

---

# REQUEST FOR PROPOSAL

**DESIGN, ENGINEERING, INSTALLATION &  
COMMISSIONING OF WATER ATMs FOR PUBLIC  
IN AGARTALA CITY AND POST COMPLETION  
OPERATION & MAINTENANCE FOR 05 (FIVE)  
YEARS INCLUDING DEFECTS LIABILITY PERIOD  
OF 01 (ONE) YEAR**

---

## LIST OF IMPORTANT DATES

**LIST OF IMPORTANT DATES IN CONNECTION WITH THE  
TENDER FOR THE WORK**

1.	Name of the Work	:	Design, Engineering, Installation & Commissioning of Water ATMs for Public in Agartala City and Post Completion Operation & Maintenance for 05 (five) years including Defects Liability Period of 01 (one) year
2.	Completion period for the work	:	<b>03 (Three) Months</b>
3.	Date of Publishing of Bid	:	<b>Date 29<sup>th</sup> December 2018</b>
4.	Period of downloading of bidding documents at	:	<b>From Date 29<sup>th</sup> December 2018</b> <a href="https://tripuratenders.gov.in">https://tripuratenders.gov.in</a> <b>To Date 25<sup>th</sup> January 2019</b>
5.	Period of seeking clarifications	:	<b>From Date 29<sup>th</sup> December 2018</b> <b>To Date 7<sup>th</sup> January 2019</b>
6.	Time and date of Pre-bid Conference	:	<b>Date 10<sup>th</sup> January 2019</b> <b>Time 15.30 Hours</b>
7.	Place of Pre-bid Conference	:	<b>Office of the Chief Executive Officer, Agartala Smart City Limited, Agartala, West Tripura</b>
8.	Queries Response Date	:	<b>Date 14<sup>th</sup> January 2019</b>
9.	Deadline for online Bidding	:	<b>Date 25<sup>th</sup> January 2019</b> <b>Time 15.00 Hours</b>
10.	Date & Time of opening Bid/Bids	:	<b>Date 30<sup>th</sup> January 2019</b> <b>Time 16.00 Hours</b>
11.	Place of opening of Bid(s)	:	<b>Office of the Chief Executive Officer, Agartala Smart City Limited, Agartala, West Tripura</b>
12.	Last date of Bid Validity	:	<b>Date 24<sup>th</sup> July 2019</b>
13.	Officer inviting Bid	:	<b>The Chief Executive Officer, Agartala Smart City Limited, Agartala, West Tripura</b>

**Note :** *All the above mentioned time are as per clock time of e-procurement website*  
<https://tripuratenders.gov.in>

## CONTENTS

<b>VOLUME - I</b>	
SECTION I	NOTICE INVITING TENDER
SECTION II	INSTRUCTION TO TENDERERS
SECTION III	FORM OF BID
SECTION IV	CONDITIONS OF CONTRACT
SECTION V	TECHNICAL SPECIFICATION
SECTION VI	FORMS OF SECURITY
SECTION VII	DRAWINGS
<b>VOLUME - II</b>	
SECTION VIII	BILL OF QUANTITIES

---

# **VOLUME - I**

## **SECTION - I**

### **NOTICE INVITING TENDER**

## AGARTALA SMART CITY LIMITED

### AGARTALA

### NOTICE INVITING e-TENDER

The **Chief Executive Officer**, on behalf of **Agartala Smart City Limited, Agartala**, the SPV under **Smart City Mission, Tripura** invites **single bid percentage rate e-tender** from the approved and eligible Contractor / Firms / Agencies in appropriate class under Tripura PWD / TTAADC of Tripura / MES /CPWD/ Railway /P&T/Other State PWD/Union Territory (UT)/Central & State Sector undertaking experienced as prime contractor in Supply and Installation of Water ATMs for the work detailed as below:

Sl. No.	Name of Work	Estimated Cost	Earnest Money	Time for Completion	Deadline for online bidding	Place, Time and date of opening of online bid	Website for online bidding	Class of Bidder
1.	Design, Engineering, Installation & Commissioning of Water ATMs for Public in Agartala City and Post Completion Operation & Maintenance for 05 (five) years including Defects Liability Period of 01 (one) year.  <b>Nle-T No. ASCL/RFP/12/16</b>	<b>Rs. 1,35,85,850.00</b>	<b>Rs. 1,35,858.00</b>	<b>03 (Three) Months</b>	<b>Up to 15.00 Hrs on 25-01-2019</b>	<b>O/o the Chief Executive Officer, Agartala Smart City Limited, 5<sup>th</sup> Floor, Paradise Chowmuhani, Agartala – 799 001 at 16:00 Hrs on 30-01-2019</b>	<b><a href="https://tripuratenders.gov.in">https://tripuratenders.gov.in</a></b>	<b>Appropriate Class / category as per Nle-T</b>

2. Bid documents consisting of qualification information and eligibility criteria of bidders, plans, specifications, drawings, the schedule of quantities of the various classes of work to be done and the set of terms and conditions of the contract to be complied with by the bidder, can be seen in the website <https://tripuratenders.gov.in> at free of cost between **29-12-2018** to **25-01-2018**.

3. Eligible bidders shall participate in bidding only in online through website <https://tripuratenders.gov.in> . Bidders are allowed to bid 24x7 until the time of Bid closing, with option for Re-Submission, wherein only their latest submitted Bid would be considered for evaluation. The e-Procurement website will not allow any Bidder to attempt bidding, after the scheduled date and time. **Submission of bids physically is not permitted.**
4. **Earnest Money and Bid Fee** are to be drawn separately on State Bank of India or any other scheduled Bank guaranteed by the RBI, in the shape of “**Deposit at call**”/ “**Demand Draft**” in favour of the **Agartala Smart City Limited, Agartala, West Tripura.**
5. Demand drafts furnished as above shall be valid for a minimum period of **03 (three) months** from the last date of publishing of bid. Bid Fee of **Rs. 2500.00 (Rupees two thousand five hundred)** only shall be accepted as “Deposit at call”/ “Demand Draft” and is Non-Refundable.
6. The bidders exempted from depositing earnest money & bid fee in individual case by any order of State / Central Government, PSU etc. shall also have to deposit the stipulated amount of earnest money & bid fee along with the bid in the form as specified in the bid document. No claim/ plea of the bidders in this respect will be entertained.
7. Downloaded tender document is to be uploaded back and digitally signed as part of bid and as proof of acceptance of all terms, conditions etc. in the tender document.
8. A prospective bidder requiring any clarification on bid document may contact the Bid Inviting Officer or send the queries by post at the address indicated in the NIT or write an e-mail at id: [ceasclagartala@gmail.com](mailto:ceasclagartala@gmail.com) seeking clarifications between **29-12-2018** to **07-01-2019**.

Authority shall not be responsible for ensuring that the bidder’s queries have been received by them. Any requests for clarifications post the indicated date and time shall not be entertained by Authority.

Authority will organise a pre-bid conference and will respond to any request for clarification or modification of the bidding documents. Authority shall formally respond to the pre-bid queries after the pre-bid conference. No further clarifications shall be entertained after the date and time of submission of queries.

A Pre Bid Conference shall be held by the Chief Executive Officer, **Agartala Smart City Limited, Agartala, 5<sup>th</sup> Floor, Paradise Chowmuhani, Agartala – 799 001, West Tripura** on **10-01-2019** at 15.30 Hrs for clarification of any doubts of the prospective Bidders on any condition of the contract, specification etc.

The Authority shall respond to the queries, by **14-01-2019**.

The Authority does not undertake to answer all the queries that have been posted by the bidders. The Authority makes no representation or warranty as to the completeness or accuracy of any response made in good faith.

Any modifications of the RFP documents, which may become necessary as a result of the pre-bid conference, shall be made by Authority exclusively through a corrigendum. Any such corrigendum shall be deemed to be incorporated into this RFP.

9. Bid shall be uploaded in single-bid system with all Pre-Qualification and other details. Bidder shall participate in bid online through website <https://tripuratenders.gov.in>, for which they shall register/enrol themselves in the same website. **Submission of bids physically is not permitted.**
10. To participate in bid, the bidder shall have a valid **Class 2 / Class 3 Digital Signature Certificate (DSC)**, obtained from the certifying authorities enlisted by Controller of Certifying Authorities (CCA) at <http://cca.gov.in>
11. Bids will be opened online through website <https://tripuratenders.gov.in> at **16.00 Hrs on 30-01-2019**. If the office happen to be closed on the date of opening of the bids as specified, the bids will be opened on the next working day at the same time and venue.
12. The Bidders shall have to include the scan copy of “Demand Draft”/ “Deposit at call” (as a single PDF file in 100 dpi resolution), against the related Bid Fee & Earnest money, along with Prequalification Details. The Bidder shall also have to deposit both the original “Demand Draft”/ “Deposit at call”, only in a sealed envelope depicting DNIT No., Name of the Work and the Bidders Name & Address at the office of the **Agartala Smart City Limited, Agartala, 5<sup>th</sup> Floor, Paradise Chowmuhani, Agartala – 799 001, West Tripura** up to 15.00 Hrs on **28-01-2019**. If the office happen to be closed on the last date of receipt of the sealed covers as specified above, the same will be received on the next working day up to same time at same venue.
13. If a bidder is enlisted in the Tripura PWD as well as in MES, P&T, Railways or State PWDs he shall be eligible to bid for works up to the amount permitted by virtue of his enlistment in the Tripura PWD even if he may be authorized to bid for bigger works in the CPWD/ MES/P&T and/or Railways.
14. Joint Ventures are allowed with maximum of two members including the Lead partner. The proposed JV partners shall upload the MoU as per Annexure - K entered by them at the time of bidding on Rs.100/- Non Judicial Stamp Paper. At least one of the JV partners should be registered with Govt. of Tripura or Central Govt. / any other State Govt. / Union Territory (UT) / PSU in the appropriate class. The other partner can be Registered Firm / Company who meet the qualification and eligibility requirements. The documentary evidence regarding Registration of the Firm / Company supported with relevant deed / article of association etc. shall be submitted along with the bid.
15. Bids of intending bidders who are near relatives of Divisional Accountant or Chief Executive Officer or Superintending Engineer or Executive Engineer or Assistant Engineer or Junior Engineer of the Circle in which the work is to be executed, will be rejected.  
**Note:** A near relative includes wife, husband, parents, in-laws, children, brothers, sisters, uncles, aunts and cousins.



16. No Engineer of Gazetted rank or other official employed in the Engineering or Administrative duties in an Engineering Department of the State Government is allowed to work as a bidder for a period of two years after his retirement from government services, without Government permission. This contract is liable to be cancelled if either the bidder or any of his employees is found any time to be such a person who has not obtained the permission of the Government as stated above before submission of the bid or engagement in the bidder's service.
17. If the percentage quoted in the pre-defined BOQ by a bidder is found to be either abnormally high or due to unethical practices adopted at the time of bidding process, such bids shall be rejected.
18. Each Bidder shall submit only one bid for the work. A bidder who submits more than one bid will cause disqualification of all the bids submitted by the bidder.
19. The bidder, at the bidders own responsibility and risk, is advised to visit and examine the Site of Work and its surroundings and obtain all information that may be necessary for preparing the bid for entering into a contract, for construction of the work. The costs of visiting the site shall be at the Bidder's own expense.
20. The bid for the work shall remain valid for acceptance for a period **180 (one hundred eighty) days** from the last date of submission of the bid.
21. If the bidder withdraws his bid within the validity period then the Government shall, without prejudice to any other right or remedy be at liberty to forfeit the earnest money @50%.
22. In case the bidder fails to commence the work specified in the bidding documents on 15th day or such time period as mentioned in letter of award after the date on which the Engineer-In-Charge issues written orders to commence the work, or from the date of handing over of the site, whichever is later, the Government shall, without prejudice to any other right or remedy, be at liberty to forfeit whole of the earnest money absolutely.
23. **Rate Quotation**
  - a. Bidder shall **quote rate in percentage below / above / at par in figures only** in the Bill of Quantity (BOQ) which is in **MS-Excel (macro enabled)** and should be downloaded from the e-procurement application <https://tripuratenders.gov.in> and the same BOQ should be filled up properly and uploaded as a part of bid with digital signing.
  - b. Name of bidder must be written in the appropriate field of Bill of Quantity (BOQ) by bidder.
24. **Earnest money given by all bidders except the 1<sup>st</sup> and 2<sup>nd</sup> lowest bidder shall be refunded preferably within a week from the date of receipt of bids.** Earnest money of the 2<sup>nd</sup> lowest bidder will be refunded on finalization of the bid or expiry of the validity period whichever is earlier.

- 25.** The security deposit will be collected by deductions from the running bills of the Bidders at the rate mentioned below and the earnest money will be treated as part of security deposit. Performance security only for bids with quoted rate less than the 15% of the estimated cost of work put to bid) may be accepted as Bank Guarantee of Scheduled Banks. A sum @ 10% of the gross amount of the bill shall be deducted from each running bill of the Bidder till the sum along with the earnest money equal to amount of 10% of the bided value of the work subject to following limit.
- a. Bided value up to Rs.100.00 lakh Security Deposit @ 10% subject to maximum of Rs. 5.00 lakh.
  - b. Bided value above Rs. 100.00 lakh up to Rs.200.00 lakh Security Deposit @10% subject to maximum of Rs. 15.00 lakh.
  - c. Bided value above Rs. 200.00 lakh Security Deposit @10% subject to maximum of Rs. 25.00 lakh.

In addition, the Bidder shall be required to deposit an amount equal to maximum 5% of the bided value of the contract as Performance Security (only for bids with quoted rate less than the (-) 15% of the estimated cost of work put to bid) within the period prescribed for commencement of work in the letter of award issued to him as per condition given in the NIT for single bid system.

For Bids up to 15% less than the estimated contract value of work, no additional security deposit is required. But for bid less than 15% of the Estimated Contract Value of work, the difference between the bided amount and 85% of the estimated contract value, shall be paid by the successful bidder at the time of concluding agreement as an additional security to fulfil the contract through a Bank Guarantee or Demand Draft on a Nationalized Bank / Scheduled bank in the prescribed format valid till completion of the work in all respects.

- 26.** The bidders exempted from depositing security deposit & additional security deposit in individual case by any order of State / Central Government, PSU etc. shall have to deposit the stipulated amount of security deposit & additional security deposit in the manner as specified in the bid document. No claim/ plea of the bidders in this respect will be entertained.
- 27.** The percentage rate quoted by the Bidder shall be deemed to be inclusive of the sales and other levies, duties, royalties, cess, toll taxes of Central and State Governments, local bodies and authorities that the Bidder will have to pay for the performance of this contract. The employer will perform such duties about the deduction of such taxes at source as per applicable law.
- 28.** Other details can be seen in the bid document.

Chief Executive Officer  
Agartala Smart City Limited  
Agartala, West Tripura

---

# **SECTION - II**

# **INSTRUCTIONS TO TENDERERS**

### TABLE OF CONTENTS

CLAUSE	DESCRIPTION
<b>A.</b>	<b>GENERAL</b>
1.	General
2.	Firms Eligible to Tender
3.	Qualification data of the Tenderers
4.	No. of Tender per Tenderer
5.	Cost of Tendering
6.	Site Visit
<b>B.</b>	<b>TENDER DOCUMENT</b>
7.	Contents of Tender Document
8.	Clarification on Tender Document
9.	Amendment to Tender Document
<b>C.</b>	<b>PREPARATION OF TENDER</b>
10.	Language of the Tenders
11.	Documents comprising of the Tender
12.	Tender Offer
13.	Validity of Tender
14.	Earnest Money Deposit
15.	Alteration
<b>D.</b>	<b>SUBMISSION OF BIDS</b>
16.	Submission of Bids
17.	Last date / time for Submission of the bids
18.	Late Bids
<b>E.</b>	<b>Tender Opening and Evaluation</b>
19.	Tender opening
20.	Evaluation and Comparison of Tender (s)
21.	Discrepancy in Tender Percentage quoted
22.	Process to be Confidential
<b>F.</b>	<b>Award of Contract</b>
23.	Award Criteria
24.	Notification of Award and Signing of Agreement
25.	Corrupt of Fraudulent Practices

## A. GENERAL

### 1. Name of Work:

Design, Engineering, Installation & Commissioning of Water ATMs for Public in Agartala City and Post Completion Operation & Maintenance for 05 (five) years including Defects Liability Period of 01 (one) year.

- i) The **Chief Executive Officer, Agartala Smart City Limited, Agartala, Tripura** invites bid(s) for the above work during the period, for which dates and time specified in the Nle-T and will be opened by the **Chief Executive Officer**, on behalf of **Agartala Smart City Limited, Agartala, Tripura** or his nominee at his office on the date and time mentioned in the NIT.
- ii) The bid document shall be available in the prescribed form through e-procurement application <https://tripuratenders.gov.in>.
- iii) To participate in the bid, the bidder shall have a valid **Class 2/ Class 3 Digital Signature certificate (DSC)**, obtained from either of the certifying authorities, enlisted by Controller of Certifying Authorities (CCA) at <http://cca.gov.in>
- iv) The Bidder shall Enroll himself/herself in the e-procurement website <https://tripuratenders.gov.in> and obtain User ID and Password for bidding.
- v) On publication of the bid, bidder shall download the DNle-T and all the work items from website as mentioned in the DNle-T and minutely go through the instructions / terms conditions / critical dates/eligibility criteria of the DNle-T.
- vi) Downloaded DNle-T document is to be uploaded back and digitally signed as a part of bid, and as a proof of acceptance of all terms conditions in the DNle-T.
- vii) The Bidders shall have to include the scan copy of “Demand Draft”/ “Deposit at call” (as a single PDF file), against related Bid Fee & Earnest money, along with Pre-Qualification Details. The Bidder shall also have to deposit both the **original** “Demand Draft”/ “Deposit at call”, only in a sealed envelope to the “**Chief Executive Officer, Agartala Smart City Limited, Agartala, Tripura**” (sealed envelope should be depicted with the DNle-T No. and Bidders Name & Address) at the office of the **Agartala Smart City Limited, Agartala, 5<sup>th</sup> Floor, Paradise Chowmuhani, Agartala – 799 001 Tripura** within 15.00 Hrs on **28-01-2019**.
- viii) The Bidders shall have to scan all the required documents mentioned in this DNle-T except ‘DNle-T’ & ‘BOQ’, into PDF format of **100 dpi resolution**, for uploading as part of Bid.
- ix) Bill of Quantity (BOQ), which is the percentage Rate quoting sheet in MS-Excel shall be downloaded, filled up properly and uploaded with the bid after digital signing. The Bidder shall always open the BOQ sheet with Macro Enabled.

- x) The dates stipulated in the bid notice are firm and under any circumstances, they will not be relaxed unless officially extended.
- xi) Bidders are allowed to bid 24x7 until the time of Bid closing, with option for Re-Submission, wherein only their latest submitted Bid would be considered for evaluation. The e-Procurement website will not allow any Bidder to attempt bidding, after the scheduled date and time.
- xii) **Bidders shall furnish a declaration (Annexure-II of pre-qualification information) as a part of bid that they are not been blacklisted by any department in Tripura. Any wrong declaration in this regard which comes to notice at a later date will disqualify them and the bids so received will be rejected.**
- xiii) The successful bidder is expected to complete the work within the time-period specified in the Nle-T.

## 2. Eligibility Criteria

### 2.1 Eligible Bidders

- i) The Bidder may be a single entity or a group of entities (the “Joint Venture”), coming together to implement the Project. However, no Bidder applying individually or as a member of a Joint Venture, as the case may be, can be member of another Bidder.
- ii) The term Bidder used herein would apply to both a single entity and a Joint Venture. The total number of Consortium members is limited to two including the Lead Member.
- iii) The qualification data of the bidders are mentioned in Section 3 of this document.

### 2.2 Firms Eligible to Tender

#### The Firms who

- i) possess the valid registration in the class and category mentioned in the NIT and satisfy all the conditions therein.
- ii) are not blacklisted or debarred or suspended by any order of any department / PSU in Tripura or in any State in India due to any reason, which is in force as on the date of submission of tender prohibiting them not to continue in the contracting business.
- iii) have complied with the eligibility criteria specified in the NIT are the eligible tenderers.

### 2.3 Firms Ineligible to Tender

- i) A retired officer of the Govt. of Tripura or Govt. of India executing works is disqualified from tendering for a period of two years from the date of retirement without the prior permission of the Government.

- ii) The tenderer who has employed any retired officer as mentioned above shall be considered as an ineligible tenderer.
- iii) The contractor himself or any of his employees is found to be Gazetted Officer who retired from Government Service and had not obtained permission from the Government for accepting the contractor's employment within a period of 2 years from the date of his retirement.
- iv) The contractor or any of his employees is found at any time after award of contract, to be such a person who had not obtained the permission of the Government as aforesaid before submission of the tender or engagement in the contractor's service.
- v) Contractor shall not be eligible to tender for works in the Division / Circle where any of his near relatives are employed in the rank of Assistant Engineer and above on the Engineering side and Divisional Accounts Officer and above on the administrative side. The contractor shall intimate the names of persons who are working with him in any capacity or are subsequently employed. He shall also furnish a list of Gazetted /Non-Gazetted, State Government Employees related to him. Failure to furnish such information tenderer is liable to be removed from the list of approved contractors and his contract is liable for cancellation.

**Note: Near relatives include**

1. Sons, step sons, daughters, and step daughters
2. Son-in-law, and daughter-in-law
3. Brother-in-law, and sister-in-law
4. Brothers and Sisters
5. Father and Mother
6. Wife / Husband
7. Father-in-law and Mother-in-law
8. Nephews, nieces, uncle and aunties
9. Cousins and
10. Any person residing with or dependent on the tenderer.

**1.6 If the bidder is joint venture;**

- (a) Joint Ventures are allowed with maximum of two members including the Lead partner. The proposed JV partners shall upload the MoU as per Annexure - K entered by them at the time of bidding on Rs.100/- Non Judicial Stamp Paper. At least one of the JV partners should be

registered with Govt. of Tripura or Central Govt. / any other State Govt. / Union Territory (UT) / PSU in the appropriate class. The other partner can be Registered Firm / Company who meet the qualification and eligibility requirements. The documentary evidence regarding Registration of the Firm / Company supported with relevant deed / article of association etc. shall be submitted along with the bid.

- (b) In case of bidder participating as a Joint Venture, on his selection for award of contract, all members of the Joint Venture will have to sign the contract with the Employer and will be jointly and severally liable for performance of the contract/ Award of contract will be in the name of Joint Venture consortium which will be considered as "Legal Entity" as far as this bid/contract concern.
  - (c) The bid, and in case of a successful bid, the Form of Contract Agreement, shall be signed with the name of Joint Venture which will be legally binding on all partners;
  - (d) One of the partners shall be declared as Prime Bidder (Lead Partner) authorized to be in charge; and this authorization shall be evidenced by submitting a power of attorney signed by legally authorized signatories of all the partners;
  - (e) The partner in charge shall be authorized to incur liabilities, receive payments and receive instructions for and on behalf of any or all partners of the joint venture and the entire execution of the Contract;
  - (f) All partners of the joint venture shall be jointly and severally liable for the execution of the Contract in accordance with the Contract terms, and a relevant statement to this effect shall be included in the Authorization mentioned under (b) above as well as in the Bid Form and the Form of Contract Agreement (in case of a successful bid); and
  - (g) A copy of the Stamped and notarized agreement entered into by the joint venture partners shall be submitted with the bid. Roles, responsibilities and financial stakes of all members of the Joint Venture consortium shall be clearly and unambiguously prescribed in the Joint Venture agreement. In case of non-prescription, the JV agreement will be declared as invalid and the bid will be treated as a single bidder, in the name of bidder, who has purchased the bid documents.
  - (h) In case of Joint Venture financial strengths of each of the JV members individually shall not be less than minimum qualifying criteria worked out in proportionate to their financial stakes in the JV.
- 1.8 All guarantees shall be in the name of the joint venture if the bid is submitted in the form of a joint venture.



### 3. Qualification data of the Tenderers

#### 3.1 The bidder should satisfy the pre-qualification criteria as fixed here under and in case any bidder is not found satisfying any of such criteria as fixed, his/her bid will be summarily rejected.

The bidder shall furnish the following particulars in the PDF of 100 dpi resolution.

- i) Documents in support of registration as Contractor / Firms / Agencies in appropriate class under Tripura PWD / TTAADC of Tripura / MES /CPWD/ Railway /P&T/Other State PWD/Union Territory (UT)/Central & State Sector undertaking.
- ii)
  - a) In case the bid is submitted in the form of a joint venture, at least one of the JV partners should be registered as Contractor / Firms / Agencies in appropriate class under Tripura PWD / TTAADC of Tripura / MES /CPWD/ Railway /P&T/Other State PWD/Union Territory (UT)/Central & State Sector undertaking.
  - b) The other partner can be Registered Firm / Company who meet the qualification and eligibility requirements. The documentary evidence regarding Registration of the Firm / Company supported with relevant deed / article of association etc. shall be submitted along with the bid.
- iii) Details of experience in Supply, Installation of Water ATM as a prime contractor. In case the bid is submitted in the form of a joint venture, one Partner should have experience in Supply, Installation of Water ATM as a prime contractor. This shall be furnished in the shape of satisfactory completion certificate duly issued by the concerned consignee(s).
- iv) Availability of working capital for the work (Liquid assets, credit facility and availability of other financial resources such as solvency etc.) to undertake works costing Rs. 34.00 lakh or above (*certificate issued by the competent authority of any Scheduled Bank / Nationalized Bank in India guaranteed by RBI in favour of the tenderer shall not be more than one year old*).
- v) Valid PAN Card of the tenderer(s).
- vi) Valid Sale Tax clearance certificate / valid VAT clearance certificate / valid VAT registration certificate / valid GST (as applicable) issued by the competent authority in the name of the tenderer(s).
- vii) Possess Portable Concrete Mixture Machine, Welding Set, Grinding Machine, Portable Diesel Generator and Portable dewatering pump as Key & critical construction equipment as per format prescribed in the tender document.
- vii) List of technical staff & key personnel for supervising the work as per format prescribed in the tender document.

**Note:**

1. *Registration and other relevant documents of the contractor should be valid on the last date of submission of tender as specified in the Nle-T. In case the last date of submission tender is extended, the registration and other relevant documents of the contractors should be valid on the original date of submission of tender.*
2. *Successful tenderer must have to submit valid license regarding engagement of workers in the contract works, issued from Labour Department, Government of Tripura in the name of the tenderer, to the tender inviting authority (Chief Executive Officer, Agartala Smart City Limited, Agartala, Tripura) within 15 (fifteen) days from the date of issue of letter of acceptance of tender. Failing which the Government shall without prejudice to any other right or remedy is at liberty to cancel the acceptance of tender and also to forfeit whole of the earnest money absolutely.*

**3.2 Qualification Criteria**

- i) Each tenderer should further demonstrate,
  - a) Availability of the Key personnel
    - i. Graduate Engineer (for work costing above Rs. 3.00 crore): 1(one) No.
    - ii. Diploma holder Engineer (for work costing Rs. 1.00 crore to Rs. 3.00 crore): 01 (one) No.

**3.3** Even though the tenderers meet the above qualifying criteria, they are liable to be disqualified / debarred / suspended / blacklisted if they have

- ✓ Furnished false / fabricated particulars in the forms, statements, document and annexure submitted in proof of the qualification requirements and/or
- ✓ Not turned up for entering into agreement, when called upon and/or
- ✓ Record of poor progress such as abandoning the work, not properly completing the contract, inordinate delays in completion, financial failures etc. and/or
- ✓ Participated in the previous bidding for the same work and quoted unreasonably high tender percentage and
- ✓ Even while execution of the work, if found that the work was awarded to the tenderer based on false / fake certificates of experience, the contractor will be blacklisted and necessary action will be taken as per rules.

**3.4** For tenders up to 15% less than the estimated contract value (ECV) of work, no additional security is required. But for tenders less than 15% of the estimated contract value (ECV) of work, the difference between the tendered amount and 85% of the estimated contract value, shall be paid by the successful tenderer at the time of concluding agreement as an

additional security to fulfil the contract through a Bank Guarantee or Demand Draft on a Nationalized Bank / Scheduled Bank in the prescribed format valid till completion of the work in all respect.

3.5 **a)** If the percentage quoted by a tenderer is found to be under collusion or due to unethical practices adopted at the time of tendering process, such tender shall be rejected.

**b)** A tenderer submitting a tender which the tender accepting authority considers excessive and/or indicative of insufficient knowledge of current prices or definite attempt of profiteering will render himself liable to be debarred permanently from tendering or for such period as the tender accepting authority may decide. The tenderer's overall percentage should be based on the controlled prices for the materials, if any, fixed by the Government or the reasonable prices permissible for the tenderer to charge a private purchaser under the provisions of clause-6 of the hoarding and profiteering prevention ordinance of 1943 as amended from time to time and on similar principle in regard to labour supervision on the construction.

#### **4. One Tender per Tenderer**

4.1 Each tenderer shall submit only one tender for the work. A tenderer who submits more than one tender will cause disqualification of all the tenders submitted by the tenderer.

#### **5. Cost of Tendering**

5.1 The tenderer shall bear all costs associated with the preparation and submission of his tender and the tender inviting authority will in no case be responsible and liable for those costs.

#### **6. Site Visit**

6.1 The tenderer, at the tenderer's own responsibility and risk is advised to visit and examine the jurisdictions of work and its surroundings and obtain all information that may be necessary for preparing the tender for entering into a contract for successful completion of the work in all respects as per specifications & conditions of the contract. The costs of said visit shall be at the tenderer's own expense.

## **B. TENDER DOCUMENT**

#### **7. Contents of Tender Document**

7.1 One set of Tender document comprises of the following:

- 1) Notice Inviting Bids (Nle-T)
- 2) Instruction to Bidders
- 3) Forms of Bid & Qualification data of the bidders

- 4) Conditions of Contract
- 5) Specifications
- 6) Forms of Securities i.e. EMD, Additional security etc
- 7) Drawings
- 8) Bill of Quantities

## **8. Clarification on Tender Document**

- 8.1 A prospective tenderer requiring any clarification on tender document may contact the Tender Inviting Officer or send the queries by post at the address indicated in the NIT or send an e-mail at e-mail id: [ceasclagartala@gmail.com](mailto:ceasclagartala@gmail.com) . The tender Inviting Officer will also respond to any request for clarification, received through post or by e-mail.

## **9. Amendment to Tender Document**

- 9.1 Before the last date for submission of tender, the Tender Inviting Officer may modify any of the Contents of the Tender Notice, Tender Document by issuing Amendment / Addendum.
- 9.2 Any addendum/amendments issued by the Tender Inviting Officer shall be part of the Tender Document and it shall either be communicated in writing to all the purchasers of the Tender document or notified in the News Papers & website in which NIT was published.
- 9.3 To give prospective tenderers reasonable time to take an addendum into account in preparing their bids, the Tender Inviting Officer may extend if necessary, the last date for submission of tenders.

## **C. PREPARATION OF TENDER**

### **10. Language of the Tenders**

- 10.1 All documents relating to the tender shall be in the English Language only.

### **11. Documents comprising of the Tender**

- 11.1 The Bid comprise the following.
- a) Bid document and drawings
  - b) Qualification information and supporting documents.
  - c) Bid offer & Bill of Quantities (BOQ)

### **12. Tender Offer**

- 12.1 Tender offer & Schedule of Works (Bill of Quantities) called Schedule 'A' accompanies the tender document as Volume-II. The Schedule-A shall contain the item of works. The Schedule 'A' is liable to alterations by omissions, deduction or addition at the discretion of the Chief Executive Officer / Executive Engineer or as set forth in the conditions of the contract. The Schedule 'A' shall contain the items of work indicated as Part-I. The tenderer will have to state their willingness to execute the work at certain specific percentage of excess or less or at par of the ECV indicated in Part-I at the spaces provided therein in Schedule 'A'. The tenderer shall quote his offer as an overall tender percentage. The overall tender percentage should be written both words & figures. The tender offer i.e. percentage shall be written both in figures & words legibly and free from errors.
- 12.2 The Schedule-A contains not only the quantities but also the rates worked out by the department and the amount for each item and total value of the estimated contract. The tenderer should work out his own rates keeping in view the work, site conditions, specifications & conditions of contract etc. and quote his overall tender percentage with which he intends to execute the work.
- 12.3 The percentage quoted by the tenderer shall be deemed to be inclusive of all kinds of applicable taxes, duties, royalties, Cess of both Central & State Government, local body etc. on all materials that the contractor will have to purchase for performance of the contract, all kinds of transportation charges of stipulated departmental materials as well as other materials to be arranged by the contractor at his own from respective places of delivery to the site of work & also from one work site to another, erection of temporary staging for sinking the tube well & it's subsequent dismantling and removal, making the ground condition good as before after completion of work, proper filling up of abandoned pilot hole, development & protection of worksite etc. whatsoever required to complete the work in all respects as per conditions of the contract. All plumbing & temporary incidental works which are not specifically mentioned in the schedule of works but required for successful completion of the work in all respects shall also be taken in to consideration while quoting the tender percentage. The tenderers shall be careful to avoid any ambiguity in respect of quoted tender rate & corresponding tender amount.
- 12.4 Prior to quoting the rate & amount, the tenderer(s) should get themselves appraised with the interference of all kinds of applicable taxes, duties, royalties, Cess etc. whatsoever of Central & State Government, local bodies etc. and also the applicable Rules & Regulations of Government of Tripura being followed in respect of tenders for similar kind of works to avoid any ambiguity. No plea / claim of the tenderers will be entertained in this regard afterwards.
- 12.5 The tendered contract amount is subject to variation during the performance of the Contract in accordance with variation in scopes of works etc.

### 13. Validity of Tender

- 13.1 Tender shall remain valid for a period of not less than **180 (One Hundred Eighty) days** from the last date for receipt of tender as specified in Nle-T.

- 13.2 During the above-mentioned period, no plea by the tenderer for any sort of modification of the tender based upon or arising out of any alleged misunderstanding or misconceptions or mistake or for any reason will be entertained.
- 13.3 In exceptional circumstances, prior to expiry of the original time limit, the Tender Inviting Officer may request the tenderers to extend the period of validity for a specified additional period. Such request to the tenderers shall be made in writing. A tenderer may refuse the request without forfeiting his earnest money deposit (EMD). A tenderer agreeing to the request will not be permitted to modify his tender, but will be required to extend the validity of his E.M.D. for a period of the extension.
- 14. Earnest Money Deposit**
- 14.1 The tenderer shall furnish, Earnest Money Deposit equivalent to 1.00% of ECV along with the tender (as specified in Nle-T). The EMD shall be furnished in favour of **Agartala Smart City Limited, Agartala, Tripura**, and can be furnished in the form of Demand Draft or 'Deposit-at-Call' on any Scheduled Bank / Nationalized Bank, guaranteed by Reserve Bank of India.
- 14.2 Earnest money deposit is required to be valid at least for tender validity period as stipulated in the Nle-T. If Demand draft having validity of three months period (as per latest circular of RBI) is furnished towards EMD along with tender and in such case if asked by the concerned Executive Engineer prior to expiry of validity of said Demand draft, the tenderer shall furnish another Demand draft towards earnest money having validity for further three months period so that total validity period of earnest money furnished through demand draft shall be ensured at least for the stipulated tender validity period. However, the Demand draft furnished along with the tender shall be returned to the tenderer on receipt of fresh Demand draft with required validity as noted above.
- 14.3 The EMD of the tenderers will be returned no sooner the tenders are finalized or end date of the tender validity period whichever is earlier.
- 14.4 The earnest money deposited by the tenderers will not carry any interest. The earnest money deposited by the tenderers will be dealt with as provided in the conditions stipulated in the tender document.
- 14.5 The tenderers exempted from depositing earnest money in individual case by any order of State / Central Government, PSU etc. shall also have to deposit the stipulated amount of Earnest Money along with the tender in the form as specified in the tender document. No claim/ plea of the tenderers in this respect will be entertained.
- 14.6 The EMD shall be forfeited
- i) if the tenderer withdraws the tender during the validity period of tender.
  - ii) in case of successful tenderer, if he fails to sign the agreement for whatever the reason.
  - iii) in case the bidder fails to start the work specified in the bid documents on 15th day or such time period as mentioned in letter of award after the date on which the Engineer-in-

Charge issues written orders to commence the work or from the date of handing over of the site, whichever is letter.

**15. Alteration**

- 15.1 No alteration which is made by the tenderer in the contract form, the conditions of the contract, the drawings, specifications or statements / formats or quantities accompanying the same will be recognized; and, if any such alterations are made, the tender will be void.

## D. SUBMISSION OF BIDS

**16. Submission of Bids**

- 16.1 The bidders who are desirous of participating in bid, shall submit their pre-qualifications and other details etc. in the standard formats prescribed in the bid document through the application <http://tripuratenders.gov.in>

**16.2 List of documents to be scanned and uploaded**

- 16.2.1 **Documents to be kept in the “Assigned Folder” of Bidder:** The following documents, as per standard format detailed in bid document, or as per standard dictated by Regulatory/ Statutory bodies, shall be scanned and uploaded along with the bid document as per requirements.

For ease of bidding, the bidders shall scan the following documents at 100 dpi resolution and upload them as per the folder structure provided in the “**Assigned Folders**”, which is provided free of cost to all bidders, post his/her registration in the application <https://tripuratenders.gov.in>. This operation is expected to be completed before commencement of actual bidding by the bidder.

Sl. No.	Folder Name	Documents to be uploaded
1	<b>Registrations</b>	<p><b>i)</b> Documents in support of registration as Contractor / Firms / Agencies in appropriate class under Tripura PWD / TTAADC of Tripura / MES /CPWD/ Railway /P&amp;T/Other State PWD/Union Territory (UT)/Central &amp; State Sector undertaking.</p> <p><b>ii)</b> In case the bid is submitted in the form of a joint venture,</p> <p><b>a.</b> Joint Venture Agreement (<b>Annexure – K</b>) to be submitted.</p> <p><b>b.</b> Documents in support of registration to be submitted for one partner as approved Contractor / Firms / Agencies in appropriate class under Tripura PWD / TTAADC of Tripura / MES /CPWD/ Railway /P&amp;T/Other State PWD/Union Territory (UT)/Central &amp; State Sector undertaking.</p> <p><b>c.</b> Documents to be submitted in support of Registration of the Firm / Company supported with relevant deed / article of association etc. for the other partner.</p> <p><b>iii)</b> Documents of power of attorney in favour of the member who has digitally signed the bid on behalf of a firm, company / evidence of satisfactory authorization in favour of the officer who has digitally signed the tender on behalf of a corporation.</p>
2	<b>DNle-T Document</b>	Downloaded DNle-T
3	<b>Experiences</b>	Details of experience in Supply, Installation of Water ATM as prime contractor. This shall be furnished in the shape of satisfactory completion certificate duly issued by the concerned consignee(s).
4	<b>Machineries and equipment details</b>	Portable Concrete Mixture Machine, Welding Set, Grinding Machine, Portable Diesel Generator and Portable dewatering pump.
5	<b>Financial Details</b>	Availability of working capital for the work (Liquid assets, credit facility and availability of other financial resources such as solvency etc.) to undertake works costing Rs. 34.00 lakhs or above (certificate issued by the competent authority of any Scheduled Bank /Nationalized Bank in India guaranteed by RBI in favour of the tenderer shall not be more than one year old).
6	<b>Tax related documents</b>	<b>i)</b> Valid PAN Card of the bidder.



Sl. No.	Folder Name	Documents to be uploaded
		ii) Valid Sale Tax clearance certificate / valid VAT clearance certificate /valid VAT registration certificate / valid GST (as applicable) issued by the competent authority in the name of the tenderer.
7	<b>Misc. document</b>	i) Any other relevant & applicable documents

During actual bidding, the bidder shall select / check these documents from the “**Assigned Folders**”, which will ensure completion of bidding within the same session, even if the bidder is connecting to the application over a slow speed network.

**16.2.2 Documents required during actual Bidding:** In addition to the documents kept in the “**Assigned Folders**” as mentioned in 16.2.1 above, the following documents are also to be uploaded to the e-Procurement application during actual bidding.

i) Scanned copy of “Demand Draft” or “Deposit at Call receipt” of any Scheduled Bank guaranteed by RBI against EMD and scanned copy Demand Draft of any Scheduled Bank guaranteed by RBI towards bid fee, both in a single PDF.

ii) Check list as per **Annexure - A**

iii) Declaration of Bidder as per **Annexure – D**

iv) Undertaking of the Bidder as per **Annexure - E**

v) Schedule – A of BOQ as per **Annexure - F**

**Note:**

**Bidder should take the printout of format of Annexure - A (i.e. Check list),**

**Annexure - B (i.e. Availability of Key & critical construction equipment),**

**Annexure - C (i.e. Availability of technical staff & key personnel for execution & site management the work),**

**Annexure - D (i.e. Declaration of the Bidder),**

**Annexure - E (i.e. Undertaking of the Bidder)**

**Annexure - F (i.e. Schedule-A of BOQ)**

**Annexure - G (i.e. Form of Solvency Certificate From A Scheduled Bank) &**

**Annexure - H** (i.e. Form of Performance Guarantee)

**Annexure - K** (i.e. Joint Venture Agreement), if applicable

**Attached with this bid documents and fill up where necessary, put ink signature with stamp and upload the scanned copy in the 'Assigned Folders' after digital signing at the time of Bidding. Bidder shall download the BOQ (Rate quoting schedule) and fill up properly and upload after digital signing at the time of bidding.**

16.3.2 If any of the certificates/documents furnished by the Bidder, found to be false / fabricated / bogus, the bidder will be liable to blacklisted and their E.M.D. will be forfeited.

## **17. Last date / time for Submission of the bids**

17.1 Bids must be submitted not later than the date and time specified in Nle-T.

17.2 The Executive Engineer may extend the date for receipt of bids by issuing an amendment in which case all rights and obligations of the Executive Engineer and the bidders will remain same as previously.

## **18. Late Bids**

18.1 The e-Procurement application <https://tripuratenders.gov.in> will not allow any Bidder to attempt bidding, after the scheduled date and time prescribed in Nle-T.

# **E. TENDER OPENING AND EVALUATION**

## **19. Tender opening**

19.1 The bids will be opened online by the Bid openers at the time, date and venue as specified in the bid document. The bids shall be scrutinized in accordance with the conditions stipulated in the bid document. In case of any discrepancy of non-adherence conditions, the bid accepting authority shall communicate the same which will be binding both on the bid opening authority and the bidder. In case of any ambiguity, the decision taken by the Bid Accepting Authority on bids shall be final.

## **20. Evaluation and Comparison of Tender rate**

20.1 All the statement, documents, certificates, demand draft/bank guarantee, BOQ (bills of quantity) etc. submitted / uploaded by the bidder will be verified for evaluation of bids. The clarifications, particulars, if any, required from the bidders, will be obtained by addressing the bidders. Bids will be evaluated against the specified parameters / criteria same as in the

case of conventional bids and the qualified bidders will be identified. The result of bids evaluation can be seen in the e-procurement application <https://tripuratenders.gov.in> by all the bidders who participated in the Bid.

- 20.2 The 'BOQ comparative chart' generated & displayed from the e-procurement application, after the opening of Bid will not be final. Department will prepare comparative Statement as per the decision of the Bid evaluation Committee, which will be appropriately displayed in the e-procurement application.
- 20.3 In case where it became necessary, negotiation should be restricted only to the lowest bidder prior to finalization of the bid for acceptance if desired by the bid accepting authority.

## **21. Discrepancy in Tender Percentage quoted**

- 21.1 Tender shall be scrutinized in accordance with the conditions stipulated in the Bid document. Tenderer shall quote rate in percentage in figures only. In case of any ambiguity, the decision taken by the Bid Accepting Authority on Bidders shall be final.

## **22. Process to be Confidential**

- 22.1 Information relating to the examination, clarification, evaluation and comparison of bids and recommendations for the award of a contract shall not be disclosed to bidders or any other persons not officially concerned with such process until the award to the successful bidder has been announced by the bid accepting authority. Any effort by a bidder to influence the processing of bids or award decisions may result in the rejection of his bid.
- 22.2 No bidder shall contact the Executive Engineer or any authority concerned with finalization of bids on any matter relating to its bid from the time of the bid opening to the time the contract is awarded. If the bidder wishes to bring additional information to the notice of the Executive Engineer, it should do so in writing.
- 22.3 Before recommending / accepting the bid, the bid recommending / accepting authority shall verify the correctness of certificates submitted to meet the eligibility criteria and specifically experience. If required, the authenticated agreements of previous works executed by the lowest bidder may be called for.

## **F. AWARD OF CONTRACT**

### **23. Award Criteria**

- 23.1 The Chief Executive Officer / Executive Engineer will award or recommend to the competent bid accepting authority for award of the contract to the bidder who is found qualified as per the bid conditions and whose offer rate is lowest.

23.2 The bid accepting authority reserves the right to accept or reject any bid or all bids and to cancel the bidding process, at any time prior to the award of contract, without thereby incurring any liability to the affected bidder or bidders or any obligation to inform the affected bidder or bidders of the reasons for such action.

#### **24. Notification of Award and Signing of Agreement**

24.1 The bidder whose bid has been accepted will be notified of the award of the work by the Executive Engineer or any authorized official, prior to expiration of the bid validity period by registered letter. This letter (hereinafter and in the Conditions of Contract called “Letter of Acceptance”) will indicate the sum that the Government will pay the bidder in consideration of the execution, completion and maintenance of the Works by the bidder as prescribed by the Contract (hereinafter and in the Contract called the “Contract Amount”).

24.2 When a bid is to be accepted, the concerned bidder shall attend the office of the Executive Engineer concerned on the date fixed in the Letter of acceptance. Upon intimation being given by the Executive Engineer, of acceptance of his bid, the bidder shall make payment of the additional security deposit wherever needed by way of Demand Draft or Deposit at Call obtained from a Nationalized / Scheduled Bank with required validity period and sign an agreement in the form prescribed by the department for the due fulfilment of the contract. Failure to attend the Executive Engineer’s office on the date fixed, in the written intimation, to enter into the required agreement shall entail forfeiture of the Earnest Money deposited. The written agreement to be entered into between the bidder and the Government shall be the foundation of the rights and obligations of both the parties and the contract shall not be deemed to be complete until the agreement has first been signed by the bidder and then by the proper officer authorized to enter into contract on behalf of the Government.

24.3 The successful bidder has to sign an agreement within a period of 15 days from the date of receipt of communication of acceptance of his bid. On failure to do so his bid will be cancelled duly forfeiting the EMD paid by him without issuing any further notice and action will be initiated for black listing the bidder.

#### **25. Corrupt or Fraudulent Practices**

25.1 The Government requires that the bidders / suppliers / contractors under Government financed contracts, observe the highest standard of ethics during the procurement and execution of such contracts. In pursuance of this policy, the Government

(a) define for the purposes of the provision, the terms set forth below as follows:

(i) “corrupt practices” means the offering, giving, receiving or soliciting of anything of value to influence the action of a Government official in procurement process or in contract execution; and

(ii) “fraudulent practice” means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Government and includes collusive practice among bidders (prior to or after Bid submission) designed

---

to establish in bid prices at artificial non-competitive levels and to deprive the Government of the benefits of free and open competition.

- (b) Will reject a proposal for award if it determines that the bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question.
- (c) Will blacklist / or debar a firm, either indefinitely or for a stated period of time, if at any time determines that the firm has engaged in corrupt or fraudulent practices in competing for, or in executing a Government Contract.
- (d) Furthermore, bidders shall be aware of the provisions stated in the Conditions of Contract.

---

**SECTION - III**

**FORM OF BID**

**QUALIFICATION INFORMATION**

## Annexure- A

## CHECK LIST TO ACOMPANY THE BID

Sl. No.	Description	Submitted
<b>1</b>	<b>2</b>	<b>3</b>
1.	Submit the check list (as per <b>Annexure – A</b> )	Yes / No
2.	Documents in support of registration as approved Contractor / Firms / Agencies in appropriate class under Tripura PWD / TTAADC of Tripura / MES /CPWD/ Railway /P&T/Other State PWD/Union Territory (UT)/Central & State Sector undertaking.	Yes / No
3.	In case the bid is submitted in the form of a joint venture,  a. Joint Venture Agreement ( <b>Annexure – K</b> ) to be submitted.  b. Documents in support of registration to be submitted for one partner as approved Contractor / Firms / Agencies in appropriate class under Tripura PWD / TTAADC of Tripura / MES /CPWD/ Railway /P&T/Other State PWD/Union Territory (UT)/Central & State Sector undertaking.  c. Documents to be submitted in support of Registration of the Firm / Company supported with relevant deed / article of association etc. for the other partner.	Yes / No
4.	Documents of power of attorney in favour of the member who has digitally signed the bid on behalf of a firm, company / evidence of satisfactory authorization in favour of the officer who has digitally signed the tender on behalf of a corporation.	Yes / No
5.	Downloaded DNle-T.	Yes / No
6.	Bidders to submit certificates issued by the concerned consignee(s) in support of experience in Supply, Installation of Water ATM.	Yes / No
7.	Availability of key & critical construction equipment: Possess Portable Concrete Mixture Machine, Welding Set, Grinding Machine, Portable Diesel Generator and Portable dewatering pump ( <b>as per Annexure-B</b> ).	Yes / No
8.	Availability of technical staff & key personnel for execution & site management the work as per format prescribed in the bid document ( <b>as per Annexure - C</b> )	Yes / No

<b>Sl. No.</b>	<b>Description</b>	<b>Submitted</b>
<b>9.</b>	Declaration of the Bidder ( <b>as per Annexure - D</b> )	Yes / No
<b>10.</b>	Undertakings of the Bidder ( <b>as per Annexure - E</b> )	Yes / No
<b>11.</b>	Schedule – A of BOQ ( <b>as per Annexure - F</b> )	Yes / No
<b>12.</b>	Availability of working capital for the work (Liquid assets, credit facility and availability of other financial resources such as solvency etc.) to undertake works costing Rs. 34.00 lakhs or above (certificate issued by the competent authority of any Scheduled Bank /Nationalized Bank in India guaranteed by RBI in favour of the tenderer shall not be more than one year old) ( <b>as per Annexure-G</b> ).	Yes / No
<b>13.</b>	Form of Performance Guarantee ( <b>as per Annexure - H</b> )	Yes / No
<b>14.</b>	Valid PAN Card of the bidder	Yes / No
<b>15.</b>	Valid Sale Tax clearance certificate and /or valid VAT clearance certificate and / or valid Sale Tax registration and /or valid VAT registration certificate/ valid GST (as applicable) issued by the competent authority in the name of the bidder.	Yes / No
<b>16.</b>	Scanned copy of “Demand Draft” or “Deposit at Call receipt” of any Scheduled Bank guaranteed by RBI against EMD and scanned copy “Demand Draft” or “Deposit at Call receipt” on any Scheduled Bank guaranteed by RBI towards Bid Fee	Yes / No
<b>17.</b>	Any other relevant & applicable documents	Yes / No

Signature of the Bidder



**Annexure- B****Availability of Key & Critical Construction Equipment**

- 1) I / We do hereby solemnly affirm and declare that I / we own the following equipment for using on the subject work and also declare that I / We will abide by any action such as disqualification or determination of contract or blacklisting or any action deemed fit, if the department detects at any stage that I / we do not possess the equipment listed below.

Sl. No.	Equipment Type and Characteristics	Minimum quantity required
1.		
2.		
3.		

- 2) I / We do hereby declare that the said rig machine & other equipments will be deployed only for this work and will be placed to the worksite after issuance of work order.

Signature of the Bidder

**Annexure-C**

**Schedule of Availability of Technical Staff & Key Personal**

I / We will employ the following technical staff & key personnel for supervising the work and will see that one of them is always at site during working hours; personally, checking all items of works and pay special attention to such works as required.

Name of members of Technical staff proposed to be employed	Qualification

Name of members of Key Personnel proposed to be employed	Qualification

I / We declare that I / We agree to recover the salaries of the technical staff actually engaged on the work by the department from the work bills, if I / We fail to employ technical staff as per the bid condition.

Signature of the Bidder

---

**Annexure – D****DECLARATION OF THE BIDDER**

- 1) I / we have gone through carefully all the bid conditions and solemnly declare that I / we will abide by any penal action such as disqualification or black listing or determination of contract or any other action deemed fit, taken by the Department against me / us, if it is found that the statements, documents, certificates produced by me / us are false / fabricated.
- 2) I / We do hereby declare that there is no order of any Government department / PSU of Tripura or any other State in India is in force as on the date of submission of bid regarding blacklisting or debarment or suspension prohibiting me / us from continuing contracting business for any reason.
- 3) I / We have not been demoted to the next lower category for not filing the bids after buying the bid schedules in a whole year and my/our registration has not been cancelled for a similar default in two consecutive years.
- 4) I / We agree to disqualify me/us for any wrong declaration in respect of the above and to summarily reject my/our bid.

**Address of the Bidder:****Phone No.:****Fax No.:****Email No.:**

**Note:** If the bid is made by an individual, it shall be signed with his full name and his full postal address shall be given. If the bid is made by a firm/company, it shall be signed by a member of the firm/company holding a power of attorney authorizing him to do so and such power of attorney to be produced with the bid and it must disclosed that the firm/company is duly registered under the Indian Partnership Act / Indian Company Act. If the bid is made by a corporation it shall be signed by a duly authorized officer who shall produce with his bid satisfactory evidence of his authorization. Such bidding corporation may be required before the contract is executed, to furnish evidence of its corporate existence.

**Signature of the Bidder**

## Annexure – E

### Undertaking of the Bidder

Date:

To,  
**The Chief Executive Officer,  
 Agartala Smart City Limited,  
 Agartala, Tripura.**

Sir,

**I / We do hereby bid and if this bid be accepted, undertake to execute the following work** viz. “Design, Engineering, Installation & Commissioning of Water ATMs for Public in Agartala City and Post Completion Operation & Maintenance for 05 (five) years including Defects Liability Period of 01 (one) year” as described in the specifications deposited in the office of the Chief Executive Officer, Agartala Smart City Limited, Agartala, Tripura with such variations by way of alterations or additions to, and omissions from the said works and method of payment as provided for in the ‘Conditions of the Contract’ for the sum of Rs. ....Rupees..... **(To Be Filled In During Signing of Agreement)** or such other sum as may be arrived under the clause of the standard preliminary specifications relating to ‘payment on lump sum basis or by final measurement at unit rates’.

I/We have quoted percentage excess or less, at par on ECV, **in Bills of Quantities (BOQ) in figures only** for which I / We agree to execute the work when the lump sum payment under terms of the agreement is varied by payment on measurement quantities.

I/We have quoted percentage excess or less, at par on ECV, **in Bills of Quantities (BOQ) in figures only**. I/WE have not tampered with the provided Bills of Quantity (BOQ) and I/WE have uploaded the same downloaded BOQ after filling in the necessary fields.

I/We agreed to keep the offer in this bid valid a period of **180 (one hundred eighty) days** mentioned in the bid notice and not to modify the whole or any part of it for any reason within above period. If I/WE withdraw the bid for any reasons whatsoever, the earnest money paid by me / us will be forfeited to Government.

I/We hereby distinctly and expressly declare and acknowledge that, before the submission of my / our bid, I/We have carefully followed the instructions in the bid notice and the preliminary specifications and that I/We have made such examination of the contract document and the plans, specifications and quantities and of the location where the said work is to be done, and such investigation of the work required to be done, and in regard to the material required to be furnished as to enable me/us to thoroughly understand the intention of same and the requirements, covenants, agreements, stipulations and restrictions contained in the contract, and in the said plans and specifications and distinctly agree that I/We will not hereafter make any claim or demand upon the Government based upon or arising out of any alleged misunderstanding or misconception or

mistake on my / our part of the said requirement, covenants, agreements, stipulations, restrictions and conditions.

I / We enclosed to my/our application for bid a crossed “Demand Draft”/ “Deposit at Call Receipt” (No.....dated:.....) for Rs. ....as earnest money not to bear interest.

I / We shall not assign the contract or sublet any portion of the same.  
 If My / Our bid is not accepted, the sum shall be returned to me / us on application when intimation is sent to me / us of rejection or at the expiration of 180 (one hundred eighty) days from last date of receipt of this bid, whichever is earlier. If my / our bid is accepted, the earnest money shall be retained by the Government as security for the due fulfilment of this contract. If upon written intimation to me / us by the Chief Executive Officer / Executive Engineer office,

I / We fail to attend the said office on the date herein fixed or if upon intimation being given to me / us by the Chief Executive Officer / Superintending /Executive Engineer or acceptance of my/our bid and if I/We fail to make the additional security deposit or to enter into the required agreement as defined in the bid notice, then I / We agree the forfeiture of the earnest money. Any notice required to be served on me/us hereunder shall be sufficiently served on me/us if delivered to me/us personally or forwarded to me/us by post to (registered or ordinary) or left at my/our address given herein. Such notice shall if sent by post be deemed to have been served on me/us at the time wherein due course of post it would be delivered at the address to which it is sent.

I/We fully understand that the written agreement to be entered into between me/us and Government shall be the foundation of the rights of the both the parties and the contract shall not be deemed to be complete until the agreement has first been signed by me/us and then by the proper officer authorized to enter into contract on behalf of Government.

I am / We are professionally qualified and my/our qualifications are given below;

Name	Qualifications

I / We will deploy the **technical staff** (as per **Annexure - C** of this Bid document) for supervising the work and will see that one of them is always at site during working hours, personally checking

all items of works and pay extra attention to such works as required special attention (e.g.) Reinforced concrete work etc.

I / We declare that I/We agree to recover the salaries of the technical staff actually engaged on the work by the department from the work bills if I / We fail to employ technical staff as per the bid condition.

### **TENDERER'S CERTIFICATE**

- (1) I / We hereby declare that I / We have perused in detail and examined closely the Standard Specifications of Government of Tripura, all clauses of the preliminary specifications with all amendments and have either examined all the standards specifications or will examine all the standard specifications for items for which I / We bid, before I/We submit such bid and agree to be bound and comply with all such specifications for this agreement.
- (2) I/We certify that I/We have inspected the site of the work before quoting my Percentage excess or less on ECV, I /We have satisfied about the quality, availability and transport facilities for stones, sand and other materials.
- (3) I/We am/are prepared to furnish detailed data in support of my quoted rate, if and when called upon to do so without any reservations.
- (4) I/We hereby declare that I/We will pay an additional security deposit in terms of conditions, the difference between 85% of ECV and my/our bid amount, in case if my / our offer is less than (-)15%.
- (5) I/We hereby declare that I/We will not claim any price escalation for this work.
- (6) a) I/We declare that I/We will procure all the required construction materials (except stipulated departmental materials) including earth and use for the work after approval of the Engineer-in-Charge.

The responsibility for arranging and obtaining the land for borrowing or exploitation in any other way shall rest with me/us for the materials for construction. I/We shall ensure smooth and un-interrupted supply of materials.

b) I/We declare that the responsibility for arranging and obtaining the land for disposal of spoil/soil not useful for construction purposes shall rest with me/us.

c) I/We declare that I/We shall not claim any compensation or any payment for the land so arranged for disposal of soil and the land for borrow area. My/our quoted percentage excess or less ECV or at Par are inclusive of the land so arranged and I/We will hand over the land so arranged for disposal of soil to the department after completion of work.

d) I/WE declare that I/WE will not claim any extra amount towards any material used for the work other than the quoted works for respective schedule 'A' items.

- (7) I/We declare that I/We will execute the work as per mile stone programme and if I/We fail to complete the work as per the mile stone programme, I / We abide by the condition to recover liquidated damages as per the bid conditions.
- (8) I/We declare that I/We will abide for settlement of disputes as per the bid conditions.
- (9) I/We declare that I/We will produce Forest Clearance Certificate from the Divisional Forest Officer having jurisdiction over the area, in respect of extraction of any forest produces for utilization in works under this contract before final payment and/or/refund of security deposit. If I/We fail to do so, a sum of money towards royalty remaining unpaid by the me / us, if any, as may be specified by the concerned Divisional Forest Officer, will be set-off from any sum of money including security deposit due any payable to the me / us under this contract.
- (10) I/We declare that if my / our bid is accepted, I/We will submit valid license regarding engagement of workers in the contract works, issued from Labour Department, Government of Tripura in the name of the bidder to the bid inviting authority (*The Chief Executive Officer, Agartala Smart City Limited, Agartala, Tripura*) within 15 (fifteen) days from the date of issue of letter of acceptance of bid. If I/We fail to submit the license regarding engagement of workers in the contract works as above, then I/We agree with the forfeiture whole of the earnest money deposited by me / us absolutely and cancellation of acceptance of my/our bid. I / we will also abide by any penal action such as black listing or any other action deemed fit, taken by the Department against me/us for such default from my / our part.

**Address of the Bidder:****Phone No.****Fax No.****Email Id.****Note:**

If the bid is made by an individual, it shall be signed with his full name and his full postal address shall be given. If the bid is made by a firm/company, it shall be signed by a member of the firm/company holding a power of attorney authorizing him to do so and such power of attorney to be produced with the bid and it must disclosed that the firm/company is duly registered under the Indian Partnership Act / Indian Company Act. If the bid is made by a corporation it shall be signed by a duly authorized officer who shall produce with his bid satisfactory evidence of his authorization. Such bidding corporation may be required before the contract is executed, to furnish evidence of its corporate existence.

**Signature of the Bidder**

## Annexure – K

### JOINT VENTURE AGREEMENT

(To be notarized on Rs. 100/- non judicial stamp paper)

(1) The Joint Venture agreement made and entered into at \_\_\_\_\_ (place) on \_\_\_\_\_ day of \_\_\_\_\_(YEAR) by and between.

- a. Firm A ( Name with address of the registered office)
- b. Firm B (Name with address of the registered office )

(2) **Definitions:** In this deed the following words and expressions shall have the meaning set out below.

- a. "The Employer" shall mean The Chief Executive Officer, Agartala Smart City Limited, Agartala, West Tripura.
- b. "The Works" shall mean "Design, Engineering, Installation & Commissioning of Water ATMs for Public in Agartala City and Post Completion Operation & Maintenance for 05 (five) years including Defects Liability Period of 01 (one) year" which is more particularly described in the pre-qualification and tender documents issued thereof by the Employer.
- c. "The Tender" shall mean the Tender to be submitted by Joint Venture to the Employer for the work /works.
- d. "The Contract" shall mean the contract entered /to be entered into between the Joint Venture and the Employer for the works.

(3) **Joint Venture (J.V):**

The Parties hereto declare that they have agreed to form a Joint Venture for the purpose of submitting the pre-qualification Application/ tender document initially and then tender and if successful for the execution of the works as an integrated Joint Venture. The parties are not under this agreement entering into any permanent partnership of Joint Venture to tender or undertake any contract other than the subject works. Nothing herein contained



shall be considered to constitute the parties of partners to constitute either Party the agent of the other.

**(4) Witnesses:** Where as the Chief Executive Officer, Agartala Smart City Limited, Agartala, West Tripura, hereinafter referred as “ASCL” as employer has invited tenders from intending bidders and “ASCL” has permitted a group of firms (not exceeding two) forming a Joint Venture to eligible to be a bidder. And whereas \_\_\_\_\_ party of the first part and \_\_\_\_\_ party of the Second part/third part (if applicable) are desirous to enter into a Joint Venture in the nature of partnership engaged in the joint undertaking for the specific purpose of execution of the work of constructing \_\_\_\_\_ and whereas Parties of the first and Second part / third part (if applicable) reached understanding to submit pre-qualified / tender, if pre-qualification, and to execute the contract if awarded;

**This agreement witness as follows.**

- (a) The parties do not enter into an agreement of any permanent partnership of Joint Venture to tender or undertake any Contract other than the specified above;
- (b) That the operation of this Joint Venture firm concerns and is confined to the work of \_\_\_\_\_ of “ASCL”.
- (c) The name of the Joint Venture firm for convenience and continuity shall be.....
- (d) The Address of Joint Venture for communication shall be as under.....
- (e) The Joint Venture shall jointly submit pre-qualification application on the above name according to all terms and conditions stated in the relevant instructions contained in the bid documents.
- (f) That this Joint Venture shall regulate the relations between the parties thereto and shall

include without being limited to them the following conditions.

- (1) \_\_\_\_\_ firm shall be the lead company in charge of the Joint Venture for all intents and purpose.
- (2) In case, the said work is awarded to the Joint Venture, the partners of the Joint Venture will nominate a person with duly notarized power of Attorney on stamp paper, who will represent the Joint Venture with the authority to incur liabilities, receive instructions and payments, sign and execute the contract for an on behalf of the Joint Venture,
  - (i) All the (Maximum Two) parties agree to make financial participation and to place at disposal of Joint Venture the benefits of its individual experience, technical knowledge, skill and shall in all respect bear its share as regards planning and execution of the work and responsibilities including the provision of information, advice and other assistance required in the Joint Venture and participation shall be in proportion of, Firm –A.....% Firm - B.....%.
  - (ii) All rights, interests, liabilities, obligations work experience and risks (and all net profits or net losses) arising out of the contract shall be borne by the parties in proportion to their shares. Each of the parties shall furnish its proportionate share in any bonds, guarantees, sureties required for the works as well as its proportionate share in connection with the works. The share and participation of the two partners in working capital and other financial requirements shall be in ratio as mentioned above.
- (5) **Internal responsibilities and liabilities:**
  - (a) The division of individual scope of work may be worked out mutually by the parties but the party shall be jointly and severally liable to the employer for the whole work.
  - (b) The parties specifically undertake to carry out their separate works in full compliance with the contract with the employer. Each party shall be responsible jointly and severally for consequences if any arising out of defective or delayed execution of works which falls within the individual's party's area of responsibility and/ or it has been caused due to acts and /or omission of the concerned party.
  - (c) The parties jointly and severally agree to replace modify or repair any defect in their respective portions of works in accordance with the terms and condition of the contract with the employer.
  - (d) The parties jointly and severally shall indemnify and hold harmless to each other against any

claim made by the employer or any other third party for injury, damage, loss or expenses is attributed to the breach /non-performance of his responsibilities by the indemnifying party in accordance with the agreements and /or contract with the employer.

(e) None of parties have joined in any other Joint Venture for the said works.

**(6) Responsibilities and liabilities of Joint Venture towards the employer:**

(1) Parties hereto shall be jointly and severally liable and responsible for the acts, deeds and things done or omitted to be done in respect of the execution of the contract and for any financial liability arising there from.

(2) Parties hereto shall be jointly and severally responsible to the Employer for the execution of the works in accordance with the contract conditions;

(3) Parties hereto shall be jointly and severally indemnify to the Employer against any claim made against the employer or any other third party for any injury, damage or loss which may be attributed to the breach of the obligations under the contract pursuant to the contract.

**(7) Site management:**

(a) The execution of the work on the site will be managed by a Project Manager appointed by the Joint Venture and who will report to the \_\_\_\_\_ (J.V.) the project manager shall be authorized to represent the Joint Venture on site in respect of matters arising under the contract.

(b) The \_\_\_\_\_ (Name of the J.V.) shall be jointly and severally liable to the employer for the execution of the contract commitment in respect of the works in accordance with contract conditions.

**(8) Termination of the Agreement:**

This agreement shall be terminated in the following circumstances.

(a) The employer awards the contract for the work to the other Bidder.

(b) The employer cancels the work to award the contract.

(c) On completion of the defect liability period as stipulated in the contract agreement of the works and all the liabilities thereof are liquidated.

**(9)** No partner has right to assign any benefits, obligation of liability under the agreement to any third party without prior written consent of the other partner as well as Board

**(10) Financial matter:**

- (a) Bank Account in the name of the Joint Venture will be opened with any scheduled or nationalized Bank to be operated by an individual signatory as decided mutually by the Joint Venture partners.
- (b) All the partners shall be responsible to maintain or cause to maintain proper Books of accounts balance sheet and profit and loss account as to the state of affairs of the firm as at the end of the financial year and as to the profit and loss made or incurred by the firm for the year ended on that date, respectively shall be prepared and the same shall subject to audit by a Chartered Accountant.
- (c) None of the party shall be entitled to make any borrowing on behalf of the Joint Venture without express prior written consent of the other party.
- (d) Bank guarantee for the application /execution of the work shall be provided jointly from a bank acceptable to the employer.

**(11) Negotiation :** Any negotiation of agreement between the parties hereto and the employer subsequent to the submission of the tender and prior to award, shall take place only with consent of each of the parties who shall be represented at the such negotiation by one or more representative(s) duly empowered to make such negotiation or agreement.

**(12) Legal jurisdiction:** All questions relating to validity interpretation of this agreement shall be governed by the law of India and shall be subject to jurisdiction of High court at Agartala.

**(13) Settlement of disputes:** Any dispute in interpretation of any condition mentioned herein shall be referred to an arbitrator/tribunal by mutual consent of the partners and such proceedings shall be governed by Agartala Municipal Corporation contract disputes tribunal act and as amended from time to time. The award of arbitrator shall be final and binding on the party hereto. Neither the obligation of each party here to the performance of contract nor the execution of work shall stop during the course of arbitration proceeding or as a result thereof.

**(14) Insurance:**

- (a) The Joint Venture through the parties individually shall take such insurance in connection with the work in accordance with the tender condition as acceptable to the employer.

- (b) The cost of the insurance premium paid by the Joint Venture shall be borne and paid by the parties in proportion to the respective shares of work. Other insurance taken individually by the parties shall be fully borne by the respective parties.
- (15) No change shall be made in this agreement without prior written consent of the employer and other party. However if the employer directs the parties to make changes in the agreement so as to fulfill tender conditions the parties discuss with employer and mutually agreed such changes required to be made in the agreement.
- (16) **Default and withdrawals from the Joint Venture:** In case that either party fails to observe the provision stipulated in this agreement withdrawal from the Joint Venture, Loss and/or expenses incurred by other party due to such default and /or withdrawals shall be fully compensated by the party who has defaulted.
- (17) All matter relating to or arising due to this agreement shall be treated as confidential and shall not be disclosed to any other party. In witness whereof the parties have caused their duly authorized representatives to sign below.

Witness:

- 1 Signed for and on behalf of firm-A
- 2 Date Seal

Witness:

- 1 Signed for and on behalf of firm-B
- 2 Date Seal

**JOINT VENTURE DATA**

A copy of the joint venture agreement must be attached to this Joint Venture Data. In case the joint venture agreement is not acceptable to Agartala Smart City Limited, the joint venture may be requested to modify the agreement accordingly. Failure to submit a modified Joint venture agreement within twenty-one days upon receipt by the applicant of the request for modification will disqualify the applicant for further consideration.

Names of the joint venture as mentioned in JV agreement: .....				
Partners	Name of Firm	Name of Contact Person with Telephone Number	Correspondence Address	Financial Stake in JV (In Percentage)
Lead Partner				
Partner				

**SIGNATURE OF BIDDER**

**INFORMATION RELATING TO FINANCIAL CRITERIA**

**Name of Applicant or partner of a joint venture:**

All individual firms and all partners of a joint venture are requested to complete the information in this form. The information supplied should be the annual turnover of the Applicant (or each member of a joint venture), in terms of contract receipt of works for each year.

Use a separate sheet for each partner of a joint venture.

Applicants should not enclose testimonials, certificates, and publicity material with their applications; they will not be taken into account in the evaluation of qualifications.

***Annual turnover data for the last five financial years i.e. 2013-2014 to 2017-2018 (Rs. In lacs)***

Year	Turnover (Gross)	Annual income from contracting	Annual income from other sources
<b>[A] Lead Partner:</b>			
2013-2014			
2014-2015			
2015-2016			
2016-2017			
2017-2018			
<b>[B] Joint Venture:</b>			
2013-2014			
2014-2015			
2015-2016			
2016-2017			
2017-2018			

Note: The declared figures as mentioned above shall be supported with balance sheet certified by Chartered Accountant and duly notarized for the respective financial year.

**SIGNATURE OF BIDDER**





---

# SECTION - IV

# CONDITIONS OF CONTRACT

## TABLE OF CONTENTS

CLAUSE	DESCRIPTION	CLAUSE	DESCRIPTION
<b>A.</b>	<b>GENERAL</b>	29.	Early Warning
1.	Interpretation	<b>C.</b>	<b>QUALITY CONTROL</b>
2.	Engineer-in-charge's Decisions	30.	Identifying Defects
3.	Delegation	31.	Tests
4.	Communications	32.	Correction of Defects
5.	Other Contractors	33.	Uncorrected Defects
6.	Personnel	34.	Quality Control
7.	Contractor's Risks	<b>D.</b>	<b>COST CONTROL</b>
8.	Insurance	35.	Bill of Quantities
9.	Site Inspections	36.	Changes in the Quantities
10.	Contractor to Construct the Works	37.	Extra Items
11.	Diversions of Streams and Drains	38.	Payment Certificates
12.	Power Supply	39.	Payments
13.	Works Adjacent To Road	40.	Interest on Money
14.	Ramps	41.	Certificate of Completion of works
15.	Monsoon Damages	42.	Taxes included in the Tender
16.	Completion of Work by Completion Date	43.	Schedule of Payment
17.	Safety	44.	Price Adjustment
18.	Discoveries	45.	Retention
19.	Possession of the Site	46.	Liquidated Damages
20.	Access to the Site	47.	Incentives
21.	Instructions	48.	Mobilization Advance
22.	Settlement of Disputes	49.	Securities
<b>B.</b>	<b>TIME FOR COMPLETION</b>	50.	Cost of Repairs
23.	Program	<b>E.</b>	<b>FINISHING THE CONTRACT</b>
24.	Construction Program	51.	Completion
25.	Speed of Work	52.	Taking Over
26.	Suspension of Works by the Contractor	53.	Final Account
27.	Extension of the Intended Completion Date	54.	Termination
28.	Delays Ordered by the Engineer-in-charge	55.	Payment upon Termination

CLAUSE	DESCRIPTION	CLAUSE	DESCRIPTION
56.	Property	86.	Ecological Balance
57.	Release from Performance	87.	Preservation of existing vegetation
<b>F.</b>	<b>SPECIAL CONDITIONS</b>	88.	Possession prior to completion
58.	Water Supply	89.	Payment upon termination
59.	Electrical Power	90.	Access to the Contractor's books
60.	Land	91.	Drawings to be kept at site
61.	Roads	92.	Litho Log sheet to be kept at site
62.	Payment for Camp Construction	93.	Site Order Book
63.	Explosive and Fuel Storage Tanks	94.	Variations by way of modification, omissions or additions
64.	Labour	95.	Care and diversion of river / stream
65.	Safety Measures	96.	Income tax
66.	Fair Wage Clause	97.	Sales Tax / VAT/ valid GST (as applicable)
67.	Indemnity Bond	98.	Compulsory deduction for all works
68.	Compliance with Labour Regulations	99.	Supply of construction materials
69.	Salient features of some major labour laws	100.	Scope of Services for Operation and Maintenance (O&M)
70.	Liabilities of the Contractor	101.	General Instructions
71.	Contractor's Staff, Representatives and Labour		
72.	Accommodation and food		
73.	Relationship		
74.	Protection of adjoining premises		
75.	Work during night or on Sundays and holidays		
76.	Layout of materials stacks		
77.	Use of blasting materials		
78.	Plant and Equipment		
79.	Inconvenience to public		
80.	Conflict of interest		
81.	Contract documents and materials to be treated as confidential		
82.	General Obligations of Contractor		
83.	Security Measures		
84.	Fire Fighting Measures		
85.	Sanitation		

---

# CONDITIONS OF CONTRACT

## A. GENERAL

### 1. Interpretation

- 1.1 In interpreting these Conditions of Contract, singular also means plural, male also means female, and vice-versa. Headings have no significance. Works have their normal meaning under the language of the contract unless specifically defined. The Engineer-in-charge will provide instructions clarifying queries about the Conditions of Contract.
- 1.2 The documents forming the Contract shall be interpreted in the following order of priority:
- 1) Agreement
  - 2) Letter of Acceptance, notice to proceed with the works
  - 3) Contractor's Tender
  - 4) Conditions of Contract
  - 5) Specifications and other terms & conditions
  - 6) Bid offer & Schedule of work (Bill of Quantities)
  - 7) Any other document listed as forming part of the Contract

### 2. Engineer-in-charge's Decisions

- 2.1 Except where otherwise specifically stated, the Engineer-in-charge will decide the contractual matters between the Department and the Contractor in the role representing the Department.

### 3. Delegation

- 3.1 The Engineer-in-charge may delegate any of his duties and responsibilities to other officers and may cancel any delegation by an official order issued.

### 4. Communications

- 4.1 Communications between parties, which are referred to in the conditions, are effective only when in writing. A notice shall be effective only when it is delivered (in terms of Indian Contract Act).

### 5. Other Contractors

- 5.2 The contractor shall cooperate and share the Site with other contractors, Public authorities, utilities and the Department. The contractor shall also provide facilities and services for them as directed by the Engineer-in-charge.

## 6. Personnel

- 6.1 The contractor shall employ the required key personnel named in the schedule of key personnel to carry out the functions stated in the Schedule or other personnel approved by the Engineer-in-charge. The Engineer-in-charge will approve any proposed replacement of key personnel only if their qualifications, abilities, and relevant experience are substantially equal to or better than those of the personnel listed in the Schedule.
- 6.2 Failure to employ the required technical personnel by the contractor, the amounts as specified in the conditions of the contract herein after will be recovered from the contractor over and above the provisions made in the tender document.
- 6.3 The technical personnel should be on full time and available at site whenever required by Engineer-in-charge to take instructions.
- 6.4 The names of the technical personnel to be employed by the contractor should be furnished in the prescribed proforma of this tender document.
- 6.5 In case the contractor is already having more than one work on hand and has undertaken more than one work at the same time, he should employ separate technical personnel on each work.
- 6.6 If the Engineer-in-charge asks the contractor to remove a person who is a member of contractor's staff or his work force stating the reasons, the contractor shall ensure that the person leaves the site forthwith and has no further connection with the work in the contract.

## 7. Contractor's Risks

- 7.1 All risks of loss of or damage to physical property and of personnel injury and death, which arise during and in consequence of the performance of the Contract, are the responsibility of the contractor.

## 8. Insurance

- 8.1 The contractor shall provide, in the joint names of the Department and the contractor, insurance cover from the Start Date to the end of the Defects Liability Period i.e., **12 (Twelve) months** after completion for the following events which are due to the contractor's risks.
- a) loss of or damage to the Works, Plant and Materials ;
  - b) loss of or damage to the Machineries & Equipment ;
  - c) loss of or damage of property in connection with the Contract ; and
  - d) personal injury or death of persons employed for construction
- 8.2 Policies and certificates of insurance shall be delivered by the contractor to the Engineer-in-charge at the time of concluding agreement. All such insurance shall provide for compensation to be payable to rectify the loss or damage incurred.
- i. The Contractor shall furnish insurance policy in force in accordance with proposal furnished in the tender and approved by the Department for concluding the agreement.

- ii. The Contractor shall also pay regularly the subsequent insurance premium and produce necessary receipt to Engineer-in-charge well in advance.
- iii. In case of failure to act in the above said manner, the Department will pay the premium and the same will be recovered from the contractor's payments.

8.3 Alterations to the terms of insurance shall not be made without the approval of the Engineer-in-charge.

## **9. Site Inspections**

9.1 The contractor should inspect the site and also proposed quarries of choice for materials source of water and quote his percentage including quarrying, conveyance and all other charges etc.

9.2 The responsibility for arranging the land for borrow area rests with the contractor and no separate payment will be made for procurement or otherwise. The contractor's quoted tender percentage will be inclusive of cost of arrangement of such land.

## **10. Contractor to Construct the Works**

10.1 The contractor shall construct and complete the work in accordance with the stipulated specifications and conditions of contract in all respects.

## **11. Diversions of Streams and Drains**

No separate payment for bailing out sub-soils, water drainage or locked up rain water for diversion, shoring, foundations, bailing of pumping water either from excavation of soils from foundations or such other incidental will be paid. The amount to be quoted by the contractor is for the finished item of work in situ and including all the incidental charges. The borrow pits are also to be de-watered by the contractor himself at his expense, if that should be found necessary. The contractor has to arrange for bailing out water, protection to the work in progress and the portion of works already completed and safety measures for men and materials and all necessary arrangements to complete the work. No separate payment will be entertained for this purpose. All the arrangements so required should be carried out and maintained at the cost of the contractor and no separate or additional payment is admissible.

## **12. Power Supply**

12.1 The contractor shall make his own arrangements for obtaining power from the Tripura State Electricity Corporation Ltd. (TSECL) at his own cost for execution of the work and for his establishments at work site. The contractor will pay the bills of TSECL for the cost of power consumed by him.

12.2 The contractor shall satisfy all the conditions and rules required as per Indian Electricity Act 1910 and under Rule-45(I) of the Indian Electricity Rules, 1956 as amended from time to time and other pertinent rules.

12.3 The power shall be used for bonafide Departmental work only.

**13. Works Adjacent To Road**

- 13.1 The contractor shall take all necessary measures for the safety of traffic during construction and provide erect and maintain such barricades, including signs, marking, flags, lights, information, and protection of traffic approaching or passing through the section of the road adjacent to the work site.
- 13.2 Warring lights shall be mounted on the barricades at night and keep lit throughout from sunset to sun shine.

**14. Ramps**

Ramps required during execution shall be formed wherever necessary and same are to be removed after completion of the work. No separate payment will be made for this purpose.

**15. Monsoon Damages**

Damages due to rain or flood either in cutting or in banks shall have to be made good by the contractor till the work is handed over to the Department. The responsibility of de-silting and making good the damages due to rain or flood rests with the contractor. No extra payment is payable for such operations and the contractor shall therefore, have to take all necessary precautions to protect the work done during the construction period.

**16. The works to be Completed by the Intended Completion Date**

- 16.1 The contractor may commence execution of the works on the Start Date and shall carry out the works in accordance with the program submitted by the contractor, as updated with the approval of the Engineer-in-charge and complete the work by the Intended Completion Date.

**17. Safety**

- 17.1 The contractor shall be responsible for the safety of all activities on the Site.

**18. Discoveries**

- 18.1 Anything of historical or other interest or of significant value unexpectedly discovered on the Site is the property of the Government. The contractor is to notify the Engineer-in-charge of such discoveries and carry out the Engineer-in-charge's instructions for dealing with them.

**19. Possession of the Site**

- 19.1 The Department shall give possession of the work site to the contractor. If possession of a part work site is given, the Department will ensure that the part site so handed over is amenable to carry out the work at site by the contractor.

**20. Access to the Site**

20.1 The contractor shall provide the Engineer-in-charge and any person authorized by the Engineer-in-charge, access to the site and to any place where work in connection with the Contract is being carried out or is intended to be carried out.

## **21. Instructions**

21.1 The contractor shall carry out all instructions of the Engineer-in-charge and comply with all the applicable local laws where the work site is located.

## **22. Settlement of Disputes**

22.1 If any dispute or difference of any kind whatsoever arises between the Department and the Contractor in connection with, or arising out of the Contract at stage, whether during the progress of the works or after their completion and whether before or after the termination, abandonment or breach of the Contract, it shall in the first place, be referred to and settled by the Engineer-in-charge who shall, within a period of twenty days after being requested by the Contractor to do so, give written notice of his decision to the Contractor. Upon receipt of the written notice of the decision of the Engineer-in-charge the Contractor shall promptly proceed without delay to comply with such notice of decision.

22.2 If the Engineer-in-charge fails to give notice of his decision in writing within a period of twenty days after being requested or if the Contractor is dissatisfied with the notice of the decision of the Engineer-in-charge, the Contractor may within fifteen days after receiving the notice of decision appeal to the concerned Executive Engineer of Department who shall after affording opportunity of being heard shall give notice of his decision within a period of thirty days. After Executive Engineer has given written notice of his decision to the Contractor and no claim to arbitration, has been communicated to him by the Contractor within a period of fifteen days from receipt of such notice the said decision shall remain final and binding on both side. If the Executive Engineer fails to give notice of his decision, as aforesaid within a period of thirty days after being requested as aforesaid, or if the Contractor be dissatisfied with any such decision, then and in any such case the contractor within thirty days after the expiration of the first named period of thirty days as the case may be, require that the matter or matters in dispute be referred to arbitration as detailed below:

### **SETTLEMENT OF CLAIMS**

All disputes or difference arising of or relating to the Contract shall be referred for the adjudication as follows:

Claims up to a value of Rs. 50,000.00: Executive Engineer of Agartala Municipal Corporation, Government of Tripura.

Claims above Rs. 50,000.00: Chief Engineer of Urban Development (UD) or Arbitrator appointed by the Chief Engineer of UD, Government of Tripura.

22.3 The arbitration shall be conducted in accordance with the provisions of Indian Arbitration and Conciliation Act 1996 or any statutory modification thereof.

22.4 The arbitrator shall state his reasons in passing the award.



- 22.5 A reference for adjudication under this clause shall be made by the contractor within six months from the date of intimating the contractor of the preparation of final bill or his having accepted payment whichever is earlier. Only contracts executed in Tripura shall have jurisdiction for any suit arising out of this contract. More particularly no suit shall be instituted or entertained in any court outside the State arising out of contract.

## B. TIME FOR COMPLETION

### 23. Program

- 23.1 The total period of completion is 150(one hundred fifty) days from the date entering with agreement to proceed including rainy season. Keeping in view the schedule of handing over of site the work should be programmed such to achieve the milestones as in 'Rate of progress' statement enclosed.
- 23.2 The attention of the tenderer is directed to the contract requirement at the time of beginning of the work, the rate of progress and the dates for the whole work and its several parts as per milestones. The following rate of progress and proportionate value of work done from time to time as will be indicated by the Executive Engineer's certificate for the value of work done and completion of milestones will be required. Date of commencement of their programme will be the date for concluding agreement.
- 23.3 After signing the agreement, the contractor shall forthwith begin the work, shall regularly and continuously proceed with them.
- 23.4 Rate of progress
- i) Work programme of achieving the milestones (statement).
  - ii) Site Schedule of programme of handing over site to the contractor (statement).
- 23.5 The contractor shall commence the work on site within the period specified under condition after the receipt by him of a written order to this effect from the Chief Executive Officer / Executive Engineer and shall proceed with the same with due expedition and without delay, except as may be expressly sanctioned or ordered by the Chief Executive Officer / Executive Engineer or be wholly beyond the contractor's control.
- 23.6 Same in so far as the contractor may prescribe, the extent of portions of the site of which the contractor is to be given possession from time to time and the order in which such portions shall be made available to him and subject to any requirement in the contract as to the order in which the works shall be executed, the Executive Engineer will, with the written order to commence the work, give to the contractor possession of so much of the site as may be required to enable the contractor to commence proceed with the execution of the works in accordance with the program if any, and otherwise in accordance with such reasonable proposals of the contractor as he shall by written notice to the Executive Engineer, make

and will from time to time as the works proceed, give to the contractor possession of such further portions of the site as may be required to enable the contractor to proceed with the execution of the works with due dispatch in accordance with the said program or proposals as the case may be; if the contractor suffers delay or incurs cost from failure on the part of the Executive Engineer to give possession in accordance with the terms of this clause, the Chief Executive Officer shall grant an extension of time for the completion of works.

23.7 The contractor shall bear all costs and charges for special or temporary way leases required by him in connection with access to the site. The contractor shall also provide at his own cost any additional accommodation outside the site required by him for the purposes of the work.

23.8 Subject to any requirement in the contract as to completion of any section of the works before completion of the whole of the works shall be completed in accordance with provisions of clauses in the schedule within the time stated in the contract calculated from the last day of the period named in the statement to the tender as that within which the works are to be commenced or such extended time as may be allowed.

23.9 Delays and extension of time

No claim for compensation on account of delays or hindrances to the work from any cause whatever shall lie, except as hereafter defined. Reasonable extension of time will be allowed by the Executive Engineer or by the office competent to sanction the extension, for unavoidable delays, such as may result from causes, which in the opinion of the Executive Engineer, are undoubtedly beyond the control of the contractor. The Executive Engineer shall assess the period of delay or hindrance caused by any written instructions issued by him, at twenty-five per cent in excess of the actual working period so lost.

In the event of the Executive Engineer failing to issue necessary instructions and thereby causing delay and hindrance to the contractor, the latter shall have the right to claim an assessment of such delay by the Chief Executive Officer whose decision will be final and binding. The contractor shall lodge in writing with the Chief Executive Officer a statement of claim for any delay or hindrance referred to above, within fourteen days from its commencement, otherwise no extension of time will be allowed.

Whenever authorized alterations or additions made during the progress of the work are of such a nature in the opinion of the Executive Engineer as to justify an extension of time in consequence thereof, such extension will be granted in writing by the Executive Engineer or other competent authority when ordering such alterations or additions.

## **24. Construction Program**

24.1 The contractor shall furnish within one month of the order of the work a program showing the sequence in which he proposed to carry out the work, monthly progress expected to be achieved, also indicating date of procurement of materials, plant, machineries, equipments etc. The schedule should be such that it is practicable to achieve completion of the whole work within the time limit fixed and in keeping conformity with the Mile Stone programme specified and shall obtain the approval of the Engineer-in-charge.

Further rate of the progress as in the program shall be kept up to date. In case it is subsequently found necessary to alter this program, the contractor shall submit sufficiently in advance the revised program incorporating necessary modifications and get the same approved by the Engineer-in-charge. No revised program shall be operative without approval of Engineer-in-charge.

- 24.2 The Chief Executive Officer shall have all times the right, without anyway violating this contract or forming grounds for any claim, to alter the order of progress of the works or any part thereof and the contractor shall after receiving such directions proceed in the order directed. The contractor shall also report the progress to the Chief Executive Officer within 7 days of the Executive Engineer direction to later the order of progress of works.
- 24.3 The contractor shall give written notice to the Engineer-in-charge whenever planning or progress of the works is likely to be delayed or disrupted unless approval of any further drawings or order including a direction, instruction or approval is issued by the Engineer-in-charge within a reasonable time. The notice shall include details of approval of the drawing or order required and of why and by when it is required and of any delay or disruption likely to be suffered if it is late.

## **25. Speed of Work**

- 25.1 The contractor shall at all times maintain the progress of work to conform to the latest operative progress schedule approved by the Engineer-in-charge. The contractor should furnish progress report indicating the programme and progress once in a month. The Engineer-in-charge may at any time in writing direct the contractor to slow down any part or whole of the work for any reason (which shall not be questioned) whatsoever, and the contractor shall comply with such orders of the Engineer-in-charge. The compliance of such orders shall not entitle the contractor to any claim of compensation. Such orders of the Engineer-in-charge for slowing down the work will however be duly taken into account while granting extension of time if asked by the contractor for which no extra payment will be entertained.
- 25.2 Delays in Commencement or progress or neglect of work and forfeiture of earnest money, Security deposit and withheld amounts If, at any time, the Engineer-in-charge shall be of the opinion that the contractor is delaying commencement of the work or violating any of the provisions of the contract and / or neglecting / delaying the progress of the work as defined by the tabular statement, 'Rate of Progress' in the 'Articles of Agreement', he shall so advise the contractor in writing and at the same time demand compliance in accordance with conditions of Tender notice. If the contractor neglects to comply with such demand within seven days after receipt of such notice, it shall then or at any time thereafter, be lawful for the Engineer-in-charge to take suitable action in accordance with clause of contract.

## **26. Suspension of Works by the Contractor**

- 26.1 If the contractor shall suspend the works, or sublet the work without sanction of the Engineer-in-charge, or in the opinion of the Engineer-in-charge shall neglect or fail to proceed with due diligence in the performance of his part of the Contract as laid down in the

schedule rate of progress, or if he shall continue to default or repeat such default in the respects mentioned in relevant clause of contract, Engineer-in-charge shall take action in accordance with Clause(s).

- 26.2 If the contractor stops work for 28 days and the stoppage has not been authorized by the Engineer-in-charge, the Contract will be terminated under relevant Clause.
- 26.3 If the contractor has delayed the completion of works, the Contract will be terminated as per clause applicable to the contract.

### **27. Extension of the Intended Completion Date**

- 27.1 The Engineer-in-charge shall extend or recommend for extension, in accordance with the Government orders in force, the Intended Completion Date if a variation is issued which makes it impossible for completion to be achieved by the Intended Completion Date.
- 27.2 The Engineer-in-charge shall decide whether and by how much to extend the Intended Completion Date within 21 days of the contractor asking the Engineer for a decision upon the effect of a variation and submitting full supporting information. If the contractor has failed to give early warning of a delay or has failed to cooperate in dealing with a delay, the delay by this failure shall not be considered in assessing the new Intended Completion Date.

### **28. Delays Ordered by the Engineer-in-charge**

- 28.1 The Engineer-in-charge may instruct the contractor to delay the start or progress of any activity within the Work.

### **29. Early Warning**

- 29.1 The contractor is to warn the Engineer-in-charge at the earliest opportunity of specific likely future events or circumstances that may adversely affect the Execution of Works.
- 29.2 The contractor shall cooperate with the Engineer-in-charge in making and considering proposals for how the effect of such an event or circumstance can be avoided or reduced by anyone involved in the work and in carrying out any resulting instruction of the Engineer-in-charge.

## **C. QUALITY CONTROL**

### **30. Identifying Defects**

- 30.1 The Engineer-in-Charge shall check the contractor's work and notify the contractor of any defects that are found. Such checking shall not affect the contractor's responsibilities. The

Engineer-in-charge may instruct the contractor to verify the defect and to uncover and test any work that the Engineer considers may be a defect.

### **31. Tests**

31.1 If the Engineer-in-charge instructs the contractor to carry out a test not specified in the specification to check whether any work has a defect and the contractor shall pay for the test and any samples.

### **32. Correction of Defects**

32.1 The Engineer-in-charge shall give notice to the contractor of any defects before the end of the Defects Liability Period, which begins on completion. The defects liability period shall be extended for as long as defects remain to be corrected by the contractor.

32.2 Every time notice of a defect is given; the contractor shall correct the notified defect within the length of time specified by the Engineer-in-charge's notice.

### **33. Uncorrected Defects**

33.1 If the contractor has not corrected the defect within the time specified in the Engineer-in-charge's notice, the Engineer-in-charge will assess the cost of having the defect corrected and the contractor will pay this amount.

33.2 The Engineer-in-charge may also introduce check lists which shall be kept in Bound registers by the construction supervision staff. The contractor may be required to fill up these lists in the first instance and shall be subsequently checked by the construction / quality control engineers.

### **34. Quality Control**

34.1 In addition to the normal inspection by the regular staff in charge of the construction of work, the work will also be inspected by the Chief Executive Officer / Executive Engineer or any other authority authorized by the Department. If any sub-standard work or excess payments are noticed with reference to measurement books etc. during inspection, action will be taken based on their observations and these will be effected by the Engineer-in-charge of the execution of the work.

34.2 The contractor shall be responsible in all respects to maintain the quality of the works. Necessary tests of samples of materials, work done etc. shall be carried out by the contractor at his own cost as per directions of the Engineer-in-charge. Reports of such tests shall be binding on the contractor. No plea / claim of the contractor shall be entertained in this respect.

## **D. COST CONTROL**

**35. Bill of Quantities**

- 35.1 The Bills of Quantities shall contain items for the construction work to be done by the contractor.
- 35.2 The contractor shall be paid for the quantity of the work done at the estimate rate in the Bill of Quantities for each item plus or minus accepted tender percentage.

**36. Changes in the Quantities**

- 36.1 The contractor is bound to execute all supplemental works that are found essential, incidental and inevitable during execution of main work.
- 36.2 The payment of rates for such supplemental items of work will be regulated as under;
- 36.2.1 Supplemental items directly deducible from similar items in the original agreement
- 36.2.1.1 The rates shall be derived by adding to or subtracting from the agreement rate of such similar item the cost of the difference in the quantity of materials, labour between the new items and similar items in the agreement worked out with reference to the Schedule of Rates of PWD, Govt. of Tripura or any other rate(s) adopted in the sanctioned estimate with which the tender is accepted plus / minus overall tender percentage.
- 36.2.2 (a) Similar items but the rates of which cannot be directly deduced from the original Agreement
- (b) Purely new items which do not correspond to any item in the agreement.
- 36.2.2.1 The rates for all such items shall be estimated rates plus or minus accepted overall tender premium.

**37. Extra Items**

- 37.1 Extra items of work shall not vitiate the contract. The contractor shall be bound to execute extra items of work as directed by the Engineer-in-charge. The rates for the extra items shall be worked out by the Executive Engineer as per the conditions of the contract and the same are binding on the contractor.
- 37.2 The contractor shall before the 15<sup>th</sup> day of each month submit in writing to the Executive Engineer a statement of extra item, if any that he has executed during the preceding month failing which the contractor shall not be entitled to claim any.
- 37.3 Entrustment of additional items

- 37.3.1 Wherever additional items not contingent on the main work and outside the scope of original agreement are to be entrusted to the original contractor dispensing with bids and if the value of such items exceeds the limits up to which the officer is empowered to entrust works initially to contractor without calling for tenders, approval of next higher authority shall be obtained. Entrustment of such items on nomination shall be at rates not exceeding the estimated rates.
- 37.3.2 Entrustment of the additional items contingent on the main work will be authorized by the officers up to the monetary limits up to which they themselves are competent to accept items in the original agreement so long as the total amounts up to which they are competent to accept in an original agreement rates for such items shall be worked out in accordance with the procedure
- (I) For all items of work in excess of the quantities shown in the Bill of Quantities of the tender, the rate payable for such items shall be estimate rates for the items plus or minus overall tender percentage accepted by the competent authority.
- 37.3.3 Entrustment of either additional or supplemental items shall be subject to the provisions of the agreement entered in to by a competent authority after the tender is accepted. The Chief Executive Officer / Executive Engineer being the authority next higher to the Executive Engineer, who entered in to agreement approves the rate for the items / variations in quantity in the current agreement. The items shall not be ordered by an Officer on his own responsibility if the revised estimate or deviation statement providing for the same requires the sanction of higher authority.

Note:

(i) It may be noted that the term 'Estimate Rate' used above means the rate in the sanctioned estimate with which the tender is accepted, or if no such rate is available in the estimate, the rate derived will be with reference to the standard Schedule of Rates adopted in the sanctioned estimate with which the tender is accepted.

(ii) The numbers as stated in the 'Name of Work' is tentative and liable for variation depending upon length of tube well assembly due to soil strata conditions of work place of each individual tube well. In such case, deviation of agreement amount shall be measured / evaluated only according to the sum of absolute value of work done of all individual items. It shall be noted that variation in nos. of tube well as noted above shall not give arise to any additional claim or compensation to the contractor on any account.

## 38. Payment Certificates

- 38.1 The contractor shall submit to the Engineer-in-charge monthly statements of the estimated value of the work completed less the cumulative amount certified previously.

- 38.2 The Engineer-in-charge shall check the contractor's monthly statement within 14 days.
- 38.3 The value of work executed shall be determined by the Engineer-in-charge.
- 38.4 The value of work executed shall comprise the value of the quantities of the items in the Bill of Quantities completed.
- 38.5 The Engineer-in-charge may exclude any item certified in a previous certificate or reduce the proportion of any item previously certified in any certificate in the light of later information.

### **39. Payments**

- 39.1 Payment for the work done by the contractor will be made for the finished work (conforming to the provisions kept in the payment schedule) based on the measurements recorded in measurement books by any officer of the department not lower in rank than a Junior Engineer and check measured by any officer not lower in rank than an Assistant Engineer. The measurement shall be recorded at various stages of the work done and also after work is completed. The contractor shall be present at the time of recording of each set of measurement and their check measurement and accept them then and there so as to avoid disputes at a later stage. If the contractor is not available at the work spot at the time of recording measurements or check measurements, the particulars of measurements shall be signed by the authorized agent of contractor based on which the contractor shall accept the set of measurements without any further dispute. If for any reason the contractor's authorized agent is also not available at site when the department decides to suspend the work recording of measurements in the absence of the contractor or his authorized representative, the department shall not entertain any claim from the contractor for any loss incurred by him on this account.

The contractor shall however note that the Department cannot indefinitely wait for recording the measurement due to the absence of the contractor and his authorized agent and check measure them even in the absence of the contractor.

### **39.2 Payments and Certificates**

- 39.2.1 Payments shall be adjusted for recovery of advance payments, liquidated damages in terms of tender conditions and security deposit for the due fulfilment of the contract. Payment will be made to the contractor strictly conforming to the provisions kept in payment schedule of this tender document under the certificate to be issued by the Engineer-in-charge and intermediate payment will be the sum equal to maximum 90% of the value of work done as so certified, less the amount of taxes, advances, other recoveries etc. due to be deducted in terms of conditions of the contract and balance 10% will be withheld and retained for the due fulfilment of the contract under the certificate to be issued by the Engineer-in-charge. On completion of the entire works, the contractor will receive the final payment of all the moneys due or payable to him under or by virtue of the contract except the earnest money deposit retained as security and a sum equal to 4% of the total value of the work done. The amount withheld from the final bill will be retained under deposits and



paid to the contractor together with the earnest money deposit retained as security after a period of 12 (Twelve) months from the actual date of completion of the works in all respects as all defects shall have been made good according to the true intent and meaning thereof.

39.2.2 In case of over payments or wrong payment if any made to the contractor due to wrong interpretation of the provisions of the contract, contract conditions etc., such unauthorized payment will be deducted in the subsequent bills or final bill for the work or from the bills under any other contracts with the Government or at any time thereafter from the deposits available with the Government.

39.2.3 Any recovery or recoveries advised by the Government Department either State or Central, due to non-fulfilment of any contract entered into with them by the contractor shall be recovered from any bill or deposits of the contractor.

39.2.4 No claim shall be entertained, if the same is not represented in writing to the Engineer-in-charge within 15 days of its occurrence.

39.2.5 The contractor is not eligible for any compensation for inevitable delay in handing over the site or for any other reason. In such case, suitable extensions of time will be granted after considering the merits of the case.

### 39.3 Intermediate Payments

39.3.1 For intermediate stage of works, if any payment is proposed by the contractor, only part rates as fixed by the Engineer-in-charge strictly conforming to the provisions kept in payment schedule will be paid subject to due fulfilment of all other relevant clauses, conditions etc. of this tender document.

39.3.2 Part amount shall be worked out for the work done portion based on the actual operations involved keeping in view the value of the balance work to be done, to avoid unintended benefit to the contractor in initial Stage.

39.3.3 Full rate shall be paid conforming to provisions kept in payment schedule when the work is completed to the full profile as per approved drawings, specifications, conditions of contract etc.

39.3.4 No payment or advance will be made for unfixed materials when the rates are for finished work in site.

## 40. Interest on Money due to the Contractor

40.1 No omission by the Executive Engineer or the Assistant Engineer to pay the amount due upon certificates shall vitiate or make void the contract, nor shall the contractor be entitled to interest upon any guarantee fund or payments in arrears, nor upon any balance, which may, on the final settlement of his accounts, found to be due to him.

## **41. Certificate of Completion of works**

### **41.1 Certificate of Completion of works**

41.1.1 When the whole of the work has been completed and has satisfactorily passed any final test that may be prescribed by the Contract, the contractor may give a notice to that effect to the Engineer-in-charge accompanied by an undertaking to carry out any rectification work during the defect liability period (i.e. 12 months from the actual date of completion of work in all respects), such notice and undertaking shall be in writing and shall be deemed to be request by the contractor for the Engineer-in-charge to issue a Certificate of completion in respect of the Works. The Engineer-in-charge shall, within twenty one days of the date of delivery of such notice either issue to the contractor, a certificate of completion stating the date on which, in his opinion, the works were completed in accordance with the Contract or give instructions in writing to the contractor specifying all the works which, in the Engineer-in-charge's opinion, required to be done by the contractor before the issue of such Certificate. The Engineer-in-charge shall also notify the contractor of any defects in the works affecting completion that may appear after such instructions and before completion of the works specified there in. The contractor shall be entitled to receive such Certificate of the Completion within twenty-one days of completion to the satisfaction of the Engineer-in-charge of the works so specified and making good of any defects so notified.

41.1.2 Similarly, the contractor may request and the Engineer-in-charge shall issue a Certificate of:

Completion in respect of:

a) Any section of the Permanent works in respect of which a separate time for completion is provided in the Contract, and

b) Any substantial part of the Permanent Works, which has been both completed to the satisfaction of the Engineer-in-charge and occupied or used by the department.

41.1.3 If any part of the Permanent Works shall have been completed and shall have satisfactorily passed any final test that may be prescribed by the Contract, the Engineer-in-charge may issue such certificate, and the contractor shall be deemed to have undertaken to complete any outstanding work in that part of the works during defect liability period.

## **42. Taxes included in the Tender**

The percentage quoted by the tenderer shall be deemed to be inclusive of the Sales Tax / VAT / valid GST (as applicable) and all other taxes, duties etc. as applicable on all materials that the contractor will have to purchase for performance of the contact.

## **43. Schedule of Payment**

a. For work costing upto Rs. 1.00 Lakhs – First & Final Bill

- b. For work costing Rs. 1.00 Lakhs to Rs. 10.00 Lakhs – Running account payment bill shall not be less than Rs. 1.00 Lakh per bill
- c. For work costing Rs. 10.00 Lakhs to Rs. 1.00 Crore – Running account payment bill shall not be less than Rs. 2.00 Lakhs.
- d. For work costing Rs. 1.00 Crore to Rs. 3.00 Crore – Running account payment bill shall not be less than Rs. 20.00 Lakhs.
- e. For work costing above Rs. 3.00 Crore – Running account payment bill shall not be less than Rs. 50.00 Lakhs.

#### **44. Price Adjustment**

No price adjustment shall be granted for the work where stipulated time for completion is less than or equal to twenty-four months. No claim of the contractor in this regard will be entertained.

#### **45. Retention**

- 45.1 The department shall retain from each payment due to the contractor @10% of bill amount until completion of the whole of the works.
- 45.2 On completion of the whole of the works, half of the total amount retained is re-paid to the contractor and half when defects liability period has passed and the Engineer-in-charge has certified that all the defects notified by the Engineer-in-charge to the contractor before the end of the period have been corrected.
- 45.3 On completion of the whole works in all respect to full satisfaction of the Engineer-in-charge, the contractor may substitute retention money with an “on demand” Bank Guarantee of any Schedule Bank, guaranteed by the Reserve Bank of India with due approval from the Engineer-in-charge.

#### **46. Liquidated Damages**

- 46.1 If for any reason, which does not entitle the contractor to an extension of time, the rate of progress of works, or any section is at any time, in the opinion of the Chief Executive Officer to slow to ensure completion by the prescribed time or extended time for completion, the Chief Executive Officer shall so notify the contractor in writing and the contractor shall there upon take such steps as are necessary and the Chief Executive Officer may approve to expedite progress so as to complete the works or such section by the prescribed time or extended time.

The contractor shall not be entitled to any additional payment for taking such steps. If as a result of any notice given by the Chief Executive Officer under this clause, the contractor

shall seek the permission of the Chief Executive Officer to do any work at night or on Sundays, if locally recognized as days or rest, or their locally recognized equivalent, such permission shall not be unreasonably refused.

46.2 If the contractor fails to complete whole of the works or any part thereof or section of the works within the stipulated periods of individual milestones (including any bonafide extensions allowed by the competent authority without levying liquidated damages), the Chief Executive Officer may without prejudice to any other method of recovery will deduct one tenth of one percent of contract value per calendar day or part of the day for the period of delays subject to a maximum of 10% of the contract value not as a penalty from any moneys in his hands due or which may become due to the contractor. The payment or deductions of such damages shall not relieve the contractor from his obligation to complete the works, or from any other of his obligations and liabilities under the contract.

46.3 The liquidated damages for the whole of the work are:

PERIOD	RECOVERY RATE
<b>For Milestone 1:</b> 1/8 <sup>th</sup> * of the contract value of work within 1/4 <sup>th</sup> of the stipulated time for completion.	1/10 <sup>th</sup> of 1 % of contract value of work per week subject to maximum 10% of 1/8 <sup>th</sup> contract value of work.
<b>For Milestone 2:</b> 3/8 <sup>th</sup> * of the contract value of work within 1/2 <sup>th</sup> of the stipulated time for completion.	**1/10 <sup>th</sup> of 1 % of contract value of work per week subject to maximum 10% of 2/8 <sup>th</sup> Contract value of work.
<b>For Milestone 3:</b> Full contract value* of work within stipulated date for completion	**1/10 <sup>th</sup> of 1 % of contract value of work per day subject to maximum 10% of 5/8 <sup>th</sup> Contract value of work.

\* To be decided on the measured value of work.

\*\* **Note:** Days to be reckoned from the next day of achieving previous milestone as per approved work program.

The maximum amount of liquidated damages for the whole of the works is 10% (ten percent) of final contract price.

**47. Incentives**

47.1 An incentive to the maximum amount at the rate of ¼% of the contract value per week of early completion as per milestone achieved will be paid to the contractor. In no case the total respective value of the incentive should exceed 2% of the total value of works as per milestone.

**48. Mobilization Advance**

48.1 No mobilization advance shall be granted for this work. In general, no advance payment will be made to the contractor and no claim in this regard will be entertained.

**49. Securities**

49.1 The Earnest Money Deposit and additional security (for discount tender percentage beyond 15%) shall be provided to the Department not later than the date specified in the Letter of Acceptance and shall be issued in an amount and form and by a Bank acceptable to the Department. The Earnest Money shall be valid until a date 28 days from the date of expiry of Defects Liability Period and the additional security shall be valid until a date 28 days from the date of issue of the certificate of completion.

**50. Cost of Repairs**

50.1 Loss or damage to the works or materials to the works between the Start Date and the end of the Defects Correction Periods shall be remedied by the contractor at the contractor's cost if the loss or damage arises from the contractor's acts or omissions.

**E. FINISHING THE CONTRACT****51. Completion**

51.1 The contractor shall request the Engineer-in-charge to issue a Certificate of completion of the Works and the Engineer-in-charge will do so upon deciding that the work is completed.

**52. Taking Over**

52.1 The Department shall take over the Site and the Works within seven days of the Engineer-in-charge issuing a certificate of Completion.

**53. Final Account**

53.1 The Contractor shall supply to the Engineer-in-charge a detailed account of the total amount that the Contractor considers payable under the contract before the end of the Defects Liability Period. The Engineer-in-charge shall issue a Defects Liability Certificate and certify any final payment that is due to the Contractor within 56 days of receiving the Contractor's account if it is correct and complete. If it is not, the Engineer-in-charge shall issue within 56 days a schedule that states the scope of the corrections or additions that are necessary. If the final Account is still unsatisfactory after it has been resubmitted, the Engineer-in-charge

shall decide on the amount payable to the Contractor and issue a payment certificate within 56 days of receiving the Contractor's revised account.

#### **54. Termination**

54.1 The Department may terminate the Contract if the Contractor causes a fundamental breach of the Contract.

54.2 Fundamental breaches of Contract include but shall not be limited to the following:

- a) The Contractor stops work for 28 days when no stoppage of work is shown on the current program and the stoppage has not been authorized by the Engineer-in-charge.
- b) The Contractor is made bankrupt or goes into liquidation other than for a reconstruction or amalgamation.
- c) The Engineer-in-charge gives Notice that failure to correct a particular defect is a fundamental breach of Contract and the Contractor fails to correct it within a reasonable period of time determined by the Engineer-in-charge; and
- d) The Contractor does not maintain a security which is required; and
- e) The Contractor has delayed the completion of works by the number of days for which the maximum amount of liquidated damages can be paid as defined.
- f) If the Contractor, in the judgment of the Department, has engaged in corrupt or fraudulent practices in competing for or in executing the contract. For the purpose of this paragraph: "corrupt practice" means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution. "Fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of a contract to the detriment of the Government and includes collusive practice among tenderers (prior to or after tender submission) designed to establish tender prices at artificial non-competitive levels and to deprive the Government of the benefits of free and open competition.

54.3 Notwithstanding the above, the Department may terminate the contract for convenience.

54.4 If the Contract is terminated, the Contractor shall stop work immediately, make the Site safe and secured, leave the Site as soon as reasonably possible.

54.5 When the contractor has made himself liable for action under any of the cases aforesaid under clauses 52.2 the Engineer-in-charge on behalf of the Agartala Smart City Limited shall have powers:

- (a) To determine or rescind the contract as aforesaid (of which termination or rescission notice in writing to the contractor under the hand of the Engineer-in-charge shall be conclusive evidence). Upon such determination or recession, the full security deposit recoverable under the contract shall be liable to be forfeited and shall be absolutely at the disposal of the Government. If any portion of the security deposit has not been paid or received, it would be called for and forfeited.
- (b) To employ labour paid by the Department and to supply materials to carry out the work, or any part of the work debiting the contractor with the cost of the labour and the price of the materials (of the amount of which cost and price certified by the Engineer-in-charge shall be final and conclusive) against the contractor and crediting him with the value of the work done in all respects in the same manner and at the same rates as if it had been carried out by the contractor under the terms of his contract. The certificate of the Divisional Officer as to the value of the work done shall be final and conclusive against the contractor provided always that action under the sub-clause shall only be taken after giving notice in writing to the contractor. Provided also that if the expenses incurred by the department are less than the amount payable to the contractor at his agreement rates, the difference shall not be paid to the contractor.
- (c) After giving notice to the contractor to measure up the work of the contractor and to take such whole, or the balance or part thereof as shall be un-executed out of his hands and to give it to another contractor to complete in which case any expenses which may be incurred in excess of the sum which would have been paid to the original contractor if the whole work had been executed by him (of the amount of which excess the certificate in writing of the Engineer-in-charge shall be final and conclusive) shall be born and paid by the original contractor and may be deducted from any money due to him by Government under his contract or on any other account whatsoever or from his security deposit or the proceeds of sales thereof or a sufficient part thereof as the case may be. If the expenses incurred by the department are less than the amount payable to the contractor at his agreement rates, the difference shall not be paid to the contractor.

In the event of any one or more of the above courses being adopted by the Engineer-in-charge the contractor shall have no claim to compensation for any loss sustained by him by reasons of his having purchased or procured any materials or

entered into any engagements or made any advances on account or with a view to the execution of the work or the performance of the contract. And in case action is taken under any of the provision aforesaid the contractor shall not be entitled to recover or be paid any sum for any work thereof or actually performed under this contract unless and until the Engineer-in-charge has certified in writing the performance of such work and the value payable in respect thereof, and he shall only be entitled to be paid the value so certified.

Provided further that if any of the recoveries to be made, while taking action as per (b) and /or (c) above, are in excess of the security deposit forfeited, these shall be limited to

the amount by which the excess cost incurred by the Department exceeds the security deposit so forfeited.

#### **55. Payment upon Termination**

55.1 If the Contract is terminated because of a fundamental breach of Contract by the Contractor, the Engineer-in-charge shall issue a certificate for the value of the work done less advance payments received upon the date of the issue of the certificate, less other recoveries due in terms of the Contract, less taxes due to be deducted at source as per applicable law and less the percentage to apply to the work not completed as indicated in the contract data. Additional liquidated damages shall not apply. If the total amount due to the Department exceeds any payment due to the Contractor, the difference shall be a debt payable to the Department. In case of default for payment within 28 days from the date of issue of notice to the above effect, the contractor shall be liable to pay interest at 12% per annum for the period of delay.

#### **56. Property**

56.1 All materials on the Site, Plant, Equipment, Temporary Works and Works are deemed to be the property of the Department if the Contract is terminated because of Contractor's default.

#### **57. Release from Performance**

57.1 If the Contract is frustrated by the outbreak of war or by any other event entirely outside the control of either the Department or the Contractor, the Engineer-in-charge shall certify that the contract has been frustrated. The Contractor shall make the site safe and stop work as quickly as possible after receiving this certificate and shall be paid for all works carried out before receiving it and for any work carried out afterwards to which commitment was made.

## **F. Special Conditions**

#### **58. Water Supply**

58.1 The contractor has to make his own arrangement for water required for the work and to the colonies and work site, which are to be established by the contractor. No separate or additional payments are admissible in this regard.

#### **59. Electrical Power**

59.1 The contractors will have to make their own arrangements for drawing electric power at work place required for constructions, camps etc. from the nearest power line after obtaining permission from the power supply authority (TSECL) at his own efforts and cost. In case of failure of electricity / non-availability of electricity, the contractor has to make alternative



arrangements at his own effort & cost for supply of electricity by diesel generator set of suitable capacity at place of work. The power shall be used for bonafide departmental use only.

#### 59.2 Electrical Power for Domestic Supply

- a) The contractor has to make his own arrangements for the supply of electric power for domestic purposes and the charges for this purpose have to be paid by him at the rates as fixed by the Power Supply authority from time-to-time.
- b) The contractor will have to make his own arrangements to lay and maintain the necessary distribution lines and wiring for the camp at his own cost. The layout and the methods of laying the lines and wiring shall have the prior approval of the Engineer-in-charge. All camp area shall be properly electrified. All lines, streets, approaches for the camp etc., shall be sufficiently lighted for the safety of staff and labour of the contractor, at the cost of the Contractor and it will be subject to the approval of the Engineer-in-charge.

### 60. Land

#### 60.1 Land for Contractor's use

The contractor will be permitted to use Government land for execution of work. The contractor shall have to make his own arrangements for acquiring and clearing the site, levelling, providing drainage and other facilities for labour staff colonies, site office, workshop or stores and for related activities. The contractor shall apply to the Department within a reasonable time after the award of the contract and at least 30 days in advance of its use, the details of land required by him for the work at site and the land required for his camp and should any private land which has not been acquired, be required by the contractor for his use. The same may be acquired by the contractor at his own cost by private negotiations and no claim shall be admissible to him on this account. The Engineer-in-charge reserves the right to refuse permission for use of any government land for which no claim or compensation shall be admissible to the contractor. The contractor shall however, not be required to pay cost or any rent for the Government land given to him.

#### 60.2 Surrender of Occupied Land

- a) The Government land as in before mentioned shall be surrendered to the Engineer-in-charge within seven days, after issue of completion certificate. Also, no land shall be held by the contractor longer than the Engineer-in-charge shall deem necessary and the contractor shall on the receipt of due notice from the Engineer-in-charge, vacate and surrender the land which the Engineer-in-charge may certify as no longer required by the contractor for the purpose of the work.
- b) The contractor shall make good to the satisfaction of the Engineer-in-charge any damage to areas, which he has to return or to other property or land handed over to him for purpose of this work. Temporary structures may be erected by the contractor for storage

sheds, offices, residences etc., for non-commercial use, with the permission of the Executive Engineer on the land handed over to him at his own cost. At the completion of the work, these structures shall be dismantled; site cleared and handed over to the Executive Engineer. The land required for providing amenities will be given free of cost from Government lands if available otherwise the contractor shall have to make his own arrangements.

**60.3 Contractor not to dispose off Spoil etc.**

The contractor shall not dispose off or remove except for the purpose of fulfilment of this contract, sand, stone, clay ballast, earth, trees and shrubs or other materials obtained in the excavation made or lying on the site of the work, and all such materials and produce shall remain property of the Government. The Department may upon request from the contractor, or if so stipulated in the conditions of the contract allow the contractor to use any of the above materials for the works either free of cost or after payment as may be specifically mentioned or considered necessary during the execution of the work.

**61. Roads**

61.1 In addition to existing public roads and roads constructed by Government, if any, in work area, all additional approach roads inside work area and camp required by the contractor shall be constructed and maintained by him at his own cost. The layout, design, construction and maintenance etc. of the roads shall be subject to the approval of the Engineer-in-charge. The contractor shall permit the use of these roads by the Government free of charge. It is possible that work at, or in the vicinity of the work site will be performed by the Government or by other contractors engaged in work for the Government during the contract period. The contractor shall without charge permit the Government and such other contractor and other workmen to use the access facilities including roads and other facilities, constructed and acquired by the contractor for use in the performance of the works. The contractor's heavy construction traffic or tracked equipment shall not traverse any public roads or bridges unless the contractor has made arrangement with the authority concerned. The contractor is cautioned to take necessary precautions in transportation of construction materials to avoid accidents.

**62. Payment for Camp Construction**

No payment will be made to the contractor for construction, operation and maintenance of camp and other camp facilities and the entire cost of such work shall be deemed to have been included in the tendered rate for the various item of work in the schedule of quantities and bids.

**63. Explosive and Fuel Storage Tanks**

No explosive shall be stored within ½ (half) Km. of the limit of the campsites. Storage of gasoline and other fuel oils or of Butane, Propane and other liquefied petroleum gases, shall conform to the regulations of Government of Tripura and Government of India. The tanks

having capacity in excess of 2000 litres, shall not be located within the camp area, not within 200 metre, of any building.

#### **64. Labour**

64.1 The contractor shall, make his own arrangements for the engagement of all staff and labour, local or other, and for their payment, housing, feeding and transport. Labour importation and amenities to labour, and contractor's staff shall be to the contractor's account. His quoted percentage shall include the expenditure towards importation of labour, amenities to labour and staff. The contractor shall, if required by the Engineer-in-charge, deliver to the Engineer-in-charge a written in detail, in such form and at such intervals as the Engineer-in-charge may prescribe, showing the staff and the numbers of the several classes of labour from time to time employed by the contractor on the site and such information respecting contractor's equipment as the Engineer-in-charge may require.

#### **64.2 Transportation of Labour**

- I. The contractor shall make his own arrangement for the daily transportation of the labour and staff from labour camps colonies to the work spot and no labour or staff of the contractor shall stay at the work spot. No extra payment will be made to the contractor for the transportation of the labour and his quoted percentage to the work shall include the transportation charges of labour from colonies to work spot and back.
- II. The contractor will at all times duly observe the provisions of employment of children Act XXVI of 1938 and any enactment or modification of the same and will not employ or permit any person to do any work for the purpose under the provisions of this agreement in contravention of said Act. The contractor hereby agrees to indemnify the department from and against all claims, penalties which may be suffered by the department or any person employed by the department by any default on the part of the contractor in the observance and performance of the provisions of the employment of children Act. XXVI of 1938 or any enactment or modification of the same.

#### **65. Safety Measures**

1. The contractor shall take necessary precautions for safety of the workers and preserving their health while working in such jobs, which require special protection and precautions. The following are some of the measures listed but they are not exhaustive and contractor shall add to and augment these precautions on his own initiative where necessary and shall comply with directions issued by the Executive Engineer or on his behalf from time to time and at all times.
2. Providing protective footwear to workers situations like mixing and placing of mortar or concrete, sand in quarries and places where the work is done under much wet conditions.

3. Providing protective headwear to workers at places like underground excavations to protect them against rock falls.
4. Providing masks to workers at granulates or at other locations where too much fine dust is floating about and sprinkling water at frequent intervals by water hoses on all stone crushing area and storage bins abate to dust.
5. Getting the workers in such jobs periodically examined for chest trouble due to too much breathing in to fine dust.
6. Taking such normal precautions like fencing and lightening in excavation of trenches, not allowing rolls and metal parts of useless timber spread around, making danger areas for blasting providing whistles etc.
7. Supply workmen with proper belts, ropes etc., when working in precarious slopes etc.
8. Avoiding naked electrical wire etc., as they would electrocute the works.
9. Taking necessary steps towards training the workers concerned on the machinery before they are allowed to handle them independently and taking all necessary precautions in around the areas where machines hoists and similar units are working.

#### **66. Fair Wage Clause**

1. The contractor shall pay not less than fair wages to labourers engaged by him on the work.
2. “Fair” wages mean wages whether for time or piecework notified by the Government from time to time in the area in which the work is situated.
3. The contractor shall not with-standing the revisions of any contract to the contrary cause to be paid to the labour, in directly engaged on the work including any labour engaged by the subcontractor in connection with the said work, as if the labourers had been directly employed by him.
4. In respect of labour directly or indirectly employed in the works for the purpose of the contractor’s part of the agreement the contractor shall comply with the rules and regulations on the maintenance of suitable records prescribed for this purpose from time-to-time by the Government. He shall maintain his accounts and vouchers on the payment of wages to the labourers to the satisfaction of the Executive Engineer.
5. The Executive Engineer shall have the right to call for such record as required to satisfy himself on the payment of fair wages to the labourers and shall have the right to deduct from the contract amount a suitable amount for making good the loss suffered by the worker or workers by reason of the “fair wages” clause to the workers.

- 6. The contractor shall be primarily liable for all payments to be made and for the observance of the regulations framed by the Government from time to time without prejudice to his right to claim indemnity from his sub-contractors.
- 7. As per contract labour (Regulation and Abolition) Act. 1970 the contractor has to produce the license obtained from the licensing officers of the labour department along with the tender or at the time of agreement.
- 8. Any violation of the conditions above shall be deemed to be a breach of his contract.
- 9. Equal wages are to be paid for both men and women if the nature of work is same and similar.
- 10. The contractor shall arrange for the recruitment of skilled and unskilled labour local and imported to the extent necessary to complete the work within the agreed period as directed by the Executive Engineer in writing.

**67. Indemnity Bond**

Name of Work:

.....  
 .....  
 .....

I, ....., Contractor,  
 S/o.....aged..... years, Resident of  
 .....do hereby bind myself to  
 pay all the claims may come (a) under Workmen’s Compensation Act. 1933 with any  
 statutory modification thereof and rules there under or otherwise for or in respect of any  
 damage or compensation payable in connection with any accident or injury sustained (b)  
 under Minimum Wages Act 1948 (c) under payment of wages Act.1936 (d) under the  
 contractor labour (Regulation and Abolition) Act. 1970 by workmen engaged for the  
 performance of the business relating to the above contract i.e., failing such payment of  
 claims of workmen engaged in the above work, I abide in accepting for the recovery of such  
 claims, effected from any of my assets with the departments.

**68. Compliance with Labour Regulations**

During continuance of the contract, the contractor and his sub-contractors shall abide at all times by all existing labour enactments and rules made there under, regulations, notifications and bye laws of the State or Central Government or local authority and any other labour law (including rules), regulations, bye laws that may be passed or notifications that may be issued under any labour law in future either by the State or the Central Government or the local authority and also applicable labour regulations, health and sanitary arrangements for workmen, insurance and other benefits.

Salient features of some of the major labour laws that are applicable to construction industry are given below. The contractor shall keep the Department indemnified in case any action is taken against Department by the competent authority on account of contravention of any of the provisions of any Act or Rules made there under, regulations or notifications including amendments. If the Department is caused to pay or reimburse, such amounts as may be necessary to cause or observe, or for non-observance of the provision stipulated in the notifications/bye laws/ Acts/ Rules/ regulations including amendments, if any, on the part of the contractor, the Engineer-in-charge /Department shall have the right to deduct any money due to the contractor including his amount of performance security. The Department/ Engineer-in-charge shall also have right to recover from the contractor any sum required or estimated to be required for making good the loss or damage suffered by the Department. The employees of the contractor and the Sub-contractor in no case shall be treated as the Department of the Department at any point of time.

**69. Salient features of some major labour laws applicable to establishment engaged in buildings and other construction work.**

- a) **Workmen Compensation Act 1923:** The Act provides for compensation in case of injury by accident arising out of and during the course of employment.
- b) **Payment of Gratuity Act 1972:** Gratuity is payable to an employee under the Act on satisfaction of certain conditions on separation if an employee has completed the prescribed minimum years (say, five years) of service or more or on death the rate of prescribed minimum days' (say, 15 days) wages for every completed year of service. The Act is applicable to all establishments employing the prescribed minimum number (say, 10) or more employees.
- c) **Employees P.F. and Miscellaneous Provision Act 1952:** The Act Provides for monthly contributions by the Employer plus workers at the rate prescribed (say, 10% or 8.33%). The benefits payable under the Act are:
  - i) Pension or Family pension on retirement or death as the case may be.
  - ii) Deposit linked insurance on the death in harness of the worker.
  - iii) Payment of P.F. accumulation on retirement/death etc.
- d) **Maternity Benefit Act 1951:** The Act provides for leave and some other benefits to women employees in case of confinement or miscarriage etc.
- e) **Contract Labour (Regulation & Abolition) Act 1970:** The Act provides for certain welfare measures to be provided by the contractor to contract labour and in case the contractor fails to provide, the same are required to be provided, by the Principal Employer by Law. The Principal Employer is required to take Certificate of Registration and the contractor is required to take license from the designated Officer. The Act is

applicable to the establishments or contractor of Principal Employer if they employ prescribed minimum (say 20) or more contract labour.

- f) **Minimum Wages Act 1948:** The Employer is to pay not less than the Minimum Wages fixed by appropriate Government as per provisions of the Act if the employment is a scheduled employment. Constructions of buildings, roads, runways are scheduled employment.
- g) **Payment of Wages Act 1936:** It lays down as to by what date the wages are to be paid, when it will be paid and what deductions can be made from the wages of the workers.
- h) **Equal Remuneration Act 1979:** The Act provides for payment of equal wages for work of equal nature to male and female workers and for not making discrimination against female employees in the matters of transfers, training and promotions etc.
- i) **Payment of Bonus Act 1965:** The Act is applicable to all establishments employing prescribed minimum (say, 20) or more workmen. The Act provides for payments of annual bonus within the prescribed range of percentage of wages to employees drawing up to the prescribed amount of wages, calculated in the prescribed manner. The Act does not apply to certain establishments. The newly set-up establishments are exempted for five years in certain circumstances. States may have different number of employment size.
- j) **Industrial Disputes Act 1947:** The Act lays down the machinery and procedure for resolution of industrial disputes, in what situations a strike or lock-out becomes illegal and what are the requirements for laying off or retrenching the employees or closing down the establishment.
- k) **Industrial Employment (Standing Orders) Act 1946:** It is applicable to all establishments employing prescribed minimum (say, 100 or 50). The Act provides for laying down rules governing the conditions of employment by the Employer on matters provided in the Act and gets these certified by the designated Authority.
- l) **Trade Unions Act 1926:** The Act lays down the procedure for registration of trade unions of workmen and Employers. The Trade Unions registered under the Act have been given certain immunities from civil and criminal liabilities.
- m) **Child Labour (Prohibition & Regulation) Act 1986:** The Act prohibits employment of children below 14years of age in certain occupations and processes and provides for regulations of employment of children in all other occupations and processes. Employment of child labour is prohibited in building and construction industry.
- n) **Inter-State Migrant Workmen's (Regulation of Employment & Conditions of Service) Act 1979:** The Act is applicable to an establishment which employs prescribed minimum (say, five) or more inter-state migrant workmen through an intermediary (who has recruited workmen in one state for employment in the establishment situated in

another state). The Inter-State migrant workmen, in an establishment to which this Act becomes applicable, are required to be provided certain facilities such as Housing, Medical-Aid, Travelling expenses from home up to the establishment and back etc.

- o) **The Building and Other Construction workers (Regulation of Employment and Conditions of Service) Act 1996 and the Cess Act of 1996:** All the establishments who carry on any building or other construction work and employ the prescribed minimum (say, 10) or more workers are covered under this Act. All such establishments are required to pay cess at the rate not exceeding 2% of the cost of construction as may be modified by the Government. The Employer of the establishment is required to provide safety measures at the building or construction work and other welfare measures, such as canteens, first-aid facilities, ambulance, housing accommodations for workers near the work place etc. The Employer to whom the Act applies has to obtain a registration certificate from the Registering Officer appointed by the Government.
- p) **Factories Act 1948:** The Act lays down the procedure for approval of plans before setting up a factory, health and safety provisions, welfare provisions, working hours, annual earned leave and rendering information regarding accidents or dangerous occurrences to designated authorities. It is applicable to premises employing the prescribed minimum (say, 10) persons or more with aid of power or another prescribed minimum (say, 20) or more persons without the aid of power engaged in manufacturing process.

## 70. Liabilities of the Contractor

### 70.1 Accident Relief and Workmen Compensation

The contractor should make all necessary arrangements for the safety of workmen on the occurrence of the accident, which results in the injury or death of any of the workmen employed by the contractor, the contractor shall within 24 hours of the happenings of the accident and such accidents should intimate in writing to the concerned Assistant Engineer / Executive Engineer of the Department the act of such accident. The contractor shall indemnify Government against all loss or damage sustained by the Government resulting directly or indirectly from his failure to give intimation in the manner aforesaid including the penalties or fines if any payable by Government as a consequence of Government failure to give notice under workmen's compensation Act or otherwise conform to the provisions of the said Act. in regard to such accident.

- 70.2 In the event of an accident in respect of which compensation may become payable under the workmen's compensation Act VIII 23 whether by the contractor, by the Government it shall be lawful for the Executive Engineer to retain such sum of money which may in the opinion of the Executive Engineer be sufficient to meet such liability. The opinion of the Executive Engineer shall be final in regard to all matters arising under this clause.

- 70.3 The contractor shall at all times indemnify the Government of Tripura against all claims which may be made under the Workmen's Compensation Act or any statutory modification



thereafter or rules there under or otherwise consequent of any damage or compensation payable in consequent of any accident or injuries sustained or death of any workmen engaged in the performance of the business relating to the contractor.

#### **71. Contractor's Staff, Representatives and Labour**

- (a) The contractor shall, at all times, maintain on the works, staff of qualified Engineers and Supervisors of sufficient experience of similar other jobs to assure that the quality of work turned out shall be as intended in the specifications. The contractor shall also maintain at the works, a Work Manager or sufficient status, experience and office and duly authorize him to deal with all aspects of the day-to-day work. All communications to any commitments by the Work Manager shall be considered as binding on the contractor.
- (b) The contractor shall at all times submit details of skilled and unskilled labour and equipment employed to the Engineer-in-charge in prescribed proforma as he may require to assess and ensure the proper progress of work.
- (c) If the contractor does not employ the technical person agreed to on the work within 30 days from the date of issue of work order, the contractor shall be liable to pay a sum of Rs. 4,000.00 (Rupees Four Thousand) only per month in the case of graduate engineer (for the work costing more than Rs.3.00 crore) and Rs. 2,000.00 (Rupees Two Thousand) only per month in the case of diploma holder engineer (for the work costing Rs. 1.00 crore to Rs. 3.00 crore) as penalty, without prejudice to any other action to be taken against the contractor as per conditions of contract.

#### **72. Accommodation and food**

The contractor should arrange accommodation he needs, at his own cost. The contractor shall make his own arrangements for supply of food grains, fuel and other provision to his staff and labourers including controlled commodities.

#### **73. Relationship**

Contractor shall have to furnish information along with tender, about the relationship he is having with any officer of the Department, Government of Tripura of the rank Assistant Engineer and above engaged in the work and any officer of the Divisional Accounts officer and above of the Department of Government of Tripura.

#### **74. Protection of adjoining premises**

The contractor shall protect adjoining sites against structural, decorative and other damages that could be caused by the execution of these works and make good at his cost any such damages.

#### **75. Work during night or on Sundays and holidays**

The works can be allowed to be carried out during night, Sundays or authorized holidays in order to enable him to meet the schedule targets and the work shall require almost round the clock working keeping in view:

- (i) The provisions of relevant labour laws being adhered to;
- (ii) Adequate lighting, supervision and safety measures are established to the satisfaction of the Engineer-in-charge; and
- (iii) The construction programme given by the contractor and agreed upon by the Engineer-in-charge envisages such night working or working during Sundays or authorized holidays.

#### **76. Layout of materials stacks**

The contractor shall deposit materials for the purpose of the work on such parts only of the ground as may be approved by the Engineer-in-charge before starting work. A detailed survey, clearly indicating position and areas where materials shall be stacked and sheds built is to be conducted by the contractor at his own cost and only after obtaining necessary approval of the plan for use of sites by the Engineer-in-charge, the contractor can use the sites accordingly.

#### **77. Use of blasting materials**

Procurement of blasting materials and its storage is the responsibility of the contractor. The contractor shall engage licensed blaster for blasting operation. The contractor is to act in accordance with Indian Explosive Act and other rules prevailing, during the execution of work. It is the responsibility of the contractor to see, that works by other agencies in the vicinity are not hampered, in such cases if any claim is made by other agencies that should be borne by the contractor. Carriage of blasting materials, from the magazine to the work site, is the responsibility of the contractor.

#### **78. Plant and Equipment**

- 78.1 The Contractor shall have to arrange Drilling rig, drill rods, drill bits of every kinds, Air compressor, Welding set etc. of required sizes & capacities and all other tools & plants including operating personals for operating the machineries & equipments whatsoever required at his own effort & cost for successful completion of this work in all respect as per specifications & conditions of the contract. The contractor shall also arrange necessary consumable materials for operating the machineries during work, i.e. diesel, fuel, petrol, grease, lubricants etc. Whatsoever at his own effort & cost.
- 78.2 The contractor shall specifically note that all sorts of drill bits (Drag bit and R.R. bit) of required quantities & sizes shall be arranged by the contractor at his own cost and efforts without any claim to the department for successful execution of this work in all respect. In

general, department will not take any responsibility for issue / arrangement of any kind of drill bits to the contractor for execution of this work. No plea / claim of the contractor in this regard will be entertained by the department.

**79. Inconvenience to public**

The contractor shall not deposit materials at any site, which will cause inconvenience to public. The Engineer-in-charge may direct the contractor to remove such materials or may undertake the job at the cost of the contractor.

**80. Conflict of interest**

Any bribe, commission, gift or advantage given, promised or offered by on behalf of contractor or his partner, agent or servant or any one on his behalf to any Officer, servant, representatives, agents of Engineer-in-charge, or any persons on their behalf, in relation to the obtaining or to execution of this, or any other contract with Engineer-in-charge shall in addition to any criminal liability, which it may occur, subject to the cancellation of this or all other contracts and also to payment of any loss or damage resulting from any such cancellation. Engineer-in-charge shall then be entitled to deduct the amount, so payable from any money, otherwise due to the contractor under this or any other contract.

**81. Contract documents and materials to be treated as confidential**

All documents, correspondences, decisions and orders, concerning the contract shall be considered as confidential and/or restricted in nature by the contractor and he shall not divulge or allow access to them by any unauthorized person.

**82. General Obligations of Contractor**

82.1 The contractor shall, subject to the provision of the contract and with due care and diligence, execute and maintain the works in accordance with specifications and drawings.

82.2 The contractor shall promptly inform the Department and the Engineer-in-charge of any error, omission, fault and inherent defect in the design of or specifications for the works which are discovered when reviewing the contract documents or in the process of execution of the works.

82.3 If contractor believes that a decision taken by the Engineer-in-charge was either outside the authority given to the Engineer-in-charge by the Contract or that the decision was wrongly taken, the decision shall be referred to the technical expert within 14 days of the notification of the Engineer-in-charge's decisions.

82.4 Pending finalization of disputes, the contractor shall proceed with execution of work with all due diligence.

**83. Security Measures**

- a) Security requirements for the work shall be in accordance with the Government's general requirements including provisions of this clause and the contractor shall conform to such requirements and shall be held responsible for the actions of all his staff, employees and the staff and employees.
- b) All contractors' employees, representatives shall wear identifications badges provided by the contractor. Badges shall identify the contractor, showing and employee's number and shall be worn at all times while at the site. Individual labour will not be required to wear identification badges.
- c) All vehicles used by the contractor shall be clearly marked with contractor's name.
- d) The contractor shall be responsible for the security of the works for the duration of the contract and shall provide and maintain continuously adequate security personnel to fulfil these obligations. The requirements of security measures shall include, but not limited to maintenance of order on the site, provision of all lighting, fencing, guard flagmen and all other measures necessary for the protection of the works within the colonies, camps and elsewhere on the site, all materials delivered to the site, all persons employed in connection with the works continuously throughout working and non working period including nights, Sundays and holidays for duration of the contract.
- e) Other contractors working on the site concurrently with the contractor will provide security for their own plant and materials. However, their security provisions shall in no way relieve the contractor of his responsibilities in this respect.
- f) Separate payment will not be made for provision of security services.

#### **84. Fire Fighting Measures**

- a) The contractor shall provide and maintain adequate fire fighting equipment and take adequate fire precaution measures for the safety of all personnel and temporary and permanent works and shall take action to prevent damage to destruction by fire of trees shrubs and grasses.
- b) Separate payment will not be made for the provision of fire prevention measures.

#### **85. Sanitation**

The contractor shall implement the sanitary, watch and ward rules and regulations for all forces employed under this contract, and if the contractor fails to enforce these rules, the Engineer-in-charge may enforce them at the expenses of the contractor.

**86. Ecological Balance**

- a) The contractor shall maintain ecological balance by preventing de-forestation, water pollution and defacing of natural landscape. The contractor shall so conduct his construction operation as to prevent any unnecessary destruction, scarring, or defacing of the natural surroundings in the vicinity of the work. In respect of the ecological balance, contractor shall observe the following instructions.
- i) Where unnecessary destruction, scarring, damage or defacing may occur, as result of the operation, the same shall be repaired replanted or otherwise corrected at the contractor's expense. The contractor shall adopt precautions when using explosives, which will prevent scattering of rocks or other debris outside the work area. All work area including borrow areas shall be smoothed and graded in a manner to conform to the natural appearances of the landscape as directed by the Engineer-in-charge.
- ii) All trees and shrubbery, which are not specifically required to be cleared or removed for construction purposes, shall be preserved and shall be protected from any damage that may be caused by the contractor's construction operation and equipment. The removal of trees and shrubs will be permitted on after prior approval by the Engineer-in-charge. Special care shall be exercised where trees or shrubs are exposed to injuries by construction equipment, blasting, excavating, dumping, chemical damage or other operation and the contractor shall adequately protect such trees by use of protective barriers or other methods approved by the Engineer-in-charge. Trees shall not be used for anchorages. The contractor shall be responsible for injuries to trees and shrubs caused by his operations. The term 'injury'" shall include, without limitation bruising, scarring, tearing and breaking of roots, trunks or branches. All injured trees and shrubs be restored as nearly as practicable without delay to their original condition at the contractor's expense.
- iii) The contractor's construction activities shall be performed by methods that will present entrance or accidental spillage of solid matter contaminants, debris and other objectionable pollutants and wastage into river. Such pollutant and waste include earth and earth products, garbage, cement concrete, sewage effluent, industrial wastes, radioactive substances, mercury, oil and other petroleum products, aggregate processing, mineral salts and thermal pollution. Pollutants and wastes shall be disposed off in a manner and at sites approved by the Engineer-in-charge.
- iv) In conduct of construction activities and operation of equipments, the contractor shall utilize such practicable methods and devices as are reasonably available to control, prevent and otherwise minimize the air pollution. The excessive omission of dust in to the atmosphere will not be permitted during the manufacture, handling and storage of concrete aggregates and the contractor shall use such methods and equipment as a necessary for collection and disposal or prevention of dust during these operations. The contractor's methods of storing and handling cement shall also include means of eliminating atmospheric discharges of dust, equipment and vehicles that give

objectionable omission of exhaust gases shall not be operated. Burning of materials resulting from clearing of trees, bushes, combustible construction materials and rubbish may be permitted only when atmospheric conditions for burning are considered favourable.

- b) Separate payment will not be made for complying with the provisions of this clause and all cost shall be deemed to have been included in the amount of the contract. If any provision is not complied with within a reasonable time even after issue of a notice in this respect, the necessary operations would be carried out by the Engineer-in-charge at the cost of the contractor; Orders of the Engineer-in-charge in this respect would be final and binding on the contractor.

#### **87. Preservation of existing vegetation**

- a) The contractor will preserve and protect all existing vegetation such as trees, on or adjacent to the site which do not unreasonably interfere with the construction as may be determined by the Engineer-in-Charge. The contractor will be held responsible for all unauthorized cutting or damage of trees, including damage due to careless operation of equipment, stockpiling of materials or trekking of grass areas by equipment. Care shall be taken by the contractor in felling trees authorized for removal to avoid any unnecessary damages to vegetation and trees that are to remain in place and to structures under construction or in existence and to workmen.
- b) All the produce from such cutting of trees by the contractor shall remain the property of Government and shall be properly stacked at site, approved by the Engineer-in-charge. No payment whatsoever shall be made for such cutting and its stacking by the contractor. If any produce from such cutting is not hand over to the Government by the contractor, he shall be charged for the same at the rates to be decided by the Engineer-in-charge. The recovery of this amount shall be made in full from the intermediate bill that follows.
- c) The contractor shall also make arrangements of fuel deposits for supply of required fuel for the labourers to be employed for cooking purpose at his own cost in order to prevent destruction of vegetation growth in the surrounding area of the work site.

#### **88. Possession prior to completion**

The Engineer-in-charge shall have the right to take possession of or use any completed part of work or works or any part thereof under construction either temporarily or permanently. Such possession or use shall not be deemed as an acceptance of any work either completed or not completed in accordance with the contract with in the interest of Clause of contract except where expressly otherwise specified by the Engineer-in-charge.

**89. Payment upon termination**

If the contract is terminated because of a fundamental breach of contract by the contractor, the Engineer-in-charge shall issue a certificate for the value of the work done less advance payment received upon the date of issue of the certificate and less the percentage to apply to the work not completed as indicated in the contract data. Additional liquidated damages shall not apply. If the total amount due to the department exceeds any payment due to the contractor the difference shall be a debt payable to the department. In case of default of payment within 28 days from the date of issue of notice to the above effect, the contractor shall be liable to pay interest at 12% per annum for the period of delay.

**90. Access to the Contractor's books**

Whenever it is considered necessary by the Engineer-in-charge to ascertain the actual cost of execution of any particular extra item of work or supply of the plant or material on which advance is to be made or of extra items or claims, he shall direct the contractor to produce the relevant documents such as payrolls, records of personnel, invoices of materials and any or all data relevant to the item or necessary to determine its cost etc. and the contractor shall when so required furnish all information pertaining to the aforesaid items in the mode and manner that may be specified by the Engineer-in-charge.

**91. Drawing to be kept at site**

One copy of the drawings furnished to the contractor shall be kept by the contractor on the site and the same shall at all reasonable time be available for inspection and use by the Engineer-in-charge and the Engineer-in-charge's representative and by any other persons authorised by the Engineer-in-charge in writing.

**92. Litho Log sheet to be kept at site**

One copy of the litho log sheet duly approved by the department shall be kept by the contractor on the site and the same shall at all reasonable time be available for inspection and use by the Engineer-in-charge and the Engineer-in-charge's representative and by any other persons authorized by the Engineer-in-charge in writing.

**93. Site Order Book**

An order book shall be kept at the site of the work. As far as possible, all orders regarding the work are to be entered in this book. All entries shall be signed and dated by the Departmental Officer in direct charge of the work and by the contractor or by his representative. In important cases, the Executive Engineer or the Chief Executive Officer will countersign the entries, which have been made. The order book shall not be removed from the work site, except with the written permission of the Executive Engineer.

**94. Variations by way of modification, omissions or additions**

For all modifications, omissions from or additions to the drawings and specifications, the Executive Engineer will issue revised plans, or written instructions, or both and no modification, omission or addition shall be made unless so authorized and directed by the Executive Engineer in writing.

The Executive Engineer shall have the privilege of ordering modifications, omission or additions at any time before the completion of the work and such orders shall not operate to annual those portions of the specifications with which said changes do not conflict.

### **Engineer-in-charge's Decisions**

It shall be accepted as in separable part of the contract that in matters regarding materials, workmanship, removal of improper work, interpretation of the contract drawings and contract specification, mode of the procedure and the carrying out of the work, the decision of the Engineer-in-charge, which shall be given in writing, shall be binding on the contractor.

### **95. Care and diversion of river / stream**

The contractor shall submit regarding the diversion and care of river or stream during construction of the work along with a separate printout of the timetable showing earliest and latest start and finish dates of various activities. He should submit a detailed layout plan with drawings for the diversion and car of river during construction of work. The above arrangements shall be at contractor's cost.

### **96. Income tax**

- a) During the currency of the contract deduction of Income Tax @2% shall be made from the gross value of each bill of the contract and procedure stipulated under section 194-C (4) of Income Tax Act, 1961 with latest amendments shall be followed. However, the deduction shall be made according to the applicable rate as notified by the Govt. of Tripura time to time during currency of the contract.
- b) Income Tax clearance certificate should be furnished before the payment of final bill.
- c) The contractor's staff, personnel and labour will be liable to pay personnel income taxes in respect of their salaries and wages as are chargeable under the laws and regulations for the time being in force, and the contractor shall perform such duties in regard to such deductions thereof as may be imposed on him by such laws and regulations.

### **97. Sales Tax / VAT/ valid GST (as applicable)**

- 97.1 In addition to deduction of Income Tax at source, Tripura Value Added Tax shall be deducted at source from the gross amount of contractor's each bill according to the applicable rate as notified by the Government of Tripura time to time during currency of the contract. No claim and / or plea of the Contractor in this regard will be entertained.



97.2 The Contractor should produce a valid VAT Clearance Certificate/ valid GST (as applicable) before the payment of the final bill, otherwise payment to the Contractor will be withheld.

**98. Compulsory deduction for all works**

98.1 As per Building and Other Construction Workers Welfare Cess Act 1996, an amount @1% of gross amount of contractor's each bill shall be deducted at source.

**99. Supply of construction materials**

99.1 The contractor has to make his own arrangements for procurements, supply and use of all required construction materials, fittings, machineries, equipments etc. at his own without any claim to the department, except those, which are to be supplied by the department as specified in the tender document.

99.2 All materials so procured should confirm to the relevant specifications indicated in the tendering documents.

99.3 The contractor shall follow all regulations of the Government of India / Department in respect of import licences etc., of the procurement of the materials and he shall be responsible for the payment of applicable duties and taxes, port clearances, inland transportation etc.

99.4 The contractor shall make his own arrangements for adequate storage of the materials.

## 100. SCOPE OF SERVICES FOR OPERATION AND MAINTENANCE (O&M)

### 100.1 SCOPE OF SERVICES

The Scope of work / service to be done / provided by the contractor under this bid will be as under:

The Contractor shall operate and maintain the Water ATMs (Under their executed scope of work) for a total operation and maintenance period of 05 (five) years including 01 (one) year Defects Liability Period from the date of completion of work. All necessary repairs, maintenance, overhaul, replacements etc. shall be made during the O&M to maintain the Water ATMs at the status of formal handing over. At the end of O&M period the Water ATMs shall be handed over to the Engineer-in-charge in fully functional and new condition except normal wear and tear.

The price for O&M bill shall include supply of all tools, tackles, maintenance spares, consumables as required, for the successful operation of Water ATMs.

The scope shall include but not limited to the following items:

- i. Operation and Maintenance including Civil, Electrical, Mechanical and all allied works.
- ii. Repairs; Refurbishments & Replacement required during O&M period for satisfactory running of Water ATMs.
- iii. O&M of all functional infrastructure and common areas within the battery limit of the Water ATMs.
- iv. The Contractor shall be responsible for cleaning of the all Water ATMs.
- v. The records maintained by the Contractor shall be produced periodically to the Engineer-In-Charge for proper monitoring. The Engineer-in-charge's remarks shall be attended to on next submission. Consolidated summary reports shall be furnished to the Employer monthly, quarterly and yearly containing salient features.
- vi. The Contractor shall also maintain history sheets of overhauling, maintenance, replacement of all the important electrical and mechanical equipment.
- vii. The O&M shall include the appropriate preventive maintenance of equipment as per the manufacturer's recommendation.

The operation, maintenance and repairs services shall be performed according to the following:

Awareness & Cleanliness

The Contractor and his staff shall maintain a high degree of awareness in operation and maintenance of the Water ATMs and all relevant safety codes and procedures. At all times the Water ATMs shall be kept clean

#### Frequency of Preventive maintenance

The preventive maintenance shall be carried out according to the preventive maintenance schedule of the Plant. The regular staff may be reinforced with short-term specialists by the Contractor for special maintenance tasks, after duly informing the Engineer-in-charge of the need and the schedule.

#### Repairs

Repairs shall be made as and when needed very promptly on the spot or at the Contractor's / Manufacturer's workshop. The need of repair on the spot or at the Contractor's workshop has to be defined in co-ordination with the Engineer-in-charge and according to the status of spare parts availability.

#### Replacement

#### Spare parts

The Contractor shall keep a reasonable stock of spare parts so that the down time of equipment can be kept within the limits specified. The contents of the stock and the reorder level of the inventory have to be approved by the Engineer-in-charge.

#### Transportation

All necessary transportation shall be arranged and made by the Contractor at his own expense.

#### Consumables

The Contractor has to ensure that there is always there is sufficient stock of 15 days of consumables.

## 100.2 GENERAL OBLIGATION

The Contractor shall operate and maintain the units under this contract for the period specified in this contract.

The Contractor will submit a detailed operation and maintenance plan for approval of Engineer-In-Charge. All operation and maintenance activities shall be carried out strictly in accordance with the approved plan.

The services shall include but not be limited to the following items:

- a) Training for the O&M staff designated by Employer's requirement.
- b) Generation and maintenance of periodic reports.

### 100.3 OPERATION

#### 100.3.1 Operational Services

The Contractor shall operate the Water ATMs on a continuous 24-hour basis. The Contractor shall operate as per the stipulations maintained in the technical document.

If it is determined that the facility is not capable of meeting the design parameters for any reason beyond the Contractor's control and not attributable to him, the Contractor shall determine the specific cause of failure/ abnormality in the Water ATM functioning and report to the Engineer-in-charge and seek his directives on the necessary corrective action to be taken/adopted.

The Contractor will be required to furnish the details of electricity consumption in the format prescribed by the Engineer-in-charge.

The Contractor at his own expense shall provide all tools, cleaning, and housekeeping equipment, security and safety equipment.

#### 100.3.2 Manpower

The Contractor shall provide experienced managerial, technical, supervisory, and non-technical personnel, security personnel and labour necessary to operate and maintain the Water ATMs, safely and efficiently on a continuous 24 hour basis for the full term of the O&M period. While doing so due consideration shall be given to the labour laws in force.

The qualification and capability of Contractor's personnel shall be appropriate for the tasks they are assigned to perform. The staff provided shall be fully trained in the operation of the works before being given responsibility. If, in opinion of the Engineer-in-charge, a member of Contractor's staff is considered to be insufficiently skilled or otherwise inappropriate for the assigned task, and Engineer-in-charge informs the Contractor in writing, the Contractor shall replace him with a person of appropriate skills and experience for the task, approved by the Engineer-in-charge, within one month of being so informed.

The bidder shall propose in his tender a staff management structure for the operation and maintenance of works.

Key staff: The Employer may require a suitable change in the structure on the basis of design and other relevant parameters it deems fit.

The Contractor shall provide all secretarial support, printing and publishing services, office furniture and office supplies as required. It shall also ensure that all labour welfare laws and regulations are followed, including weekly rests, rotation of duties.

The CV resumes of the Contractor personnel shall be submitted to the Engineer-in-charge for acceptance at least two months before anticipated commencement of the pre-commissioning of test. Normal time duty hours for the Contractor's O&M personnel may be modified as necessary and agreed by the Engineer-in-charge. A rotating shift schedule shall be established by the Contractor and approved by the Engineer-in-charge who will ensure that an adequate number of the Contractor's staff will be available for duty at Water ATM premises 24 hours each day, 7 days week, including national holidays.

In the event, that it is necessary for more than one of the Contractor's O&M personnel be absent from the Plant, for whatever reason, the Contractor shall provide a qualified replacement at his own expense and ensure that specified project duty coverage is maintained. If substitute key personnel are required for a period longer than 15 days, their CV must be approved in advance by the Engineer-in-charge.

The O&M personnel shall be dedicated solely to the specified duties and responsibilities and shall not be diverted to perform Contractor's administrative duties, construction arrangement, office management, or other activities not related to O&M. Adequate supports staff shall be provided by the Contractor in order avoid any such diversion.

The bidder shall provide justification of the labour cost proposed by him for all personnel

The Contractor shall include in his cost medical and accident insurance expenses of all the staff employed by him along with all provisions of the labour welfare acts prescribed from time to time by the State and Central Government. Adequate insurance cover shall also be maintained during O&M period for all short-term employees, as well as casual, temporary employees and visitors.

Employer is not liable for any situation arising due to any accident/mishap of whatever nature occurring in the Plant premises.

### 100.3.3 Safety

The Contractor shall be responsible for safety of his staff during O&M of the Plant and shall procure, provide and maintain all safety equipment necessary for satisfactory O&M such as gasmasks, gloves, boots, mats etc.,

1. The Contractor shall utilize safety awareness procedures in every element of operation and maintenance.
2. The Contractor shall emphasize site safety including adoption of
  - (a) Safe working procedures

- (b) Cleanliness and care of the Water ATM premises as a whole
- (c) Accident and hazardous conditions prevention and reporting.

The Contractor shall impart safety training to all members at regular intervals, especially for new comers.

The Contractor shall provide Notice boards and display boards at appropriate locations detailing precautions to be taken by O&M personnel to work in conformity to regulations and procedures.

The Contractor shall notify the Engineer-in-charge representative immediately if any accident occurs whether on-site or off site in which Contractor is directly involved and results in any injury to any person, whether directly concerned with the site or a third party. Such initial notification may be verbal and shall be followed comprehensive report within 24 hours of the accident.

#### 100.3.4 Reporting

The Contractor shall prepare consolidated daily reports, weekly and monthly reports on Water ATMs operation and maintenance and submit to the Engineer-in-charge. The daily reports are to be submitted within first working hour of the next day. The monthly reports shall be submitted on the first day of the next month and within two working hours with monthly record data to Engineer-in-charge.

Overall reporting formats shall be approved by Engineer-in-charge and may have to be modified from time to time as required and approved by Engineer-in-charge. Contractor may have to prepare and submit additional reports on particular matters and incidents as and when required by the Engineer-in-charge for each significant occurrence.

### 100.4 MAINTENANCE

#### 100.4.1 Maintenance of Installed Part of the Water ATMs

The Contractor shall ensure the continuity of the Water ATMs operations and in case of the breakdown or the deterioration in performance of any equipment at the Water ATM areas under normal operating conditions of any items of the Plant and equipment and component parts thereof shall be minimized.

The classes of maintenance provided shall comprise full Operational maintenance and standby Maintenance.

Full operational maintenance comprises the planned and regular maintenance carried out by the Contractor on a day-to-day basis, including cleaning, lubricating, minor adjustment, together with the preventive and corrective maintenance plan for those items of the Plant

and equipment within the treatment works which have been commissioned and made operational.

Standby maintenance comprises the planned and regular maintenance carried out by the Contractor including cleaning, lubricating, periodic, and minor adjustment of all items of Plant and equipment within the treatment works which have been installed but have not yet been made operational.

The Contractor shall carry out the maintenance of the Water ATMs in accordance with the requirements of the O&M Manual and to the approved maintenance plan. The Contractor shall strictly adhere to the manufacturers' recommendations with respect to equipment maintenance, and only use types and grades of lubricants to be used. The frequency of lubrication, adjustments to be made regularly, and recommended spare parts by the equipment / machine/ instrument manufacturer /supplier shall be carried out and appropriate inventory shall be held in store.

#### 100.4.2 Preventive Maintenance

The Contractor shall plan the day-to-day and also for preventive maintenance. This planning must include all equipment with estimated necessary hours in preventive maintenance and break down maintenance. It shall also include the qualification of the foreseen maintenance personnel.

The Contractor shall provide the yearly requirement of spare parts and consumable needed for the maintenance of each piece of equipment for the day-to-day maintenance, preventive maintenance, and foreseen break down maintenance/overhaul, if any.

### 100.5 TRAINING

#### 100.5.1 General

- a) The Contractor shall be responsible for instruction and training of all his personnel in all aspects of Plant operation and maintenance till the end of the operation and maintenance period. The Contractor shall also be responsible for training personnel designated by the Employer who will operate the Plant at the expiry of the contract.

The Contractor will make available for this purpose competent staff and as well as propose schedule information that may be necessary for effective execution of the training programs.

The training shall be organised in two (2) stages as follows:

Basic technical training education to be carried out during the final stages of the execution of work of the contract through literature, manuals, handouts demonstration at site, etc.

- b) By the end of this training period these personnel should be able to carry out their respective duties efficiently under the supervision of Engineer-In-Charge and supervisory staff of the Employer.

The Contractor shall provide at his cost all local transportation, literature, computers, CDs and other related hardware and stationery to be used by trainers and trainees during the training period.

- c) Towards end of O&M contract period, training shall be conducted once again to Employer’s personnel or their authorized personnel. This training shall be for duration of 30 working days.

100.6 Operation and Maintenance records

The following are a typical sample form of records (not an exhaustive and comprehensive) that are required to be maintained by the O&M Contractor. The details of complete records shall be prepared and submitted by the O&M Contractor to the Engineer-In-Charge for approval prior to completion.

100.7 Penalties Due to shortfall in performance of Operation & Maintenance Facilities

The contractor shall be subject to the following penalties for failure to carry out its operations as indicated below during “Performance Based O&M period” 05 (five) years including 01 (one) year of Defects Liability Period under Normal Operating Conditions.

Sl. No.	Basis of Penalty	Benchmark	Penalty Value for each Parameter specified in the bid document
1.	Inadequate Maintenance of the Water ATM Facilities and ambience	For each case detected	Rs.1,000/- per case detected
2.	Not using PPP devices, Non-compliance to Occupational Safety, Health & Environment guidelines, Non-Compliance to State & Central Statutes	Up to 2 occurrences / Month	No penalty
		>2 & up to 5 Occurrences/Month	Rs.1,000/- per Occurrence
		>5 & up to 10 Occurrences/Month	Rs. 2,500/- per Occurrence



## 101. GENERAL INSTRUCTIONS

The following general instructions are not exclusive and the same are issued for general guidance of the bidder and shall in no way constitute any promise or Covenant on part of Agartala Smart City Limited but shall be binding obligations for all intents and purposes, the same are included in the Bid.

### 101.1 PLANNING, DESIGNING AND EXECUTION OF THE WORKS

#### 101.1.1 SITE RESPONSIBILITY CHART

The Contractor shall submit, within 15 days after the Date of Commencement of the Contract, a site responsibility chart to show the functions and responsibilities of various personnel from the Project Manager to the workmen responsible for executing the Works, as well as the functions and responsibilities of the sub-contractors involved.

#### 101.1.2 SETTING OUT AND EXISTING LEVELS

The Contractor shall take levels and set out for the whole of the Works. The information on existing levels as shown on the Drawings is provided in good faith for the general guidance of the Contractor. The Contractor is to note that accuracy of information shown on the Drawings is not guaranteed. The Contractor shall visit the site and carry out field surveys if he considers it necessary to ascertain the full extent of the Works. Within one week after the commencement of the Works, the Contractor shall submit to the Engineer-in-Charge for his verification and endorsement, records of levels of the existing site condition. Similarly, the Contractor shall submit the as-constructed levels of the site to the Engineer-in-Charge upon completion of the Works. Such records shall be certified and endorsed by a Registered Surveyor engaged by the Contractor at his own cost.

#### 101.1.3 DESIGN OF WORKS

The Contractor shall carry out, and be responsible for the design of the Works, including any site surveys, subsoil investigations if required, materials testing, and all other things necessary for proper planning and design.

Within 10 days from Award of work, the Contractor shall start submitting drawings, construction documents, etc., for review and approval by the Engineer-in-Charge's Representative. The Contractor will be fully responsible for ensuring that its designs, drawings, and construction documents satisfy all requirements for constructing Works that are complete and fully functional in all respects.

The Contractor shall prepare, and keep up-to-date, a complete set of "as-built" records of the execution of the Works, showing the exact as-built locations, sizes and details of the

---

work as executed. These records shall be kept at the Site and two sets of such records shall be submitted to Engineer-in-Charge.

In addition, the Contractor shall supply to the Engineer-in-charge as-built drawings of the Works, showing all Works as executed.

---

# SECTION - V

  

# TECHNICAL SPECIFICATION

## CONTENTS

<b>PART- 1</b>	<b>TECHNICAL SPECIFICATION FOR WATER ATM</b>
<b>PART- 2</b>	<b>TECHNICAL SPECIFICATION FOR CIVIL WORKS</b>

## PART- 1: TECHNICAL SPECIFICATION FOR WATER ATM

<b>CLAUSE</b>	<b>DESCRIPTION</b>
1	BACKGROUND
2	SCOPE OF WORK FOR TENDERER
3	GENERAL REQUIREMENTS
4	OTHER REQUIREMENTS
5	TESTING AND INSPECTION
6	OBLIGATIONS OF ENGINEER-IN-CHARGE
7	CONSTRUCTION REQUIREMENTS FOR WATER ATMs
8	OPERATION & MAINTENANCE

## 1. BACKGROUND

To meet the safe drinking water requirements at public places in Agartala, potable water is proposed to be supplied to the consumer through his/ her drinking bottle/ container or through paper cups (in selected public locations). This proposal will be essential for betterment of the urban environment as the usage of consumer's own bottle/ container would result in minimizing the high usage of plastic/ bottles for drinking water purposes. The water ATMs would also enable citizens/ visitors to access safe drinking water at various locations within Agartala.

Engineer-in-charge hereby wishes to invite reputed firms (Applicants) to develop and install water ATMs for providing access to safe drinking water at public places including Operation and Maintenance of the ATMs for Five years.

### Location of Water ATMs

<b>Sl. No.</b>	<b>Location</b>	<b>No(s).</b>
<b>1</b>	<b>City Centre</b>	<b>1</b>
<b>2</b>	<b>Radhanagar Bus Stand</b>	<b>1</b>
<b>3</b>	<b>Chandrapur Bus Stand</b>	<b>1</b>
<b>4</b>	<b>IGM Hospital Complex</b>	<b>1</b>
<b>5</b>	<b>Nagerjala Bus Stand</b>	<b>1</b>
<b>6</b>	<b>Agartala Govt. Medical College (GBP Hospital)</b>	<b>1</b>
<b>7</b>	<b>Tripura Medical College (BRAM Teaching Hospital)</b>	<b>1</b>
<b>8</b>	<b>ILS Hospital</b>	<b>1</b>
<b>9</b>	<b>Agartala Railway Station</b>	<b>1</b>
<b>10</b>	<b>Aitorma Centrum, Sakuntala Road, Agartala</b>	<b>1</b>
<b>Total</b>		<b>10</b>

***N.B. The locations indicated above are tentative. The authority reserves the right to change the locations of Water ATM within the city of Agartala.***

## 2. SCOPE OF WORK

The scope of work is hereunder :

- 2.1. **Designing, constructing / installing, operating and maintaining of Water ATMs at Public Places** along with in built water storage tanks of Stainless Steel (minimum Grade 304) and also an additional underground RCC water storage tank to collect and store municipal supply water. The scope also includes the operation of the plant for 05 (five) years after successful commissioning.
- 2.2. Making Power connection at Water ATMs and all electrical fittings up to the power meter; power connection & external electrification charges will be borne by the Contractor. However, cost of electrical consumption will be in account of Owner.
- 2.3. Quality control and monitoring systems to be incorporated at each ATM location as per the following:

### EMBEDDED DEVICE FOR AUTOMATION FOR FOLLOWING PURPOSES

- 1) Quantitative Monitoring
  - i. Litre of water dispensed in a day
  - ii. Water level in the tank
- 2) Water Quality Monitoring
  - i. TDS level of water
  - ii. Temperature of water
  - iii. Hardness
  - iv. pH values of water
- 3) Backend Wireless Communication
  - i. GPRS Module for communication with backend web server
  - ii. GPS module for Kiosk Location information

- 4) Data Logger
  - i. Flash Memory bank for logging Sensor/ dispensing data
  - ii. Relay Logged info to Server using communication channel
  
- 5) Multi-Processor Integrated Control System with Interface cables/ connectors for integration to provide for the following features:
  - i. GPRS based TCP/ IP connectivity with web based Server system
  - ii. GPS location system
  - iii. Flash based transaction data Logging
  - iv. Relay Unit for controlling water dispensing nozzles as per the location requirements
  - v. Interface for connecting coin-acceptors
  - vi. Interface for Card Reader
  - vii. Interface for Temperature Monitoring
  - viii. Interface for TDS Monitoring
  - ix. Interface for pH Monitoring
  - x. Interface for Ultra-Sonic Water Level Monitoring
  - xi. Controller for displaying water purity parameters on LCD/ LED display monitor
  - xii. Media Controller For HDMI based 32" display Monitor of 14" screen (diagonal)
  - xiii. Built in power supply to connect with 48 v battery
  
- 6) Sensors for the purpose of:
  - i. Temperature Monitoring
  - ii. TDS Monitoring
  - iii. pH Monitoring
  - iv. Ultra-Sonic Water Level Monitoring
  - v. Water Dispensing from Three Nozzles through Coin Acceptor
  - vi. Support of 2 rupee and 5 rupee coins
  - vii. Water Dispensing using NFC cards
  - viii. Cards to work for Rs. 2 and Rs.5
  - ix. Support for Card 'Balance' Rechargeable



- x. Sensors support for Monitoring Water Temperature, TDS, PH and Water Level in the tank
- xi. Display of Water purity parameters on LCD Display of 14" size
- xii. Ability to backup data for 48 hours in-case of server/connectivity outage
- xiii. LED display on controller panel box to indicate System Status.
- xiv. Uploading of Transactions and Water parameters data to Server over TCP/IP using GPRS.
- xv. Fall back to SMS in case GPRS connectivity to server is lost temporarily for reliability purpose, these sensors may be tested by Engineer-in-charge.

#### 7) OTHER FEATURES

- i. System operation can be enabled/disabled from server
- ii. Dispense quantities re-configurable from server
- iii. Operator Log-in, log-out feature
- iv. System to operate after successful operator login only.
- v. All card Recharge transactions to be uploaded to server
- vi. All water dispensing transactions to be uploaded to server
- vii. All Water refill transactions to be uploaded to server
- viii. Each dispensing unit shall be independently manageable from the server for coin or card operation of any value

2.4. Disposal of waste water to sewerage system.

2.5. The water before being dispensed to the public shall be treated with suitable filtration process to meet BIS 14543 standard at all times.

2.6. Any other related works/ activities as may be necessary for its successful operation.

2.7. Users may carry water up to 20 litres capacity jerry can. The Contractor may have suitable vending place in ATM for filling a container of 20 litre capacity.

2.8. ATM will be constructed as per the layout approved by the Owner / Engineer-in-charge.

- 2.9. Water ATM should be equipped with provision for chilled water (water with temperature around 15 degrees Celsius during summers).
- 2.10. The Bidder will have a suitable technology which is environment friendly to treat water in order to provide potable water as per BIS 14543 standards at each ATM location.
- 2.11. The successful bidder shall provide in-built litter spaces in each water ATM.
- 2.12. No commercial advertisements will be allowed at any Water ATM unit without the permission of the Owner.
- 2.13. LED signage showing Authority's and Water ATM of appropriate size shall be installed at every Water ATM unit.
- 2.14. Specifications:
- i. Each ATM should be equipped to dispense water of 250 ml. 1 litre, 5 litre and 20 litre water will be taken by customers in their own containers.
  - ii. Filling Speed: about 10-12 litre / minute.
  - iii. Operational Time – 6 AM to 10 PM every day, this may be amended in consultation with Owner.
  - iv. ATM Unit with Treatment Unit Dimension: Cubical/ cylindrical in shape with base area up to 60 sqft or as approved by Engineer-in-charge. Apart from that an underground RCC reservoir of minimum 3.5 cum capacity of net water storage with around 0.5M of dead storage & free board to collect the municipal supply water which will require around 4 to 5 SQM of area.
  - v. The ATM shall have the provisions for float valve for overflow control.

### **3. GENERAL REQUIREMENTS**

- 3.1. The Contractor is advised to analyse the potable water of requisite sample size on their own before quoting their rates. No extra claim will be entertained after the allotment of the work on this account.

- 3.2. The output water quality characteristics are given in **Annexure - I**.
- 3.3. The Contractor has to design supply, install, commission, and maintain the Water ATMs for Five years. The Contractor will maintain a **safe, clean and hygienic environment in and around the Water ATM**.
- 3.4. The Contractor should have their own testing facilities for water testing process. The Contractor should analyse the water sample for all parameters as per BIS 14543 norms in a weekly manner or as and when required, from the Lab as approved by Authority. Contractor shall maintain proper record in this regard. The Attendant of Contractor shall be available at the Water ATM during the operation time. A LED/ LCD digital screen of at least 14 inch diagonal showing 4 key parameters of BIS 14543 standards namely pH, hardness, TDS & temperature on a real time basis in an interval of 2-5 minutes.
- 3.5. The maintenance of pipelines etc. from point of connection onwards to the Water ATMs shall be responsibility of Contractor during the Contract Period
- 3.6. Disposal of waste generated at each Water ATM:  
  
The disposal of waste generated at each ATM shall be disposed by the contractor at his own cost to the nearest drainage system. In case of nonperformance severe penalties may be levied on the Contractor by the Owner as applicable under existing laws related to littering in public areas.
- 3.7. The Contractor shall install the required equipment and maintain the same for a period of five years from the date of commissioning of water ATMs, as per the conditions prescribed in this document, and in the time frame prescribed at his own cost.
- 3.8. After completion of Contract period the water ATMs will become the property of the Owner.
- 3.9. The Contractor shall perform all routine maintenance to ensure that all water ATMs shall remain in working condition.

- 
- 3.10. The Contractor will depute duly trained Operators at each water ATM. The Contractor shall ensure routine inspection of the equipment by the equipment supplier.
- 3.11. The output water shall be distributed daily between 6:00 am to 10:00 pm on all days from water ATMs. However, Owner may increase or decrease the working hours, if so desired, in order to provide adequate water to the public. The Contractor shall have to provide all the services during the extended hours.
- 3.12. The Contractor will be responsible for maintaining the service levels standards otherwise penalty will be levied as per penalty clause.
- 3.13. The Contractor shall provide trained manpower to maintain the water ATMs to ensure the provision of quality services.
- 3.14. The Contractor shall provide and maintain the electrical and plumbing fittings of all types at the Water ATM in good working condition.
- 3.15. The Contractor shall provide LED boards for display of BIS 14543 water quality parameters including:
- i. pH
  - ii. Hardness
  - iii. Temperature
  - iv. Water Level
  - v. TDS
- 3.16. Contractor should ensure that all the Water ATM (in a pocket) are working all the time and annual repair/ maintenance etc. shall be carried out periodically at his own cost.
- 3.17. To maintain premises clean, safe hygienic and risk free in and around the Water ATM (approx. Two meter radii) is the responsibility of Contractor.
- 3.18. Online information of daily report to Owner.
- 3.19. Owner / Engineer-in-charge has reserve the right to inspect any ATM at any time.

3.20. Owner / Engineer-in-charge has right to take sample of water at any time.

#### **4. OTHER REQUIREMENTS**

4.1. All the successful Contractors will have to ensure collection of the samples from the respective sites and meeting of the design criteria.

4.2. Bidders would need to submit their O&M expenditure information to the Owner on a quarterly basis for the records of Owner.

4.3. Any deviation from the proposed design needs to be approved by the Owner / Engineer-in-charge.

#### **5. TESTING AND INSPECTION**

##### **5.1. Third Party inspection**

The charges for third party inspection, if any, would initially be borne by the Contractor.

##### **5.2. Site tests**

After erection at site, all components, equipment as described shall be tested to prove satisfactory performance and /or fulfillment of functional requirements without showing any sign of defect as individual equipment and as well as a system.

#### **6. OBLIGATIONS OF THE OWNER**

6.1. Owner will provide nearest source of water, further arrangement including required plumbing works upto underground RCC reservoir from source and reservoir to water ATMs shall be borne by the Contractor.

6.2. Single phase or three phase power supply as required at one point further distribution for Water ATM's shall be in scope of Contractor.

## 7. CONSTRUCTION REQUIREMENTS FOR WATER ATMs

### 7.1. GENERAL

- i. The Contractor shall design ATM's in such a way that material considered for design and construction should only be of Stainless Steel (minimum Grade 304) including storage.
- ii. The Contractor shall design ATM's in such a way that, in case quality of incoming Water is not as per required standards, then plant/ ATM should be automatically shut down. The Contractor should brought matter be to the knowledge of the Owner / Engineer-in-charge immediately and it should be sorted out within a day itself to make ATM back in operation and use.
- iii. Specifications, Shape and design of the ATM shall be provided by the Contractor for each and every location (Please refer to **Annexure II & III** for illustrative design) before start of work and only after obtaining clearance from Owner / Engineer-in-charge, ATM's should be installed at respective locations.
- iv. Contractor shall design ATM's in such a way that, sufficient quantity for storage of water should be made at each and every ATM but not less than the minimum quantity as specified in Financial Bid, to avoid shut down of ATM's on account of no water situation.
- v. Provided that the Contractor shall ensure that the technology chosen is
  - (a) Appropriate to the site and ground situation
  - (b) Has a precedent for use in a project of similar nature and size
  - (c) Is supported by the technology / service provider for design, supply, implementation and ongoing maintenance
  - (d) Addresses all issues of safety, including fire safety, operational safety, and environmental safety.

## 8. OPERATION & MAINTENANCE (O&M)

The Contractor shall carry out Comprehensive Operation and Maintenance of the Water ATMs for Public for 05 (five) years.

### 8.1. Scope of Services:

The Scope of work / service for O&M to be done shall be as under:

The Contractor shall operate and maintain the Water ATMs (Under their executed scope of work) for a total operation and maintenance period of 05 (five) years including 01 (one) year Defects Liability Period from the date of completion of work. All necessary repairs, maintenance, overhaul, replacements etc. shall be made during the O&M to maintain the Water ATMs at the status of formal handing over. At the end of O&M period the Water ATMs shall be handed over to the Engineer-in-charge in fully functional and new condition except normal wear and tear.

The scope shall include but not limited to the following items:

- i. Operation and Maintenance including Civil, Electrical, Mechanical and all allied works.
- ii. Repairs; Refurbishments & Replacement required during O&M period for satisfactory running of Water ATMs.
- iii. O&M of all functional infrastructure and common areas within the battery limit of the Water ATMs.
- iv. The Contractor shall be responsible for cleaning of the all Water ATMs.
- v. The records maintained by the Contractor shall be produced periodically to the Owner for proper monitoring. The Owner's remarks shall be attended to on next submission. Consolidated summary reports shall be furnished to the Employer monthly, quarterly and yearly containing salient features.

vi. The Contractor shall also maintain history sheets of overhauling, maintenance, replacement of all the important electrical and mechanical equipment.

vii. The O&M shall include the appropriate preventive maintenance of equipment as per the manufacturer's recommendation.

The operation, maintenance and repairs services shall be performed according to the following:

8.2. Awareness & Cleanliness:

The Contractor and his staff shall maintain a high degree of awareness in operation and maintenance of the Water ATMs and all relevant safety codes and procedures. At all times the Water ATMs shall be kept clean

8.3. Frequency of Preventive maintenance:

The preventive maintenance shall be carried out according to the preventive maintenance schedule of the Plant. The regular staff may be reinforced with short-term specialists by the Contractor for special maintenance tasks, after duly informing the Engineer-in-charge of the need and the schedule.

8.4. Repairs:

Repairs shall be made as and when needed very promptly on the spot or at the Contractor's / Manufacturer's workshop. The need of repair on the spot or at the Contractor's workshop has to be defined in co-ordination with the Engineer-in-charge and according to the status of spare parts availability.

8.5. Spare parts

The Contractor shall keep a reasonable stock of spare parts so that the down time of equipment can be kept within the limits specified. The contents of the stock and the reorder level of the inventory have to be approved by the Engineer-in-charge.



---

8.6. Transportation:

All necessary transportation shall be arranged and made by the Contractor at his own expense.

8.7. Consumables:

The Contractor has to ensure that there is always there is sufficient stock of 15 days of consumables.

8.8. Operational Services

The Contractor shall operate the Water ATMs on a continuous 24-hour basis. The Contractor shall operate as per the stipulations maintained in the technical document.

If it is determined that the facility is not capable of meeting the design parameters for any reason beyond the Contractor's control and not attributable to him, the Contractor shall determine the specific cause of failure/ abnormality in the Water ATM functioning and report to the Engineer-in-charge and seek his directives on the necessary corrective action to be taken/adopted.

The Contractor at his own expense shall provide all tools, cleaning, and housekeeping equipment, security and safety equipment.

8.9. Manpower

The Contractor shall provide experienced managerial, technical, supervisory, and non-technical personnel, security personnel and labour necessary to operate and maintain the Water ATMs, safely and efficiently on a continuous 24 hour basis for the full term of the O&M period. While doing so due consideration shall be given to the labour laws in force.

The qualification and capability of Contractor's personnel shall be appropriate for the tasks they are assigned to perform. The staff provided shall be fully trained in the operation of the works before being given responsibility. If, in opinion of the Owner, a member of

Contractor's staff is considered to be insufficiently skilled or otherwise inappropriate for the assigned task, and Owner informs the Contractor in writing, the Contractor shall replace him with a person of appropriate skills and experience for the task, approved by the Owner, within one month of being so informed.

The bidder shall propose in his tender a staff management structure for the operation and maintenance of works.

## 8.10. Maintenance

### 8.10.1. Maintenance of Installed Part of the Water ATMs

The Contractor shall ensure the continuity of the Water ATMs operations and in case of the breakdown or the deterioration in performance of any equipment at the Water ATM areas under normal operating conditions of any items of the Plant and equipment and component parts thereof shall be minimized.

The classes of maintenance provided shall comprise full Operational maintenance and standby Maintenance.

Full operational maintenance comprises the planned and regular maintenance carried out by the Contractor on a day-to-day basis, including cleaning, lubricating, minor adjustment, together with the preventive and corrective maintenance plan for those items of the Plant and equipment within the treatment works which have been commissioned and made operational.

Standby maintenance comprises the planned and regular maintenance carried out by the Contractor including cleaning, lubricating, periodic, and minor adjustment of all items of Plant and equipment within the treatment works which have been installed but have not yet been made operational.

The Contractor shall carry out the maintenance of the Water ATMs in accordance with the requirements of the O&M Manual and to the approved maintenance plan. The Contractor

shall strictly adhere to the manufacturers' recommendations with respect to equipment maintenance, and only use types and grades of lubricants to be used. The frequency of lubrication, adjustments to be made regularly, and recommended spare parts by the equipment / machine/ instrument manufacturer /supplier shall be carried out and appropriate inventory shall be held in store.

#### 8.10.2. Preventive Maintenance

The Contractor shall plan the day-to-day and also for preventive maintenance. This planning must include all equipment with estimated necessary hours in preventive maintenance and break down maintenance. It shall also include the qualification of the foreseen maintenance personnel.

The Contractor shall provide the yearly requirement of spare parts and consumable needed for the maintenance of each piece of equipment for the day-to-day maintenance, preventive maintenance, and foreseen break down maintenance/overhaul, if any.

**ANNEXURE - I****OUTPUT WATER QUALITY AS PER BIS 14543**

<b>SI. No.</b>	<b>PARAMETERS</b>	<b>COMPLIANCE RANGE</b>
1	Colour	2 Max.
2	Odour	Agreeable
3	Taste	Agreeable
4	Turbidity	2 Max.
5	pH	6.5 to 8.5
6	Total Dissolved Solid	500 ppm Max.
7	Barium	1 ppm, Max.
8	Copper	0.05 ppm, Max.
9	Iron	0.1 ppm, Max.
10	Manganese	0.1 ppm, Max.
11	Nitrate	45 ppm, Max.
12	Nitrite	0.02 ppm, Max.
13	Zinc	5 ppm, Max.
14	Aluminum	0.03 ppm, Max
15	Chloride	200 ppm, Max.
16	Sulphate	200 ppm, Max.
17	Calcium	75 ppm, Max.
18	Sulphide	0.05 ppm, Max.
19	Alkalinity	200 ppm, Max.
20	Phenolic Compounds	Absent
21	Mineral Oil	Absent
22	Magnesium	30 ppm, Max.
23	Residual Free Chlorine	0.2 ppm, Max.

---

<b>SI. No.</b>	<b>PARAMETERS</b>	<b>COMPLIANCE RANGE</b>
24	Anion Surf. Act. Agents	0.2 ppm, Max.
25	Escherchia coli	Absent
26	Coliform bacteria	Absent
27	Sulphite Reducing Bacteria	Absent
28	Pseudomonas aeruginosa	Absent
29	Aerobic Microbial Count	20, Max at 37 Deg C & Max at 20-22 Deg C
30	Yeast & Mould	Absent
31	Antimony (weekly test)	0.005 ppm, Max.
32	Borate (weekly test)	5 ppm, Max.

---

## ANNEXURE - II

### Specifications for the ATM Unit, Purifier and Development of Site

#### 1. General requirements

General requirements and specifications for treatment plant enclosure – space requirement for accommodating system

- 1.1. Minimum covered area of treatment plant enclosure to be provided for fixing RO plant along with required product water tanks shall be 6 SQM along with provision for three dispensers on three sides. Apart from that around 5 SQM area will be required for construction of RCC underground reservoir.
- 1.2. A service area should be provided within the enclosure, with sufficient space so that all the equipment can be conveniently taken inside for fitting and repairs
- 1.3. Minimum 7 ft. headroom shall be provided
- 1.4. Product water storage tank shall be placed inside the treatment plant Housing Structure
- 1.5. Adequate space shall be provided for storing materials/ consumable required during O&M of the treatment plant system

#### 2. Enclosure of Treatment plant structure:

- 2.1. All exposed non-galvanized steel structure should be stainless steel / clad with stainless steel for higher non-rust life
- 2.2. Thickness of PUF panels should be 50 mm with 40kg.m<sup>3</sup> density and minimum 0.4 mm galvanized Steel sheet on both sides. The sheet shall be galvanized steel with RMP coating for higher durability. Color of inner sheet should be white/blue whereas external sheet of the panel should be coated with attractive color combinations to go with the external surroundings in order to qualify as aesthetic road furniture to mix with the surroundings. The external finish on Steel panels shall be brick/wooden/stone
- 2.3. The structure should be rigid, made of MS frame of minimum 2.5mm thickness and duly painted for rust resistance

- 2.4. Necessary foundation for RO+UV system and required platforms for specified category of treatment plant system shall be provided with plinth depth of 0.5ft. above ground level
- 2.5. Single door of adequate size with good quality locking arrangement of Yale/Godrej make shall be provided to restrict access to the unit. The door should be made of steel with PUF insulation along with matching colors with adequate protection against breakage
- 2.6. Raw water storage tank of minimum 1000 liter capacity must be provided inside. The raw water storage tank should have provision to be attached to piped water supply as well as fitting of external nozzle which provides the option for sourcing raw water from tankers and functioning as a standalone unit in case piped water supply is not available
- 2.7. A chiller unit of 200 liter storage capacity should be provided inside the unit. Proper ventilation facility must be provided for the removal of chiller unit heat
- 2.8. The structure should be appropriate to protect the entire treatment plant system, including its equipment and accessories in all weather conditions and it should be able to withstand the extreme climatic variations
- 2.9. Treatment plant housing shall be a hexagonal/ cylindrical structure ensuring maximum utilization of space and ergonomics
- 2.10. Minimum 3 easily washable stainless steel counters of dispensing capacity ranging from 200 ml to 5 L for dispensing cold drinking water must be provided on the external panels of the housing structure. Each counter should be capable of dispensing cold water and each must have latching system for switching ON with push button
- 2.11. The unit shall have minimum three coin/card enabled dispensers
- 2.12. The top canopy protecting the tank should be aesthetically made e.g. like dome so as to cover the entire raw water storage to protect it from heating and external weather conditions with materials like PP reinforced UV stabilized Poly Vinyl/ FRP covering
- 2.13. The total floor area around the unit should be covered with branded vitrified/anti-skid tiles.

### 3. Technical Specifications

- Capacity 250 LPH

WATER PURIFIER – RO system with UV water disinfection system

Output Capacity – 250 Litres per Hour (+/-5%)

Recovery Rate – Minimum 50% @ 25 Degree Centigrade Ambient Temperature

Technical Specification for RO Plants 250 LPH		
	Item Description	250 LPH (Raw water)
<b>1</b>	<b>Inlet / Feed Pump</b>	Function - To feed water from raw water storage tank to filter
	Type	Horizontal Centrifugal
	MOC	SS304
	Quantity	1
	Capacity	2 M3/HR (Single Phase) with 32 mtrs head.
	Make	Approved
	<b>2</b>	<b>Multi Media Filter Vessels</b>
Type	Vertical Multimedia Filter	
MOC	FRP	
Quantity	1	
Working Flow	2000 LPH Flow	
Size	14 inch dia and 65 inch height 4" Top mounted.	
Make	Approved	
<b>3</b>	<b>Multi-Port Valve</b>	Function - Valve to control filtration and backwash for media filter having sand & carbon
	Type	Manual Multi port flow (Top mounted)
	MOC	PP/ABS
	Quantity	1
	Working Flow	2000 LPH Flow
	Size	25 NB
Make	Approved	
<b>4</b>	<b>Anti scalent Dosing Pump</b>	Function - To inhibit scaling of hardness salt and silica on RO Membranes, doze pH and CL as per water quality
	Type	Electronic Diaphragm Type



<b>Technical Specification for RO Plants 250 LPH</b>		
	<b>Item Description</b>	<b>250 LPH (Raw water)</b>
	MOC	PP SS Teflon
	Quantity	1
	Capacity	0-5 LPH
	Make	Approved
<b>5</b>	<b>Ph Correction Dosing Pump</b>	Function - To correct RO product water PH & maintain 6.5 to 8.5
	Type	Electronic Diaphragm Type
	MOC	PP SS Teflon
	Quantity	1
	Capacity	0-5 LPH
	Make	Approved
<b>6</b>	<b>Dosing Tank</b>	Function - To dilute water with dozing chemicals
	MOC	LLDPE/PE
	Quantity	2
	Capacity of Tank	50 ltr.
	Make	Approved
<b>7</b>	<b>Micron Cartridge Filter set</b>	Function - Fine filtration of water for removal of suspended solids up to 5 micron size
	MOC	long pp spun bonded Jumbo Cartridge filter with air release
	Quantity	2 set
	Micron Rating	1 Micron, 5 Micron & 10 Micron filters
	Size	21/2" x 20" - 2Nos
	Make	Approved
<b>8</b>	<b>Micron Cartridge Housing</b>	Function - Housing for micron filter
	Type	20" for 5 & 10 micron & 10"for 1 micron Long with pressure release
	Flow Velocity	2.5 MTR/SEC
	MOC	PP
	Quantity	2 set (5 & 10 Micron filter housing).
	Make	Approved
<b>9</b>	<b>High Pressure Pump</b>	Function - To develop required pressure for Reverse Osmosis on RO Membranes
	Type	Vertical Centrifugal Multistage
	MOC	Feed water up to 2,000 TDS SS304.
	Quantity	1

<b>Technical Specification for RO Plants 250 LPH</b>		
	<b>Item Description</b>	<b>250 LPH (Raw water)</b>
	Capacity	2 M3/HR, 100 mtrs head (Single phase)
	Make	Approved
<b>10</b>	<b>RO Pressure Vessel</b>	Function - To house RO Membranes
	Type	Membrane housing mounted on skid
	MOC	FRP (Endport type)
	Quantity	1
	Pressure rating	300 PSI
	Diameter	4" DIA x 40" LONG
	Make	Approved
<b>11</b>	<b>RO Membrane module</b>	Function - To remove dissolved salts from water to produce permeated water having less dissolved salt/parameters confirming to BIS 10500:2012
	Type	TFC, Polyamide (4" x 40")
	Quantity	1
	Make	Approved
<b>12</b>	<b>Ultra Violet System (UV)</b>	Function - To disinfect water, kill bacteria and micro-organisms
	MOC	SS-304
	Quantity	1
	Capacity	1 M3 / HR
	Make	Approved
<b>13</b>	<b>Pressure Gauges</b>	Function - To indicate pressure at different points of the plant
	Type	Gel filled
	MOC	SS
	Quantity (Feed Pump, Filter and Micron Outlet)	2
	Capacity (Feed Pump, Filter and Micron Outlet)	0-7 KG / CM2
	Quantity (HPP discharge and reject)	2
	Capacity (HPP discharge and reject)	0-25 KG / CM2
	Make	Approved
<b>14</b>	<b>Rotameter</b>	Function - To indicate the flow rate at feed, product and reject
	Type	Panel Mounted

Technical Specification for RO Plants 250 LPH		
	Item Description	250 LPH (Raw water)
	MOC	SS Float Acrylic
	Quantity	2 set
	Capacity	0-3000 Ltrs and 0-2000 Ltrs.
	Make	Approved
<b>15</b>	<b>CIP Tank</b>	Function - To mix / dilute chemicals for membrane cleaning and permeate back wash.
	MOC	LLDPE/PE
	Quantity	1
	Capacity of Tank	100 ltr.
	Make	Approved
<b>16</b>	<b>Piping</b>	Function - For connecting RO plant components
	MOC	TDS Up to 3000 - CPVC (After HP), UPVC (Before HP)
	Quantity	As per requirement
	Make	Approved
	Accessories	Wheel Valve, Ball Valve, Needle Valve as per plant design
<b>17</b>	<b>TDS Meter</b>	Digital hand held TDs meter & Online TDS sensor
<b>18</b>	<b>RO Plant Control Panel</b>	Control panel should have manual running modes 3 kW with, pressures, current (Minimum 3 star rated)
	MOC	MS Powder coated.
	Quantity	1
	Location	Skid Mounted
	Make	Approved
<b>19</b>	<b>RO Plant Skid</b>	All components fitted on MS skid 40x40x 2.2 mm sq tube
	MOC	MS Powder coated/painted
	Quantity	1
	Location	Movable
	Make	Approved
<b>20</b>	<b>Low pressure switch</b>	Function -Protection of HP pump from burnout due to HPP in/out pressure difference
	Quantity	1
	Range	0-4 bar for LPS;
	Make	Approved
<b>21</b>	<b>Auto electrical Panel</b>	Auto operated & Real time remote monitoring
	Quantity	1 set
	Make :	Approved
<b>22</b>	<b>Totalizers</b>	Function - to get the feed and out let water qty.

<b>Technical Specification for RO Plants 250 LPH</b>		
	<b>Item Description</b>	<b>250 LPH (Raw water)</b>
	Quantity	1
	Size	1" Inlet & Outlet
	Make	Approved
<b>23</b>	<b>Chiller</b>	- Continuous Cold water system - Chiller tank to be SS and inbuilt in the system ( no extra space to be provided)
<b>24</b>	<b>Piping</b>	From storage tank to Raw water inlet & total internal piping HPP side C-PVC & Low pressure side U-PVC. From plant to product tank & through UV distribution system

**ANNEXURE - III**

**Indicative Design of Water ATMs**



---

# **PART- 2**

# **TECHNICAL SPECIFICATION**

# **FOR CIVIL WORKS**

## CONTENTS

<b>1.0</b>	<b>DESIGN SUBMISSIONS</b> .....	128
<b>2.0</b>	<b>APPLICABLE CODES AND SPECIFICATIONS</b> .....	128
<b>3.0</b>	<b>DESIGN LIFE</b> .....	131
<b>4.0</b>	<b>DESIGN LOADINGS</b> .....	131
4.1	Dead Load .....	131
4.2	Water Pressure: .....	131
4.3	Earth Pressure: .....	131
4.4	Uplift pressure: .....	132
4.5	Surcharge Load: .....	132
<b>5.0</b>	<b>DESIGN REQUIREMENTS</b> .....	132
5.1	General .....	132
<b>6.0</b>	<b>TESTING: WATERTIGHTNESS OF STRUCTURES</b> .....	134
<b>7.0</b>	<b>COMPLIANCE CRITERIA: WATER TIGHTNESS OF STRUCTURES</b> .....	135
<b>8.0</b>	<b>NON-COMPLIANCE: WATER TIGHTNESS OF STRUCTURES</b> .....	135
<b>9.0</b>	<b>STATUTORY RULES:</b> .....	135
<b>10.0</b>	<b>CONCRETE POUR CARD:</b> .....	136

## 1.0 DESIGN SUBMISSIONS

Complete detailed design calculations of foundations and superstructure together with general arrangement drawings and explanatory sketches shall be submitted by the Contractor to the Engineer. Separate design calculations for foundations or superstructures submitted independent of each other shall be deemed to be incomplete and shall not be accepted by the Engineer.

Submissions of detailed design calculations and Good for Construction drawings shall be

## 2.0 APPLICABLE CODES AND SPECIFICATIONS

The following specifications, standards and codes, including all official amendments/revisions and other specifications & codes referred to therein, should be considered a part of this specification. In all cases the latest issue/edition/revision shall apply.. In case of any variation or contradiction between the provisions of the BIS Standards or Codes and the specifications given along with the tender document, the provision given in this Specification shall be followed.

All reinforced concrete structural design shall generally conform to the following publications of the Indian Standards Institution:

IS Code No.	Subject
<b>GENERAL</b>	
IS 4082	Stacking & storage of construction materials and components at site – Recommendations
IS 1200	Method of measurement of building and civil engineering work.(All Parts)
<b>EARTH WORK</b>	
IS 3674	Safety code for excavation work
<b>MORTARS</b>	
IS 269	Specification for 33 grade ordinary Portland cement
IS 455	Specification for Portland slag cement
IS 1269	Specification for 53 grade ordinary Portland cement
IS 1542	Specification for sand for plaster



IS Code No.	Subject
IS 2116	Specification for sand for masonry mortar
IS 2250	Code of practice for preparation and use of masonry Mortar
IS 3406	Specification for masonry cement
IS 3812 (Part-I)	Specification for fly ash for use as pozzolana in cement mortar and concrete
IS 3812 (Part-II)	Specification for flyash for use as admixture in cement mortar and concrete
IS 8112	Specification for 43 grade ordinary Portland cement
IS 1489	Portland Pazzolana Cement
<b>CONCRETE WORK</b>	
IS 383	Specification for coarse and fine aggregate from natural source for concrete
IS 303	Coarse and fine aggregates from natural sources for concrete
IS 1830	Methods for sampling of aggregates for concrete
IS 2386	Method of test for aggregates for concrete
	(a) Part-I : Particle size and shape
	(b) Part-II : Estimation of deleterious materials and organic impurities
	(c) Part-III : Specific gravity, density, voids absorption and bulking
	(d) Part-IV : Mechanical properties
	(e) Part-V : Soundness
IS 2505	General requirements for concrete vibrators – immersion type
IS 2645	Specification for integral water proofing compounds for cement mortar and concrete
IS 9103	Specification for concrete admixtures

<b>IS Code No.</b>	<b>Subject</b>
IS 460	Specification for Test Sieves
IS 1607	Methods for dry sieving
IS 1834	Hot applied sealing compounds for jointing concrete
<b>REINFORCED CEMENT CONCRETE WORK</b>	
IS 1904	Structural safety of buildings, shallow foundation
IS 432 (Part-I)	Specification for mild steel and medium tensile steel bars and hard drawn steel wire for concrete reinforcement part-I mild steel and medium tensile steel bars
IS 432 (part-II)	Specification for mild steel and medium tensile steel bars and hard drawn steel wire for concrete reinforcement part-II hard drawn steel wire
IS 456	Code of practice for plain and reinforced concrete
IS 516	Method of test for strength of concrete
IS 1199	Method of sampling and analysis of concrete
IS 1786	Specification for high strength deformed steel and wires for concrete reinforcement
IS 1791	Specification for batch type concrete mixes
IS 2502	Code of practice for bending and fixing of bars for concrete reinforcement
IS 2751	Recommended practice for welding of mild steel plain and deformed bars for reinforced construction
IS 10262	Recommended guidelines for concrete mix design
IS 3370	Concrete structures for storage of liquids
IS 1568	Wire gauge for general purposes
IS 1139	Hot rolled mild steel and medium tensile steel deformed bars for concrete reinforcements
IS 2502	Code of practice for bending and fixing of bars for concrete reinforcement

### 3.0 DESIGN LIFE

The design life of all structures shall be 60 years.

### 4.0 DESIGN LOADINGS

All buildings and structures shall be designed to resist the worst combination of the following loads/stresses under test and working conditions; these include dead load, live load, wind load, seismic load, stresses due to temperature changes, shrinkage and creep in materials, and dynamic loads, test loads, water pressures, soil pressures, uplift forces as applicable:

#### 4.1 Dead Load

This shall comprise all permanent construction including walls, floors, roofs, partitions, stairways, fixed service equipment's and other items of machinery. In estimating the loads of process equipment all fixtures and attached piping shall be included, but excluding contents, shall be considered.

The following minimum loads shall be considered in design of structures:

#### Unit weight of materials

Material	Unit weight (KN/m <sup>3</sup> )
Reinforced concrete	25.00 kN/m <sup>3</sup>
Plain concrete	24.00 kN/m <sup>3</sup>
Floor finishes	20.00 kN/m <sup>3</sup>
Water	09.81 kN/m <sup>3</sup>

#### 4.2 Water Pressure:

If envisaged, the ground water load shall be applied on the substructure as super imposed dead load in addition to the earth pressure. The dry density of soil shall be considered in this combination pressure is the horizontal pressure of the water acting on the structure. The water pressure shall be calculated. Pressure on wall shall be calculated for both dry and submerged conditions and maximum of both results shall taken for design.

#### 4.3 Earth Pressure:

Earth pressure for walls of basement/ tanks etc. with propped support condition will be calculated using coefficient of earth pressure at-rest. Earth pressure for cantilever walls like cable trenches will be calculated based on active earth pressure. Unit weight of soil shall be as per Tabulated in Cl.

1.4.1 of this specification. Other soil parameters such as cohesion and angle of internal friction shall be considered as per soil investigation report.

#### 4.4 Uplift pressure:

Ground water table shall be considered appropriately based on findings of geotechnical investigation and considering the local conditions. Appropriate seasonal variation shall be considered while calculating ground water table. Uplift pressure due to ground water on foundation is calculated as specified in IS 875-Part-5.

#### 4.5 Surcharge Load:

Minimum surcharge of 10KN/m<sup>2</sup> shall be considered for design of all underground structures to take into account the construction load and vehicular movement in the vicinity of structure. The soil pressure and ground water table shall be considered as applicable.

### 5.0 DESIGN REQUIREMENTS

#### 5.1 General

The following are the general design requirements for all reinforced cement concrete (RCC) or plain concrete structures:

- a) All blinding and levelling concrete (PCC) shall be a minimum 100 mm thick in concrete grade M15
- b) Minimum grade of concrete with size of aggregates for all RCC structures shall be as below-
  - **Grade Of concrete -**
    - (i) All liquid retaining structures = M30
    - (ii) All other structures = M25
  - **Size of Aggregates –**
    - (i) Footings and base slabs = 40 mm
    - (ii) All other structural elements = 20 mm
- c) Reinforced concrete shall have maximum slump of 100mm with maximum water cement ratio of 0.48.
- d) As a design consideration to control crack, though general requirements of IS 3370 shall be followed, All liquid retaining structures shall be designed based on the serviceability crack width limit state of 0.2 mm crack width) and other limits including the ultimate limit states.
- e) **Safety:** The structure should be safe under the worst expected loads/ combination of loads and should not collapse partially or completely under these loads.

- **Partial Factor of safety for-**

- (i) For Load = 1.5
- (ii) For material = 1.5 (Concrete)  
= 1.15 (Steel)

- **Factor of safety for Stability of structures-**

The structure should be stable and not form any sort of mechanism under expected loadings - either vertical or lateral.

Minimum factor of safety (FOS) shall be as below-

- (i) FOS against Overturning = 2.0 -without wind/seismic  
= 1.5 -with wind/seismic
- (ii) FOS against Sliding =1.5
- (iii) FOS against Buoyancy =1.2

f) **Serviceability:** The structure should be serviceable, i.e. it should perform within certain limits of requirements such as stiffness (not deforming excessively under service load), water-tightness, crack control, fire resistance, durability, etc.

- During normal operations and test-load conditions the limiting permissible vertical deflection for RCC members shall be as per Cl. 23.2.1 of IS: 456-2000.
- Allowable horizontal deflection under wind loads for RCC buildings shall not exceed H/500 as per cl. No. 20.5 of IS 456:2000

g) The minimum cover to the main reinforcing bars for different members for :

- **Liquid retaining structures** shall be as follows unless stated otherwise:

- (i) Walls - Face in contact with earth = 60 mm
- (ii) Walls - Face in contact with Water = 60 mm
- (iii) Base Slab in contact with Water = 60 mm
- (iv) Base Slab in contact with Soil = 60 mm
- (v) Launderers/Gutter Slabs = 25 mm

- **Minimum Thickness of Structural Concrete Elements**

The following minimum thicknesses shall be used for different reinforced concrete members, irrespective of design thicknesses:

- (i) Walls for liquid retaining structures = 250 mm

(ii) Roof slabs for liquid retaining structures = 200 mm

(iii) Bottom slabs for liquid retaining structures = 250 mm

(iv)

- h) Reinforcement for buildings and sewage treatment units shall be HYSD-CRS (**Corrosion Resistant Steel**) of Grade Fe 500. All physical and chemical properties of this Fe 500 grade steel shall conform to IS: 1786-2008.
- i) Reinforcement produced using iron ore as the raw material only shall be accepted. Reinforcement produced from scrap metal shall not be accepted.
- j) The amount of reinforcement in each of the two directions at right angles within each surface zone should not be less than 0.35% of the surface zone cross section (As per cl. 2.6.2.3 of BS: 8007-1987). For slabs, minimum of 10 mm dia bars shall be used to avoid any deformation of lesser diameter bars under loads prior to construction.

## 6.0 TESTING: WATERTIGHTNESS OF STRUCTURES

Water retaining structures shall be tested for water tightness as stated below points. Each compartment of structures, which incorporate division walls, shall be tested separately with adjoining compartments empty. The complete structure shall also be tested.

- The structure shall be filled with water at an approximately uniform rate not exceeding 2 m depth in 24 hours to the levels stated in the below. The water used for testing water retaining structures for potable or fresh water shall be fresh potable water. The permission of the Engineer shall be obtained before filling starts. The structure or each compartment of the structure being tested shall be kept full for 7 days before testing allow for absorption.
- After the period for absorption, the water shall be topped up to the specified level and the test shall begin. During testing, the oscillatory motion of the water surface shall be dampened. The test period shall be 7 days.
- The equipment for recording water levels shall be installed in a temporary enclosure of minimum dimensions 2 m x 2 m x 2.5 m high with a lockable door. The enclosure shall be located over stilling wells, manhole openings or other points of recording water levels. The temporary enclosure shall be removed on completion of the test. The equipment shall be calibrated before testing starts and at regular intervals agreed by the Engineer-in-Charge and shall be readable and accurate to 0.5 mm.
- The fall in water level in water retaining structures shall be measured at hourly intervals between 8 a.m. and 5 p.m. each day. The total fall shall be measured at the end of the test period.
- Structures shall be emptied after completion of testing and maintained in a clean and dry condition. The water shall be removed at an approximately uniform rate not exceeding 2 m

depth in 24 hours. The permission of the Engineer-in-Charge shall be obtained before emptying starts.

- Unless otherwise instructed by the Engineer-in-Charge, the water used for the final tests on water retaining structures for potable or fresh water shall be retained in the structure and shall not be wasted or contaminated.

## **7.0 COMPLIANCE CRITERIA: WATER TIGHTNESS OF STRUCTURES**

The results of tests for water tightness of water retaining structures shall comply with the following requirements:

- (a) The total fall in water level at the end of the test period, after adjustment for evaporation and rainfall, shall not exceed 1/500 times the maximum specified depth of water in the test or 10 mm, whichever is less.
- (b) There shall be no leaks or damp patches visible on the surface of the structure, including any division walls, during or at the end of the test.

## **8.0 NON-COMPLIANCE: WATER TIGHTNESS OF STRUCTURES**

If the result of any test for water tightness of a water retaining structure does not comply with the specified requirements for the test, the Contractor shall investigate the reason. Remedial or replacement work approved by the Engineer-in-Charge shall be carried out and the structure shall be retested.

## **9.0 STATUTORY RULES:**

- 1 Contractor shall comply with all the applicable statutory rules pertaining to enquire act (as applicable for the state). Fire safety rules of Tariff Advisory committee's water act for pollution control etc.
- 2 Preventions for fireproof doors of staircases fire separately we plastering on structural members (in fire prone at case) etc., shall be made according to the recommendations of Tariff Advisory Committee.
- 3 Statutory clearance and norms of state pollution control board shall be showed as per Water Act for effluent quality from plant.

**10.0 CONCRETE POUR CARD:**

(a)	CLIENT:	DATE:	POUR NO.:		
(b)	PROJECT:				
(c)	STRUCTURE:				
(d)	CONTRACTOR:				
(e)	MAX AGGREGATE SIZE:	mm	SLUMP:	mm	
(f)	DRG. NO.:				
(g)	START / COMPLETION TIME:	Start:	Completion Time:		
(h)	CONCRETE GRADE QUANTITY:	M / M <sup>3</sup>	MIXING TIME:		
SR. NO	ITEM	CONTRACTOR'S REP. SIGNATURE	ENGINEER-IN-CHARGE'S SIGNATURE	REMARKS	
1.	BEFORE CONCRETING	CENTERLINES CHECKED			
2.		FORMWORK AND STAGING CHECKED			
3.		REINFORCEMENT CHECKED			
4.		COVER TO REINFORCEMENT CHECKED			
5.		VERIFIED TEST CERTIFICATE FOR CEMENT/ STEEL	YES/ NO	YES/ NO	
6.		ADEQUENCY OF MATERIALS/ EQUIPMENT FOR POUR	YES/ NO	YES/ NO	
7.		EMBEDED PARTS CHECKED (LOCATION AND PLUMB)	CIVIL		
	MECHANICAL				
	ELECTRICAL				
POUR AUTHORISED SITE ENGINEER					



8.	SOFFIT(S) AND POUR TOP (T) LEVELS CHECKED BEFORE (B) AND AFTER (A) FROM REMOVAL (ONLY OF BEAMS OF OVER 10 M SPAN AND IMPORTANT STRUCTURES LIKE TG, ETC.)	S(B) S(A)	T(B) T(A)	
9.	CONSTRUCTION JOINT LOCATION AND TIME (IF NOT AS PER DRAWING)			
10.	CEMENT CONSUMPTION IN Kg			
11.	NUMBER OF CUBES AND IDENTIFICATION MARK			
12.	TEST CUBE RESULTS (7 DAYS/ 28 DAYS)	/	/	/
13.	CONCRETE CONDITION ON FORM REMOVAL	VERY GOOD/ GOOD/ FAIR/ POOR		
SITE-IN-CHARGE				

**NOTES:**

- (a) EACH ITEM TO BE CHECKED AND SIGNED BY THE RESPECTIVE ENGINEERS.
- (b) ITEMS 8 TO 13 (BOTH INCLUSIVE) TO BE FILLED BY ONLY TCE ENGINEER.
- (c) EACH POUR TO HAVE SEPARATE CARDS, IN TRIPILCATE ONE EACH FOR CLIENT, TCE AND SITE OFFICE. FORM 279
- (d) UNDER REMARKS INDICATE DEVIATIONS FROM DRAWINGS AND SPECIFICATIONS, CONGESTION IN REINFORCEMENT, IF ANY, UNUSUAL OCCURENCES, SUCH AS FAILURE OF EQUIPMENT, SINKING OF SUPPORTS/ PROPS, HEAVY RAINS AFFECTING CONCRETEING, POOR COMPACTION, IMPROPER CURING, OTHER DEFICIENCIES, OBSERVATIONS, ETC.

# SECTION - VI

# FORMS OF SECURITY

---

## Annexure - G

### (i) FORM OF SOLVENCY CERTIFICATE FROM A SCHEDULED BANK

This is to certify that to the best of our knowledge and information Ms/Sri .....  
.....having marginally noted address, a customer of our bank are/is  
respectable and can be treated as good for any engagement up-to a limit of Rs. ....  
.....(Rupees.....). This  
certificate is issued without any guarantee or responsibility on the Bank or any of the officers.

**(Signature for the Bank)**

NOTE: In case of partnership firm, certificate to include names of all partners as recorded with the Bank.

## Annexure - H

### (ii) FORM OF PERFORMANCE GUARANTEE

To

..... (Name of the Employer)  
..... (Address of Employer)

WHEREAS.....  
..... (Name and address of contractor) (Herein after called "the contractor") has undertaken, pursuance of contract No. .... dated.....  
..... to execute .....  
..... (name of contract and brief description of works) herein after "The Contract."

AND WHEREAS it has been stipulated by you in the said contract that the contractor shall furnish you with a bank guarantee by a Nationalized bank for the sum specified therein as security for compliance with his obligation in accordance with the contract.

AND WHEREAS we have agreed to give the contractor such bank guarantee.

NOW THEREFORE, we hereby affirm that we are the Guarantor and responsible to you on behalf of the contractor, up to a total of..... (amount of guarantee) .....(in words), such sum being payable in the types and proportions of currencies in which the contract price is payable, and we undertake to pay you, up on first written demand and without cavil or argument, any sum or sums within the limits of.....(amount of guarantee) as aforesaid without your needing to prove or to show grounds or reasons for a demand for the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the contractor before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the contract or of the works to be performed hereunder or of any of the contract documents which may be made between you and the contractor shall in any way release us from any liability under this guarantee and we hereby waive notice of any such change, addition or modification.

This guarantee shall be valid until a date 28 days from the date of expiry of Defects Liability Period of 12 (twelve) months after intended completion date.

**Signature and Seal of the Guarantor** .....  
**Name of the Bank** .....  
**Address** .....  
**Date**.....

## Annexure - F

Date.....

To  
The Chief Executive Officer,  
Agartala Smart City Limited,  
Agartala, West Tripura

Telephone No:

Email ID:

**Name of Work:** Design, Engineering, Installation & Commissioning of Water ATMs for Public in Agartala City and Post Completion Operation & Maintenance for 05 (five) years including Defects Liability Period of 01 (one) year.

1. I/We offer to execute the work(s) described above and remedy any defects therein with conditions of the contract, specifications, drawings, bill of quantities and addenda.
2. I/ We undertake to execute work at the same rate as filled up / quoted online by me / us in Bill of Quantity (in downloaded macro enabled MS-Excel sheet) of the same bid as referred to **Clause -12 (in Section-II, Instruction to Bidders)**.
3. I/ WE undertake to commence the work(s) on receiving the notice to proceed with work in accordance with the contract documents.
4. This bid and your written acceptance of it shall constitute a binding contract between us. I understand that you are not bound to accept the lowest or any bid you receive.
5. I / We hereby confirm that this bid complies with the bid validity and earnest money required by the bid documents as specified in Nle-T.

**Authorized Signature**.....

Name and Title of Signatory.....

Name of the Bidder.....

Address.....

Telephone No.....

Cell Phone.....

# **SECTION - VII**

# **DRAWINGS**

**(VOID)**

---

# **VOLUME - II**

## **SECTION - VIII**

### **BILL OF QUANTITIES**

## BILL OF QUANTITIES

### PREAMBLE:

1. The Bill of quantity shall be read in conjunction with the **NIT instruction** to Bidder, conditions of contract, Specifications and drawings.
2. Bill of Quantity (BOQ), which is the Rate quoting sheet in MS-Excel shall be downloaded from e-procurement application, filled up properly and uploaded in the financial bid after digital signing.
3. The Bidder shall always open the BOQ sheet with Macro Enabled.
4. Name of bidder must be written in the appropriate field of rate quoting sheet by each bidder.
5. For the construction works, the quantities given in the Schedule of quantities are estimated and given to provide a common basis for bidding. The basis of payment will be the actual quantities of the work ordered and carried out, as measured and verified by the Engineer-in-Charge and valued.
  - a. At the rates bided in the Schedule of quantities in the case of item rate bids; and
  - b. At percentage rate above / below / at par of the schedule of rates as bided by the Bidder.
6. The rates bided in the priced bill of quantity(BOQ) shall, except in so far as it is otherwise provided under the contract, include all constructional plant, labour, supervision, materials, erection, maintenance, insurance, profit, taxes and duties, together with all general risks, liabilities and obligations, etc. Set out in the contract.
7. When percentage rate bids are invited, the Schedule of quantities will show the rates used for different items.
8. **BOQ TAMPERING:**
  - a. The provided BOQ in the Bid is, meant for downloading in the Bidders machine, for entering the relevant fields meant for rates & bidders particulars and finally uploading along with the Bid. The BOQ Excel Sheet is Macro enabled and working with the Sheet requires the Macro to be allowed /enabled to run.
  - b. Bidders are hereby warned not to tamper with the MS-Excel Sheet, make copies and work in a copied Sheet or break through the default Work-Sheet Security. Such BOQs with stated violations will be treated as Tampered BOQs and Bids uploaded with Tampered BOQs will be summarily rejected.



<b>AGARTALA SMART CITY PROJECT</b>		
<b>ABSTRACT OF COST</b>		
<b>NAME OF WORK: DESIGN, ENGINEERING, INSTALLATION &amp; COMMISSIONING OF WATER ATMs FOR PUBLIC IN AGARTALA CITY AND POST COMPLETION OPERATION &amp; MAINTENANCE FOR 05 (FIVE) YEARS INCLUDING DEFECTS LIABILITY PERIOD OF 01 (ONE) YEAR</b>		
<b>SL. NO.</b>	<b>SUB-HEAD OF WORKS</b>	<b>TOTAL AMOUNT INCLUDING TAXES AND DUTIES (INR)</b>
	<b>TOTAL COST FOR 10 (TEN) NOS. ATM</b>	
<b>I</b>	<b>DESIGNING, CONSTRUCTING, SUPPLY, INSTALLING AND COMMISSIONING OF WATER ATMs WITH R.O. CAPACITY 250 LITRES PER HOUR INCLUDING REQUIRED STORAGE TANK OF ADEQUATE CAPACITY AND WITH ALL MATERIALS AND EQUIPMENT MEETING THE EMPLOYERS REQUIREMENT AND SPECIFICATION AS PER TENDER DOCUMENT</b>	<b>94,40,000.00</b>
	<b>UNDERGROUND RESERVOIR AND ALLIED PIPING - CONSTRUCTION UNDERGROUND RCC RESERVOIR (MADE OF M-25 GRADE CONCRETE) OF MINIMUM SIZE OF 1.7M X 1.7M X 1.7M OR EQUIVALENT TO STORE MINIMUM 3.5 CUM OF MUNICIPAL WATER WITH A MINIMUM FREE BOARD OF 0.5M.</b>	<b>8,89,050.00</b>
<b>II</b>	<b>OPERATION AND MAINTENANCE FOR FIVE YEARS</b>	<b>32,56,800.00</b>
	<b>TOTAL COST (I + II)</b>	<b>1,35,85,850.00</b>

Validate Print Help

Tender Inviting Authority: Agartala Smart City Limited

Name of Work: DESIGN, ENGINEERING, INSTALLATION & COMMISSIONING OF WATER ATMs FOR PUBLIC IN AGARTALA CITY AND POST COMPLETION OPERATION & MAINTENANCE OF WATER ATMs FOR 05 (FIVE) YEARS INCLUDING DEFECTS LIABILITY PERIOD OF 01 (ONE) YEAR

Contract No: Nle-T No. ASCL/RFP/12/16

Name of the Bidder/ Bidding Firm / Company :						
<b>PRICE SCHEDULE</b>						
(This BOQ template must not be modified/replaced by the bidder and the same should be uploaded after filling the relevant columns, else the bidder is liable to be rejected for this tender. Bidders are allowed to enter the Bidder Name and Values only )						
NUMBER #	TEXT #	NUMBER #	TEXT #	NUMBER	NUMBER #	TEXT #
Sl. No.	Item Description	Quantity	Units	Estimated Rate Considering all Taxes & Duties in Rs. P	TOTAL AMOUNT Considering all Taxes & Duties in Rs. P	TOTAL AMOUNT In Words
1	2	4	5	6	53	55
1	Design, engineering, supply, installation and commissioning of Water ATMs for Public as per the specification including all necessary civil works (Except Underground Reservoir and allied piping)					
1.01	Designing, Constructing, Supply, Installing and Commissioning of Water ATMs with R.O Capacity 250 Litres per Hour including required storage tank of adequate capacity and with all materials and equipments meeting the Employers requirement and Specification as per Tender Document.	10.000	Nos	944000.00	9440000.00	INR Ninety Four Lakh Forty Thousand Only
2	Underground Reservoir and allied piping					
2.01	Construction underground RCC reservoir (Made of M-25 Grade concrete) of minimum size of 1.7M X 1.7M X 1.7M or equivalent to store minimum 3.5 cum of municipal water with a minimum free board of 0.5M. The work includes supply and fittings of necessary pipes, accessories, strainers etc. to pump the water from underground reservoir to the water ATM module.	10.000	Nos	88905.00	889050.00	INR Eight Lakh Eighty Nine Thousand & Fifty Only
3	OPERATION & MAINTENANCE - Comprehensive Operation and Maintenance of the above work including repair works, provision of manpower & consumables and original spares, replacement with original or better component in case one turns faulty / damaged / defective during the course of entire contract period in order to maintain the upkeep intact					
3.01	Operation & Maintenance for 1st Year	10.000	Nos	56640.00	566400.00	INR Five Lakh Sixty Six Thousand Four Hundred Only
3.02	Operation & Maintenance for 2nd Year	10.000	Nos	56640.00	566400.00	INR Five Lakh Sixty Six Thousand Four Hundred Only
3.03	Operation & Maintenance for 3rd Year	10.000	Nos	70800.00	708000.00	INR Seven Lakh Eight Thousand Only
3.04	Operation & Maintenance for 4th Year	10.000	Nos	70800.00	708000.00	INR Seven Lakh Eight Thousand Only
3.05	Operation & Maintenance for 5th Year	10.000	Nos	70800.00	708000.00	INR Seven Lakh Eight Thousand Only
Total in Figures					13585850.00	INR One Crore Thirty Five Lakh Eighty Five Thousand Eight Hundred & Fifty Only
Quoted Rate in Figures			Select		0.00	INR Zero Only
Quoted Rate in Words					INR Zero Only	