



दक्षिण रेलवे / SOUTHERN RAILWAY
यांत्रिक विभाग / Mechanical Branch
टी.वी.सी डिवीजन/ TVC Division

WORKS CONTRACT, REGULATIONS FOR TENDERS AND CONTRACT

E-Tender notice Number: TVC - M - CT - QWS - II - OT - 2622

Interpretation: These Instructions to Tenderers shall be read in conjunction with the Standard General Conditions of Contract for Works-2022 which are referred to herein and shall be subject to modifications additions or suppression by Special Conditions of Contract and/or Special Specifications, if any, annexed to the Tender Forms.

1. Name of Work: Provision of Additional Quick Watering System for CAPE and ERS stations

2. Instructions To Tenders And Conditions of Tender:

2.1 Eligibility criteria:

S.No	Certificate	Minimum criteria
1.	Experience: The tenderer must have successfully completed or substantially completed any one of the following categories of work(s) during last 07 (seven) years, ending last day of month previous to the one in which tender is invited:	<p>(i) Three similar works each costing not less than the amount equal to 30% of advertised value of the tender, or</p> <p>(ii) Two similar works each costing not less than the amount equal to 40% of advertised value of the tender, or</p> <p>(iii) One similar work costing not less than the amount equal to 60% of advertised value of the tender.</p>
2.	<p>Turnover: The tenderer must have minimum average annual contractual turnover of V/N or "V" whichever is less; where,</p> <p>V= Advertised value of the tender in crores of Rupees.</p> <p>N= Number of years prescribed for completion of the work for which bids have been invited.</p>	<p>The average annual contractual turnover shall be calculated as an average of 'total contractual payments' in the previous three financial years, as per the audited balance sheet. However, in case balance sheet of the previous year is yet to be prepared/ audited, the, audited balance sheet of the fourth previous year shall be considered for calculating average annual contractual turnover.</p> <p>The tenderers shall submit requisite information as per <i>Annexure-VIB</i>, along with copies of Audited Balance Sheets duly certified by the Chartered Accountant/ Certificate from Chartered Accountant duly supported by Audited Balance Sheet</p>

(*Note: Similar single work with respect to this tender means that ***'The tenderers should have carried out the installation of CAMTECH model carriage watering facilities (Quick Watering System) or Water Recycling Plant or High-Pressure Jet Cleaning system in the Indian Railways'***)

2.2 Submission of document verification certificate.

Submission of Document Verification Certificate (Annexure-V)	Please submit a certificate in the prescribed format (Annexure-V) for verification / confirmation of the documents submitted for compliance of eligibility / qualifying criteria. Non submission of the certificate, or submission of certificate either not properly filled in, or in a format other than the prescribed format by the authorized signatory, shall lead to summary rejection of your offer.
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2.3 Tenders in single packet system through e-tendering, are invited by the Divisional Railway Manager (Mechanical), Southern Railway, Trivandrum Division, Trivandrum-695014 for and on behalf of the President of India.

2.4 The Tenderer(s) shall quote his/their rates the items shown in the Schedule of approximate quantities attached.

3. The following documents form part of Tender / Contract-

- a. Tender forms
- b. Scope of work and Special Terms & Conditions
- c. Schedule of approximate quantities.
- d. General Conditions of Contract for Works-2022(including all latest amendments).
- e. All Specifications and other documents stipulated in the tender document.

4. The quantities shown in the attached Schedule are given as a guide and are approximate only and are subject to variation according to the needs of the Railway. The Railway does not guarantee work under each item of the Schedule.

5. **INCOME TAX:** Income tax will be deducted at source including the surcharge, if any, at the rates notified by the government from time to time and TDS certificate will be issued in Form No. 16 for such deductions in each bill.

6. **CONSERVANCY CHARGES:** Conservancy charges is applicable as per the prescribed norms and regulations in force.

7. Earnest Money (Bid Security)

- a. The tenderer shall be required to deposit earnest money with the tender for the due performance with the stipulation to keep the offer open till such date as specified in the tender, under the conditions of tender. The earnest money shall be 2% of the estimated tender value as indicated in the Tender Notice.
- b. It shall be understood that the tender documents have been sold/issued to the Tenderer and the Tenderer is permitted to tender in consideration of stipulation on his part and that after submitting his tender he will not resile from his offer or modify the terms and conditions thereof in a manner not acceptable to the Mechanical Engineer. Should the Tenderer fail to observe or comply with the said stipulation, the aforesaid amount shall be liable to be forfeited to the Railway.
- c. If his tender is accepted this Earnest Money mentioned in sub clause (a) above will be retained as part security for the due and faithful fulfillment of the contract in terms of clause-16 of the General Conditions of Contract. The Earnest Money of other tenderers shall, save hereinbefore provided, be returned to them, but the

Railway shall not be responsible for any loss or depreciation that may happen thereto in their possession, nor be liable to pay interest thereon.

- d. Earnest money shall be paid online at IREPS site.
- e. If the successful tenderer fails to return formal agreement with acceptance, then the earnest money shall be liable to be forfeited by the "Railways".
- f. Any tender not accompanied by the earnest money shall not be considered.

8. Security Deposit:

- i. The Earnest Money deposited by the Contractor with his tender will be retained by the Railways as part of security for the due and faithful fulfillment of the contract by the contractor. Security Deposit for each work should be 5% of the contract value. After adjustment of EMD the balance to make up the security deposit, may be deposited by the Contractor in cash or may be recovered by percentage deduction from the Contractor's "on account" bills. Also provided that in case of defaulting contractor the Railway may retain any amount due for payment to the Contractor on the pending "on account bills" so that the amounts so retained may not exceed 10% of the total value of the contract.
- ii. Unless otherwise specified in the special conditions, if any, the Security Deposit/rate of recovery/mode of recovery shall be as under: -
 - a. Security Deposit for each work should be 5% of the contract value.
 - b. The rate of recovery shall be at the rate of 6% of the bill amount till the full Security deposit is recovered.
 - c. Security Deposits will be recovered only from the running bills of the contract and no other mode of collecting SD such as SD in the form of instruments like BG, FD etc. shall be accepted towards Security Deposit.
 - d. Security Deposit shall be returned to the contractor after completion of warranty period the work as certified by the Competent Authority. The certificate, inter-alia, should mention that the work has been completed in all respects and that all the contractual obligations have been fulfilled by the contractors and that there is no due from the contractor to Railways against the contract concerned. Before releasing the SD, an unconditional and unequivocal no claim certificate from the contractor concerned should be obtained.
 - e. No interest will be payable upon the Earnest Money and Security Deposit or amounts payable to the Contractor under the Contract.

9. Performance Guarantee:

The procedure for obtaining Performance Guarantee is outlined below:

- (a) The successful bidder shall have to submit a Performance Guarantee (PG) within 21 (Twenty-one) days from the date of issue of Letter of Acceptance (LOA). Extension of time for submission of PG beyond 21 (Twenty-one) days and up to 60 days from the date of issue of LOA may be given by the Authority who is competent to sign the contract agreement. However, a penal interest of 12% per annum shall be charged for the delay beyond 21(Twenty-one) days, i.e. from 22nd day after the date of issue of LOA. Further, if the 60th day happens to be a declared holiday in the concerned office of the Railway, submission of PG can be accepted on the next working day.

In all other cases, if the Contractor fails to submit the requisite PG even after 60 days from the date of issue of LOA, the contract is liable to be terminated. In case contract is terminated railway shall be entitled to forfeit Bid Security and other dues

payable to the contractor against that particular contract, subject to maximum of PG amount. In case a tenderer has not submitted Bid Security on the strength of their registration as a Startup recognized by Department of Industrial Policy and Promotion (DIPP) under Ministry of Commerce and Industry, DIPP shall be informed to this effect.

The failed Contractor shall be debarred from participating in re-tender for that work.

(b) The successful bidder shall submit the Performance Guarantee (PG) in any of the following forms, amounting to 5% of the original contract value and **Additional Performance Guarantee as per Para 9 (h) mentioned below in any of the following forms**

- (i) A deposit of Cash;
- (ii) Irrevocable Bank Guarantee;
- (iii) Insurance Surety Bond as per Annexure-XVII**

Note: - In case of extension of Date of Completion, selected bidder needs to submit extended Insurance Surety Bond/Fresh Insurance surety Bond/fresh Performance Security, in any form as given above, before expiry of Insurance Surety Bond.

- (iv) Government Securities including State Loan Bonds at 5% below the market value;
- (v) Pay Orders and Demand Drafts tendered by any Scheduled Commercial scheduled Bank of India;**
- (vi) Guarantee Bonds executed or Deposits Receipts tendered by any Scheduled Commercial Bank of India;
- (vii) Deposit in the Post Office Saving Bank;
- (viii) Deposit in the National Savings Certificates;
- (ix) Twelve years National Defence Certificates;
- (x) Ten years Defence Deposits;
- (xi) National Defence Bonds and
- (xii) Unit Trust Certificates at 5% below market value or at the face value whichever is less. Also, FDR in favour of Sr.DFM/TVC (free from any encumbrance) may be accepted.

Note-1). In case of Bank Guarantee, the issuing bank shall confirm that the guarantee has been issued through the SFMS (Structured Financial Messaging System) and shall invariably transmit the Bank Guarantee advice to the following bank details:

IFSC CODE	SBIN000RAIL
IFSC TYPE	BRANCH
BANK NAME	STATE BANK OF INDIA
BRANCH NAME	RAIL
CITY NAME	NAVI MUMBAI
ADDRESS	SECTOR-11, CBD BELAPUR, NAVI MUMBAI
DISTRICT	NAVI MUMBAI
STATE	MAHARASHTRA
BG ENABLED	YES

Note-2. In case of FDR/TDR, the issuing bank shall certify and ensure compliance with the following conditions and to confirm the genuineness of the FDR/TDR.

- i. A lien has been marked in favour of the **Senior Divisional Finance Manager, Southern Railway, Thiruvananthapuram-14** in the bank's records.
- ii. The bank shall ensure that the amount covered under the FDR/TDR shall not be released, credited to any account, or adjusted against any liability of the contractor without prior written submission of a **Discharge Certificate** issued by the Railway Administration, notwithstanding the maturity of the instrument or possession of the original receipt by any party.
- iii. The lien shall be duly recorded in the bank's ledger, both **online and offline**.
- iv. The FDR/TDR cannot be encashed, pledged or renewed without the express written consent of the designated Railway Officer.
- v. The FDR/TDR shall be issued only in the prescribed format and must be **typed (not handwritten)**, incorporating the following such as:

“Bank Name A/c [Contractor Name] (Lien to Senior Divisional Finance Manager, southern Railway, Thiruvananthapuram-14”

- (c). The Performance Guarantee shall be submitted by the successful bidder after the Letter of Acceptance (LOA) has been issued, but before signing of the contract agreement. This P.G. shall be initially valid up to the stipulated date of completion plus 60 days beyond that. In case, the time for completion of work gets extended, the Contractor shall get the validity of P.G. extended to cover such extended time for completion of work plus 60 days.
- (d) The value of PG to be submitted by the Contractor is based on original contract value and shall not change due to subsequent variation(s) in the original contract value.
- (e) The Performance Guarantee (PG) shall be released after physical completion of the work based on 'Completion Certificate' issued by the competent authority stating that the Contractor has completed the work in all respects satisfactorily.
- (f) Whenever the contract is rescinded, the Performance Guarantee already submitted for the contract shall be encashed.
- (g) The Engineer shall not make a claim under the Performance Guarantee except for amounts to which the President of India is entitled under the contract (not withstanding and/or without prejudice to any other provisions in the contract agreement) in the event of:
 - (i) Failure by the Contractor to extend the validity of the Performance Guarantee as described herein above, in which event the Engineer may claim the full amount of the Performance Guarantee.
 - (ii) Failure by the Contractor to pay President of India any amount due, either as agreed by the Contractor or determined under any of the Clauses/Conditions of the Agreement, within 30 days of the service of notice to this effect by Engineer.
 - (iv) The Contract being determined or rescinded under clause 62 of these conditions.

- (h) If a tender is accepted on the quoted rates of bidder which is below the advertised tender value, an additional performance security shall be submitted by the bidder as below;

Bid quoted in % of advertised cost	Additional Performance Guarantee (%)
Below 0-5% (inclusive)	Nil.
Below 5%	5%

10. Local conditions: It will be imperative for each tenderer to fully acquaint himself of all the local conditions and factors, which would have any effect of the performance of the contract and the cost of item of works. The “Railways” shall not entertain request for clarification from the tenderer regarding such local conditions. No request for change of price or time schedule of completion of work shall be entertained after the “Railways” accepts the offer. The tenderer can visit the place of proposed work to understand the site conditions and correct appreciation of volume of work to be done.

11. Acceptance of tender:

- ii. The “Railways” may accept the tender for a part of the quantity offered; reject any tender without assigning any reason and or any tender.
- iii. Acceptance letter of the tender will be sent by registered post direct to the successful tenderer.

12. Effect and validity of offer:

- i) The offer shall be kept valid for a minimum period of 45 calendar days from the date of opening of tender, within which the tenderer will not be entitled to rescind or withdraw his offer. Notwithstanding this if the tenderer rescinds his offer within the period stipulated above, the earnest money deposited by him along with the tender shall be liable for forfeiture. In that case the tenderer shall have no further claim on the amount deposited by him as earnest money.
- ii) The submission of any offer connected with the specifications and documents shall constitute an Agreement that the tenderer shall have no cause of action or claim against the “Railways” for rejection of his offer. The “Railways” shall always be at liberty to reject or accept any offer or offer at its sole discretion and any such action will not be called into question and the tenderer shall have no claim in that regard against the “Railways”.

13. PERIOD OF CONTRACT: The validity of this contract shall be for a period of 180 DAYS (six months) from the date of issue of LOA.

14. AGREEMENT: Successful tenderer shall have to execute an Agreement in the standard form within 15 days of the date of issue of the “Letter of Acceptance”.

- a. He shall submit a declaration while signing the Agreement that all the employees engaged by him shall be his paid employees and Railway shall have no onus for them.
- b. Adequate safety precautions are to be taken by the Contractor to ensure safety of workmen engaged by the Contractor.

- c. Contractor should take utmost care to ensure that no damage to the Railway property takes place due to any act of his workmen, while carrying out the work under this contract.
- d. The work shall be carried out without affecting the Railway working and in consultation with Sr. Divisional Mechanical Engineer, Thiruvananthapuram, or his authorized representative.
- e. The work may have to be carried out on running lines also and therefore every precaution shall be taken by Contractor to protect their labour and materials. The Contractor shall adhere to Workmen Compensation Act, Payment of Minimum Wages Act and all other labour legislations.
- f. The contractor shall note that no compensation due to any loss of life or loss of material or any other account be given by the Railway Administration while carrying out the work by the contractor as per agreed terms. The Contractor shall have to pay all the compensation in case of any accident, injury to his labour. Further the contract shall indemnify Railway administration for any claim in this regard.

15. The Tender submitted shall comprise of the following

- a. EMD
- b. Proof of Eligibility Criteria
- c. The onus of establishing credentials lies with the tenderer and hence Railway shall evaluate the offer only from the credentials/documents submitted along with the tender offer.
- d. Checklist duly filled in.

16. Other points to note:

- i. Bidders shall submit their offers made as per the Indian Railways General as well as Special conditions of contract as mentioned in this tender. Contractor not submitting the requisite information as above may note that his/their offer is liable to be rejected.
- ii. Tender papers are not transferable.
- iii. Cost of Tender form once paid shall not be refunded.

17. TIME SCHEDULE: The basic essence of the contract shall be the strict adherence to the time schedule for the completion of the work as per Tender Conditions.

17.1. Submission of offers:

- i. Any individual(s) signing the tender or other documents connected therewith shall specify whether he is signing.
 - As sole proprietor of the concern or attorney of the sole proprietor
 - As a partner or partners of the firm
 - As a Director, Manager or Secretary of a limited company duly authorized by a resolution
- ii. passed by the board of Director or in pursuance of the authority conferred by memorandum
- iii. of association.
- iv. In the case of a firm not registered under the Indian Partnership Act, all the partners or the attorney duly authorized by all of them should sign the tender and all other connected documents.

- v. The original power of attorney or other documents empowering the individual or individuals to sign should be furnished to the “Engineer” for verification, if required.
- vi. All the copies of annexure enclosed with the tender should be duly filled in by the tenderer and submitted along with the tender duly signed and stamped on each page.

18. GENERAL CONDITIONS:

- i. All conditions in this contract shall be read in conjunction with the standard general conditions of contract 2022 (GCC) for Civil Engineering works with all the correction slips, latest and also as amended from time to time. The Engineer defined in clause 1 of standard GCC shall be interpreted to include Engineer of Mechanical Department also for operation of GCC.
- ii. The Contractor shall make his own arrangements for equipment including power supply, for carrying out the work.
- iii. The contractor shall commence the immediately after issuing of LoA.
- iv. The tenderer should use proper tools and the staff deployed for the work should be skilled enough to implement the instructions in totality.
- v. The contractor has to arrange his own labour, tools, machines, etc at his own cost to carry out the work.
- vi. Transportation of men and materials to the work spot is the responsibility of the contractor.
- vii. Space, as available, will be given for keeping the materials and other machineries, which are required for the work, and safe custody of contractor’s materials and machines within the railway premises shall be to the scope of contractor.
- viii. The tenderer should make own arrangement for the safety and security of the machines and the materials at the worksite.
- ix. The contractor should supply proper identity cards to the staff employed for this purpose. The ID cards should get signed by authorized Railway authority. The staff shall display the ID card during the execution of work inside the Railway premises.
- x. The special conditions of contract are supplementary to general conditions of contract. In the event of any contradiction between special conditions and General conditions, special conditions will prevail.

19. LAW GOVERNING THE CONTRACT: The contract shall be governed by laws/acts/regulations in force in the Republic of India for the time being such as, labour laws- Minimum wages act, Workmen Compensation act, Payment of wages act, Employment of Children Act, 1938 read with Child Labour (prohibition and Regulation) Act, 1986 and all other relevant labor laws. Other relevant labour laws pertaining to execution of this contract.

- i. **COMPLIANCE TO REGULATIONS AND BYE-LAWS:** The contractor shall conform to the provision of any statute relating to the works and regulations and bye-laws of any local authority and of any water and electricity board with whose system the work is proposed to be connected and shall before making any variation from the

instructions or the specifications that may be necessitated by so confirming give to the Engineer notice specifying the variation proposed to be made and the reason for making the variation and shall not carry out such variation until he has received instructions from the Engineer in respect thereof. The Contractor shall be bound to give all notices required by statute regulations or bye laws as aforesaid and to pay all fees and taxes payable to any authority in respect thereof.

- ii. COMMUNICATION TO BE IN WRITING: All notices, communications, reference and complaints made by the Railway or the Engineer or the Engineer's representative or the Contractor that is concerning the works shall be in writing and no notice, communication, reference or complaint not in writing shall be recognized.

Contact address of Railway:

Divisional Railway Manager (Mechanical),
Southern Railway,
Thycaud.P.O, Thiruvananthapuram-695014
Phone Number: 0471- 2322520
E-Mail: srdme@tvc.railnet.gov.in

- iii. SERVICE OF NOTICES ON CONTRACTORS: The Contractor shall furnish to the Engineer the name, designation and address of his authorized agent and all complaints, notices, communications and references shall be deemed to have been duly given to the Contractor if delivered to the Contractor or his authorized agent or left at or posted to the address so given and shall be deemed to have been so given in the case of posting on day on which they would have reached such address in the ordinary post or on the day on which they were so delivered or left. In the case of contract by partners, the Contractor to the Engineer shall forthwith notify any change in the constitution of the firm.
- iv. OCCUPATION AND USE OF LAND: The contractor without permission of the Railway shall occupy no land belonging to or in the possession of the Railways. The contractor shall not use, or allow to be used, the site for any purposes other than execution of the works.
- v. RAILWAY PASSES: The Railway shall not issue any free Railway passes to the contractor or any of his employee / worker.
- vi. TRANSPORT OF MATERIALS: No forwarding orders shall be issued by the Railway for the conveyance of Contractor's materials, tools and plant by Rail which may be required for use in the works and the Contractor shall pay full freight charges at public tariff rates thereof.
- vii. REPRESENTATION OF WORKS: The Contractor shall when he is not personally present on the site of the workplace keep a responsible agent at the works during working hours who shall on receiving reasonable notice, present himself, to the Engineer and orders given by the Engineer or Engineer's representative to the agent shall be deemed to have the same force as if they have been given to the contractor. Before absenting himself, the contractor shall furnish the name and address of the agent for the purpose of this clause and failure on the part of the

contractor to comply with this provision at any time will entitle the Railway to rescind the contract under clause 62 of General Conditions of Contract.

- viii. **INDEMNITY BY CONTRACTORS:** The contractor shall indemnify and save the Railways from and against all actions, suit proceedings, losses, costs, damages, charges, and demand of every nature and description brought or recovered against the Railway by reason of any act or omission of the contractor, his agent or employees, in the execution of the works or in his guarding of the same. All sums payable by way of compensation to be applied to the actual loss or damage sustained and whether or not any damage shall have been sustained.
- ix. **SHEDS, STORE HOUSES AND YARDS:** The contractor shall at his own expense provide himself with sheds, storehouses and yards in such situations and in such numbers as is required for carrying on the works and the contractor shall keep at each such sheds, store houses and yards, sufficient quantity of materials and plant in stock as not to delay the carrying out of the works with due expedition and the Engineer and the Engineer's representative shall have access to the said sheds, store houses and yards after reasonable notice for the purpose of inspecting the stock of materials or plant so kept in hand, and any materials or plant which the Engineer may object to shall not be brought upon or used in the works, but shall be forthwith removed from the sheds, store houses or yards by the contractor. The contractor shall at his own expenses provide and maintain suitable equipment necessary for the execution of the works.
- x. **PROVISION OF STAFF:** The Contractor shall employ on the works at all times, efficient and competent Supervisor to give the necessary direction to Contractor's workmen and to see that they execute their work in sound and proper manner and shall employ only such supervisors, workmen and laborer's in or about the execution of any of these works as are careful and skilled in trades. The contractor shall at once remove from the works any agent, permitted sub-contractor, Supervisor, workman or laborer's who shall be objected to by the Engineer for bonafide reasons and if and whenever required by the Engineer, the contractor submit a correct return showing the names of all staff and workmen employed by him. In the event of the Engineer being of the opinion that the contractor is not employing on the works required number of staff as is necessary for the proper execution of service within the time prescribed, the Contractor shall forthwith on receiving intimation to this effect provide requisite number of staff and labour specified by the Engineer within 7 days of being so required and failure on the part of contractor to comply with such instructions will entitle the Railway to rescind the contract.
- xi. At least one qualified representative should be available at site whenever required by the Engineer-in-charge to take instructions. In case the Contractor fails to employ the qualified supervisor as aforesaid he shall be liable to pay a reasonable amount to Railway.
- xii. Details of employees engaged by the contractor: While signing the Agreement he shall submit a list of his employees as would be engaged by him for this work with

personal details of name, age, address, qualification, marital status, medical certificate, character certificate etc. Any subsequent change in this regard should be intimated from time to time to Railways. The contractor should furnish complete details of the Labour to be deployed with supervisor (s) giving the working timings as well as the rough estimate of the persons to be deployed for the maintenance activities. Contractor should also maintain a daily attendance register of workforce engaged for the work at site and get it acknowledged by the engineer's representative on day-to-day basis.

xiii. **Code of conduct:**

- a. Timings: All personnel to report to work on the assigned time and be present till the assigned time for leaving. Timings will be in control of DRM/M/TVC or his nominated supervisor.
- b. Flexibility for the trains running late to be covered under the contract need to be assigned by them – clearly communicated to all.
- c. Dress code: Everyone should always be in uniform as prescribed by the Contractor at all times while on duty at the depot and dressed clean and the dress worn properly and also shall wear identity card that is prepared in the below mentioned format:
- d. While at work, all employees engaged by contractor shall wear Staff Identity card that are authorized by railway engineer, as per the Performa shown below

Photo of Worker	Name of Person :..... Name of Contractor: Address of Contractor:	ISSUING AUTHORITY Issue date: Valid till:	
	Phone no: for contact during any emergency		
	Name of work Provision of Additional Quick Watering System for CAPE and ERS stations		Issued by: (contractor's seal) <div style="float: right;"> Authorized by (Railway-Engineer sign seal) </div>

20. Behavior of contractor and his work force:

- a. All personnel need to be courteous to Railway staff.
- b. All personnel to be nicely behaved with each other.
- c. Supervisors and operators need to have a cordial, mutually respectful relationship at all times
- d. Operators should follow supervisor's instructions on behavior.
- e. Arguments with Railway officials should be avoided at all costs.
- f. Any questions or objections from Railway Staff should be directed to the supervisors for them to clarify.
- g. All Workmen & Supervisors to be courteous Railway Officials/Staff whenever they meet them or see them at Depot.

- h. Safety:
 - i. All workers to check the loose Electrical Connections if any or naked electrical wiring to be insulated properly.
 - ii. All workers to wear gum boots, gloves, helmets and other PPEs as required and follow safe working practices.
 - iii. All workers be kept aware of loose shunting and movement of rolling stock that takes place during the work in progress
21. VARIATION IN QUANTITIES: Variation of quantity shall be applicable as per GCC for Works-2022/latest (including all latest amendments)
 22. VITIATION CLAUSE: In the event of variation occurring due to increase / decrease in quantities, among the first, second and third lowest valid tenderers, the vitiation shall be to contractor's account. The total value of the worked one shall be calculated at the rate offered by those tenderers and the amount payable shall be limited to the lowest aggregate value as worked out. Vitiation as above shall be worked out as a whole for agreement including all variation in quantities.
 23. WORKING HOURS: Work shall be carried out as specified in the special conditions of the contract. The Contractor will be responsible for fulfillment of this condition during the execution of work for safe working of his staff.
 24. DAMAGE FROM ACCIDENTS OR FLOODS OR TIDES: The Contractor shall take all precautions against damages from accidents, floods, or tide. No compensation will be allowed to the contractor for his tools, plants, materials, machines, and other equipment lost or damaged by any cause whatsoever. The contractor shall be liable to make good the damages to any structure, plant or material or every description belonging to the Railway Administration, lost or damaged by any cause during the course of Contractor's work, if contractor's workers or his equipment causes it. The Railway Administration will not pay to the Contractor any charges for rectification or repairs or any damage, which may have occurred from any cause whatsoever, to any of his/their assets during execution of work. No claims in this regard will be arbitral.
 25. MEASUREMENT OF WORKS: Measurement of works shall be done as specified in the Special Conditions based on performance evaluation/ completion of works.
 26. CERTIFICATE FOR COMPLETION OF WORKS: As soon as in the opinion of the Engineer the works shall have been substantially completed and shall have satisfactorily passed any final test or tests that may be prescribed, the Engineer shall issue a Certificate of completion in respect of the works.
 27. CONTRACTOR NOT ABSOLVED BY COMPLETION CERTIFICATE: The completion certificate that is issued by railways in respect of the referred works shall not absolve the contractor from his liability to make good any defects imperfections, shrinkage or faults which may appear during the period of maintenance specified in the tender which in the opinion of the Engineer result from materials or workmanship that are not in accordance with the drawings or specifications or instructions of the Engineer and such defects, imperfections,

shrinkage or faults shall upon the direction in writing of the Engineer be amended and made good by the contractor at his own cost and in case of default on the part of contractor the Engineer may employ labour and materials or appoint another contractor to amend and make good such defects, imperfections, shrinkage and faults and all expenses consequent thereon and incidental thereto shall be borne by the contractor and shall be recoverable from any moneys due to him under this contract or any other contract.

28. **REPAYMENT OF SECURITY DEPOSIT:** The total security deposit shall become due and shall be paid to the contractor after the expiration of the period of warranty, specified in the tender reckoned from the date on which the Engineer shall have passed the certificate of completion comprising the whole of the works to be done under the provisions of the contract or any other earlier date subsequent to the completion of the whole of such work that may be fixed by the Railway in this behalf, provided that all the stipulations of the clause have been fulfilled by the contractor and all claims and demands made against the Railway for and in respect of damage or loss by from or in consequence of the works have been finally satisfied.
29. **RELEASING OF PERFORMANCE GUARANTEE:** The Performance Guarantee (PG) shall be released after physical completion successful completion of work and the warranty period of the work based on 'Completion Certificate' issued by the competent authority stating that the Contractor has completed the work in all respects satisfactorily.
30. **PROGRESS REPORT:** The contractor shall submit weekly progress reports as to the progress of the contract and in such form as may called for by the Railways or his nominee. The submission and acceptance of these reports shall not prejudice the right of the Railways in any manner.
31. Any dispute between the parties would be settled as per the provisions of General Conditions of Contract (GCC) for works up to date.
32. **JURISDICTION OF COURT:** The Courts at Thiruvananthapuram district of state of Kerala shall have the exclusive jurisdiction to try all disputes arising out of this agreement between the parties.
33. **ARBITRATION:** As per GCC for Works-2022 including all latest amendments.
34. **Procedure for undertaking digging work in the vicinity of Signaling, Electrical and telecommunication cables:** to be followed as per the Railway Board letter No. 2021/Tele/5(2)/3-Part (1)(3425647) dated 12/06/2023.

MANDATE FORM FOR EFT/NEFT**1. PARTICULARS OF THE PARTY**

- i. NAME: _____
- ii. ADDRESS: _____
- iii. PHONE.NO: _____ MOBILE _____ FAX.NO _____
- iv. INCOME TAX PAN NO. _____ EMAIL ID _____
- v. GSTIN: _____

2. PARTICULARS OF BANK ACCOUNT

- i. CITY: _____
- ii. BANK NAME: _____
- iii. BRANCH: _____
- iv. BANK ADDRESS: _____
- v. BANK TEL NO. _____ FAX NO. _____
- vi. BANK MICR CODE (9 DIGIT): _____
- vii. BANK IFS CODE: _____
- viii. BANK ACCOUNT NO: _____
- ix. (Please enclose a cancelled blank cheque)
- x. ACCOUNT TYPE: (SAVINGS/CURRENT/CASH CREDIT): _____

3 Certified that the particulars furnished with reference to Bank Account are correct and bank guarantees to honor all EFT/NEFT advices/reports as per RBI Regulations.

Bank's Seal

(Signature of the authorized official of the bank)**4. DECLARATION BY THE PARTY:**

- i) I hereby declare that the particulars given in this mandate form are correct and complete. If the transaction is delayed or not effected at all for reasons of incomplete or incorrect information, the User institution i.e., Sr.DFM, Southern Railway, Thiruvananthapuram Division will not be held responsible.

Date _____

Signature of the Party with Stamp

FORMAT OF BANK GUARANTEE BOND

(To be issued on non-judicial stamp paper of appropriate value prevailing in the State/UT)

GUARANTEE BOND

Bank Guarantee No.:

Date of issue:

Amount:

Validity:

Claim date:

To:

The President of India,

Acting through **Senior Divisional Finance Manager,****Southern Railway, Thiruvananthapuram-6950 14.**Sub: -..... *(insert details of the work)*

In consideration of the **President of India**, acting through **Senior Divisional Finance Manager, Southern Railway, Thiruvananthapuram** (hereinafter called "the Government") having agreed to exempt M/s*(insert name and address of contractor)* (hereinafter called "the said Contractor(s)" / "Supplier(s)"), from the demand under the terms and conditions of an Agreement (or Letter of Acceptance or Purchase Order) No.....dated..... Made between **Senior Divisional Mechanical Engineer, Southern Railway, Thiruvananthapuram** and the said Contractor for*(Insert details of the work(s) /material(s) to be supplied)* (hereinafter called the said Agreement or Purchase Order or Letter of Acceptance), of Security Deposit for the due fulfilment by the said Contractor of the terms and conditions contained in the said Agreement /LOA PO on production of a Bank Guarantee for ₹..... (Rupees only). We,*(insert name and address of the Bank)* (hereinafter referred to as "the Bank"), at the request of the said Contractor(s)/Supplier(s), do hereby undertake to pay to the Government an amount not exceeding ₹...../- (Rupeesonly) against any loss or damage caused to or suffered or would be caused to or suffered by the Government by reason of any breach by the said Contractor of any of the terms, or conditions contained in the said Contract.

2. We,*(insert name of the Bank)*, do hereby undertake to pay the amounts due and payable under this Guarantee without any demur, merely on a demand from the Government stating that the amount claimed is due by way of loss or damages caused to or would be caused to or suffered by the Government by reason of breach by the said Contractor(s) of any of the terms and conditions contained in the said Agreement or by reason of the Contractor(s) failure to perform the said Agreement. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this Guarantee. However, our liability under this Guarantee shall be restricted to an amount not exceeding ₹.....(Rupees.....only).

3 We undertake to pay to the Government any money so demanded notwithstanding any dispute or disputes raised by the Contractor(s) / Supplier(s) in any suit or proceeding pending before any Court or Tribunal relating thereto, our liability under the present being absolute and unequivocal.

The payment so made by us under this Bond shall be a valid discharge of our liability for payment thereunder, and the Contractor(s) / Supplier(s) shall have no claim against us for making such payment.

4. We*(insert name of the Bank)*. further agree that the Guarantee herein contained

shall remain in full force and effect during the period that would be taken for the performance of the said Agreement and that it shall continue to be enforceable till all the dues of the Government under or by virtue of the said Agreement have been fully paid and its claims satisfied or discharged or till..... ***(insert details of appropriate authority/Department of Ministry of Railways)*** certifies that the terms and conditions of the said Agreement have been fully and properly carried out by the said Contractor(s) / Supplier(s) and accordingly discharges this Guarantee. Unless a demand or claim under this Guarantee is made on us in writing on or before the***(date of validity/claim as the case may be)***, we shall be discharged from all liability under this Guarantee thereafter.

5. We..... ***(Insert name of the Bank)*** further agree with the Government that the Government shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Agreement or to extend time of performance by the said Contractor(s) from time to time or to postpone for any time or from time to time any of the powers exercisable by the Government against the said Contractor(s) and to forbear or enforce any of the terms and conditions relating to the said Agreement and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Contractor(s) or for any forbearance, act or omission on the part of the Government or any indulgence by the Government to the said Contractor(s) or any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.

6. This Guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor(s)/Supplier(s).

7. We,..... ***(Insert the Name of the Bank)***, lastly undertake not to revoke this Guarantee during its currency except with the previous consent of the Government in writing.

Notwithstanding anything hereinabove:

- a) Our liability under this Guarantee is limited to a sum of Rs...../- (Rupeesonly);
- b) The validity of this guarantee shall be available up to..... ***(insert validity date)***;
- c) We are liable to pay the guaranteed amount or any part thereof under this Bank Guarantee only and only if the Government serves upon the Bank a written claim or demand on or before.....***(insert claim date)***

Dated, this..... day of***(month)***,..... ***(year)***

(Signature(s) of Authorized signatories with name, designation and Employee Code and Bank Seal)

Witness(1):
Signature:
Name:
Address:

Witness(2):
Signature:
Name:
Address:

Annexure-V**FORMAT FOR CERTIFICATE TO BE SUBMITTED / UPLOADED BY TENDERER ALONGWITH THE TENDER DOCUMENTS**

I.....(*Name and designation*)**appointed as the attorney/authorized signatory of the tenderer, M/s_____ (hereinafter called the tenderer) for the purpose of the Tender documents for the work of _____ as per the tender No._____ of _____(*Railway*)**, do hereby solemnly affirm and state on the behalf of the tenderer including its constituents as under:

1. I/we the tenderer (s) am/are signing this document after carefully reading the contents.
2. I/We the tenderer(s) also accept all the conditions of the tender and have signed all the pages in confirmation thereof.
3. I/we hereby declare that I/We have down loaded the tender document from Indian Railway website www.ireps.gov.in I have verified the content of the document from the web site and there is no addition, no deletion or no alteration to the content of the tender document. In case of any discrepancy noticed at any stage i.e. evaluation of tenders, execution of work or final payment of the contract, the master copy available with the railway Administration shall be final and binding upon me/us.
4. I/we declare and certify that I/we have not made any misleading or false representation in the forms, statements and attachments in proof of the qualification requirements.
5. I/We also understand that my/our offer will be evaluated based on the documents/credentials submitted along with the offer and same shall be binding upon me/us.
6. I/We declare that the information and documents submitted along with the tender by me/us are correct and I/we are fully responsible for the correctness of the information and documents, submitted by us.
7. I/We certify that, I/We the tenderer (s) is /are not blacklisted or debarred by Railways or any other ministry/Department of Govt. of India from participation in tender on the date of submission of bids, either individual capacity or as a HUF/member of the partnership firm/LLP/JV/Society/Trust.
8. I/we understand that if the contents of the certificate submitted by us are found to be forged/false at any time during process for evaluation of tenders, it shall lead to forfeiture of the Bid Security and may also lead to any other action provided in the contract including banning of business for a period of up to two year. Further, I/we (*insert name of the tenderer*) ** _____ and all my/our constituents understand that my/our offer shall be summarily rejected.
9. I/we also understand that if the contents of the certificate submitted by us are found to be false/forged at any time after the award of the contract, it will lead to termination of the contract, along with forfeiture of Bid Security/Security Deposit and Performance guarantee and may also lead to any other action provided in the contract including banning of business for a period of up to two year.
10. I/We have read the clause regarding restriction on procurement from a bidder of a country which shares a land border with India and certify that I am/We are not from such a country or, if from such a country, have been registered with the competent Authority. I/We hereby certify that I/we fulfill all the requirements in this regard and am/are eligible to be considered (evidence of valid registration by the competent authority is enclosed)

SEAL AND SIGNATURE OF THE TENDERER

Place:

Dated:

**The contents in Italics are only for guidance purpose. Details as appropriate are to be filled in suitably by tenderer.

Annexure-V(A)

(This certificate is to be given by attorney/authorized signatory/each member of Partnership firm/Joint Venture (JV) / Hindu Undivided Family (HUF) / Limited Liability Partnership (LLP) etc.)

I/We.....(Name), attorney/authorized signatory of the
 (constituent firm/constituent partner) and member/partner of the
(tendering firm) hereby solemnly affirm and state as under:

1. I/we certify that (constituent firm/constituent partner) is/are not blacklisted or debarred by Railways or any other Ministry / Department of Govt. of India from participation in tender on the date of submission of bids, either in individual capacity or as a HUF/ member of the partnership firm/LLP/JV/Society/Trust.
2. I/We have read the clause regarding restriction on procurement from a bidder of a country which shares a land border with India and certify that I am/We are not from such a country or, if from such a country, have been registered with the competent Authority. I/We hereby certify that I/we fulfil all the requirements in this regard and am/are eligible to be considered (evidence of valid registration by the competent authority is enclosed).

SEAL AND SIGNATURE
 OF THE CONSTITUENT FIRM/CONSTITUENT PARTNER

Place:

Dated:

Annexure –VIB

Each Bidder or each member of a JV must fill in this form separately:

NAME OF BIDDER/JV PARTNER:

Annual Contractual Turnover Data for the Previous 3/4 Years (Contractual Payment only)			
Year	Amount Currency	Exchange Rate	Indian National Rupees Equivalent
Average Annual Contractual Turnover for last 3 years			

1. The average annual contractual turnover shall be calculated as an average of “total contractual payments” in the previous three financial years. However, in case balance sheet of the previous year is yet to be prepared/ audited, the audited balance sheet of the fourth previous year shall be considered for calculating average annual contractual turnover.
2. The information supplied shall be substantiated by data in the audited balance sheets and profit and loss accounts for the relevant years in respect of the bidder or all members constituting the bidder.
3. Contents of this form should be certified by a Chartered Accountant duly supported by Audited Balance Sheet duly certified by the Chartered Accountant.

SEAL AND SIGNATURE OF THE BIDDER

Certified that all figures and facts submitted in this form have been furnished after full consideration of all observations/notes in Auditor’s reports. _____

(Signature of Chartered Accountant)

Name of CA: _____

Registration No: _____

(Seal)

Annexure –XVII

B. New Annexure – XVII, Part-II of GCC-2022 shall be read as under:-

ANNEXURE-XVII

Reference Para 16.(4)

Insurance Surety Bond for Performance Security

Name of the issuer of surety bond:

President of India,
Acting
through.....,
.....
Railway.

Date:.....
.....

Surety Bond No:

Amount of Bond:

Issue Date:.....

Expiry Date:.....

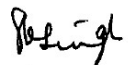
WHEREAS, In consideration of the President of India acting through
.....(Designation & address of contract signing
authority),.....Railway,....., (hereinafter called "The Railway") having
accepted the bid of M/S XXXXX hereinafter called the contractor, for the work of XXX" under
invitation for bids No XXXX Dated XXXXX, Vide Letter of Acceptance No.....

AND

WHEREAS, the contractor is required to furnish Performance Security for the sum of ₹. XXXX
(Rupees XXXX Only), in the form of Surety Bond, being a condition precedent to the signing
of the contract agreement.


09/04/25

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SB No:

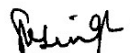
Date:

WHEREAS, we, _____, (*Name of insurance company*) hereinafter called the Surety, acting through [*Designation(s) of the authorised person of the Surety*], have, at the request of the M/s. XXXX contractor, agreed to give Bond for performance security/ additional performance security as hereinafter contained:

1. KNOW ALL MEN by these present that I/We, the undersigned [*Insert name(s) of authorized representatives of the Surety*], being fully authorized to sign and incur obligations for and on behalf of the Surety, confirm that the Surety, hereby, unconditionally and irrevocably Bond to pay the Railway the full amount in the sum of XXXX (Rupees XXXX Only) as above stated.
2. The Surety undertakes to immediately pay on presentation of demand by the Railway any amount up to and including aforementioned full amount without any demur, reservation or recourse. Any such demand made by the Railway on the Surety shall be final, conclusive and binding, absolute and unequivocal notwithstanding any disputes raised/pending before any Court, tribunal, arbitration or any authority or any threatened litigation by the Bidder or Bank.
3. On payment of any amount less than aforementioned full amount, as per demand of the Railway, the Bond shall remain valid for the balance amount i.e. the aforementioned full amount less the payment made to the Railway.
4. The Surety shall pay the amount as demanded immediately on presentation of the demand by Railway without any reference to the contractor and without the Railway being required to show grounds or give reasons for its demand or the amount demanded.
5. The Surety Bond shall be unconditional and irrevocable.
6. The Bond hereinbefore shall not be affected by any change in the constitution of the Surety or in the constitution of the Contractor.
7. The Surety agrees that no change, addition, modifications to the terms of the Contract Agreement or to any documents, which have been or may be made between the Railway and the Contractor, will in any way release us from the liability under this Bond; and the Surety, hereby, waives any requirement for notice of any such change, addition or modification to the Surety.
8. This Bond is valid and effective from the date of its issue, which is [*insert date of issue*]. The Bond and our obligations under it will expire on XXXX (*Expiry Date*). All demands for payment under the Bond must be received by us on or before that date.
9. The Surety agrees that the Railways right to demand payment of aforementioned full amount in one instance or demand payments in parts totalling up to the aforementioned full amount in several instances will be valid until either the aforementioned full amount is paid to the Railway or the Bond is released by Railway before the Expiry date.
10. The Surety agrees that its obligation to pay any amount demanded by the Railway before the expiry of this Bond will continue until the amount demanded has been paid in full.
11. The expressions Surety and Railway hereinbefore used shall include their respective successors, administrators and assigns.



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12. The Surety hereby undertakes not to revoke the Bond during its currency, except with the previous consent in writing of the Railway. This Bond is subject to the Uniform Rules for Demand Bonds, ICC Publication No. 758.
13. We, the Surety Insurer, further agree that the Authority shall be the sole judge to decide as to whether the Bidder is in default of due and faithful fulfilment and compliance with the terms and conditions contained in the Bidding Documents including, inter alia, the failure of the Bidder to keep its Bid open during the Bid validity period set forth in the said Documents, and the decision of the Authority that the Bidder is in default as aforesaid shall be final and binding on us, notwithstanding any differences between the Authority and the Bidder or any dispute pending before any Court, tribunal, arbitrator or any other authority.
14. The Bond shall be in addition to and without prejudice to any other security Bond (s) of the contractor in favour of the Railway available with the Railway. The Surety, under this Bond, shall be deemed as Principal Debtor of the Railway.

Notwithstanding anything to the contrary contained in these presents,

- a. Our liability under this Surety Bond shall not exceed **XXXX (Rupees XXXXX Only)**.
- b. This Surety Bond shall be valid up to **XXXX (being the date of expiry)**;
- c. Unless the bank is served a written claim or demand on or before **XXXX [date of expiry]** all rights under this Bond shall be forfeited and the Surety shall be relieved and discharged from all liabilities under this Bond irrespective of whether or not the original Surety bond is returned to the Surety.

Dated the day of 2024

15. The Insurance Surety Bond shall be verified by sending mail to [customer.care@sbigeneral.in].

Place.....

Bank's Seal and authorized signature(s)

[Name in Block letters]

[Designation with Code No.]

[P/Attorney] No.

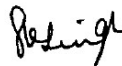
Witness

- 1.
- 2.

[Note: All italicized texts are for guidance on how to prepare this Insurance Surety Bond and shall be deleted from the final document.]


09/11/25

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3.0 SPECIAL CONDITIONS OF CONTRACT

3.1. Name of Work:

Provision of Additional Quick Watering System for CAPE and ERS stations.

3.2. Scope of Work:

Supply, erection, testing, integration and commissioning of pipes, pipe fittings, pipe supports, and other mechanical and electrical hardware etc. as specified in the schedule of work of this tender, to the existing carriage quick watering system of ERS and CAPE, so as to facilitate Quick Carriage Watering as per relevant CAMTECH standard for PF No.4&5 of CAPE and PF.No.5 of ERS stations of TVC division. Also,

- i) Height at which the main hydrant, valves etc., has to be laid shall be as per above referred CAMTECH guidelines, subject to fulfilment of the conditions stipulated in the latest Indian Railway (Broad Gauge) – Schedule of Dimensions.
- ii) From the main carriage-watering pipe, at every 2 meters, hydrants should open vertically downwards, with its ball valve's handle at a height of 1.8 meter, with lever of the ball valve in closed condition, should be parallel to the axis of main carriage-watering pipe.
- iii) For ERS station, 8" DI line branching from existing delivery manifold of QWS pump room will then run underground upto a point that will be detailed by engineer in charge near ERN end of PF-5 and then a 6" GI line will run overground by the side of PF-5 as detailed above which shall be provided with all hardware as detailed in this SCC.
- iv) For CAPE station, only 6" GI lines will be used, and PF-5 will get tapped from adjacent existing 6" GI QWS line of PF-6 line and , PF-4 line will get tapped from adjacent existing 6" GI QWS line of PF-6 line. In both the cases isolation and tapping and branching of lines shall be executed as desired by EIC.
- v) The system thus installed should work as an extension of existing pumping systems and shall only complement and not violate the automation controls and logic of the existing Quick Watering systems.
- vi) Proper pressure relief arrangement and surge protection arrangement should be available in the proposed pipeline network for the safety of the entire system including pumps valves and other control gadgets in the system.
- vii) However, any changes in the system, as advised by engineer-in-charge to suit the site conditions, should be adhered to.
- viii) All hardware used in the work - Valves, Piping, plumbing and electrical hardware etc., should be of reputed Brand/Make with relevant ISO certification as per the detailed specifications given at Annexure I.
- ix) Electrical works if any should comply to requirement given in Annexure-II
- x) Supply installation and commissioning of provisions for MIS facility like surveillance camera, computers, printers and networking gadgets as given in Annexure-III.
- xi) Supply installation and commissioning of furniture's for C&W and QWS control room as per annexure-IV.

3.3. Documents to be submitted for approval prior to commencement work.

Following documents / drawing shall be submitted to Divisional Railway Manager/Mechanical/Trivandrum for its approval, prior to delivery of materials and commencement of work.

- i) Hydraulic Circuit diagram for the proposed system, shown integrated to the existing system.
- ii) General Arrangement Drawing (GAD) complying to above mentioned and approved hydraulic circuit diagram and showing piping and other control arrangements integrated to the existing system. This GAD shall be a full Layout drawing, showing the

proposed piping arrangement, including locations where track crossing is planned with details at the track crossing locations, duly mentioning the distance from any nearby permanent point of reference such as TRD / Signal masts, Track switch (Point), or and any wayside equipment.

iii) Bill of materials based on the above GAD diagram that shall be used for the work.

3.4. Inspection:

Following conditions shall apply for inspection of materials prior to their acceptance by Consignee.

- i) Unless expressly exempted under the terms of this agreement, all goods supplied shall be subject to mandatory third-party inspection. Rail India Technical and Economic Service (RITES) shall be the designated Third-Party Inspection (TPI) agency for this purpose.
- ii) Items for which TPI is required is mentioned in Para-4.2 of Annexure-1-(TECHNICAL SPECIFICATION AND OTHER CONDITIONS OF CONTRACT) attached. Consignee will carry out inspection for all other items not covered in the tabulation under Para-4.2 of prior to its acceptance.
- iii) Pre-Supply Certification: No item shall be supplied to the consignee without prior inspection and certification.
- iv) Compliance with Specifications: All items supplied under this contract shall conform to the technical specifications and requirements detailed in the relevant clauses of these Special Conditions of Contract.
- v) Role of Consignee: Once the contract agreement is in force, the role of the consignee is limited to the receipt of hardware duly inspected and certified by RITES. The consignee will not be responsible for inspection or certification of any goods, other than those specified exclusively as 'inspection by the consignee'.
- vi) Contractor's Responsibility for TPI: The responsibility, scope, and cost of initiating and arranging inspection by RITES shall rest entirely with the contractor, who shall bear all expenses and ensure full coordination with RITES for inspection scheduling, documentation, and certification, thereby making the contractor solely accountable for compliance with inspection requirements and the timely completion of all related formalities.
- vii) Exclusion of Consignee from Disputes: The consignee shall not be a party to any clarification, settlement, or dispute concerning the technical specifications or requirements of items mutually agreed upon under the contract, and all such matters shall be resolved exclusively between the contractor and RITES at the contractor's cost and risk in accordance with the contract conditions, without any involvement, liability, or obligation on the part of the consignee.
- viii) The consignee shall not be available for corresponding with the RITES for whatsoever reason, on behalf of the contract and the contractor.

3.5 Pre-Commissioning:

On completion of the installation of all piping and its allied hardware the contractor shall proceed as follows:-

- i) Check all clamps, supports and hangers provided for the pipes for its proper fitment, alignment and function.
- ii) Fill up pipes with water and apply hydrostatic pressure to the system and carry out hydraulic pressure test as given below at Para 3.5.1. If any leakage is found, rectify the same and retest the pipes.

3.5.1. Procedure for hydraulic pressure test.

- i) Preparation
 - a. Ensure fabrication and clamping work of the entire pipeline system is fully completed.

- b. Conduct cleaning of the pipeline system by flushing with either Compressed air, or Pressurized water till all dirt, dust, and scales from the piping system is removed.
 - c. The duration and adequacy of flushing shall be determined to the satisfaction of the Engineer-in-Charge.
- ii) Test Setup
 - a. Immediately after flushing, close all openings in the pipeline system.
 - b. Fill the entire pipeline with clean water.
 - c. Apply hydraulic pressure to 10 bar.
 - d. Once the required pressure is achieved, the system shall be locked and sealed in the presence of the Engineer-in-Charge.
- iii) Test Conditions
 - a. The pipeline system under test shall maintain 10 bar pressure continuously for 24 hours.
 - b. The maximum permissible pressure drop during this period shall not exceed 1 bar.
 - c. Any pressure drop beyond this limit shall be considered a failure of the test.

3.6. Painting Procedure:

This procedure covers the surface preparation, primer application, enamel coating, and identification requirements for pipes and pipe fittings within the pump house. The objective is to ensure corrosion protection and clear labeling for operational safety and compliance.

- i) Surface Preparation
 - a. Thoroughly wipe-clean all pipes and fittings using emery paper.
 - b. Remove rust, dust, and dirt completely from exposed surfaces.
 - c. Ensure surfaces are free from contaminants before primer application.
- ii) Epoxy Primer Coating
 - a. Apply two coats of epoxy primer immediately after cleaning.
 - b. Maintain a minimum drying time of 8 hours between successive coats.
 - c. Ensure uniform coverage and adhesion across all surfaces.
- iii) Synthetic Enamel Coating
 - a. Colour code for painting the exterior surface of pipeline shall comply to 'IS 2379:1990 standards for pipeline for potable water supply.
 - b. After complete drying of primer coats, apply two coats of synthetic enamel paint.
 - c. Maintain a minimum drying time of 8 hours between successive coats.
 - d. The enamel finish shall be smooth, uniform, and free from defects such as runs, sags, or brush marks.
- iv) Identification and Labeling
 - a. Neatly label all items within the pump house.
 - b. Mark flow directions clearly using photo-luminescent stickers.
- v) Lettering specifications for identification and labelling:
 - a. Height: Minimum 15 mm
 - b. Thickness: Minimum 5 mm
 - c. Labels shall be durable, legible, and resistant to environmental wear.
- vi) Inspection & Acceptance Criteria
 - a. Surface preparation shall be visually inspected to confirm removal of rust and dust.
 - b. Final enamel coating shall be free from visible defects.
 - c. Identification labels shall meet dimensional requirements and be properly affixed.

3.7. Completion period for the contract:

Completion period for the work shall be 180 days from the date of signing of LOA for the work by the successful tenderer.

3.8. Payment terms:

The payment schedule for the subject work will be as given below.

Payment Schedule	Amount Payable	Payment condition
1 st Part Payment	35% of total contract value	Payable only after successful commissioning, including complete laying of pipelines with all allied hardware, provision of proper supports, and painting of the QWS pipeline at PF-5 of 'ERS' station, or at PF-4 and PF-5 of 'CAPE' station, whichever is completed and supply of items for MIS and furniture's, to the satisfaction of the 'engineer in charge'.
2 nd Part Payment	35% of total contract value	Same condition as above, i.e., payable only after successful commissioning of the QWS pipeline works at the specified station(s), to the satisfaction of the 'engineer in charge'.
3 rd Part Payment	30% of total contract value	Payment shall be made only after successful completion of a thirty (30) days breakdown-free trial period of the pipeline system erected by the contractor, such period being reckoned from the date of commissioning or from the date of rectification of any reported trouble, defect, or breakdown of any or all parts of the newly commissioned carriage watering system, whichever is later. Trial period is expected with nil failure, and in case of any failure rectification work shall be carried out and completed within twenty-four (24) hours of intimation. In the event of downtime due to such failures within thirty (30) days exceeds one hundred and forty-four (144) hours (20% of 30 days period) during the trial period, the Railways shall be at liberty to invoke appropriate penal measures, including determination of the contract, in accordance with the extant rules and regulations of the General Conditions of Contract (GCC) for Works of Indian Railways.

3.9. Warranty:

Successful tenderer shall provide warranty for all item supplied under this contract for two years from the date of successful commissioning of the pipeline system, where this date of commissioning will start immediately after successful completion of the trial period, such that any item supplied by the tenderer for the subject work that becomes defective shall be replaced on free of cost and the labor cost for carrying out such replacement shall have to be borne by the successful tenderer.

A bank guarantee as per GCC conditions of works for Indian Railways (latest) will have to be arranged by the contractor towards warranty obligation.

Further if OEM warranty for any item supplied under this contract exceed two years as warranty period, the same shall be passed on to the consignee.

Contractor shall submit copy of all warranty documents from OEM for all items supplied in connection with this work to the consignee immediately after commissioning of the work.

3.10. Penalty for poor performance of the system during warranty period

During the warranty period, any shortcomings on the pipeline system and its allied hardware erected by the contractor under this contract will attract penalty subject to conditions detailed below.

- i) The contractor shall remain liable for ensuring uninterrupted service and shall bear the financial implications of non-compliance.
- ii) Breakdown intimation will be communicated by consignee to contractor through any mode, including telephone, e-mail, fax, or social media application platforms.
- iii) For the first two breakdowns of any quarterly period, the contractor shall repair or set right the breakdown within three (3) days (i.e. 72 hours) from the date of intimation.
- iv) For the 3rd breakdown within the same quarter, the contractor shall repair or set right the breakdown within two (2) days (i.e., 48 hours) from the date of intimation. No grace time will be applied beyond 3 breakdowns in a quarter.
- v) The downtime periods corresponding to the 1st, 2nd, and 3rd breakdown instances shall be treated as grace periods. These grace periods will be deducted from the total breakdown time calculation for the quarter to arrive at the net breakdown hours for that quarter.
- vi) Quantum of penalty shall be as per the tabulated schedule attached,
 - i. Total Plant up time of less than 60% for any one Quarter shall constitute complete failure of the contractor to provide the warranty services successfully and shall result in forfeiture of performance BG.
 - ii. The penalty shall be calculated as a fixed percentage of the total contract value.
 - iii. Penalty will be calculated based on the percentage availability of the newly commissioned asset.
 - iv. The percentage availability will be worked out as $P = [N_x \div N_T] \times 100$ on a quarterly basis, i.e, for every 90 days period, during the warranty period, wherein,

$$P = \text{Percentage availability}$$

$$N_x = [(\text{Number of hours of break down reported during the quarterly period}) - (\text{Grace period in hours in the quarter})]$$

$$N_T = \text{Total number of hours available in the Quarter}$$
 - v. The penalty will be calculated based on percentage availability slab for a quarter as tabulated below,

Sl.No	Availability Slab	Applicable penalty for a quarter
1	Up to 90%	No penalty
2	Between 90% to 80%	0.1% of contract value for every 1% (or part thereof) reduction in availability of plant below 90%
3	Below 80%	0.5% of contract value for every 1% (or part thereof) reduction in availability of plant below 80%
4	Between 60% to 80%	1% of contract value for every 1% (or part thereof) reduction in availability of plant below 80%

- vii) The amount so determined shall be deducted from the Bank Guarantee or Security Deposit maintained by the contractor for the warranty period.

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ANNEXURE –I**4.0 TECHNICAL SPECIFICATION AND OTHER CONDITIONS OF CONTRACT****4.1. General requirements:**

- i) All materials shall be new of the best quality conforming to relevant specifications and subject to the approval of Railways.
- ii) All equipment shall be of the best available make, manufactured by reputed firms and as specified in the tender conditions.
- iii) All equipment shall be installed on suitable foundations, true to level and in a neat workmanlike manner.
- iv) Equipment shall be so installed, as to provide sufficient clearance between the end walls and between equipment to equipment.
- v) Contractor shall provide all tools, equipment, metering and testing devices required for the subject work.
- vi) On award of work, contractor shall submit a detailed proposal giving methods of testing and gauging the performance of the equipment to be supplied and installed under this contract.

4.2. Detailed technical specification for important items

Sl. No	Item	Specification		Inspection scope
1	Butterfly valves	Design standard:	IS 13095;	1.Visual inspection and verification of Work Test Certificate issued by OEM
		Body:	SG Iron construction of ASTM A536 / IS-1865;	
		Disc:	Stainless Steel disc of ASTM A315 grade CF8.	
		Stem:	Two-piece stem design, which is precisely guided between PTFE/Bronze bushes; Upper stem ASTM A276 type 410,	
		Test pressure:	(hydrostatic) 15 bar for shell and 11 bar for seat disc.	
		Make:	ZOLOTO / L&T / VELAN / FISCHER / KBL only	
2	Non-return Valves	Swing check type, test pressure 10 kg/cm ² . Make: ZOLOTO / AUDCO / FISCHER / KBL only		Visual inspection and verification of Work Test Certificate issued by OEM.
3	Solenoid operated butterfly valves	Design standard:	IS 13095. Electrical actuator operated with IP-67 protection;	1.Visual inspection and verification of Work Test Certificate issued by OEM
		Body:	SG Iron construction of ASTM A536 / IS1865;	
		Disc:	Stainless steel disc of ASTM A315 grade CF8;	
		Stem:	Two-piece stem design, which is precisely guided between PTFE / Bronze bushes; Upper stem ASTM A276 type 410,	
		Test pressure	(hydrostatic) 15 bar for shell and 11 bar for seat disc; compatible for matching pipe flanges.	
		Make:	ZOLOTO / L&T / VELAN / FISCHER only	

4	Ball valves		For valves of bore size below 50mm:	For valves of bore size above 50mm:	1.Visual inspection and verification of Work Test Certificate issued by OEM
		Design standard	ISO 17292 (BS 5351). Three-piece design stainless steel ball valves of class 150C. Screwed female ends to BSPT / NPT / socket weld; reduced bore three-piece design.	ISO-17292 (BS 5351);Three-piece design stainless steel ball valve with flanged mountings of class 150C; Flanged ends to ASME B16.5 Class-150.	
		Body:	Stainless P a g e - 7 -Steel ASTM A351 Gr.CF8M;	Stainless Steel ASTM A 351 Gr. CF8M;	
		Stem:	Stainless Steel ASTM A276 Type 316;	Stainless Steel ASTM A276 Type 316	
		Ball :	of ASTM A351	ASTM A351	
		Packing Ring:	PTFE 35% Carbon filled to BS EN 12086-1;	PTFE 35% Carbon filled to BS EN 12086-1	
		Body seat ring		PTFE BS EN 12086-1; Gasket PTFE BS EN 12086-1;	
		Lever	Stainless Steel	Stainless Steel	
		Test Pressure (Hydrostatic):	Shell- 31kg/cm ² max. working pressure-21kg/cm ² , seat (pneumatic)- 7kg/cm ² .	Shell- 31kg/cm ² , max. working pressure- 21kg/cm ² , seat (pneumatic)- 7kg/cm ² .	
		make	ZOOTO / L&T / VELAN / FISCHER only	ZOOTO / L&T / VELAN / FISCHER only	
5	Spring Loaded Safety relief valve	Design standard	IS 554 / BS 21 / ISO 7, open discharge type. Metal to rubber contact seating with Screwed male end		1.Visual inspection and verification of Work Test Certificate issued by OEM
		Body:	Bronze to IS 318 Gr.LTB 2		
		Disc:	Bronze to IS 318 Gr.LTB		
		Stem:	forged Brass to IS 6912 Gr.FLB		
		Spring:	Spring Steel EN 47 Gr.B		
		Spring Disc:	Bronze to IS 318 Gr.LTB2;		
		Chamber:	Bronze to IS 318 Gr.LTB2		
		Test Pressure: (Hydrostatic):	Shell- 21.10kg/cm ² ; Seat- 10.55 kg/cm ² .		
make	ZOOTO / L&T / FISCHER / KBL only				
6	Pressure switches / pressure transmitters.	Shall be of ‘DANFOSS’ make of suitable size and pressure rating for the indented system			Visual inspection and verification of Work Test Certificate issued by OEM

7	Pipe on delivery side of the pump upto start of platform.	200mm diameter S&S centrifugally (spun) Ductile Iron pipes (if buried) of Class K-9 conforming to IS:8329 (or) 200mm diameter seamless MS pipe (if laid above ground) of IS 3589,1239 Part-1, wall thickness minimum of 5 mm	Visual inspection and verification of Work Test Certificate issued by OEM
8	Main carriage watering pipe	Galvanized Iron pipes of size 150mm from <i>TATA/Jindal</i> make only conforming to IS:3589, 1239 Pt-1, wall thickness minimum of 3.2mm.	
9	Metal bellow expansion joints	Conforming to IS:4503, IS:15490, and EJMA standards	Visual inspection and verification of Work Test Certificate issued by OEM
10	GI threaded socket class B - 150 mm	Conforming to IS 1239 Part 1:2004 for GI pipes and fittings and zinc coating thickness as per IS 4736:1986	Visual inspection and verification of Work Test Certificate issued by OEM
11	GI bends - 90 degree - 150 mm	Compliance with IS 1239 (Part 1:2004) for GI pipes and fittings, along with IS 4736 for galvanizing.	Visual inspection and verification of Work Test Certificate issued by OEM
12	Threaded GI flanges - 150 mm	Conforming to IS 1538 for flange dimensions and IS 1239 (Part 1): 2004 for galvanized steel pipes,	Visual inspection and verification of Work Test Certificate issued by OEM
13	GI Pipe fittings like Tees, elbows, reducer, enlargers, unions etc.	Compliance with IS 1239 (Part 2:2004) along with IS 4736 for galvanizing.	Visual inspection and verification of Work Test Certificate issued by OEM
14	Thermo Plastic (TP) Hose	Conforming to IS-12585/88 or latest, Type-2 with ID 31.5 +/- 0.5mm and OD 40+0 /-1mm working pressure 10Kg/Cm ² ,	Visual inspection and verification of Work Test Certificate issued by OEM
15	Ductile iron standard specialties like tees, bend, collars, tapers, caps etc. (heavy class) upto 300mm	Conforming to IS 9523:2000 and ISO 2531:2009 standards.	Visual inspection and verification of Work Test Certificate issued by OEM
16	Note: All valves and pipelines shall bear a riveted name plate or durable marking displaying ISI/BIS/CE certification, manufacturer's trade name or trademark, and date and time of manufacture.		
17	Electric cables	All wiring for power control & lighting circuit shall be with 1.1KV grade Flame Retardant Low Smoke (FRLS) PVC	Visual inspection and verification

		insulated copper cables as per IS:694 and IS:1554 Pt.I, with smoke index and typical index corresponding to ASTM-2843 & IEC332-I.” The cables should be weatherproof and shall be of LAPP / INDRAMAT / POLYCAB / FINOLEX / UNIVERSAL / ICC make only.	of Work Test Certificate issued by OEM
18	Flow meter	Make: Endress+Hauser/Japsin/DMS-CS only	Visual inspection and verification of Work Test Certificate issued by OEM

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5. General conditions for Electrical Installations:

5.1 General:

- The contractor shall supply and install all electric wiring, switchgear etc., necessary for the complete, safe and satisfactory operation of the plant covered by the specification. All electrical wiring and cables shall be properly tagged to the satisfaction of the E-I-C.
- All equipment provided shall be 'tropicalized', i.e. designed for use in conditions up to 50°C ambient air temperature and 100% relative humidity.
- All equipment, materials, workmanship and fittings shall comply with the appropriate Indian Standard or Code of Practice as listed in the relevant paragraphs of this section, or any approved equivalent international standards.
- The minimum bending radius for power cables shall be twelve times the overall cable diameter.
- When cables are run on a wall they shall be cleated at distances not exceeding 1 meter

5.2. Electrical Supply:

The electricity supply shall be 415 volts, 50 Hz, 3 phase, 4 wire. All equipment shall be designed to operate with a $\pm 10\%$ voltage tolerance without a loss of rated output.

All equipment shall be connected to ensure that the phases are balanced, to the requirements of the local supply authority.

5.3. Switchboards and Switchboard equipment:

5.3.1) Motor Control Panel:

- All panels and doors shall be constructed of best quality, dead-flat CRCA MS sheet not less than 2 mm thick. Neat cutouts shall be provided in dished panels to allow the exposure of circuit breaker escutcheons and toggles, switch operating handles and indicators only. The edges of all outlets and drilled holes shall be burr free.
- Doors shall be stiffened and provided with metal-based neoprene gaskets and concealed non-ferrous door hinges. Door handles shall be chrome plated and incorporate a barrel type locking mechanism and shaft adjustment for increasing sealing pressure.
- All switches / MCCB shall be provided with mechanical interlocks to prevent any positive access to any equipment inside the cubicle when the switch is in the 'ON' position.
- Dished panels shall be stiffened and held in place with chrome plated castle head nuts attached to fixed studs of not less than 10mm nominal diameter. All fixing hardware shall be cadmium plated.
- The removable rear panels shall be provided with a pair of handles for easy fixing/removal of the panels.
- All internal small wiring shall be PVC insulated, neatly, bunched and run-on supporting cleats, colour coded and labeled or sleeved for identification. All switch-board small wiring is to terminate on labeled terminal boards or strips to which external connections are made.
- Insulators, including bus bar supports, shall be non-hygroscopic and non-deteriorating. The use of fibrous materials, linseed oil, varnish etc. is prohibited.
- Low voltage switchboards shall be constructed to withstand a system fault level of 25 KA at 415 volts for 01 seconds. Low voltage switchboards shall be designed to comply IS:13947-1993.
- Test certificates, issued by a reputable and independent testing authority such as CPRI certifying the circuit breaker, bus bar and its enclosure shall be submitted for review.
- Ventilating waterproof louvers are to be provided on the sides and back and are to be of approved design with internal dust baffles.
- Where ventilating fans are installed, a low level, filtered air intake shall be provided. The filter shall be removable from outside the switchboard.

5.3.2) Bus bars:

- All bus bars shall be made of hard drawn high conductivity aluminum. Conductor conforming to grade 91E of IS:5082-1981. Bus bars shall be insulated with heat shrunk PVC sleeve of 1.1KV grade and bus bar joints shall be provided with clip on shrouds.
- Conductors between the bus bars and MCCBs or isolators are to be high conductivity aluminum bar having a current rating of not less than that of the switches to which they are connected. The conductors are to be insulated with PVC sheathing and colour coded for phase identification.
- Removable bolted links shall be provided for the accommodation of current transformers for metering and protection facilities without affecting the mechanical and electrical properties of the bus bars as a whole.

5.3.3) Labeling:

- All items of equipment on the switchboard shall be labeled to indicate function with black Traffolyte labels and white engraved lettering securely fixed with chrome plated screws. Lettering shall be at least 10mm high. Labels to all switches, isolators and the like shall indicate the supply and cable details. All labels shall be approved prior to engraving.
- The use of adhesive labels will not be permitted. All electrical equipment not mounted on the switchboard shall also be labeled as specified above.

5.3.4) Wiring Diagrams:

- Prepare construction layouts and functional wiring diagrams of all switchboards, which shall be reviewed prior to commencement of any work thereon.
- The wiring diagrams shall show control circuits separate from main circuits and shall indicate the size of each conductor and the colour, number and/or terminal connection designation of each control conductor.
- Switchboard drawings shall include a schedule of all equipment mounted therein, including make, model, and where applicable, fuse rating and set point of all variable adjusters.
- Circuit diagrams shall be mounted near the switchboard in an approved location and shall be covered with either glass or clear Perspex sheet not less than 3mm thick.

5.3.5) Wiring:

- The current carrying capacity is to be in accordance with IEE Wiring Regulations and is to be limited by the allowable voltage drop.
- All wiring shall be carried out on the loop-in system. For conduit wiring systems, wiring shall be drawn into the conduits after the whole of the conduit installation has been completed. No joints or connectors will be allowed in any such cables, except that connectors may be used in accessible positions within lighting fittings or device outlet boxes.
- All cables shall be colour coded consistently over their entire length. Red, yellow and blue shall be used for phase and black and green for neutral and earth respectively.
- The maximum number of cables that may be accommodated in a given size of conduit, cable tray / cable trunk is not to exceed the number given in the Indian Standard.
- All wiring associated with equipment necessary for fire and smoke control shall be provided.

5.3.6) Conduit:

- All conduit systems are to be installed fully in accordance with the requirements of the IEE Regulations.
- All conduits shall be swabbed through to clean out all dirt, burrs and moisture.
- All sets and bends in conduit runs are to be formed on site with bending machines. Distortion of conduits due to bending is not acceptable.
- All flexible steel conduit shall be PVC sheathed.
- Upon completion, two sets of conduit layout drawing shall be provided for record purposes.

5.3.7) Cable Trunking:

- Metal trunking shall comply with BS 4678 and shall be manufactured in minimum lengths of 2 m from 2 mm thick zinc sprayed sheet steel finished with rust resisting primer and sprayed overall grey enamel. Covers are to be held in place by screws. Trunking shall be terminated with end flanges bolted directly to switch or distribution boards. Connecting pieces are to be used and bolted with cadmium plated mushroom head steel screws, nuts and shake-proof washers.
- Conduit entries to trunking shall be made with couplings and brass make bushes.
- Trunkings shall not contain more cable than allowed by the space factors described in the IEE Regulations.
- Each joint shall have a copper bond bolted to each adjacent trunking to ensure electrical continuity. All frayed and sharp edges shall be removed from trunking before installation.
- All supports and hangers shall be of hot-dipped galvanized mild steel construction with min. coating thickness of 85 microns and 210 microns for indoor and outdoor installation respectively. All bolts and nuts shall be electroplated with zinc or cadmium with min. plating thickness of 25 micron.

5.3.8) Cable Trays:

- Cable trays are to be of perforated pattern 1.6mm minimum mild steel.
- Trays shall be supported from the soffit of structural slabs and beams by mild steel rods not less than 6mm diameter and under slung mild steel angles, or alternatively, supported on steel angle brackets secured to walls. The former method shall be preferred where practicable. All supports and hangers shall be hot-dipped galvanized with bolts and nuts electroplated.

5.3.9) Starters:

- Contactors used in starters shall be of Class AC3 type provided with silver alloy Overload protection in each supply phase adjustable from 80 to 120% of full rated load.
- Starters should have manual reset, phase failure protection, ambient temperature compensation, an auxiliary contact to signal an overload condition.
- Contactors or complete starters not mounted in switchboards shall be contained in metal or approved plastic enclosures with conduit entries, shrouded "stop" and "start" push buttons and a manual "reset" button, which may be combined with the "stop" button.

5.3.10) Radio Interference:

- All equipment and systems shall be properly designed to ensure that there is no interference caused to any transmitters, receivers or other electronic equipment in the near vicinity. Should interference be detected, the contractor shall provide free of charge devices capable of eliminating such interference.

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Annexure-III

SCHEDULE- SW-III: MIS facility with surveillance camera, computers printers and networking gadgets as per the specification attached below are to be supplied installed and commissioned as per the details given below.

Sl. No	Item Description	Qty	Specification	Inspection criteria	Place of installation and commissioning and receipt and bill certification
1	Surveillance camera	2 nos	<ul style="list-style-type: none"> ➤ Should be capable to record in 3K, 5MP. ➤ Should have Pan (360 deg.) & Tilt function. ➤ Connectivity – Wi-Fi, ethernet (optional) ➤ Local storage – 128GB micro SDXC of UHS-1/V10/C10 of SanDisk, Samsung or HP make only ➤ Should have access through android app. <p>Make: TP-LINK (Tapo), HIKVISION (Ezviz), CP PLUS only</p>	Inspection by consignee	<p>One number each at ERS and CAPE QWS control room.</p> <p><u>Receipt& bill certification:</u> By respective filed unit SSE.</p>
2	Networking gadgets	2 nos	<ul style="list-style-type: none"> ➤ Wireless – Wifi-5 (802.11ac) or later. ➤ Dual Band, 4G LTE Router. ➤ LAN/WAN ports <p>Make: TP Link, D Link only</p>	Inspection by consignee	<p>One number each at ERS and CAPE QWS control room.</p> <p><u>Receipt& bill certification:</u> By respective filed unit SSE.</p>
3	Printers	2 nos	<ul style="list-style-type: none"> ➤ Monochrome, Laser dry toner type, Duplex A4 printing ➤ Paper sizes to be handled – A4, Letter, Legal ➤ Resolution – 600 x 600 DPI (min.) ➤ Connectivity – USB, Wi-fi & Ethernet (preferred) <p>Make/Model: Brother HL-L2321D or similar models from Epson, Canon, HP, Samsung.</p>	Inspection by consignee	<p>Sr DME office, TVC.</p> <p><u>Receipt & bill certification:</u> Sr.DME/O/TVC</p>
4	Computer	2 nos	<p>1. <u>CPU</u></p> <ul style="list-style-type: none"> ➤ AMD Ryzen 7 8700G ➤ equivalent or better models acceptable. <p>Make: INTEL or AMD only</p> <p>2. <u>MOTHER BOARD</u></p> <ul style="list-style-type: none"> ➤ Asus B650M-AYW WIFI 	Inspection by consignee	<p>Sr.DME office, TVC</p> <p><u>Receipt & bill certification:</u> Sr.DME/O/TVC</p>

			<ul style="list-style-type: none"> ➤ equivalent or better models compatible with the CPU is acceptable <p>Make: ASUS, MSI, GIGABYTE only</p> <p><u>3. MEMORY</u></p> <ul style="list-style-type: none"> ➤ EVM 2x8GB DDR5 RAM at 5600MHZ ➤ equivalent or better models acceptable, should be a 2 stick (2x8gb) config. <p>Make: EVM, ADATA, CRUCIAL only</p> <p><u>4. STORAGE (SSD)</u></p> <ul style="list-style-type: none"> ➤ WD BLACK 1TB, PCIe Gen 4.0, NVMe M.2 ➤ equivalent or better models acceptable. <p>Make: WD, CRUCIAL, ADATA, SAMSUNG, KINGSTON, SEAGATE only</p> <p><u>5. COOLING SYSTEM</u></p> <ul style="list-style-type: none"> ➤ Cooler Master Hyper 212 3DHP <p>Make: Equivalent or better models acceptable.</p> <p><u>6. MONITOR</u></p> <ul style="list-style-type: none"> ➤ LG Ultrawide 29WQ600-W ➤ equivalent or better models acceptable. <p>Make: LG, SAMSUNG, ACER, DELL, BENQ only</p> <p><u>7. SMPS / PSU</u></p> <ul style="list-style-type: none"> ➤ Cooler Master MWE 650 V3 ATX 3.1 80 Plus Bronze ➤ equivalent or better models acceptable. <p>Make: COOLER MASTER, MSI, CORSAIR, ANTEC only</p> <p><u>8. CABINET</u></p> <ul style="list-style-type: none"> ➤ Cooler Master Elite 302 Black ➤ equivalent or better models acceptable. <p>Make: COOLER MASTER, MONTECH, FRONTECH, ZEBRONICS only</p> <p><u>9. KEYBOARD + MOUSE</u></p> <ul style="list-style-type: none"> ➤ Dell KB216+MS116 ➤ Wired KB + Optical Mouse Combo. Equivalent or better models acceptable <p>Make: DELL, LOGITECH, LENOVO, HP only</p>		
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Note:

1. Items under MIS facility as full quantity shall be supplied by the contractor to the respective consignees and get it commissioned before submission of bill for second payment.
2. Items under MIS facility will be accepted by consignee only after receipt of Original Invoices and warranty certificates from respective OEM suppliers of all individual items mentioned under schedule-III.
3. Equivalent or better models (of approved makes) will be acceptable only if the leading parameter figures are on the better side and as approved by the Railway.

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Annexure-IV**SCHEDULE- SW-IV:** Provision of furniture for C&W and QWS control room.

Furniture's as per the specification attached below are to be supplied installed and commissioned as per the details given below.

Sl. No	Item Description	Qty	Specification	Inspection criteria	Place of installation and commissioning and receipt and bill certification
1	Office Chair	16	i) Mid-back, steel frame, nylon mesh back, foam-filled seat, arm rests, height adjustable (≥ 100 mm), nylon castor wheels, ii) BIS-compliant (IS 17631:2021) Make: Godrej Interio, Featherlite, Durian, HNI India, IKEA India or Cellbell / GreenSoul make only	Inspection by consignee	SSE/ERMCD office.
2	Office Table Steel	2	i) Size 150L \times 70W \times 80H cm, laminated mat-finish tabletop, powder-coated CRC steel frame, 3 drawers. ii) BIS-compliant (IS 8126:1976, IS 7452:1990)	Inspection by consignee	SSE/ERMCD office

Note:

1. Items under SCHEDULE- SW-IV; Provision of furniture for C&W and QWS control room as full quantity shall be supplied by the contractor to the respective consignees before submission of bill for second payment.
2. Items under SCHEDULE- SW-IV of this contract will be accepted by consignee only after receipt of Original Invoices and warranty certificates from respective OEM suppliers of all individual items mentioned under schedule-III.
3. Equivalent or better models (of approved makes) will be acceptable only if the leading parameter figures are on the better side and as approved by the Railway.

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