter sand to be tested to half its volume and add water until the cylinder is three-fourths full. Shake up the mixture vigorously and allow it to settle for one hour.

Report the volume of impurities standing over the sand as percentage of volume of sand.

3. The sand shall not contain more than 5 percent of acid soluble matter as determined by solubility test.

Rinse a minimum of 10 g of sample with distilled water to remove all dust and fine material, dry at 103°C in hot air-oven for one hour, cool and weigh. Immerse in 40 percent (v/v) hydrochloric acid for a period of 24 hours at room temperature. After 24 hours of immersion, wash the sample thoroughly with distilled water, dry at 103°C in hot air for one hour, cool and weigh.

The percentage of solubility is given by the formula:

$$\text{Solubility percentage} = \frac{\text{Loss in weight}}{\text{Original weight}} \times 100$$

4. The loss on ignition, which is a measure of the organic matter present in sand, and determined by the procedure given shall not be more than 0.7 percent.

Rinse a minimum of 10 g of the sample with distilled water to remove dust and fine material, dry at 103°C in hot air-oven for one hour, cool and weigh. Ignite the sample at 550°C in an electric muffle furnace for one hour, cool and weigh.

Calculate percent loss on ignition using the following formula:

$$\text{Loss on ignition} = \frac{\text{Loss in weight}}{\text{Original weight of sample}} \times 100$$

Grain Shape and Shape Variation

1. Shape of filter grains is important from the hydraulic and turbidity removal points of view. Rounded grains are preferable to angular ones.
2. Filter sand shall meet the requirements of effective size and uniformity coefficient as specified here.

Sampling

- 1 Lot—The quantity of sand received in a consignment from a single source shall be divided into a convenient number of lots of approximately equal size not exceeding 10 m³.
- 2 Methods of test for soils: Part IV Grain size analysis (first revision)
- 3 †Methods of chemical analysis of bauxite.
- 4 From each lot, 10 increments each weighing about 2 kg shall be collected. The increment shall be taken at regular intervals during loading or unloading. From a stationary lot, 2 increments shall be taken from the top and 2 each from the four sides. The increment in all cases shall be taken from a depth of at least 150 mm.
- 5 All the increments taken from the same lot shall be mixed thoroughly and reduced by the process of coning and quartering to yield a laboratory sample of required mass (about 2 kg).
- 6 Criteria for Conformity—The laboratory sample as obtained shall be tested for all the requirements and if it passes in respect of them the lot shall be considered as conforming to this standard.

Sieve analysis for sand

Fine aggregate for the test shall be passed through a low-mm IS Sieve. The sample shall be of such a size that it will yield not less than 100 g of each of the following sizes, which shall be available in amounts of 5 percent or more, expressed in terms of the following sieves:

- The sample of fine aggregate shall be thoroughly washed on a 300-micron IS Sieve, dried to constant weight at 105° to 110°C.
- Take a representative oven dried sample of soil that weighs about 500 g. (this is normally used for soil samples the greatest particle size of which is 4.75 mm)
- If soil particles are lumped or conglomerated crush the lumped and not the particles using the pestle and mortar.

- Determine the mass of sample accurately. Wt (g)
- Prepare a stack of sieves. sieves having larger opening sizes (i.e lower numbers) are placed above the ones having smaller opening sizes (i.e higher numbers). The very last sieve is #200 and a pan is placed under it to collect the portion of soil passing #200 sieve. Here is a full set of sieves. (#s 4 and 200 should always be included)
- Make sure sieves are clean, if many soil particles are stuck in the openings try to poke them out using brush.
- Weigh all sieves and the pan separately.
- Pour the soil from step 3 into the stack of sieves from the top and place the cover, put the stack in the sieve shaker and fix the clamps, adjust the time on 10 to 15 minutes and get the shaker going.
- Stop the sieve shaker and measure the mass of each sieve + retained soil.

sieve	Sieve size (mm)	Mass of each sieve (mm)	Mass of each sieve + retained soil	Mass of soil retained-Wn (g) Col 4-Col 3	Percentage on each sieve Rn Col 5/Wt *100	Cumulative percent retained $\sum R_n$	% finer, 100- $\sum R_n$
4	4.75						
8	2.36						
16	1.18						
30	0.6						
40	0.425						
50	0.30						
100	0.15						
200	0.075						
Pan				S = W1=			

- Draw graph of log sieve size vs % finer. The graph is known as grading curve. Corresponding to 10%, 30% and 60% finer, obtain diameters from graph these are D10, D30, D60, using these obtain Cc and Cu which further represent how well the soil is graded i.e whether the soil is well-graded, gap-graded or poorly graded. (Cu should be in 1.3-1.7).
- Sand has to be brought out from Godhra.
- Rate includes all transportation, labour, octroi, tax. Etc charges.
- Contractor has to dump the sand at respective filter plant.
- No extra payment will be made for storage of sand at H/W site. Contractor has to manage his own storage arrangement at site.
- Payment will be made after all such testing of sand mention above as per I.S.
- Material testing in scope of contractor. Testing must be carried out at gov. approved lab. / Colleges at his own cost. Department will not pay additional for material testing.
- If material fail in above criteria then no payment will be made for any work.
- Testing must be carried out at starting of work after receiving result then only contractor will have to carry out another tasks.

Labour charge for removal of existing sand filter media from filter bed to 1000 mt away from site as per the instruction of engineer in charge.

- 1 Rate includes all labour charge, machinery and equipment needed to perform above mention work.
- 2 No extra payment will be paid for any transportation work for machinery and equipment and labour.
- 3 Contractor has to manage labour and accessories needed for satisfactory completion of the work at site as his own cost. Department will not pay any extra charges.

- 4 Filter media (sand) has to deposited in 1000 mtr. Radius from respective filter plant as per instruction of Eng.-in.-charge. No extra payment will be paid for tractor or transportation work.
- 5 In case of performing above work if damage occur at any part of filter plant than contractor is liable to repair it at his own cost as per instruction of Eng.-in –charge.

Labour charge for filling the sand in filter bad.

- 1 Rate includes all labour charge, machinery and equipment needed to perform above mention work.
- 2 No extra payment will be paid for any transportation work for machinery and equipment and labour.
- 3 Contractor has to manage labour, light and accessories needed for satisfactory completion of the work at site as his own cost. Department will not pay any extra charges.
- 4 Filter media (sand) will be brought up from from respective place to mention site, for that no extra payment will be made for transportation, tax,octroi etc charges.
- 5 In case of performing above work if damage occur at any part of filter plant than contractor is liable to repair it at his own cost as per instruction of Eng.-in –charge.
- 6 Contractor has to manage temporary stair case or respective tool for caring the sand from outside of filter plant to filter bed.

Mode of Measurements & Payment:

Payment of Work Shall be on Cum. The work includes Providing, Supplying New Sand of Required Configuration & Removing Existing Sand from Filter Bed.

ITEM NO.6

Providing & supplying gravels of different size as per design and drawing and laying in layers in filter beds Inclusive of all lead. (twice in contract period) (30% Head Loss).

1. Rate includes all labour charge, machinery and equipment needed to perform above mention work.
2. No extra payment will be paid for any transportation work for machinery and equipment and labour.
3. Contractor has to manage labour, light and accessories needed for satisfactory completion of the work at site as his own cost. Department will not pay any extra charges.
4. Filter media (sand) will be brought up from from respective place to mention site, for that no extra payment will be made for transportation, tax,octroi etc charges.
5. In case of performing above work if damage occur at any part of filter plant than contractor is liable to repair it at his own cost as per instruction of Eng.-in –charge.
6. Contractor has to manage temporary stair case or respective tool for caring the sand from outside of filter plant to filter bed.

Mode of Measurements & Payment:

Payment of Work Shall be on Cum.

ITEM NO.7

Labour charges for cleaning of sump / GL cistern with cleaning and removing alga calcinations, sludge, dirt deposition from bottom and as well as from wall of sump with necessary tools and plants required including labours etc. with dis-infection by chlorine powder as required. etc. comp. (A) Radhanpur Section (Once in Year).

- The mud and products of the cleaning have to be discarded in such a place and manner that there is no physical harm to surroundings without damaging Headworks property as ordered by the Engineer in charge.
- Sump cleaning involves removing sludge, metal chips, and other solids from coolant or oil tanks using vacuum suction systems, with specifications including motor power,
- The Payment shall be made on **No.** basis of work done.

ITEM NO.8

Labour charges for cleaning of RCC ESR with cleaning and removing alga calcinations, sludge, dirt deposition from bottom and as well as from wall of ESR with necessary scaffolding tools and plants required including labours etc. with dis-infection by chlorine powder as required. etc. comp. (Once in Year)

- RCC ESR is to be cleared of all obstruction, insides and materials, walls of all kinds of shrubs and dirt entirely removed.
- The mud and products of the cleaning have to be discarded in such a place and manner that there is no physical harm to surroundings without damaging Headworks property as ordered by the Engineer in charge.
- Sump cleaning involves removing sludge, metal chips, and other solids from coolant or oil tanks using vacuum suction systems, with specifications including motor power,
- The Payment shall be made on **No.** basis of work done.

ITEM NO.9

Distempering (Two Coat) with oil bound distemper of approved brand and manufacture and of required shade on wall surfaces to give an even shade, over and including a priming coat with distemper primer of approved brand and manufacture after thoroughly brushing the surface free from mortar dropping and other foreign matter and also including preparing the surface even and sand papered smooth.

Painting of Concrete, Masonry & Plastered Surfaces:

Materials:

Oil bound distemper shall conform to IS:428. The primer shall be alkali resistant primer of the same manufacture as that of the distemper.

Cement paint shall conform to IS:5410. The primer shall be a thinned coat of cement paint. Lead free acid, alkali and chlorine resisting paint shall conform to IS:9862.

Color wash shall be made by addition of a suitable quantity of mineral pigment, not affected by lime, to the prepared white wash to obtain the shade/tint as approved by the GWSSB.

All the materials shall be of the best quality from an approved manufacturer. Contractor shall obtain prior approval of the GWSSB for the brand of manufacture and the color/shade. All materials shall be brought to the site of works in sealed containers.

Workmanship:

Contractor shall obtain the approval of the GWSSB regarding the readiness of the surfaces to receive the specified finish, before commencing the work on painting. Painting of new surfaces shall be deferred as much as possible to allow for thorough drying of the substrata.

The surfaces to be treated shall be prepared by thoroughly brushing them free from dirt, mortar droppings and any loose foreign materials. Surfaces shall be free from oil, grease and efflorescence. Efflorescence shall be removed only by dry brushing of the growth. Cracks shall be filled with Gypsum. Workmanship of painting shall generally conform to IS:2395. Surfaces of doors, windows etc. shall be protected suitably to prevent paint finishes from splashing on them.

White Wash:

The prepared surfaces shall be wetted and the finish applied by brushing. The operation for each coat shall consist of a stroke of the brush first given horizontally from the right and the other from the left and similarly, the subsequent stroke from bottom upwards and the other from top downwards, before the first coat dries. Each coat shall be allowed to dry before the next coat is applied. Minimum of 2 coats shall be applied unless otherwise specified. The dry surface shall present a uniform finish without any brush marks.

Color Wash:

Color wash shall be applied in the same way as for white wash. A minimum of 2 coats shall be applied unless otherwise specified. The surface shall present a smooth and uniform finish without any streaks. The finished dry surface shall not show any signs of peeling/powdery and come off readily on the hand when rubbed.

Oil bound Distemper:

The prepared surfaces shall be dry and provided with one coat of alkali resistant primer by brushing. The surface shall be finished uniformly without leaving any brush marks and allowed to dry for at least 48 hours. A minimum of two coats of oil bound

distemper shall be applied, unless otherwise specified. The first coat shall be of a lighter tint. At least 24 hours shall be left after the first coat to become completely dry before the application of the second coat. Broad, stiff, double bristled distemper brushes shall be used for the work. The operations for brushing each coat shall be as detailed above.

Acid, Alkali Resisting Paint:

A minimum of 2 coats of acid/alkali resisting paint shall be applied over the prepared dry surfaces by brushing. Primer coat shall be as per manufacturer's instructions.

Plastic Emulsion Paint:

The prepared surface shall be dry and provided with one coat of primer which shall be a thinned coat of emulsion paint. The quantity of thinner shall be as per manufacturer's instructions. The paint shall be laid on evenly and smoothly by means of crossing and laying off. The crossing and laying off consists of covering the area with paint, brushing the surface hard for the first time over and then brushing alternately in opposite directions two or three times and then finally brushing lightly in a direction at right angles. In this process, no brush marks shall be left after the laying off is finished. The full process of crossing and laying off constitutes one coat. The next coat shall be applied only after the first coat has dried and sufficiently become hard which normally takes about 2 to 3 hours. A minimum of 2 finishing coats of the same color shall be applied unless otherwise specified. Paint may also be applied using rollers. The surface on finishing shall present a flat velvety smooth finish and uniform in shade without any patches.

Acrylic Emulsion Paint:

Acrylic emulsion paint shall be applied in the same way as for plastic emulsion paint. A minimum of 2 finishing coats over one coat of primer shall be provided unless otherwise specified.

Flashing:**Materials:**

Anodized Aluminum sheets shall be 1.00mm thick with anodic film thickness of 0.025 mm.

Galvanized mild steel sheets shall be 1.00mm thick with zinc coating of 800 gms/sq.m.

Bitumen felt shall be either Hessian base self-finished bitumen felt Type-3 Grade I conforming to IS:1322 or glass fiber base self-finished felt Type-2 Grade 1 conforming to IS:7193.

Workmanship:

The type of the flashing and method of fixing shall be as specified.

Flashing shall be of the correct shape and size as indicated in the construction Drawings to be prepared by the Contractor and they shall be properly fixed to ensure their effectiveness.

Flashing shall be of long lengths so as to provide minimum number of joints. The minimum overlap at joints shall be 100mm.

Fixing of the flashing shall be either by bolting with bitumen washers or by tucking into the groove 75 mm wide x 65 mm deep in masonry/concrete along with cement mortar 1:4 filletting as indicated in the Drawings to be prepared by the Contractor. Curing of the mortar shall be carried out for a minimum period of 4 days.

Bitumen felt flashing of the type as specified shall be provided with 2 coats of bituminous paint at the rate of 0.10 liter/m² after the installation.

ITEM NO.10

Applying any approve quality of Cement paint in Three coats including cleaning washing etc.

Complete For E.S.R. only For Existing ESR including Scaffolding.

Cement Paint:

The prepared surfaces shall be wetted to control surface suction and to provide moisture to aid in proper curing of the paint. Cement paint shall be applied with a brush with stiff bristles. The primer coat shall be a thinned coat of cement paint. The quantity of thinner shall be as per manufacturer's instructions. The coats shall be vigorously scrubbed to work the paint into any voids for providing a continuous paint film free from pinholes for effective water proofing in addition to decoration. Cement paint shall be brushed in uniform thickness and the covering capacity for two coats on plastered surfaces shall be 3 to 4 kg/m². A minimum of 2 coats of the same color shall be applied. At least 24 hours shall be left after the first coat to become sufficiently hard before the second coat is applied. The painted surfaces shall be thoroughly cured by sprinkling with water using a fog spray at least 2 to 3 times a day. Curing shall commence after about 12 hours when the paint hardens. Curing shall be continued for at least 2 days after the application of final coat. The operations for brushing each coat shall be as detailed above.

ITEM NO.11

Painting one coats (excluding priming coat) on previously painted steel and other metal surface with enamel paint, brushing to give an even shade including cleaning the surface of all dirt, dust and other foreign matter.

Painting & Polishing of Wood Work:

Materials:

- Wood primer shall conform to IS:3536.
- Filler shall conform to IS:110.
- Varnish shall conform to IS:337.
- French polish shall conform to IS:348.
- Synthetic enamel paint shall conform to IS:2932.

All the materials shall be of the best quality from an approved manufacturer. Contractor shall obtain prior approval of the GWSSB for the brand of manufacture and the color/shade. All materials shall be brought to the site of works in sealed containers.

Workmanship:

The type of finish to be provided for woodwork of painting or polishing, the number of coats, etc. shall be as specified in the respective items of work to be prepared by the Contractor. Primer and finish paint shall be compatible with each other to avoid cracking and wrinkling. Primer and finish paint shall be from the same manufacturer. Painting shall be either by brushing or spraying. Contractor shall procure the appropriate quality of paint for this purpose as recommended by the manufacturer.

The workmanship shall generally conform to the requirements of IS:2338 (Part I). All the wood surfaces to be painted shall be thoroughly dry and free from any foreign matter. Surfaces shall be smoothened with abrasive paper using it across the grains and

dusted off. Wood primer coat shall then be applied uniformly by brushing. The number of primer coats shall be as specified in the item of work to be prepared by the Contractor. Any slight irregularities of the surface shall then be made up by applying an optimum coat of filler conforming to IS:110 and rubbed down with an abrasive paper for obtaining a smooth surface for the undercoat of synthetic enamel paint conforming to IS:2932. Paint shall be applied by brushing evenly and smoothly by means of crossing and laying off in the direction of the grain of wood. After drying, the coat shall be carefully rubbed down using very fine grade of sand paper and wiped clean before the next coat is applied. At least 24 hours shall elapse between the applications of successive coats. Each coat shall vary slightly in shade and this shall be got approved by the GWSSB. The number of coats of paint to be applied shall be as specified in the item of work to be prepared by the Contractor. All the wood surfaces to be provided with clear finishes shall be thoroughly dry and free from any foreign matter. Surfaces shall be smoothened with abrasive paper using it in the direction of the grains and dusted off. Any slight irregularities of the surface shall be made up by applying an optimum coat of transparent liquid filler and rubbed down with an abrasive paper for obtaining a smooth surface. All dust and dirt shall be thoroughly removed. Over this prepared surface, varnish conforming to IS:337 shall be applied by brushing. Varnish should not be retouched once it has begun to set. Staining if required shall be provided as directed by the GWSSB. When two coats of varnish are specified, the first coat should be a hard-drying undercoat or flattening varnish which shall be allowed to dry hard before applying the finishing coat. The number of coats to be applied shall be as specified. For works where clear finish of French polish is specified the prepared surfaces of wood shall be applied with the polish using a pad of woolen cloth covered by a fine cloth. The pad shall be moistened with polish and rubbed hard on the surface in a series of overlapping circles to give an even finish over the entire area. The surface shall be allowed to dry before applying the next coat. Finishing shall be carried out using a fresh clean cloth over the pad, slight dampening with methylated spirit and rubbing lightly and quickly in circular motions. The finished surface shall have a uniform texture and high gloss. The number of coats to be applied shall be as specified.

Painting of Steel Work:**Materials:**

- Red-oxide - zinc chrome primer shall conform to IS:2074.
- Synthetic enamel paint shall conform to IS: 2932.
- Aluminum paint shall conform to IS:2339.

All the materials shall be of the best quality from an approved manufacturer. Contractor shall obtain prior approval of the GWSSB for the brand of manufacture and the color/shade. All the materials shall be brought to the site in sealed containers.

Workmanship:

Painting work shall be carried out only on thoroughly dry surfaces. Painting shall be applied either by brushing or by spraying. Contractor shall procure the appropriate quality of paint for this purpose as recommended by the manufacturer. The workmanship shall generally conform to the requirement of IS:1477 (Part 2).

The type of paint, number of coats etc. shall be as specified in the respective items of work. Primer and finish paint shall be compatible with each other to avoid cracking and wrinkling. Primer and finish paint shall be from the same manufacturer. All the surfaces shall be thoroughly cleaned of oil, grease, dirt, rust and scale. The methods to be adopted using solvents, wire brushing, power tool cleaning etc., shall be as per IS:1477 (Part - I)

and as indicated in the item of work. It is essential to ensure that immediately after preparation of the surfaces; the first coat of red oxide-zinc chrome primer shall be applied by brushing and working it well to ensure a continuous film without holidays. After the first coat becomes hard dry, a second coat of primer shall be applied by brushing to obtain a film free from `holidays. After the second coat of primer is hard dry, the entire surface shall be wet rubbed cutting down to a smooth uniform surface. When the surface becomes dry, the undercoat of synthetic enamel paint of optimum thickness shall be applied by brushing with minimum of brush marks. The coat shall be allowed to hard-dry. The under coat shall then be wet rubbed cutting down to a smooth finish, taking adequate care to ensure that at no place the undercoat is completely removed. The surface shall then be allowed to dry. The first finishing coat of paint shall be applied by brushing and allowed to hard-dry. The gloss from the entire surface shall then be gently removed and the surface dusted off. The second finishing coat shall then be applied by brushing. At least 24 hours shall elapse between the applications of successive coats. Each coat shall vary slightly in shade and this shall be got approved by the GWSSB.

-----End of Document-----