

# RAJKOT MUNICIPAL CORPORATION

e - Tender No. RMC/WW/CZ/23-24/



## Bid Documents For CONSTRUCTION OF 10.44 ML CAPACITY RCC GROUND SERVICE RESERVOIR WITH MISCELLANEOUS CIVIL WORK AT TIRUPATI IN RMC AREA (2<sup>nd</sup> Attempt)

Volume-III  
Price bid

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सर्वेक्षण  
2021

### Milestone Dates for e-tendering is as under

1. Downloading of e-Tender documents	05/02/2024 To 26/02/2024 up to 17.00
2. Pre-bid meeting in the O/o Addl. City Engineer at <b>CENTRAL ZONE</b>	15/02/2024 at 11:30hrs
3. Online submission of e - Tender	26/02/2024 up to 18.00 Hrs.
4. Physical submission of EMD, Tender fee and other documents required as per Financial and Experience criteria by Regd. Post. A.D. / Speed Post ONLY	Up to 02/03/2024 18.00 Hrs.
5. Opening of online tender	05/03/2024 at 11.00 Hours onwards
6. Verification of submitted documents (EMD, e - Tender fee, etc.)	06/03/2024 at 11.00 Hours onwards
7. Agency to remain present in person along with original documents for verification	07/03/2024 between 11.00 to 16.00 Hours
8. Opening of Price Bid (If possible)	12/03/2024 at 11.00 Hours onwards
9. Bid Validity	180 Days
For further details, pre-qualification criteria etc. visit <a href="http://www.rmc.nprocure.com">www.rmc.nprocure.com</a>	

**2023-24**

**ADD. CITY ENGINEER  
WATER WORKS PROJECTS  
RAJKOT MUNICIPAL CORPORATION  
DR. AMBEDKAR BHAVAN,  
DHEBARBHAI ROAD, RAJKOT**

**PART-III**  
**BILL OF QUANTITIES**  
**(Attached in Separate Folder)**

**BID FORM (WITH PRICE)**

(Bidders are required to fill up all blank spaces in this Bid Form)

The Commissioner  
Rajkot Municipal Corporation  
Dr. Ambedkar Bhavan  
Dhebar Road  
Rajkot

Dear Sir,

**SUB : CONSTRUCTION OF 10.44 ML CAPACITY RCC GROUND SERVICE RESERVOIR WITH MISCELLANEOUS CIVIL WORK AT TIRUPATI IN RMC AREA**

1. Having visited the site and examined the Bid Documents, Drawings, Conditions of Contract, Specifications, Schedules, Annexures, 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 carry out as given in Conditions of Contract and in conformity with the Drawings, Conditions of Contract, Specifications, Preamble to Price Schedules, Price Schedules, Annexures, Bidding Documents, including Addenda Nos. \_\_\_\_\_ (insert numbers) for (quoted online) %age below / above than the rates given in Price Schedule.
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 raw water of required quantity according to the conditions/stipulations of the Contract, the Engineer-in-charge 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 within **12 months** of construction period from the date of Work Order issued to us by you.
4. We agree to abide by this Bid for a period of 180 Days from the date fixed for receiving the same 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 within 30 working days 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 Bond/Security in the forms and of value specified in the Conditions of Contract of a sum equivalent to 5% of the Contract price for due performance of the 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 \_\_\_\_\_ 2023.

\_\_\_\_\_  
(Signature)

Company Seal

\_\_\_\_\_  
(Name of the person)

\_\_\_\_\_  
(Name of firm)

\_\_\_\_\_  
(In the capacity of)

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

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Witness

Signature \_\_\_\_\_

Name \_\_\_\_\_

Address \_\_\_\_\_

I/We have enclosed a DEMAND DRAFT / BANK GUARANTEE as an "Earnest Money Deposit", for the sum of **Rs. 3,29,915/-** the full value of which is to be absolutely forfeited to the Employer should I/We fail to commence the works specified. Otherwise the said sum shall be retained, by the Employer as on account of such 'Security Deposit' as provided for in the aforesaid documents.

I/We agree not to employ Sub-contractors other than those that may be approved in accordance with conditions in the aforesaid documents.

I/We understand that you are not bound to accept the lowest or any tender which you may receive.

I/We shall refer all disputes arising out of or relating to the agreement to the arbitration in accordance with conditions of contract.

I/We am/are bound to execute the job if the work order is issued within **180 Days** from the date of opening of the tender.

I/We agree to pay the Government Income-Tax, CGST, SGST and other taxes prevailing from time to time on such items on which the same are levied and the rates quoted by me/us are inclusive of the same.

Yours faithfully,

\_\_\_\_\_  
Signature of Contractor

Date: \_\_\_\_\_

Address:

# PREAMBLE TO PRICE SCHEDULES

### **Note on Schedule:**

The bid is percentage rate bid for **CONSTRUCTION OF 10.44 ML CAPACITY RCC GROUND SERVICE RESERVOIR WITH MISCELLANEOUS CIVIL WORK AT TIRUPATI IN RMC AREA**

1. The whole work is to be done under the supervision of RMC.
2. Before starting the work, the detailed survey including Geo technical investigation and all has to be done by the contractor and shall have to prepare and submit Survey and Level drawings in soft copy (Auto Cad) and Hard copy, and has to mark permanent levels at all necessary locations for Reference, for which, no extra payment will be made by Rajkot Municipal Corporation. After permission / approval from the engineering in charge, the work will have to be executed accordingly on site.
3. The rates and prices shall be submitted in the formats given in the enclosed Price Schedules. Rates and prices received in any other formats will be rejected and the Bids will be disqualified.
4. It will be entirely at the discretion of the Employer to accept or reject the bidder's proposal, without giving any reasons whatsoever.
5. In Price Schedule, bidder shall quote his percentage Equal/Above/Below for items listed in the schedule. Prices quoted in Schedule only will be considered for price evaluation & shall form a part of the Contract Agreement.
6. Only Price Schedule will be considered for financial evaluation of the bid with the successful bidder.
7. 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, dewatering, 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.
8. Where there is a discrepancy between the unit rates and the amount entered, in the price schedule the latter shall govern.
9. 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.



10. Prices quoted by the bidder shall be firm for the entire period of Contract without any escalation.
11. The bidder shall interpret the data furnished and carry out any additional survey work, or investigation work required at his own cost.
12. The prices quoted shall also include the cost of materials utilized for testing.
13. The bidder should acquaint himself with the site conditions including the access to Worksite. The successful bidder shall have to make suitable access to worksites at his own cost. These accesses will be used by the other contractors working for RMC.
14. From each Running Account Bill, labour cess will be deducted as per norms.
15. The quoted rates should be inclusive of all taxes and duties.
16. The prices shall have to be quoted firm & fix including all the taxes & duties without any statutory variation. RMC will not consider any statutory variation as well as the price rise in the market and if any, those shall be on account of contractor.
17. The work contract tax will be borne by the agency.
18. Use of ready mix concrete may be permitted if it fulfils tender specifications.
19. No extra item or extra width will be paid due to excavating method or type of machinery.
20. For any type of license regarding labour, etc. has to be achieved by agency.
21. Appendix - P mentioned in tender is a sample format. The bidder shall furnish the details of concern tender and financial terms shall be certified by Chartered Accountant.
22. In Every running bill 0.25% amount shall be retained as extra security deposit if Drawings of work done are not submitted by agency.
23. DELETED

24. This office Circular bearing No. RMC/C/329 dated 22-12-2012 and Order No. RMC/C/132 dated 10-06-2013 are uploaded in tender document. The Contractors quoting their rates Above/Below shall have to read, implement, and submit the same duly signed along with the will be documents to be submitted during physical submission.
25. In reference to the above Circular and Order cited at above, the Contractor firm who have quoted their rates for this work will be called in person for verification of original documents. The date and time for verification of original documents will be intimated to the Contractors.
26. The routes and levels shown in the maps are indicative and not final. There are possibilities of change in routes and levels at the time of execution of work and due to which the diameter of pipeline and depth of drainage line may increase or decrease. Under the circumstances, the contractor shall have to carry out the work accordingly at the approved rates without any extra cost. Rajkot Municipal Corporation will not entertain any dispute in this regard.
27. The contractor shall have to carry out the Sub-soil strata investigation at his own cost.
28. Flow Test shall be done in two stage:  
**Stage 1**  
Pipe line shall be laid by resting the pipe line on supports at joints. The flow test and The drains, manholes and all joints of pipes shall be made thoroughly sound and water tight and any joint which may be observed to be leaky shall be immediately corrected. Thus after satisfactory flow test sand bedding shall be fill pipe line after laying pipe line. The refilling of trench shall be carried out then after.  
**Stage 2**  
After total laying & refilling of trenches, flow test shall be carried out again for particular section of length as suggested by engineer in charge.  
(Trial run and TEST should be carried in GSR with prescribed level as instructed by Engineer- In -Charge )
29. If the progress of work is found slow then submitted activity chart during the work order; Extra security Deposit may be recovered from any running bill as decided by Engineer in charge up to maximum 5% amount of concerned R.A. Bill amount.
30. Wherever the sanction from Forest and State High Way (R & B)

department is required that has to be procured and also any other sanction of any other Institute/Authority is required then contracting agency shall have to arrange itself i.e. whole liaison shall be on account of working agency. However, if required, RMC will recommend for the same wherever necessary. The expenditure incurred for this type sanctions will be reimbursed by RMC on submission of necessary documentary evidence like; Receipt, as proof.

31. Blasting may not be permitted in the areas having dense population or any other unsuitability.
32. Big machinery may not enter in the areas having narrow streets (3 to 4 Mtr. wide).
33. Kachcha houses shall not be get damaged. Considering this, manual labour work is more feasible in these types of areas.
34. No extra item or extra width will be paid due to excavating method or type of machinery.
35. The bidders are advised to visit the project area and get acquainted with the local condition as the said area is residential area with numbers of underground utility services like water supply pipe line, sullage water pipe line, gas pipeline, telephone/electric cable, KHALKuVAS etc, which requires to be maintained during the progress of work. The safety of the work is prime important factor and all the bidder should be very much vigilant for the same. Thus, there may be some locations where clear ROW or ROU may not be available due to certain reasons like TP Road open Issues, Permissions etc. If work of that much location is affected due to such reasons time limit may be extended considering that non- working period but in no case Price Escalation will be given for that extended period. Thus, it is to be clear that to work within utility services is a part of this work. If utilities are affected, it shall be the responsibility of contractor to make same as it was as before. The expenditure and arrangement shall be bear by contractor.
36. In case of Extra Item, No "On" %age i.e. +ve % age Rate will be given but if there is Down %age i.e, -ve % age Rate that will be applied to that rate of that Extra Item.
37. Before procurement of Material the Quality Assurance Plan (QAP) shall be approved by RMC. QAP for approval shall be submitted in 4 Original copy duly signed and stamped by Manufacturer, PMC/PMC and Tenderer, The draft QAP has been attached herewith.
38. The contractor shall have to quote their rates excluding GST and including other taxes and the Invoice with break-up of

GST IS to be submitted accordingly, failing which, such amount will be deducted from the bill of the agency and deposited accordingly.

The contractor shall have to purchase the material required for this tender work, only from the supplier having registered GST Number. RMC will not be responsible to pay any amount towards GST if the material is purchased from the unregistered supplier not having GST Number.

39. The contractor shall be responsible for Railway Crossing, Highway crossing etc and the detailed design shall have to be provided by the contractor and carry out the same, for which, payment will be made as per norms.
40. The contractor shall have to obtain the approval from the concerned authorities for level crossing, Highway, Gas etc. However, Rajkot Municipal Corporation will extend its cooperation in obtaining the approval. The charges as per norms shall be paid by the agency and same will be reimbursed by Rajkot Municipal Corporation.
41. Engineering Store of Rajkot Municipal Corporation will accept the un-utilized D I Pipes 100% whereas the fittings / specials upto **10%** of the quantity actually as may be confirmed at the time of work order.
42. **Scope of Testing period:** During the testing period, agency will have to look after the maintenance and rectification of fault, if any. No extra payment will be made by RMC for this purpose.
43. Only for existing house connection, if additional pipe is to be provided over and above the 5 mt. for 15 mm connection then additional payment is to be made Acceptable (Rate of only 15 mm dia pipeline as per the rates of SOR of RMC).
44. e-Tender price:  
The tender price ( Pipe/specials Supply as shown in above scope of work and as per the detailed specifications + Labor work for laying jointing, testing & commissioning) shall include all materials, labor, tools and tackles, plant and machinery etc. necessary for the proper manufacture of pipes and specials and for tests at the contractor's works, for insurance and for delivery to RMC's store or site of works indicated in the project area according to dispatch schedule and for laying and testing on site etc.

The rates quoted by the contractor online in the given price bid ( Pipe /specials Supply + Labor work for laying jointing, testing & commissioning) shall cover everything necessary for the due and

complete execution of the work according to the drawings and other conditions and stipulations of the contract including specifications or the evident intent and meaning of all or either of them or according to customary usage and for periodical and final inspection and test and proof of the work in every respect and for measuring, numbering or weighing the same, including setting out and laying or fixing in positions and the provision of all materials, power, tools, rammers, labour, tackle, platforms with proper lapped joints for scaffolding, ranging rods, straight edges, centering and boxing, wedges, moulds, templates, posts, straight rails, boning-staves, strutting, barriers, fencing, lighting, pumping apparatus, temporary arrangement for passage of traffic, access to premises and continuance of drainage, water supply and lighting (if interrupted by contractor's work), temporary sheds, painting, varnishing, polishing, establishments for efficient supervision and watching arrangements for the efficient supervisions of life and property and all requisite plant and machinery of every kind except only such matter and things as it may be distinctly stated herein which are to be supplied to the contractor free. A rate for any one description of work is to be held to include such items of other classes of works as are obviously necessary for its due completion and for these no separate/specific charges will be admitted. The contractor shall keep every portion of the work clear of accumulation from time to time and shall leave every portion of the work clean, clear and perfect, at the conclusion of whole work at their own cost.

45. FDR or Bank Guarantee will not be acceptable towards Tender fee and Earnest Money Deposit.
46. Rajkot Municipal Corporation will engage PMC agency for pipe material inspection and testing at factory and to maintain the overall work supervision and quality control of the project. The PMC /TPI agency shall be from approved list of RMC or as decided by the competent authority of RMC.
47. In case of damage to obstructing pipe line or other utilities is done by the agency then the rectification to the same and making it good shall have to be carried out by the agency at his own cost.
48. The contractor shall at his own cost fill up water in pipe line and , GSR and should give necessary hydraulic test.
49. Autocad drawings shall have to be provided in soft copy as well as hard copy, for which, decision of engineer-in-charge will be final and binding to the agency.
50. All type of Inspection cost for raw material and relevant material for the said work must be borne by contracting agency with necessary and required facilities to Competent Authority.

51. Structure Design must be designed by Registered Structure Engineer of grade SEOR-1 (having Experience of 10 or more Years). and drawing/design/details have to be verified from consultant.
52. For the whole Civil work, Contracting agency have to submit progress report and completion certificate duly signed by Contractor's supervisor and appointed SEOR-1. Part/Final payment process will be initiated according to compliance of same by Consultant.
53. Contracting agency have to submit drawing (in 2D/3D) and measurement of actual site work in prescribed format( i.e Total station, GPS E survey ) and layer wise requirement of IT Department of Rajkot Municipal Corporation.
54. Contracting agency have to submit activity plan along with chart during work order.
55. A resident Senior Engineer is supposed to be available by the Contractor at site during all working hours/days & he is fully responsible for any decision, discussion, co-ordination with consultants related to work. Conversant senior responsible resident engineer lab assistant with required labor will have to be made always available for testing work in field laboratory. Residential Engineer will be responsible for dealing discussion planning, monitoring, informing etc. work with project monitoring agency if RMC/PMC complaints for poor co-operation in this regard, action can be decided by RMC in the interest work, up to and of work
56. There should be adequate facility of Diesel Generator with necessary capacity including Auto Mode facility.
57. Appropriate temporary lab have to be set up at site with necessary equipment and apparatus for all required Test
58. Contracting agency have to captured all construction activity step by step in appropriate photography (including drone camera ) definition/resolution and have to submit in hard & soft copy as instructed by Engineer-in charge
59. Contracting agency have to make necessary arrangement during Groundbreaking ceremony and inaugural of project, which may include dias function with lighting, seating, air cooling, photography
60. Contractor shall be responsible to get all the NOC's before final bill or Work Start including all the liaison work with related department / charges / expenses for erection of Batch Mix Plant, Electrical, Fire-Fighting, Lift, and any other related / required to the Safety Measures, Labour laws & Insurance etc. if needed, contractor has to get NOC's Airport Authority and pay the charges / expense, Total cost related to this shall be borne by the contractor agency.
61. Contractor has to provide well furnished site with least model 2 nos computers with Graphic card facility of HP/Dell/Lenovo/ Apple with multifunctional A3 colour/BW printer latest configurations with all necessary office stationary and 4 nos work stations

(Chairs,Tables,Cupboards) etc. and well conversant operator and office having area not less than 20 Sqm. for exclusive use of RMC and consultant staff Project Team.

62. Contractor has to establish the Testing Lab at site as per norms. If required necessary test will be carried out the in Government Approved Lab(NABL) / Govt. Lab. This expense will be borne by contractor.10% of total test has to be carried out in Govt. Lab.
63. The L1 / qualifying agency to whom work is awarded should submit physical tender copy with duly signed and stamped to RMC with all addendum, circulars of RMC.
64. The Contractor should construct a labour colony at site as per labour law as directed by Engineer in charge before starting the execution work.

**ADD. CITY ENGINEER  
Rajkot Municipal Corporation**

**Signature of Contractor**

**Primary Check List for submission of Documents**

Tender Fee submitted as per Tender	Yes / No
Tender Earnest Money Deposit submitted as per Tender	Yes / No
Registration documents submitted as per tender requirement	Yes / No
Information regarding Capability etc. as per clause No. <b>IT-12</b> (General Performance data) shall have to be submitted	Yes / No
All Appendixes shall have to be submitted physically duly filled	Yes / No
ESIC and PF Registration	Yes / No
Details of Technical Staff and details of machineries	Yes / No
Address proof submitted	Yes / No
Identity proof submitted	Yes / No
Fresh Declaration on Non-Judicial Stamp Paper regarding not black listed or Terminated or Debarred, is submitted	Yes / No
Professional Tax Receipt of current year	Yes / No
<b>Financial Details:</b>	
Turnover details submitted as per requirement	Yes / No
Similar Works Experience Detail as per Qualification Criteria with complete Calculation with Enhancement Factor	
Working Capital as per requirement of tender is submitted	Yes / No
Valid Bank Solvency submitted	Yes / No
Validity of Bank Solvency	Date:
Bid Capacity Calculation Certified by CA with Stemp and Sign	
<b>Experience Details:</b>	
Details of Similar Work Done in Last seven Years with 3A Certificate Concern Department	Yes / No
Ongoing Work Details with Work order	Yes / No
Partially Completed Work Details with 3A Certificate Concern Department	Yes / No
Any other Work Completed or Partially Completed Work Details	Yes / No
Any Other Remaining Related Certificate/Document	Yes / No

**Note : Over and above, the agency shall also have to submit all other necessary documents as may be required for pre-qualification, failing which, the agency will be treated as Non-responsive and will be DISQUALIFIED and also the online price bid of such agency will not be opened.**

**Signature of contractor with seal**



## SCHEDULE – A

**Schedule showing a material to be supplied from Rajkot Municipal Corporation stores at free of cost for use in work contracted and to be executed**

**Name of Work:**

**CONSTRUCTION OF 10.44 ML CAPACITY RCC GROUND SERVICE RESERVOIR WITH MISCELLANEOUS CIVIL WORK AT TIRUPATI IN RMC AREA**

Sr.	Particulars	Qty.	Rate at which material will be charged to the contractor	Total Amount
1	NA			
			<b>Total</b>	
			<b>Say</b>	
Note No.1	The Contractor shall have to make his own arrangement for procuring the cement required for the work from open market. Cement shall be ordinary Portland cement confirming to IS 269. or IS 8112 Grade 43/53 of repute make only. No mini-plant cement shall be allowed.			
Note No.2	The person or firm submitting the tender should see that the rates in the above schedule are filled up by the Engineer-in-charge for the issue of the firm prior to submission of the tender.			
Note No.3	Material not included in "SCHEDULE – A" but required for the work shall be provided by the contractor and cost of such material shall be included in the respective tendered items by the contractor.			

**Asst. Engineer**  
**Rajkot Muni. Corporation**

**Dy. Executive Engineer**  
**Rajkot Muni. Corporation**

**Add. City Engineer**  
**Rajkot Muni. Corporation**

# PRICE SCHEDULE

**Rajkot Municipal Corporation  
Price Schedule - B**

**Name of work:**

**CONSTRUCTION OF 10.44 ML CAPACITY RCC GROUND SERVICE RESERVOIR WITH MISCELLANEOUS CIVIL WORK AT TIRUPATI IN RMC AREA**

<b>SR. NO.</b>	<b>DESCRIPTION</b>	<b>AMOUNT IN RS.</b>
<b>(A)</b>	<b>CAPITAL COST</b>	
1	CONSTRUCTION OF 10.44 ML CAPACITY RCC GROUND SERVICE RESERVOIR WITH MISCELLANEOUS CIVIL WORK AT TIRUPATI IN RMC AREA	3,29,91,500.00
	<b>TOTAL OF CAPITAL COST (A) IN RS.</b>	<b>3,29,91,500.00</b>

**CONSTRUCTION OF 104.4 LAC LITRE SUMP AND MISCELLANEOUS WORK AT TIRUPATI IN RAJKOT AREA**

Item No.	Qty.	Description	Rate Rs. Ps.	Per	Amount Rs.Ps.
(A)		<b>SUMP</b>			
1		RCC GSR (description of Item for turnkey tender)			
		Preparing structural design of RCC Under Ground / Partially under ground / above high ground level Reservoir of required capacity as per relevant IS standards and constructing the same, including excavation in all types of soil strata (including rock) including shoring strutting if required, for loose soil/ to protect from collapse, casting 100 mm thick P C C levelling course in M -15, Refilling the pit with proper soil and disposing of the surplus stuff at all lead including 15mm thick cement plaster in CM 1:2 With approved water proofing compound to all over inside container (i.e. walls, base, top slab/dome bottom etc. all) & 20 mm thick Outside sand faced plaster in two coats (first coat 12 mm thick in cement mortar 1:3 and second coat 8 mm thick in cement mortar 1:2) including all types of labour and material charges of lowering, laying, erecting / hosting and jointing of pipe assembly to inlet, outlet overflow, washout and bye pass arrangement as per hydraulic design Providing and fixing accessories, CI Manhole frame and cover water level indicator, adequate cowl type ventilators or lantern type ventilator with stainless steel jail RCC chambers for valves Providing and applying three coats of cement paint/snowcem to the out side face of structure It also indudes satisfactory water tightness test as per relevant IS code and painting name of scheme and capacity on the tank as per direction of engineer in charge.			
		List of Indian Standards for Design of GSR / SUMP-			
		The structural design of GSR shall be in accordance with provisions relevant I.S standards			
		(1) I.S.3370 part I & II 2009 or its latest revision			
		(1.1) I.S. 3370 part III & IV 1965 or its latest revision			
		(2) I.S.456- 2000 or its latest revision			
		(3) I.S.1893 - 2000 -1984 or its latest revision.			
		(4) I.S.875, Part - 1 to 3, 1987 or its latest revision.			
		General Specifications:-			
		(1) Effect of overlapping of pressure bulbs on soil due near by structure and proposed sump should be considered			

Item No.	Qty.	Description	Rate Rs. Ps.	Per	Amount Rs.Ps.
		(2) Care shall be taken that no damage should occur to nearby existing structure. Compensation shall be paid for the same by agency			
		(3) The minimum concrete grade for RCC shall be M-30			
		(4) TMT Fe 500 grade reinforcing bars conforming to I.S. 1786/1139 shall be considered in design CRS / TMT bars shall be provided In saline atmosphere corrosion resistance stainless steel / HCR rebar shall be provided any other steel can be used with approval of CE/ in situation of non availability in market without extra cost.			
		(8) Minimum size (or thickness) of various components shall be provided as per tender criteria / specifications in absence as per ISI Std practice of GWSSB Minimum dimensions specified for various components in tender data / specifications shall be provided Without fall			
		(9) The safe bearing capacity (SBC) shall be referred from SBC test report. in absence of report it shall be referred from data sheet If poor soil/IS found / water table IS met With during excavation SBC shall be scientifically ascertained and design shall be revise No extra shall be paid for increase in quantity.			
		(10) DI pipes and special shall only be used if type IS not specified in tender.			
		(11) The rate shall include cost of dewatering during excavation making all arrangement when water table meets Within depth			
		(12) The structure shall be designed properly to resist uplift due to ground water table specified in data or actual ground water table meets With during excavation If GWT / uplift IS mentioned in tender and during excavation it dose not meet 7 5% rate shall be reduced			
		(13) SS pipes railing shall be provided over sump penfery when sump height is $\geq 1.5$ meter above ground level			
		(14a) RCC staircase/RCC Steps should be provided from GL to sump top slab based on the height of the GSR above/below the ground			

Item No.	Qty.	Description	Rate Rs. Ps.	Per	Amount Rs.Ps.
		(14b) RCC stair case with SS railing to be provided inside reservoir container. BB Masonry stair cab1n With MS safety door havmg lockmg arrangement to be proVIded for GSR, Sump and HGLR of capacity more than 7.5 lakhs liter With top slab If dome is constructed as top slab then provide m mmum opening of 900 mm x 2000 mm with curbing and SS raiflmg around			
		(15) Appearance of structure should be aesthetically good looking acceptable to authority			
		(16) Any change in size, shape, depth below GL, height above GL, water depth, FB size of member etc can be permitted in exceptional case due to site condition or hydraulic design requirement by C.E. No extra shall be paid for change			
		(17) Any change in data, dimensions, shape, water depth, reduction in size if permitted by competent authonty and If it reduces quantity then payment shall be reduced prorata.			
		(18) When capacity of GSR / Sump is > 20 lakh litres two or suitable compartments acceptable to executive engineer shall be designed and provided			
		(19) Agency shall engage qualified (at least graduate) consulting engineer for desigmng the structure and he / she shall Visit the site for guidance of work.			
		(20) 75% part rate shall be payable for concrete, reinforcement and plastering items of container until satisfactory hydraulic testing for water tightness is performed as per tender condition. Till the work shall be treated as incomplete			
		Above conditions / general specifications Sr. No. 1 to 20 are part and parcel of tender (contact) and prevail over other provisions in tender			
		(i) As above rectangular sump with water table (sub soil water level above foundation)			
		Cost of 104.4 Lac litre capacity			2,24,32,946.00
		<b>Total Amount of Sump (A)</b>			<b>2,24,32,946.00</b>
<b>(B)</b>		<b>ADDITIONAL ITEM FOR SUMP</b>			

Item No.	Qty.	Description	Rate Rs. Ps.	Per	Amount Rs.Ps.
1	418.00	Providing and casting in situ CC in grade M15 (approx corresp. To prop. 1:2:4) (proportions as per mix design or as per Table 9 of IS 456:2000 in masses by weigh batching) using granite, quartzite trap metal of size 6 mm to 20 mm for RCC work including scaffolding centering, form work, needle vibrated consolidation, curing comp upto 6 m depth or height (excluding cost of reinforcement and neat finishing ) with centering and shuttering / deshuttering etc comp for structure for other than water retaining. - without form work (Lean Concrete)	4732.00	Cum	19,77,976.00
2	2,320.00	Cement Concrete flooring (IPS) 50 mm thick in proportion of 1:2:4 with a floating coat of neat cement, finishing, curing etc. complete	338.00	sqm	7,84,160.00
3	628.00	Purchasing, supplying, Lowering, Laying & fixing various size of M.S. section such as joints, channels, angles, plates, iron rails etc. complete including fabrication at site of works, with Railway freight, loading, unloding, carting etc. complete. Angles & Channels above 10 mm thickness	84.28	kg	52,928.47
<b>Total Amount for Additional Sump (B)</b>					<b>28,15,065.00</b>
<b>(C)</b>		<b>ADDITIONAL COMPARTMENT WALL</b>			
1	17.00	Providing and casting in situ CC in grade M15 (approx corresp. To prop. 1:2:4) (proportions as per mix design or as per Table 9 of IS 456:2000 in masses by weigh batching) using granite, quartzite trap metal of size 6 mm to 20 mm for RCC work including scaffolding centering, form work, needle vibrated consolidation, curing comp upto 6 m depth or height (excluding cost of reinforcement and neat finishing ) with centering and shuttering / deshuttering etc comp for structure for other than water retaining. - without form work	4732.00	Cum	80,444.00
2		Providing and casting in situ C.C. in grade M-30 proportions of ingredients as per mix desing by weigh batching using granite, quartzite trap metal of size 12 mm to 20 mm and or 6 mm to 12 mm including scaffolding, centering, formwork, needle vibrated consolidation, curing and hydraulic testing etc. complete (excluding cost of reinforcement) for all water retaing structures			

Item No.	Qty.	Description	Rate Rs. Ps.	Per	Amount Rs.Ps.
3a	51.00	a) RCC Raft	8213.00	cum	4,18,863.00
3b	62.00	b) RCC Wall	8083.00	Cum	5,01,146.00
4	12,995.00	Supplying cutting, bending, binding and placing in position steel as per plan and design and as per ISS 2502 including cost of steel and binding wire for reservoirs/structures only including lift up to 6 meter height or depth below G.L. for all diameters	78.577	Kg	10,21,108.12
		Do - CRS steel all dia. Fe - 500 grade confirming to Relevant I.S.			
5	273.00	Providing 20mm thick cement plaster in single coat on single or half brick walls for interior plastering upto floor two level and finished even and smooth in (i) Cement mortar 1:3 (1-cement:3-sand) . Item also include finishing with a floating coat of neat cement slurry along with providing and mixing water proofing materials in cement mortar in proportion recommended by the manufacturer.	162.92	sqm	44,478.29
		<b>Total Amount of Additional Compartment wall (C)</b>			<b>20,66,040.00</b>
<b>(D)</b>		<b>MISCELLANEOUS WORK (INCOMING PIPE)</b>			
1		Excavation for foundation in below mention depth including sorting out and stacking of useful materials and disposing off the excavated stuff upto 5.0 km lead in below mention strata 0 to 1.5 mt depth.			
1a	169.00	---do--- in all sorts of soil, Dense or Hard soil, hard murrum,	119.11	cum	20,129.11
1b	169.00	---do--- In soft rock ,Hard rock	254.13	cum	42,947.88
2		Providing and supplying D. I. K 9 grade pipes for following nominal bore diameter with internal cement mortar lining including oil taxes, insurance. transportation. freight charges, octroi, inspection charges, loading, unloading, conveyance to departmental stores, slacking etc. complete. (IS 8329-2000). EPDM gasket rates are added to this rate			
2a	150.00	600 mm Dia D.I.K-9 Pipe (Incoming Pipe)	10309.00	Rmt	15,46,350.00
2b	20.00	500 mm Dia D.I.K-9 Pipe (Scour Pipe )	7909.00	Rmt	1,58,180.00
2c	20.00	300 mm Dia D.I.K-9 Pipe (Overflow pipe )	3788.00	Rmt	75,760.00



Item No.	Qty.	Description	Rate Rs. Ps.	Per	Amount Rs.Ps.
3		Lowering, laying and jointing C. I. S & S Spun pipes suitable for Tyton joints / Mortar lined D. I. Pipes of various classes with CI / MS specials of following diameters in proper position, grade and alignment as directed by Engineer-in-charge including hydraulic testing etc. comp.			
3a	150.00	600 mm Dia D.I.K-9 Pipe	404.00	Rmt	60,600.00
2b	20.00	500 mm Dia D.I.K-9 Pipe	312.00	Rmt	6,240.00
2c	20.00	300 mm Dia D.I.K-9 Pipe	155.00	Rmt	3,100.00
4		Manufacture, Supply & Delivery of Ductile Iron Flange socket spigot bends, tees, reducers or any other specials as per BS-EN-545/1995 Class-A series K12 suitable for use with D.I. Pipes manufactured as per IS:8329/1994 delivery of specials is to be made to GWSSB store or site of works any where in Gujarat including all taxes, loading, unloading, carting. stacking, insurance, inspection charges, octroi etc. complete.			
4a	31.00	socket & spigot type - upto 300 mm dia.	148.00	kg	4,588.00
4b	678.00	socket & spigot type - 350 & above	151.00	kg	1,02,378.00
4c	56.00	Flanged ended - upto 300 mm dia.	155.00	kg	8,680.00
4d	228.00	Flanged ended - 350 & above	158.00	kg	36,024.00
5		Providing and supplying ISI mark CI / D/F Sluice Valves/Flush Valve as per IS:14846 (Latest Edition) of following class and diameter including all taxes. insurance. transportation, freight charges, octroi, inspection charges. loading, unloading. conveyance to departmental stores, stacking etc. complete. <b>PN-1 with hand wheel / cap operated (PD type short body)</b>			
5a	2.00	600 mm dia Sluice valve	122777.00	nos.	2,45,554.00
5b	2.00	500 mm dia Flush/Scour Valve	89866.00	nos.	1,79,732.00
6		Lowering, laying and jointing in position following C. I./ D/F Sluice valve /Flush valve including cost of all labour, jointing material, including nut bolts and giving satisfactory hydraulic testing, etc. complete			
		<b>PN-1 with hand wheel / cap operated (PD type short body)</b>			
6a	2.00	600 mm dia Sluice valve	3967.00	nos.	7,934.00
6b	2.00	500 mm dia Flush/Scour Valve	2905.00	nos.	5,810.00

Item No.	Qty.	Description	Rate Rs. Ps.	Per	Amount Rs.Ps.
7		Supply, installation, testing & commissioning of flange ends Expansion Bellow as per EJMA standards of overall length of minimum 300 mm, designed for 15 mm axial compression and 5 mm axial extension with tie rods etc. of following MOC & pressure ratings. MOC: Bellows: SA 240 Gr. 304; Internal Sleeve: SA 240 Gr. 304; Weld ends: IS 2062 Gr. B; Flanges: IS 2062 Gr. B (Drilling as per IS 1538 / IS 6392 ) & Limit Rods & Nuts: CS - IS 1367.			
	4.00	NB 600 mm x 300 mm dia.	29280.00	nos.	1,17,120.00
8	5.97	Providing and casting in situ CC in grade M15 (approx corresp. To prop. 1:2:4) (proportions as per mix design or as per Table 9 of IS 456:2000 in masses by weigh batching) using granite, quartzite trap metal of size 6 mm to 20 mm for RCC work including scaffolding centering, form work, needle vibrated consolidation, curing comp upto 6 m depth or height (excluding cost of reinforcement and neat finishing ) with centering and shuttering / deshuttering etc comp for structure for other than water retaining. - for thrust block (with form work)	4906.00	cum	29,293.46
9	1,550.00	Supply & Fixing of 80mm M-30 Grade cement concrete rubber mold paving inter locking paving block (Grey colour) after bedding of Bhogavo sand in line and CC on the edge in proportion of 1:2:4 with curing etc. complete	581.00	Sqm t.	9,00,550.00
10		Providing and fixing flanged D.I.D.F. / Class K-9 pipes vertically for RCC Reservoir incl. providing clamps at every 3 mt incl. jointing materials such as nuts, bolts, rubber packing, hydraulic testing and necessary scaffolding etc. complete. .			
10a	20.00	(i) 300 mm dia (Overflow pipe)	7219.00	Rmt.	1,44,380.00
10b	30.00	(ii) 600 mm dia	19991.00	Rmt.	5,99,730.00
11		Construction of chambers in RCC chamber with Ordinary Portland cement with CRS Fe-500 reinforcement, PCC in M 15, 20 mm thick inside cement plaster in C.M.1:3 and depth of chamber from G.L. to pipe invert level including complete civil works and inclusive of the cost of excavation, refilling and PVC foot steps including providing RCC Slab in one single piece with fixing of FRC (heavy duty) manhole frame and cover or RCC 25 Precast slab in parts with keyhole etc. complete.			
i)		Excavation			
		0.0 to 1.5 m.			

Item No.	Qty.	Description	Rate Rs. Ps.	Per	Amount Rs.Ps.
	73.50	---do--- in all sorts of soil,Dense soil or Hard soil, hard murrum	119.11	cum	8,754.38
	73.50	---do--- In soft rock ,Hard rock	254.13	cum	18,678.52
		1.5 m. to 3.0 m.			
	23.52	---do--- in all sorts of soil,Dense soil or Hard soil, hard murrum	128.50	cum	3,022.43
	94.08	---do--- In soft rock ,Hard rock	267.48	cum	25,164.30
	14.70	3.0 m. to 5.0 m. ---do--- In soft rock ,Hard rock	280.83	cum	4,128.15
ii)	10.09	Providing and casting in situ CC in grade M15 (approx corresp. To prop. 1:2:4) (proportions as per mix design or as per Table 9 of IS 456:2000 in masses by weigh batching) using granite, quartzite trap metal of size 6 mm to 20 mm for RCC work including scaffolding centering, form work, needle vibrated consolidation, curing comp upto 6 m depth or height (excluding cost of reinforcement and neat finishing ) with centering and shuttering / deshuttering etc comp for structure for other than water retaining. -(with form work)	4906.00	cum	49,511.36
iii)		Providing and cast in situ C.C. in grade M-30 proportions of ingredients as per mix design by weigh batching using granite, quartzite trap metal of size 12 mm to 20 mm and or 6 mm to 12 mm including scaffolding centering formwork, needle vibrated consolidation, curing and hydraulic testing etc. complete (excluding cost of reinforcement) with centering and shuttering / deshuttering etc. comp. up to 6 meter height /depth Av. G.L. for all water retaining structures			
	49.13	RCC Wall	8083.00	cum	3,97,101.63
	13.52	RC.C. Base Slab	8213.00	cum	1,11,039.76
	10.14	RC.C. Top Slab	8213.00	cum	83,279.82
iv)	7,642.74	Supplying cutting, bending, binding and placing in position steel as per plan and design and as per ISS 2502 including cost of steel and binding wire for reservoirs/structures only including lift up to 6 meter height or depth below G.L. for all diameters	78.577	Kg	6,00,543.59
		Do - CRS steel all dia. Fe - 500 grade confirming to Relevant I.S.			

Item No.	Qty.	Description	Rate Rs. Ps.	Per	Amount Rs.Ps.
v)	166.40	Providing 20mm thick cement plaster in single coat on single or half brick walls for interior plastering upto floor two level and finished even and smooth in (i) Cement mortar 1:3 (1-cement:3-sand)	129.38	sqm	21,528.00
vi)	64.00	PVC steps	103.00	No.	6,592.00
vii)	6.00	Providing, supplying 600 mm dia RCC precast (circular) manhole frame and cover as per IS standard of 20 Tonne Capacity etc. complete.	2,685.00	No.	16,110.00
12	10.00	Grouting with 1:3 cement, sand mortar for anchor bolt pockets, machine bases, pipe sleeves, pockets holes, etc. including roughening and cleaning of concrete surfaces, curing, etc. complete.	3083.93	cum	30,839.29
13	10.00	Demolition including stacking of serviceable materials and disposal of unserviceable materials with all lead and lift. (i) R.C.C. work	607.50	cum	6,075.00
<b>Total Amount of Miscellaneous work (D)</b>					<b>56,77,449.00</b>
<b>Total Amount of (A+B+C+D)</b>					<b>3,29,91,500.00</b>

**Addl./Asst. Engineer**  
**R.M.C.**

**Dy. Ex. Engineer**  
**R.M.C.**

**CITY ENGINEER**  
**R.M.C.**

**I/We agree to carry out the above said work at (to be quoted online) % Equal / above / below on the tendered rates shown in Schedule.**

**Signature of Contractor**

**SCHEDULE OF MILE STONE PAYMENT  
MILE STONE PAYMENT BREAK-UP FOR CIVIL WORKS**

Sr. No.	Item Description	Percentage Mile Stone Payment
<b>1.</b>	<b>WATER RETAINING STRUCTURES ABOVE GROUND EXCEPT ELEVATED SERVICE RESERVOIR (ESR)</b>	
a.	On completion of Excavation, PCC, Footings	15%
b.	On completion of Base slab / Raft	20%
c.	On completion of 50% Side Walls	20%
d.	On completion of 100% Side Walls	20%
e.	On completion of Finishing Items	10%
f.	On completion of Hydraulic Test	10%
g.	On testing, commissioning and trial runs	5%
<b>2.</b>	<b>BELOW GROUND WATER RETAINING STRUCTURES</b>	
a.	On completion of Excavation, PCC	15%
b.	On completion of Raft Slab / Footings	20%
c.	On completion of 50% Side Walls	20%
d.	On completion of 100% Side Walls	20%
e.	On completion of Finishing Items	10%
f.	On completion of Hydraulic Test	10%
g.	On testing, commissioning and trial runs	5%
<b>MISCELLANEOUS WORK</b>		
<b>3.</b>	<b>ANY OTHER TO COMPLETE THE WORK IN ALL RESPECTS / ANY OTHER UNFORESEEN WORKS</b>	
a.	On 50% completion of Work	45%
b.	On 100% completion of Work	50%
c.	On testing, commissioning and trial runs of all other works	5%

REST OF CIVIL WORK will be considered as per Individual Item; Mode of measurement with Actual quantity measured at site for payment of compound wall and etc.

**Asst. Engineer CIVIL  
R.M.C.**

**Dy. Ex. Engineer CIVIL  
R.M.C.**

**ADD.CITY ENGINEER  
R.M.C.**

**Mile Stone Payment Breakup for Piping, Mechanical, Electrical & Instrumentation works along with spares as specified**

No.	Items	Percentage Mile Stone Payment
1.	On supply of equipment, pipes, specials, valves, accessories, instruments etc. including spares at site, after inspection, along with literature, drawings, operating pamphlets, manual etc. as required.	70%
2.	On erection of all equipment, pipes, specials, valves, instruments and necessary accessories including installation of mechanical / electrical / instrumentation system / equipment, cabling, etc. complete.	15%
3.	On Erection / Installation of Complete work & No load trial run	10%
4.	On testing, commissioning and satisfactory trial runs	5%
		100%

**Asst. Engineer CIVIL  
R.M.C.**

**Dy. Ex. Engineer CIVIL  
R.M.C.**

**ADD.CITY ENGINEER  
R.M.C.**