

SOUTH EASTERN RAILWAY

COACHING DEPOT SANTRAGACHI/SHALIMAR

TENDER DOCUMENT

NAME OF THE WORK:

**Shalimar: Setting up of mechanized
Departmental laundries**

DATE OF CLOSING OF TENDER

22.07.2026 AT 11:30 HRS

**OFFICE OF THE
Sr. CDO/SANTRAGACHI
P.O: JAGACHA, HOWRAH-711111**

TENDER DOCUMENT
(Non-Transferable)

A. Name of Work: Shalimar: Setting up of mechanized departmental laundries.

Estimated Cost of Work (Approximate)	Rs.: 18,74,82,499.46/- (Eighteen Crore Seventy Four Lac Eighty Two Thousand Four Hundred Ninety Nine Rupees and Forty Six Paise)
Tender Security Amount (Earnest Money Deposit)	Rs.: 37,49,700/- (Thirty Seven Lac Forty Nine Thousand Seven Hundred Rupees)
Cost of Tender Document (Non-Refundable)	Nil
Tender uploading date on IREPS website	As per e-tendering portal https:// www.ireps.gov.in
E-Tender closing Date & Time	22.07.2026 upto 11:30 Hrs
Validity of Tender	60 Days from the last date of submission of tender
Stipulated date of commencement of work	Within 30 days from the date mentioned in the work order or as per the instructions of Engineer-incharge.
Type of E-Tender	Open Tender (Two Packet System) composite tender.
Contract Period	01 Year
Authority and place for seeking clarification on tender document	Sr. CDO/SRC, Santragachi Coaching Depot, S.E Railway

This Tender shall be governed as per General condition of contract for Works-2022 as amended/corrected upto latest correction slips and all conditions mentioned in General condition of contract for works-2022 upto latest correction slips are applicable and as well as other terms and conditions of contract as mentioned in this tender. The clauses mentioned in standard Tender Document are to be read in conjunction with GCC for Works-2022 and in case of any ambiguity other terms and conditions shall prevail. Tenderers are advised to carefully read all the clauses including its notes/special notes as mentioned in tender document.

Tender Inviting Authority

The President of India,
Acting through
Sr. Coaching Depot officer, Santragachi Coaching Depot
South Eastern Railway (Kharagpur Division)
Howrah – 711111

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PART-I

Instructions to Tenderers (ITT)

- 1.0 Applicability:** These instructions and conditions of contract shall be applicable for all the tenders and contracts of railways for execution of 'Works' as defined in GFR 2017.
- 1.1 Order of Precedence of Documents:** In a contract agreement, in case of any difference, contradiction, discrepancy, with regard to conditions of tender/contract, specifications, drawings, Bill(s) of Quantities etc., forming part of the tender/contract, the following shall be the order of precedence:
- i. Letter of Award/Acceptance(LOA)
 - ii. Bill(s) of Quantities
 - iii. Special Conditions of Contract
 - iv. Technical Specifications as given in tender documents
 - v. Drawings
 - vi. Indian Railways Standard General Conditions of Contract updated with correction slips issued up to date of inviting tender or as otherwise specified in the tender documents.
 - vii. Indian Railways Unified Standard Specification (IRUSS-2019) updated with correction slips issued up to date of inviting tender or as otherwise specified in the tender documents, if applicable in the contract.
 - viii. CPWD Specifications 2019 Vol I & II updated with correction slips issued up to date of inviting tender or as otherwise specified in the tender documents, if applicable in the contract.
 - ix. Indian Railways Unified Standard Specifications (Works and Material) 2010 updated with correction slips issued up to date of inviting tender or as otherwise specified in the tender documents, if applicable in the contract.
 - x. IR Specifications/Guidelines updated with correction slips issued up to date of inviting tender or as otherwise specified in the tender documents.
 - xi. Relevant B.I.S. Codes updated with correction slips issued up to date of inviting tender or as otherwise specified in the tender documents.
- 1.2 Interpretation:** These Instructions to Tenderers shall be read in conjunction with the Standard General Conditions of Contract 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.
- 1.3 Definition:** In these Instructions to Tenderers, the following terms shall have the meanings assigned hereunder except where the context otherwise requires: "Railway" shall mean the President of the Republic of India or the administrative officers of the Railway or Successor Railway authorized to deal with any matter, which these presents are concerned on his behalf.
- (a) "General Manager" shall mean the Officer-in-Charge of the general superintendence and control of the Zonal Railway/Production Unit and shall also include Addl. General Manager, General Manager (Construction) and shall mean and include their successors of the Successor

Railway.

- (b) "Chief Engineer" shall mean the Officer-in-Charge of the Engineering Department of Railway and shall also include Chief Engineer (Construction), Chief Electrical Engineer, Chief Electrical Engineer (Construction), Chief Signal & Telecom Engineer, Chief Signal & Telecom Engineer (Construction), Chief Mechanical Engineer and shall mean and include their successors of the Successor Railway.
- (c) "Divisional Railway Manager" shall mean the Officer-in-Charge of a Division of Zonal Railway and shall mean and include Divisional Railway Manager of the Successor Railway.
- (d) "Engineer" shall mean the Divisional Engineer or Executive Engineer, Divisional Signal & Telecom Engineer, Divisional Electrical Engineer, Divisional Mechanical Engineer in executive charge of the works and shall include the superior officers, both Open Line and Construction Organisations, of Engineering, Signal & Telecom, Mechanical and Electrical Departments, i.e. the Senior Divisional Engineer/Deputy Chief Engineer, Senior Divisional Signal & Telecom Engineer / Dy. Chief Signal & Telecom Engineer, Senior Divisional Electrical Engineer / Deputy Chief Electrical Engineer, Senior Divisional Mechanical Engineer and shall mean & include the Engineers of the Successor Railway.
- (e) "Tenderer" shall mean the person / firm / co-operative or company whether incorporated or not who tenders for the works with a view to execute the works on contract with the Railway and shall include their representatives, successors and permitted assigns.
- (f) "Limited Tenders" shall mean tenders invited from all or some contractors on the approved or select list of contractors with the Railway.
- (g) "Open Tenders" shall mean the tenders invited in open and public manner and with adequate notice.
- (h) "Works" shall mean the works contemplated in the drawings and Bill(s) of Quantities set forth in the tender forms and required to be executed according to the specifications.
- (i) "Specifications" shall mean the Specifications for Materials and Works of the Railway as specified under the authority of the Ministry of Railways or Chief Engineer or as amplified, added to or superseded by special specifications if any, appended to the Tender Forms.
- (j) Standard Schedule of Rates (SSOR) shall mean the schedule of Rates adopted by the Railway, which includes-
 - 1. "Unified Standard Schedule of Rates of the Railway (USSOR)" i.e. the Standard Schedule of Rates of the Railway issued under the authority of the Chief Engineer from time to time, updated with correction slips issued up to date of inviting tender or as otherwise specified in the tender documents;
 - 2. "Delhi Schedule Of Rates (DSR)" i.e. the Standard Schedule of Rates published by Director General/ Central Public Works Department, Government of India, New Delhi, as adopted and modified by the Railway under the authority of the Chief Engineer from time to time, updated with correction slips issued up to date of inviting tender or as otherwise specified in the tender documents.
- (k) "Drawings" shall mean the maps, drawings, plans and tracings, or prints thereof annexed to the Tender Forms.
- (l) "Contractor's authorized Engineer" shall mean a graduate engineer or equivalent, having more

than 3 years experience in the relevant field of construction work involved in the contract, duly approved by the Engineer.

- (m) Date of inviting tender shall be the date of publishing tender notice on IREPS website if tender is published on website or the date of publication in newspaper in case tender is not published on website.
- (n) "Bill of Quantities" shall mean Schedule of Item(s) included in the tender document along with respective quantities.

1.1 Words importing the singular number shall also include the plural and vice versa where the context requires.

CREDENTIALS OF CONTRACTORS

2. Application for Registration and Approved list of contractors:

- 2.1 Works of construction and of supply of material shall be entrusted for execution to contractors whose capabilities and financial status have been investigated and approved to the satisfaction of the Railway. A list of approved contractors may also be maintained by the Railway. The said list be revised periodically once in a year or so by giving wide publicity through advertisements etc. For registration, the contractor including a contractor who is already on the approved list shall apply to the concerned General Manager (Construction) / Chief Administrative Officer (Construction) / Principal Chief Engineer / Principal Chief Signal & Telecommunication Engineer / Principal Chief Mechanical Engineer / Principal Chief Electrical Engineer/ Divisional Railway Manager, furnishing particulars regarding:
 - (a) his position as an independent contractor specifying engineering organization available with details of partners / staff / engineers employed with qualifications and experience;
 - (b) his capacity to undertake and carry out works satisfactorily as vouched for by a responsible official or firm; details about the transport equipments, construction tools and plants etc. required for the work, maintained by him;
 - (c) his previous experience of works similar to that to be contracted for, in proof of which original certificates or testimonials may be called for and their genuineness verified, if needs be, by reference to the signatories thereof;
 - (d) his knowledge from actual personal investigation of the resources of the area/zone or zones in which he offers to work;
 - (e) his ability to supervise the work personally or by competent and duly authorized agent;
 - (f) his financial position;
- 2.2 An applicant shall clearly state the categories of works and the area/zone/division(s)/district(s) in which he desires registration in the list of approved contractors.
- 2.3 The selection of contractors for enlistment in the approved list would be done by a committee for different value of slabs as notified by Railway.
- 2.4 An annual fee as prescribed by the Railway from time to time would be charged from such approved contractors to cover the cost of sending notices to them and clerkage for tenders etc. Notices shall be sent to them on registered e-mail address and registered postal address.

TENDERS FOR WORKS

3. **Tender Form:** Tender Forms shall embody the contents of the contract documents either directly or by reference and shall be as per specimen form, Annexure-I. e-Tender Forms shall be issued free of cost to all tenderers.
4. **Omissions & Discrepancies:** Should a tenderer find discrepancies in or omissions from the drawings or any of the Tender Forms or should he be in doubt as to their meaning, he should at once notify the authority inviting tenders. The tender inviting authority may, if deemed necessary, clarify the same to all tenderers. It shall be understood that every endeavor has been made to avoid any error which can materially affect the basis of tender and successful tenderer shall take upon himself and provide for the risk of any error which may subsequently be discovered and shall make no subsequent claim on account thereof.

5. Bid Security:

- (1)(a) The tenderer shall be required to submit the Bid Security 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 Bid Security shall be as under:

Value of the Work	Bid Security
For all works	2% of the estimated cost of the work

Note:

- (i) The Bid Security shall be rounded off to the nearest Rs 100. This Bid Security shall be applicable for all modes of tendering.
 - (ii) Labour Cooperative Societies shall submit only 50% of above Bid Security detailed above.
- (b) It shall be understood that the tender documents have been issued to the tenderer and the tenderer is permitted to tender in consideration of stipulation on his part, 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 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 Bid Security mentioned in sub para (a) above will be retained as part security for the due and faithful fulfillment of the contract in terms of Clause 16 of the Standard General Conditions of Contract. The Bid Security of other Tenderers shall, save as herein before provided, be returned to them, but the Railway shall not be responsible for any loss or depreciation that may happen thereto while in their possession, nor be liable to pay interest thereon.
- (2) The Bid Security shall be deposited either in cash through e-payment gateway or submitted as Bank Guarantee bond from a scheduled commercial bank of India or as mentioned in tender documents. The Bank Guarantee bond shall be as per Annexure- VIA and shall be valid for a period of 90 days beyond the bid validity period.
- (3) In case, submission of Bid Security in the form of Bank Guarantee, following shall be ensured:
- i. A scanned copy of the Bank Guarantee shall be uploaded on e-Procurement Portal (IREPS) while applying to the tender.

- ii. The original Bank Guarantee should be delivered in person to the official nominated as indicated in the tender document before closing date for submission of bids (i.e. excluding the last date of submission of bids).
- iii. Non submission of scanned copy of Bank Guarantee with the bid on e-tendering portal (IREPS) and/or non submission of original Bank Guarantee within the specified period shall lead to summary rejection of bid.
- iv. The Tender Security shall remain valid for a period of 90 days beyond the validity period for the Tender.
- v. The details of the BG, physically submitted should match with the details available in the scanned copy and the data entered during bid submission time, failing which the bid will be rejected
- vi. The Bank Guarantee shall be placed in an envelope, which shall be sealed. The envelope shall clearly bear the identification **"Bid for the "Shalimar: Setting up of mechanized departmental laundries" Project"** and shall clearly indicate the name and address of the Bidder. In addition, the Bid Due Date should be indicated on the right hand top corner of the envelope.
- vii. The envelope shall be addressed to the officer and address as mentioned in the tender document.
- viii. If the envelope is not sealed and marked as instructed above, the Railway assumes no responsibility for the misplacement or premature opening of the contents of the Bid submitted and consequent losses, if any, suffered by the Bidder.

6. Care in Submission of Tenders:

- (a)(i) Before submitting a tender, the tenderer will be deemed to have satisfied himself by actual inspection of the site and locality of the works, that all conditions liable to be encountered during the execution of the works are taken into account and that the rates he enters in the tender forms are adequate and all inclusive to accord with the provisions in Clause-37 of the Standard General Conditions of Contract for the completion of works to the entire satisfaction of the Engineer.
- (a)(ii) Tenderers will examine the various provisions of The Central Goods and Services Tax Act, 2017(CGST)/ Integrated Goods and Services Tax Act, 2017(IGST)/ Union Territory Goods and Services Tax Act, 2017(UTGST)/ respective state's State Goods and Services Tax Act (SGST) also, as notified by Central/State Govt.& as amended from time to time and applicable taxes before bidding. Tenderers will ensure that full benefit of Input Tax Credit (ITC) likely to be availed by them is duly considered while quoting rates.
- (a)(iii) The successful tenderer who is liable to be registered under CGST/IGST/UTGST/SGST Act shall submit GSTIN along with other details required under CGST/IGST/UTGST/SGST Act to railway immediately after the award of contract, without which no payment shall be released to the Contractor. The Contractor shall be responsible for deposition of applicable GST to the concerned authority.
- (a)(iv) In case the successful tenderer is not liable to be registered under CGST/IGST/UTGST/ SGST Act,

the railway shall deduct the applicable GST from his/their bills under reverse charge mechanism (RCM) and deposit the same to the concerned authority.

- (a)(v) Contractor shall be liable to pay/refund the amount collected as GST to the Indian Railways along with interest and penalties, if any imposed by the authorities, in case GST input tax credit of Indian Railways is denied/rejected by the tax authorities due to reasons mentioned below but not limited to:

Wrong/incorrect invoices issued by Contractor;
No-filing of GST returns;
Non-payment of GST collected from Indian Railways to the authorities;
Any other non-compliance done by Contractor;

General Indemnity: Contractor hereby agrees to indemnify and hold harmless the Indian Railways from and against any and all losses, including loss on account of Input Tax Credit and all losses incurred by the Indian Railways relating to or arising out of or in connection with any actual or threatened claim, legal action, proceedings, prosecution or inquiry by or against the Indian Railways arising out, directly or indirectly, of failure by the contractor to comply with the provisions of GST and related laws, or based upon or arising from any failure by the Contractor.

Retention Money: Any payment liable to be paid by Indian Railways to contractor against the goods or services or both supplied by such contractor to Indian Railways shall be kept on hold in case supplier makes any non-compliance of any of the GST law provisions including non-reporting of invoices in GST returns. Such payment shall be released after proper verification of records and availability of ITC to Indian Railways as per provisions of GST Law.

- (b) When work is tendered for by a firm or company, the tender shall be signed by the individual legally authorized to enter into commitments on their behalf.
- (c) The Railway will not be bound by any power of attorney granted by the tenderer or by changes in the composition of the firm made subsequent to the execution of the contract. It may, however, recognize such power of attorney and changes after obtaining proper legal advice, the cost of which will be chargeable to the Contractor.
- 6.1 The tenderers shall submit a copy of certificate stating that all their statements/documents submitted along with bid are true and factual. Standard format of certificate to be submitted by the bidder is enclosed as **Annexure-V**. In addition to Annexure-V, in case of other than Company/Proprietary firm, Annexure V-(A) shall also be submitted by the each member of a Partnership Firm/Joint venture (JV)/ Hindu Undivided Family (HUF)/ Limited Liability Partnership (LLP) etc. as the case may be. Non submission of above certificate by the bidder shall result in **summarily** rejection of his/their bid. It shall be mandatorily incumbent upon the tenderer to identify, state and submit the supporting documents duly self attested/digitally signed by which they/he is qualifying the Qualifying Criteria mentioned in the Tender Document.

CONSIDERATION OF TENDERS

7. **Right of Railway to Deal with Tenders:** The Railway reserves the right of not to invite tenders for any of Railway work or works or to invite open or limited tenders and when tenders are called to accept a tender in whole or in part or reject any tender or all tenders without assigning reasons for any such action. In case if tender is accepted in part by Railway administration, Letter of Acceptance shall be issued as counter offer to the Tenderer, which shall be subject to

acceptance by the Tenderer.

- 7A. Two Packets System of Tendering:** With a view to assess the tenders technically without being influenced by the financial bids, 'Two Packets System of tendering' shall be adopted wherein tender documents provide for the same.
- 7B. Pre Bid Conference:** Intenders having advertised value more than Rs 50 Crore or as mentioned in the tender document, Railway shall conduct Pre Bid Conference(s) with the prospective bidders.
- 7C. Make in India Policy:** Provisions of Make in India Policy 2017 issued by Govt. of India, as amended from time to time, shall be followed for consideration of tenders.
- 7D. Permission to Bid for a bidder from a country which shares Land boundary with India:** Any bidder from the countries sharing a land border with India will be eligible to bid in any procurement of works (including turnkey projects) only if the bidder is registered with the Competent Authority. The Competent Authority for registration will be the Registration Committee constituted by the Department for Promotion of Industry and Internal Trade (DPIIT), Government of India. For interpretation of this para, Department of Expenditure, Ministry of Finance, Government of India letter F.No.6/18/2019-PPD dated 23/07/2020 shall be referred.
- 7E. Clarification of Bids:** To assist in the examination, evaluation & comparison and pre-qualification of the Tender, the Railway may, at its discretion, ask any Bidder for a clarification of its Bid. Any clarification submitted by a Bidder that is not in response to a request by the Railway shall not be entertained or considered. The Railway request for clarification and the response of the bidder in this regard shall be in writing. However, if a Bidder does not provide clarification of its bid by the date and time communicated in the Railway request for clarification, the bid shall be evaluated as per the documents submitted along with the bid.
- 8. Execution of Contract Document:** The Tenderer whose tender is accepted shall be required to appear in person at the office of General Manager/General Manager (Construction), Chief Administrative Officer (Construction), Divisional Railway Manager or concerned Engineer, as the case may be, or if tenderer is a firm or corporation, a duly authorized representative shall appear (there would be no need for appear in person if agreement is signed digitally) and execute the contract agreement within seven days of notice from Railways that the Contract Agreement is ready. Failure to do so shall constitute a breach of the agreement affected by the acceptance of the tender. The Contract Agreement shall be entered into by Railway only after submission of valid Performance Guarantee by the Contractor. In such cases the Railway may determine that such tenderer has abandoned the contract and there upon his tender and acceptance thereof shall be treated as cancelled and the Railway shall be entitled to forfeit the full amount of the Bid Security and other dues payable to the Contractor under this contract. The failed Contractor shall be debarred from participating in the re-tender for that work.
- 9. Form of Contract Document:** Every contract shall be complete in respect of the document it shall so constitute. Not less than 2 copies of the contract document shall be signed by the competent authority and the Contractor and one copy given to the Contractor (there would be no need of signing two copies if agreement is signed digitally).
- (a)** For Zone Contracts, awarded on the basis of the percentage above or below the applicable chapter(s) of Standard Schedule of Rates (SSOR) for the whole or part of financial year, the contract agreement required to be executed by the tenderer whose tender is accepted shall be as per specimen form, Annexure-II. During the currency of the Zone Contract, work orders as

per specimen form Annexures-III, for works not exceeding ₹ 5,00,000 each, shall be issued by the Divisional Railway Manager / Executive Engineer under the agreement for Zone Contract.

- (b) For contracts for specific works, the contract document required to be executed by the tenderer whose tender is accepted shall be an agreement as per specimen form Annexure- IV.

SOUTH EASTERN RAILWAY**TENDER FORM (First Sheet)**

Tender No. _____

Name of Work _____

To

The President of India

Acting through the _____ Railway

I/We _____ have read the various conditions to tender attached hereto and agree to abide by the said conditions. I/We also agree to keep this offer open for acceptance for a period of _____ days from the date fixed for closing of the tender and in default thereof, I/We will be liable for forfeiture of my/our "Bid Security". I/We offer to do the work for S. E. Railway, at the rates quoted in the attached bill(s) of quantities and hereby bind myself/ourselves to complete the work in all respects within _____ months from the date of issue of letter of acceptance of the tender.

2. I/We also hereby agree to abide by the Indian Railways Standard General Conditions of Contract, with all correction slips up-to-date and to carry out the work according to the Special Conditions of Contract and Specifications of materials and works as laid down by Railway in the annexed Special Conditions/Specifications, Standard Schedule of Rates (SSOR) with all correction slips up-to-date for the present contract.

3. A Bid Security of ₹ _____ has already been deposited online/ submitted as Bank Guarantee bond. Full value of the Bid Security shall stand forfeited without prejudice to any other right or remedies in case my/our Tender is accepted and if:

(3.a) I/We do not submit the Performance Guarantee within the time specified in the Tender document;

(3.b) I/We do not execute the contract documents within seven days after receipt of notice issued by the Railway that such documents are ready; and

(3.c) I/We do not commence the work within fifteen days after receipt of orders to that effect.

4. We are a Labour Cooperative Society and our Registration No. is.....with and hence required to deposit only 50% of Bid Security.

5. Until a formal agreement is prepared and executed, acceptance of this tender shall constitute a binding contract between us subject to modifications, as may be mutually agreed to between us and indicated in the letter of acceptance of my/our offer for this work.

Signature of Tenderer(s)

Date _____

Address of the Tenderer(s)

TENDER FORM (Second Sheet)

1. **Instructions to Tenderers and Conditions of Tender:** The following documents form part of Tender / Contract:
 - (a) Tender Forms – First Sheet and Second Sheet
 - (b) Special Conditions/Specifications (enclosed)
 - (c) Bill(s) of quantities (enclosed)
 - (d) Standard General Conditions of Contract and Standard Specifications (Works and Materials) of Indian Railways as amended/corrected upto latest correction slips, copies of which can be seen in the office of ____ or obtained from the office of the Chief Engineer,
_____ Railway on payment of prescribed charges.
 - (e) Standard Schedule of Rates (SSOR) as amended / corrected upto latest correction slips, copies of which can be seen in the office of _____ or obtained from the office of the Chief Engineer, _____ Railway on payment of prescribed charges.
 - (f) All general and detailed drawings pertaining to this work which will be issued by the Engineer or his representatives (from time to time) with all changes and modifications.
2. **Drawings for the Work:** The Drawing for the work can be seen in the office of the _____ and / or Chief Engineer, _____ Railway at any time during the office hours. The drawings are only for the guidance of Tenderer(s). Detailed working drawings (if required) based generally on the drawing mentioned above, will be given by the Engineer or his representative from time to time.
3. The Tenderer(s) shall quote his / their rates as a percentage above or below the Standard Schedule of Rates (SSOR) of _____ Railway as applicable to __ Division except where he/they are required to quote item rates and must tender for all the items shown in the Bill(s) of Quantities attached. The quantities shown in the attached Bill(s) of Quantities 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 Bill(s) of Quantities. The tenderer(s) shall quote rates / rebates only at specified place in Tender Form supplied by Railway. Any revision of rates / rebates submitted (quoted) through a separate letter whether enclosed with the bid (Tender Form) or submitted separately or mentioned elsewhere in the document other than specified place shall be summarily ignored and will not be considered.
4. Tenders containing erasures and / or alterations of tender documents are liable to be rejected. Any correction made by tender(s) in his/their entries must be attested by him / them.
5. The works are required to be completed within a period of _____ months from the date of issue of acceptance letter.
6. **Bid Security:**
 - (a) Subject to exemptions provided under para 5(1) (a) of Part-1 (ITT) of this document, the tender must be accompanied by a Bid Security as mentioned in tender documents, failing which

the tender shall be summarily rejected. The Tenderer(s) shall keep the offer open for a minimum period of 60 days (in case of two packet system of tendering 90days) from the date of closing of the Tender. It is understood that the tender documents have been issued to the tenderer(s) and the Tenderer(s), is / are permitted to tender in consideration of the stipulation on his / their part that after submitting his / their tender subject to the period being extended further, if required by mutual agreement from time to time, he will not resile from his offer or modify the terms and conditions thereof in a manner not acceptable to _____ Railway. Should the tenderer fail to observe or comply with the foregoing stipulation, the amount deposited or Bank guarantee bond submitted as Bid Security for the due performance of the above stipulation, shall be forfeited to the Railway.

(b) If his tender is accepted,

(i) the Bid Security mentioned in sub para(a) above deposited in cash through e-payment gateway will be retained as part security for the due and faithful fulfillment of the contract in terms of Clause 16 of the Standard General Conditions of Contract;

(ii) the Bid Security mentioned in sub para(a) above submitted as Bank guarantee bond, will be encashed as part security for the due and faithful fulfillment of the contract in terms of Clause 16 of the Standard General Conditions of Contract.

The Bid Security of other Tenderers shall, save as herein before provided, be returned to them, but the Railway shall not be responsible for any loss or depreciation to the Bid Security that may happen thereto while in their possession, nor be liable to pay interest thereon.

(c) In case Contractor submits the Term Deposit Receipt/Bank Guarantee Bond towards either the Full Security Depositor the Part Security Deposit equal to or more than Bid Security, the Railway shall return the Bid Security so retained as per sub para(c) above, to the Contractor.

7. **Rights of the Railway to deal with Tender:** The authority for the acceptance of the tender will rest with the Railway. It shall not be obligatory on the said authority to accept the lowest tender or any other tender, and tenderer(s) shall neither demand any explanation for the cause of rejection of his/ their tender nor the Railway to assign reasons for declining to consider or reject any particular tender or tenders.

8. If the tenderer(s) deliberately gives / give wrong information in his / their tender or creates / create circumstances for the acceptance of his / their tender, the Railway reserves the right to reject such tender at any stage.

9. If any partner(s) of a partnership firm expires after the submission of its tender or after the acceptance of its tender, the Railway shall deem such tender as cancelled/contract as terminated under clause 61 of the Standard General Conditions of Contract, unless the firm retains its character as per partnership agreement. If a sole proprietor expires after the submission of tender or after the acceptance of tender, the Railway shall deem such tender as cancelled / contract as terminated under clause 61 of the Standard General Conditions of Contract.

10. Eligibility Criteria:

10.1 Technical Eligibility Criteria:

(a) 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:

(i) Three similar works each costing not less than the amount equal to 30% of advertised value of the tender, or

(ii) Two similar works each costing not less than the amount equal to 40% of advertised value of the tender, or

(iii) One similar work costing not less than the amount equal to 60% of advertised value of

the tender.

(b) (1) In case of tenders for composite works (e.g. works involving more than one distinct component, such as Civil Engineering works, S&T works, Electrical works, OHE works etc. and in the case of major bridges – substructure, superstructure etc.), 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:

- (i) Three similar works each costing not less than the amount equal to 30% of advertised value of each component of tender, or
- (ii) Two similar works each costing not less than the amount equal to 40% of advertised value of each component of tender, or
- (iii) One similar work each costing not less than the amount equal to 60% of advertised value of each component of tender.

Similar works means,

Supply, installation and commissioning of Mechanized Laundry or Laundry equipment

OR

Maintenance /Operation of Mechanized Laundry Plant

OR

Setting up /Maintenance and operation of BOOT model laundry

OR

Linen washing business operating a mechanized laundry

In Indian Railways or in any Central/State Government/Public Sector Undertaking.

(c) Note for b(1): Separate completed works of minimum required values shall also be considered for fulfillment of technical eligibility criteria for different components.

(b)(2) In such cases, what constitutes a component in a composite work shall be clearly pre-defined with estimated tender cost of it, as part of the tender documents without any ambiguity.

(b) (3) To evaluate the technical eligibility of tenderer, only components of work as stipulated in tender documents for evaluation of technical eligibility, shall be considered. The scope of work covered in other remaining components shall be either executed by tenderer himself if he has work experience as mentioned in clause 7 of the Standard General Conditions of Contractor through subcontractor fulfilling the requirements as per clause 7 of the Standard General Conditions of Contract or jointly i.e., partly himself and remaining through subcontractor, with prior approval of Chief Engineer in writing.

However, if required in tender documents by way of Special Conditions, a formal agreement duly notarised, legally enforceable in the court of law, shall be executed by the main contractor with the subcontractor for the component(s) of work proposed to be executed by the subcontractor(s), and shall be submitted along with the offer for considering subletting of that scope of work towards fulfilment of technical eligibility. Such subcontractor must fulfill technical eligibility criteria as follows:

The subcontractor shall have successfully completed at least one work similar to work proposed for subcontract, costing not less than 35% value of work to be subletted, in last 5 years, ending last day of month previous to the one in which tender is invited through a works contract.

Note: for subletting of work costing up to Rs 50 lakh, no previous work experience of subcontractor shall be asked for by the Railway.

In case after award of contract or during execution of work it becomes necessary for contractor to change subcontractor, the same shall be done with subcontractor(s) fulfilling the requirements as per clause 7 of the Standard General Conditions of Contract, with prior approval of Chief Engineer in writing.

Note for Item 10.1:

Work experience certificate from private individual shall not be considered. However, in addition to work experience certificates issued by any Govt. Organisation, work experience certificate issued by Public listed company having average annual turnover of Rs 500 crore and above in last 3 financial years excluding the current financial year, listed on National Stock Exchange or Bombay Stock Exchange, incorporated/registered at least 5 years prior to the date of closing of tender, shall also be considered provided the work experience certificate has been issued by a person authorized by the Public listed company to issue such certificates.

In case tenderer submits work experience certificate issued by public listed company, the tenderer shall also submit along with work experience certificate, the relevant copy of work order, bill of quantities, bill wise details of payment received duly certified by Chartered Accountant, TDS certificates for all payments received and copy of final/last bill paid by company in support of above work experience certificate.

10.2. Financial Eligibility Criteria: The tenderer must have minimum average annual contractual turnover of V/N or 'V' whichever is less; where

V= Advertised value of the tender in crores of Rupees

N= Number of years prescribed for completion of work for which bids have been invited.

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.

The tenderers shall submit requisite information as per Annexure-VIB, along with copies of Audited Balance Sheets duly certified by the Chartered Accountant/ Certificate from Chartered Accountant duly supported by Audited Balance Sheet.

NOTE: The balance sheet and all other financial documents attested/certified by CAs to substantiate fulfillment of Financial Eligibility Criteria should be with UDIN, failing which the offer is likely to be rejected without any further reference."(Authority letter no .: CE/G/Arb & Cont. Mgt./Tender Circular/Pt.1/317 dated 11.03.2025 issued by CE/works)

10.3 Bid Capacity: The tender/technical bid will be evaluated based on bid capacity formula detailed as Annexure-VI.

10.4 No Technical and Financial credentials are required for tenders having advertised value up to Rs 50 lakh.

10.5 Credentials if submitted in foreign currency shall be **converted into Indian currency** i.e., Indian Rupee as under:

The conversion rate of US Dollars into Rupees shall be the daily representative exchange rates published by the Reserve Bank of India or entity authorized by RBI to do so for the relevant date or immediately previous date for which rates have been published. Where, relevant date shall be as on the last day of month previous to the one in which tender is invited. In case of any other currency, the same shall first be converted to US Dollars as on the last day of month previous to the one in which tender is invited, and the amount so derived in US Dollars shall be converted into Rupees at the aforesaid rate. The conversion rate of such currencies shall be the daily representative exchange rates published by the International Monetary Fund for the relevant date or immediately previous date for which rates have been published.

[Explanation for Para 10 of the Tender Form (Second Sheet) including Para 10.5.1 to 10.5.5 - **Eligibility Criteria:**

- 10.5.1 Substantially Completed Work means an ongoing work in which payment equal to or more than 90% of the present contract value (excluding the payment made for adjustment of Price variation (PVC), if any) has been made to the contractor in that ongoing contract and no proceedings of termination of contract on Contractor's default has been initiated. The credential certificate in this regard should have been issued not prior to 60 days of date of invitation of present tender.
- 10.5.2 In case a work is started prior to 07 (seven) years, ending last day of month previous to the one in which tender is invited, but completed in last 07 (seven) years, ending last day of month previous to the one in which tender is invited, the completed work shall be considered for fulfillment of credentials.
- 10.5.3 If a work is physically completed and completion certificate to this extent is issued by the concerned organization but final bill is pending, such work shall be considered for fulfillment of credentials
- 10.5.4 In case of completed work, the value of final bill (gross amount) including the PVC amount (if paid) shall be considered as the completion cost of work. In case final bill is pending, only the total gross amount already paid including the PVC amount (if paid) shall be considered as the completion cost of work.

In case of substantially completed work, the total gross amount already paid including the PVC amount (if paid), as mentioned in the certificate, shall be considered as the cost of substantially completed work.
- 10.5.5 If a bidder has successfully completed a work as subcontractor and the work experience certificate has been issued for such work to the subcontractor by a Govt. Organization or public listed company as defined in Note for Item 10.1 Para 10 of the Tender Form (Second Sheet), the same shall be considered for the purpose of fulfillment of credentials.
- 10.5.6 In case a work is considered similar in nature for fulfillment of technical credentials, the overall cost including the PVC amount (if paid) of that completed work or substantially completed work, shall be considered and no separate evaluation for each component of that work shall be made to decide eligibility.
- 10.5.7 In case of newly formed partnership firm, the credentials of individual partners from previous propriety firm(s) or dissolved previous partnership firm(s) or split previous partnership firm(s), shall be considered only to the extent of their share in previous entity on the date of dissolution / split and their share in newly formed partnership firm. For example, a partner A had 30% share in previous entity and his share in present partnership firm is 20%. In the present tender under consideration, the credentials of partner A will be considered to the extent of 0.3×0.2 * value of the work done in the previous entity. For this purpose, the tenderer shall submit along with his bid all the relevant documents which include copy of previous partnership deed(s), dissolution deed(s) and proof of surrender of PAN No.(s) in case of dissolution of partnership firm(s) etc.
- 10.5.8 In case of existing partnership firm, if any one or more partners quit the partnership firm, the

credentials of remaining partnership firm shall be re-worked out i.e., the quitting partner(s) shall take away his credentials to the extent of his share on the date of quitting the partnership firm (e.g. in a partnership firm of partners A, B & C having share 30%, 30% & 40% respectively and credentials of Rs 10 crore; in case partner C quits the firm, the credentials of this partnership firm shall remain as Rs 6 crore). For this purpose, the tenderer shall submit along with his bid all the relevant documents which include copy of previous partnership deed(s), dissolution deed(s) and proof of surrender of PAN No.(s) in case of dissolution of partnership firm(s) etc.

- 10.5.9 In case of existing partnership firm if any new partner(s) joins the firm without any modification in the name and PAN/TAN no. of the firm, the credentials of partnership firm shall get enhanced to the extent of credentials of newly added partner(s) on the same principles as mentioned in item 6 above. For this purpose, the tenderer shall submit along with his bid all the relevant documents which include copy of previous partnership deeds, dissolution/splitting deeds and proof of surrender of PAN No.(s) in case of dissolution of partnership firm etc.
- 10.5.10 Any partner in a partnership firm cannot use or claim his credentials in any other firm without leaving the partnership firm i.e., In a partnership firm of A&B partners, A or B partner cannot use credentials of partnership firm of A&B partners in any other partnership firm or propriety firm without leaving partnership firm of A&B partners.
- 10.5.11 In case a partner in a partnership firm is replaced due to succession as per succession law, the proportion of credentials of the previous partner will be passed on to the successor.
- 10.5.12 If the percentage share among partners of a partnership firm is changed, but the partners remain the same, the credentials of the firm before such modification in the share will continue to be considered for the firm as it is without any change in their value. Further, in case a partner of partnership firm retires without taking away any credentials from the firm, the credentials of partnership firm shall remain the same as it is without any change in their value.
- 10.5.13 In a partnership firm "AB" of A&B partners, in case A also works as propriety firm "P" or partner in some other partnership firm "AX", credentials of A in propriety firm "P" or in other partnership firm "AX" earned after the date of becoming a partner of the firm AB shall not be added in partnership firm AB.
- 10.5.14 In case a tenderer is LLP, the credentials of tenderer shall be worked out on above lines similar to a partnership firm.
- 10.5.15 In case company A is merged with company B, then company B would get the credentials of company A also.]

11 Tenderer Credentials:

Documents testifying tenderer previous experience and financial status should be produced along with the tender.

Tenderer(s) who is / are not borne on the approved list of the Contractors of ____Railway shall submit along with his / their tender:

- (i) Certificates and testimonials regarding contracting experience for the type of job for which tender is invited with list of works carried out in the past.
- (ii) Audited Balance Sheet duly certified by the Chartered Accountant regarding contractual payments received in the past.
- (iii) The list of personnel / organization on hand and proposed to be engaged for the tendered work. Similarly list of Plant & Machinery available on hand and proposed to be inducted and

hired for the tendered work.

- (iv) A copy of certificate stating that they are not liable to be disqualified and all their statements/documents submitted along with bid are true and factual. Standard format of the certificate to be submitted by the bidder is enclosed as Annexure-V. In addition to Annexure-V, in case of other than Company/Proprietary firm, Annexure V-(A) shall also be submitted by the each member of a Partnership Firm/Joint venture (JV)/ Hindu Undivided Family (HUF)/ Limited Liability Partnership (LLP) etc. as the case may be. Non submission of a copy of certificate by the bidder shall result in summarily rejection of his/their bid. It shall be mandatorily incumbent upon the tenderer to identify, state and submit the supporting documents duly self-attested / digitally signed by which they/he are/is qualifying the Qualifying Criteria mentioned in the Tender Document.
 - (v) The Railway reserves the right to verify all statements, information and documents submitted by the bidder in his tender offer, and the bidder shall, when so required by the Railway, make available all such information, evidence and documents as may be necessary for such verification. Any such verification or lack of such verification, by the Railway shall not relieve the bidder of its obligations or liabilities hereunder nor will it affect any rights of the Railway there under.
 - (vi) (a) In case of any information submitted by tenderer is found to be false, forged or incorrect at any time during process for evaluation of tenders, it shall lead to forfeiture of the tender Bid Security besides banning of business for a period of upto two years.
 - (b) In case of any information submitted by tenderer is found to be false, forged or incorrect after the award of contract, the contract shall be terminated. Bid Security, Performance Guarantee and Security Deposit available with the railway shall be forfeited. In addition, other dues of the contractor, if any, under this contract shall be forfeited and agency shall be banned for doing business for a period of upto two years.
- 12 Non-compliance with any of the conditions set forth therein above is liable to result in the tender being rejected.

- 13 **Execution of Contract Documents:** The successful Tenderer(s) shall be required to execute an agreement with the President of India acting through the _____ Railway for carrying out the work according to the Standard General Conditions of Contract, Special Conditions / Specifications annexed to the tender and Standard Specifications (Works and Materials) of Railway as amended/corrected upto latest correction slips, mentioned in tender form (First Sheet).

14 **Documents to be Submitted Along with Tender**

- (i) The tenderer shall clearly specify whether the tender is submitted on his own (Proprietary Firm) or on behalf of a Partnership Firm / Company / Joint Venture (JV) / Registered Society / Registered Trust / Hindu Undivided Family (HUF) / Limited Liability Partnership (LLP) etc. The tenderer(s) shall enclose the attested copies of the constitution of their concern, and copy of PAN Card along with their tender. Tender Documents in such cases are to be signed by such persons as may be legally competent to sign them on behalf of the firm, company, association, trust or society, as the case may be.
- (ii) Following documents shall be submitted by the tenderer:

(a) Sole Proprietorship Firm:

- (a.i) All documents in terms of Para 10 of the Tender Form (Second Sheet) above.

(b) HUF:

- (b.i) A copy of notarized affidavit on Stamp Paper declaring that he who is submitting the tender on behalf of HUF is in the position of 'Karta' of Hindu Undivided Family (HUF) and he has the authority, power and consent given by other members to act on behalf of HUF.
- (b.ii) All other documents in terms of Para 10 of the Tender Form (Second Sheet) above.

(c) Partnership Firm:

- (c.i) All documents as mentioned in para 18 of the Tender Form (Second Sheet).

(d) Joint Venture (JV): All documents as mentioned in para 17 of the Tender Form (Second Sheet). JV is not applicable to participate in this tender.

(e) Company registered under Companies Act 2013:

- (e.i) The copies of **MOA (Memorandum of Association) / AOA (Articles of Association)** of the company
- (e.ii) A copy of Certificate of Incorporation
- (e.iii) A copy of Authorization/Power of Attorney issued by the Company (backed by the resolution of Board of Directors) in favour of the individual to sign the tender on behalf of the company and create liability against the company.
- (e.iv) All other documents in terms Para 10 of the Tender Form (Second Sheet) above.

(f) LLP (Limited Liability Partnership):

- (f.i) A copy of LLP Agreement
- (f.ii) A copy of Certificate of Incorporation
- (f.iii) A copy of Power of Attorney/Authorization issued by the LLP in favour of the individual to sign the tender on behalf of the LLP and create liability against the LLP.
- (f.iv) An undertaking by all partners of the LLP that they are not blacklisted or debarred by Railways or any other Ministry / Department of the Govt. of India from participation in tenders / contracts as on the date of submission of bids, either in their individual capacity or in any firm/LLP or JV in which they were / are partners/members. Concealment / wrong information in regard to above shall make the contract liable for determination under Clause 62 of the Standard General Conditions of Contract.
- (f.v) All other documents in terms of Para 10 of the Tender Form (Second Sheet).

g) Registered Society & Registered Trust:

- g.i A copy of Certificate of Registration
- g.ii A copy of Memorandum of Association of Society/Trust Deed
- g.iii. A copy of Power of Attorney in favour of the individual to sign the tender documents and create liability against the Society/Trust.
- g.iv A copy of Rules & Regulations of the Society
- g.v. All other documents in terms of Para 10 of the Tender Form (Second Sheet) above.

- (iii) If it is NOT mentioned in the submitted tender that tender is being submitted on behalf of a Sole Proprietorship firm / Partnership firm / Joint Venture / Registered Company etc., then the tender shall be treated as having been submitted by the individual who has signed the tender.
- (iv) After opening of the tender, any document pertaining to the constitution of Sole Proprietorship Firm / Partnership Firm / Registered Company/ Registered Trust / Registered

Society / HUF/LLP etc. shall be neither asked nor considered, if submitted. Further, no suo moto cognizance of any document available in public domain (i.e., on internet etc.) or in Railway's record/office files etc. will be taken for consideration of the tender, if no such mention is available in tender offer submitted.

- (v) A tender from JV shall be considered only where permissible as per the tender conditions.
- (vi) The Railway will not be bound by any change of power of attorney or in the composition of the firm made subsequent to the submission of tender. Railway may, however, recognize such power of attorney and changes after obtaining proper legal advice, the cost of which will be chargeable to the Contractor.

15. The tenderer whether sole proprietor / a company or a partnership firm / joint venture (JV) / registered society / registered trust / HUF / LLP etc if they want to act through agent or individual partner(s), should submit along with the tender, a copy of power of attorney duly stamped and authenticated by a Notary Public or by Magistrate in favour of the specific person whether he/they be partner(s) of the firm or any other person, specifically authorizing him/them to sign the tender, submit the tender and further to deal with the Tender/ Contract up to the stage of signing the agreement except in case where such specific person is authorized for above purposes through a provision made in the partnership deed / Memorandum of Understanding / Article of Association /Board resolution, failing which tender shall be summarily rejected.

A separate power of attorney duly stamped and authenticated by a Notary Public or by Magistrate in favour of the specific person whether he/they be partner(s) of the firm or any other person, shall be submitted after award of work, specifically authorizing him/them to deal with all other contractual activities subsequent to signing of agreement, if required.

Note: A Power of Attorney executed and issued overseas, the document will also have to be legalized by the Indian Embassy and notarized in the jurisdiction where the Power of Attorney is being issued. However, the Power of Attorney provided by Bidders from countries that have signed the Hague Legislation Convention 1961 are not required to be legalized by the Indian Embassy if it carries a conforming Apostille certificate.

16. Employment/Partnership etc. of Retired Railway Employees:

- (a) Should a tenderer
 - i) be a retired Engineer of the gazetted rank or any other gazetted officer working before his retirement, whether in the executive or administrative capacity or whether holding a pensionable post or not, in the Engineering or any other department of any of the railways owned and administered by the President of India for the time being, OR
 - ii) being partnership firm / joint venture (JV) / registered society / registered trust etc have as one of its partners/members a retired Engineer of the gazetted rank or any other gazetted officer working before his retirement, OR

- iii) being an incorporated company have any such retired Engineer of the gazetted rank or any other gazetted officer working before his retirement as one of its directors

AND

in case where such Engineer or officer had not retired from government service at least 1 year prior to the date of submission of the tender

THEN

the tenderer will give full information as to the date of retirement of such Engineer or gazetted officer from the said service and as to whether permission for taking such contract, or if the Contractor be a partnership firm or an incorporated company, to become a partner or director as the case may be, has been obtained by the tenderer or the Engineer or officer, as the case may be from the President of India or any officer, duly authorized by him in this behalf, shall be clearly stated in writing at the time of submitting the tender.

- b) In case, upon successful award of contract, should a tenderer depute for execution of the works under or to deal matters related with this contract, any retired Engineer of gazette rank or retired gazetted officer working before his retirement in the Engineering or any other department of any of the railways owned and administered by the President of India for the time being, and now in his employment, then the tenderer will ensure that retired Engineer or retired gazetted officer had retired from government service at least 1 year prior to the date of his employment with tenderer and in case he had retired from service within a year then he possesses the requisite permission from the President of India or any officer, duly authorized by him in this behalf, to get associated with the tenderer.
- c) Should a tenderer or Contractor being an individual, have member(s) of his family or in the case of partnership firm/ company / joint venture (JV) / registered society / registered trust etc. one or more of his partner(s)/shareholder(s) or member(s) of the family of partner(s)/shareholder(s) having share of more than 1% in the tendering entity employed in gazetted capacity in the Engineering or any other department of the railway, then the tenderer at the time of submission of tender, will inform the authority inviting tenders the details of such persons.

Note: -If information as required as per 16.a), b), c) above has not been furnished, contract is liable to be dealt in accordance with provision of clause 62 of the Standard General Condition of contract.

JOINT VENTURE (JV) IN WORKS TENDERS:

- 17 **Participation of Joint Venture (JV) in Works Tender:** This para shall be applicable for works tenders wherein tender documents provide for the same.
- 17.1 Separate identity/name shall be given to the Joint Venture.
- 17.2 Number of members in a JV shall not be more than three, if the work involves only one department (say Civil or S&T or Electrical or Mechanical) and shall not be more than five, if the work involves more than one Department. One of the members of the JV shall be its Lead Member who shall have a majority (at least 51%) share of interest in the JV. The other members shall have a share of not less than 20% each in case of JV with upto three members and not less than 10% each in case of JV with more than three members. In case

of JV with foreign member(s), the Lead Member has to be an Indian firm/company with a minimum share of 51%.

- 17.3 A member of JV shall not be permitted to participate either in individual capacity or as a member of another JV in the same tender.
- 17.4 The tender form shall be purchased and submitted only in the name of the JV and not in the name of any constituent member. The tender form can however be submitted by JV or any of its constituent member or any person authorized by JV through Power of Attorney to submit tender.
- 17.5 Bid Security shall be submitted by JV or authorized person of JV either as :
- (i) Cash through e-payment gateway or as mentioned in tender document, or
 - (ii) Bank Guarantee bond either in the name of JV, or in the name of all members of JV as per MOU irrespective of their share in the JV if the JV has not been constituted legally till the date of submission of tender.
- 17.6 A copy of Memorandum of Understanding (MoU) duly executed by the JV members on a stamp paper, shall be submitted by the JV alongwith the tender. The complete details of the members of the JV, their share and responsibility in the JV etc. particularly with reference to financial, technical and other obligations shall be furnished in the MoU.
- 17.7 Once the tender is submitted, the MoU shall not normally be modified / altered / terminated during the validity of the tender. In case the tenderer fails to observe/comply with this stipulation, the full Bid Security shall be liable to be forfeited.
- 17.8 Approval for change of constitution of JV shall be at the sole discretion of the Railway. The constitution of the JV shall not normally be allowed to be modified after submission of the bid by the JV, except when modification becomes inevitable due to succession laws etc., provided further that there is no change in qualification of minimum eligibility criteria by JV after change of composition. However, the Lead Member shall continue to be the Lead Member of the JV. Failure to observe this requirement would render the offer invalid.
- 17.9 Similarly, after the contract is awarded, the constitution of JV shall not be normally allowed to be altered during the currency of contract except when modification become inevitable due to succession laws etc. and minimum eligibility criteria should not get vitiated. Failure to observe this stipulation shall be deemed to be breach of contract with all consequential penal action as per contract conditions.
- 17.10 On award of contract to a JV, a single Performance Guarantee shall be submitted by the JV as per tender conditions. All the Guarantees like Performance Guarantee, Bank Guarantee for Mobilization Advance, Machinery Advance etc. shall be accepted only in the name of the JV and no splitting of guarantees amongst the members of the JV shall be permitted.
- 17.11 On issue of LOA (Letter of Acceptance), the JV entity to whom the work has been awarded, with the same shareholding pattern as was declared in the MOU/JV Agreement submitted alongwith the tender, shall be got registered before the Registrar of the Companies under 'The Companies Act - 2013' (in case JV entity is to be registered as Company) or before the Registrar/Sub-Registrar under the 'The Indian Partnership Act, 1932' (in case JV entity is to be registered as Partnership Firm) or under 'The LLP Act 2008' (in case JV entity is to be registered as LLP). A separate PAN shall be obtained for this entity. The documents pertaining to this entity including its PAN shall be furnished to the Railways before signing the contract

agreement for the work. In case the tenderer fails to observe/comply with this stipulation within 60 days of issue of LOA, contract is liable to be terminated. In case contract is terminated railway shall be entitled to forfeit the full amount of the Bid Security and other dues payable to the Contractor under this contract. The entity so registered, in the registered documents, shall have, inter-alia, following Clauses:

- 17.11.1 Joint and Several Liability - Members of the entity to which the contract is awarded, shall be jointly and severally liable to the Railway for execution of the project in accordance with General and Special Conditions of Contract. The members of the entity shall also be liable jointly and severally for the loss, damages caused to the Railways during the course of execution of the contract or due to non-execution of the contract or part thereof.
- 17.11.2 Duration of the Registered Entity - It shall be valid during the entire currency of the contract including the period of extension, if any and the maintenance period after the work is completed.
- 17.11.3 Governing Laws - The Registered Entity shall in all respect be governed by and interpreted in accordance with Indian Laws.
- 17.12 Authorized Member - Joint Venture members in the JV MoU shall authorize Lead member on behalf of the Joint Venture to deal with the *Contract*, sign the agreement or enter into contract in respect of the said tender, to receive payment, to witness joint measurement of work done, to sign measurement books and similar such action in respect of the said tender/contract. All notices/correspondences with respect to the contract would be sent only to this authorized member of the JV.
- 17.13 No member of the Joint Venture shall have the right to assign or transfer the interest right or liability in the contract without the written consent of the other members and that of the Railway in respect of the said tender/contract.
- 17.14 Documents to be enclosed by the JV alongwith the tender:
- 17.14.1 In case one or more of the members of the JV is/are partnership firm(s), following documents shall be submitted:
- i. A notarized copy of the Partnership Deed or a copy of the Partnership deed registered with the Registrar.
 - ii. A copy of consent of all the partners or individual authorized by partnership firm, to enter into the Joint Venture Agreement on a stamp paper,
 - iii. A notarized or registered copy of Power of Attorney in favour of the individual to sign the MOU/JV Agreement on behalf of the partnership firm and create liability against the firm.
 - iv. An undertaking by all partners of the partnership firm that they are not blacklisted or debarred by Railways or any other Ministry / Department of the Govt. of India from participation in tenders / contracts as on the date of submission of bids, either in their individual capacity or in any firm/LLP in which they were / are partners/members. Any Concealment / wrong information in regard to above shall make the bid ineligible or the contract shall be determined under Clause 62 of the Standard General Conditions of Contract.
- 17.14.2 In case one or more members is/are Proprietary Firm or HUF, the following documents shall be enclosed:
- 17.14.3 A copy of notarized affidavit on Stamp Paper declaring that his Concern is a proprietary

Concern and he is sole proprietor of the Concern OR he who is signing the affidavit on behalf of HUF is in the position of 'Karta' of Hindu Undivided Family (HUF) and he has the authority, power and consent given by other members to act on behalf of HUF.

- 17.14.4 In case one or more members of the JV is/are companies, the following documents shall be submitted:
- 17.14.4.1 A copy of resolutions of the Directors of the Company, permitting the company to enter into a JV agreement,
- 17.14.4.2 The copies of MOA (Memorandum of Association) / AOA (Articles of Association) of the company
- 17.14.4.3 A copy of Certificate of Incorporation
- 17.14.4.4 A copy of Authorization/copy of Power of Attorney issued by the Company (backed by the resolution of Board of Directors) in favour of the individual, to sign the tender, sign MOU/JV Agreement on behalf of the company and create liability against the company
- 17.14.5 In case one or more members of the JV is/are LLP firm/s, the following documents shall be submitted:
- 17.14.5.1 A copy of LLP Agreement
- 17.14.5.2 A copy of Certificate of Incorporation of LLP
- 17.14.5.3 A copy of resolution passed by partners of LLP firm, permitting the Firm to enter into a JV agreement
- 17.14.5.4 A copy of Authorization /copy of Power of Attorney issued by the LLP firm (backed by resolution passed by the Partners) in favour of the individual, to sign the tender and/or sign the MOU/ JV agreement on behalf of the LLP and create liability against the LLP.
- 17.14.5.5 An undertaking by all partners of the LLP that they are not blacklisted or debarred by Railways or any other Ministry / Department of the Govt. of India from participation in tenders / contracts as on the date of submission of bids, either in their individual capacity or in any firm/LLP or JV in which they were / are partners/members. Any Concealment / wrong information in regard to above shall make the contract liable for determination under Clause 62 of the Standard General Conditions of Contract.
- 17.14.6 In case one or more members of the JV is/are Society/s or Trust/s, the following documents shall be submitted:
- 17.14.6.1 A copy of Certificate of Registration
- 17.14.6.2 A copy of Memorandum of Association of Society/Trust Deed
- 17.14.6.3 A copy of Rules & regulations of the Society
- 17.14.6.4 A copy of power of Power of Attorney, in favour of the individual to sign the tender documents and create liability against the Society/Trust
- 17.14.7 **All other documents in terms of Para 10 of the Tender Form (Second Sheet) above.**
- 17.14.7 *A Power of Attorney executed and issued overseas, the document will also have to be legalized by the Indian Embassy and notarized in the jurisdiction where the power of Attorney is being issued. However, the Power of Attorney provided by Bidders from countries that have signed the Hague Legislation Convention 1961 are not required to be legalized by the Indian Embassy if it carries a confirming Apostille certificate.*
- 17.15 Credentials & Qualifying Criteria: Technical, financial eligibility and Bid capacity of the JV shall be adjudged based on satisfactory fulfillment of the following criteria:
- 17.15.1 **Technical Eligibility Criteria** ('a' or 'b' mentioned hereunder):
- (a) For Works without composite components
- The technical eligibility for the work as per para 10.1 above, shall be satisfied by either the 'JV in its own name & style' or 'Lead member of the JV'.

Each other (non-lead) member(s) of JV, who is/ are not satisfying the technical eligibility for the work as per para 10.1 above, shall have technical capacity of minimum 10% of the cost of work i.e., each non-lead member of JV member must have satisfactorily completed or substantially completed during the last 07 (seven) years, ending last day of month previous to the one in which tender is invited, one similar single work for a minimum of 10% of advertised value of the tender.

(b) For works with composite components

The technical eligibility for major component of work as per para 10.1 above, shall be satisfied by either the 'JV in its own name & style' or 'Lead member of the JV' and technical eligibility for other component(s) of work as per para 10.1 above, shall be satisfied by either the 'JV in its own name & style' or 'any member of the JV'.

Each other (non-lead)member(s) of JV, who is/ are not satisfying the technical eligibility for any component of the work as per para 10.1 above, shall have technical capacity of minimum 10% of the cost of any component of work mentioned in technical eligibility criteria. i.e., each other (non-lead) member of must have satisfactorily completed or substantially completed during the last 07 (seven) years, ending last day of month previous to the one in which tender is invited, one similar single work for a minimum of 10% of cost of any component of work mentioned in technical eligibility criteria.

Note for Para 17.15.1:

- a) *The Major component of the work for this purpose shall be the component of work having highest value. In cases where value of two or more component of work is same, any one work can be classified as Major component of work.*
- b) *Value of a completed work done by a Member in an earlier JV shall be reckoned only to the extent of the concerned member's share in that JV for the purpose of satisfying his/her compliance to the above mentioned technical eligibility criteria in the tender under consideration.*

17.15.2 Financial Eligibility Criteria

The JV shall satisfy the requirement of "Financial Eligibility" mentioned at para 10.2 above. The "financial capacity" of the lead member of JV shall not be less than 51% of the financial eligibility criteria mentioned at para 10.2 above.

The arithmetic sum of individual "financial capacity" of all the members shall be taken as JV's "financial capacity" to satisfy this requirement.

Note: Contractual payment received by a Member in an earlier JV shall be reckoned only to the extent of the concerned member's share in that JV for the purpose of satisfying compliance of the above mentioned financial eligibility criteria in the tender under consideration.

17.15.3 Bid Capacity

The JV shall satisfy the requirement of "Bid Capacity" requirement mentioned at para 10.3 above. The arithmetic sum of individual "Bid capacity" of all the members shall be taken as JV's "Bid capacity" to satisfy this requirement.

18 Participation of Partnership Firms in works tenders:

- 18.1 The Partnership Firms participating in the tender should be legally valid under the provisions of the Indian Partnership Act.
- 18.2 The partnership firm should have been in existence or should have been formed prior to submission of tender. Partnership firm should have either been registered with the Registrar or the partnership deed should have been notarized as per the Indian Partnership Act, prior to submission of tender.
- 18.3 Separate identity / name should be given to the partnership firm. The partnership firm should have PAN / TAN number in its own name and PAN / TAN number in the name of any of the constituent partners shall not be considered. The valid constituents of the firm shall be called partners.
- 18.4 Once the tender has been submitted, the constitution of the firm shall not normally be allowed to be modified / altered / terminated during the validity of the tender as well as the currency of the contract except when modification becomes inevitable due to succession laws etc., in which case prior permission should be taken from Railway and in any case the minimum eligibility criteria should not get vitiated. The re-constitution of firm in such cases should be followed by a notary certified Supplementary Deed. The approval for change of constitution of the firm, in any case, shall be at the sole discretion of the Railways and the tenderer shall have no claims what-so-ever. Any change in the constitution of Partnership firm after submission of tender shall be with the consent of all partners and with the signatures of all partners as that in the Partnership Deed. Failure to observe this requirement shall render the offer invalid and full Bid Security shall be forfeited.

If any Partner/s withdraws from the firm after submission of the tender and before the award of the contract, the offer shall be rejected and Bid Security of the tenderer will be forfeited. If any new partner joins the firm after submission of tender but prior to award of contract, his / her credentials shall not qualify for consideration towards eligibility criteria either individually or in proportion to his share in the previous firm. In case the tenderer fails to inform Railway beforehand about any such changes / modification in the constitution which is inevitable due to succession laws etc. and the contract is awarded to such firm, then it will be considered a breach of the contract conditions liable for determination of the contract under Clause 62 of the Standard General Conditions of Contract.

- 18.5 A partner of the firm shall not be permitted to participate either in his individual capacity or as a partner of any other firm in the same tender.
- 18.6 The tender form shall be submitted only in the name of partnership firm. The Bid Security shall be submitted by partnership firm. The Bid Security submitted in the name of any individual partner or in the name of authorized partner (s) shall not be considered.
- 18.7 On issue of Letter of Acceptance (LOA) to the partnership firm, all the guarantees like Performance Guarantee, Guarantee for various Advances to the Contractor shall be submitted only in the name of the partnership firm and no splitting of guarantees among the partners shall be acceptable.
- 18.8 On issue of Letter of Acceptance (LOA), contract agreement with partnership firm shall be executed in the name of the firm only and not in the name of any individual partner.
- 18.9 In case the Letter of Acceptance (LOA) is issued to a partnership firm, the following undertakings shall be furnished by all the partners through a notarized affidavit, before signing of contract agreement.

(a) Joint and several liabilities:

The partners of the firm to which the Letter of Acceptance (LOA) is issued, shall be jointly and severally liable to the Railway for execution of the contract in accordance with General and Special Conditions of the Contract. The partners shall also be liable jointly and severally for the loss, damages caused to the Railway during the course of execution of the contract or due to non- execution of the contract or part thereof.

(b) Duration of the partnership deed and partnership firm agreement:

The partnership deed/partnership firm agreement shall normally not be modified/altered/ terminated during the currency of contract and the maintenance period after the work is completed as contemplated in the conditions of the contract. Any change carried out by partners in the constitution of the firm without permission of Railway, shall constitute a breach of the contract, liable for determination of the contract under Clause 62 of the Standard General Conditions of Contract.

(c) Governing laws: The partnership firm agreement shall in all respect be governed by and interpreted in accordance with the Indian laws.

(d) No partner of the firm shall have the right to assign or transfer the interest right or liability in the contract without the written consent of the other partner/s and that of the Railway.

18.10 The tenderer shall clearly specify that the tender is submitted on behalf of a partnership firm. The following documents shall be submitted by the partnership firm, with the tender:

- (i) A notarized copy of the Partnership Deed or a copy of the Partnership deed registered with the Registrar.
- (ii) A notarized or registered copy of Power of Attorney in favour of the individual to tender for the work, sign the agreement etc. and create liability against the firm.
- (iii) An undertaking by all partners of the partnership firm that they are not blacklisted or debarred by Railways or any other Ministry / Department of the Govt. of India from participation in tenders / contracts as on the date of submission of bids, either in their individual capacity or in any firm/LLP in which they were / are partners/members. Any Concealment / wrong information in regard to above shall make the bid ineligible or the contract shall be determined under Clause 62 of the Standard General Conditions of Contract.
- (iv) All other documents in terms of Para 10 of the Tender Form (Second Sheet) above.

18.11 Evaluation of eligibility of a partnership firm:

Technical and financial eligibility of the firm shall be adjudged based on satisfactory fulfillment of the eligibility criteria laid down in Para 10 of the Tender Form (Second Sheet) above.

19.0 Advances to Contractor –

If specifically provided in Tender Documents of tender having advertised value more than Rs 50 Crores, Railway shall make payment, as an Interest bearing advances, as per Contractor's request. These advances shall carry a simple interest _____ as indicated in the Tender documents. The payment and recovery of such advances shall be made as per manners prescribed in Clause 46.4 of the Standard General Conditions of Contract.

(Signature)

(Designation)

Signature of Tenderer(s)_____Railway Date_____

Date_____

TENDER FORM (Third Sheet)**Name of Work:** _____**BILL OF QUANTITIES**

1. Standard Schedule of Rates (SSOR) Items:

SL	Item No. of SSOR	Description of Item of Work	Approximate Quantity	Unit	Rates in Figures and Words to be filled by tenderer (₹)	Amount (₹)
1	2	3	4	5	6	7

2. Non Standard Schedule of Rates (SSOR) Items:

SL	Item No.	Description of Item of Work	Approximate Quantity	Unit	Rates in Figures and Words to be filled by tenderer (₹)	Amount (₹)
1	2	3	4	5	6	7

The quantities shown in above Bill of Quantities are approximate and are as a guide to give the tenderer(s) an idea of quantum of work involved. The Railway reserves the right to increase/ decrease and/or delete or include any of the quantities given above and no extra rate will be allowed on this account.

I/We undertake to do the work at _____% above/below the Standard Schedule of Rates (SSOR) of the _____ Railway as applicable to _____ Division or at the rates quoted above for each item.

Dated _____

Signature of the Tenderer(s)

Note: Columns 1 to 5 shall be filled by the office of the Authority inviting tender. Columns 6 & 7 shall be filled by the Tenderer(s) only when percentage tenders are not invited.

AGREEMENT FOR ZONE CONTRACT

CONTRACT AGREEMENT No. _____ DATED _____. ARTICLES OF AGREEMENT made this _____ day of _____ between _____ the President of India acting through the _____, _____ Railway hereinafter called the "Railway" of the one part and _____ hereinafter called the "Contractor" of the other part.

WHEREAS the Contractor has agreed with the Railway during the period of _____ months from _____ to _____ for the performance of:

(a) New Works, additions and alterations to existing structures, special repair works and supply of building materials subject to the contract value for such works not exceeding ₹ _____.

(b) All ordinary repair and maintenance works at any site between kilometer _____ a Schedule of Rates (SSOR) of the _____ Railway, corrected up to the latest correction slips and Standard Specifications of the _____ Railway corrected upto latest correction slips and the Special Conditions and Special Specifications, if any in conformity with the drawings (if any) that will be issued with the work order, aforesaid AND WHEREAS the performance of the said work is an act in which the public are interested.

NOW THIS INDENTURE PRESENTS WITNESSETH That in consideration of the payment to be made by the Railway, the Contractor will duly perform the works set forth in the said Work Order and shall execute the same with great promptness, care and accuracy, in a workman like manner to the satisfaction of the Railway and will complete the same on or before the respective dates specified therein in accordance with the said specifications and said drawings (if any) and said conditions of contract and will observe, fulfill and keep all the conditions therein mentioned, (which shall be deemed and taken to be part of this contract as if the same had been duly set forth herein), AND the Railway both here-by agree that if the Contractor shall duly perform the said work in the manner aforesaid and observe and keep the said terms and conditions, the Railway will pay or cause to be paid to the Contractor for the said works on the completion thereof the amount due in respect thereof at the rates specified above.

Contractor _____

Designation _____

Address _____

Railway _____

(For President of India)

Witnesses (to signature of Contractor):

Signature of witnesses with address _____

Date _____

Signature of witnesses with address _____

Date _____

WORK ORDER UNDER ZONE CONTRACT

WORK ORDER NO. _____, DATED _____ UNDER CONTRACT AGREEMENT NO. _____

_____ DATED _____.

Name of Work _____ (SITE) _____

Schedule of Drawings _____

Authority _____ Allocation _____

The Contractor(s) _____ is / are hereby ordered to carry out the following works at ____% above/below the Standard Schedule of Rates (SSOR) of

_____, updated with correction slips issued up to date of inviting tender or as otherwise specified in the tender documents under Zone Contract Agreement here-in-before referred to:

S L	Item No.	Description of Item of Work	Approximate Quantity	Unit	Rates in Figures and Words (₹)	Amount (₹)
1	2	3	4	5	6	7
Total Approximate Value of Work = ₹ _____						

The works herein mentioned are required to be completed on or before _____ (Date). The quantities provided herein are approximate and subject to variation under Clause 42 of the Standard General Conditions of Contract updated with correction slips issued up to date of inviting tender or as otherwise specified in the tender documents.

Divisional Railway Manager/Divisional __Engineer

_____ Division

_____ Railway

Date _____

for President of India

I agree to complete the works herein set forth on or before the date specified under the Zone Contract Agreement herein before referred to in conformity with the drawings hereto annexed and in accordance with the General and Special (if any) Conditions of Contract updated with correction slips issued up to date of inviting tender or as otherwise specified in the tender documents and the Standard Specifications of _____ Railway updated with correction slips issued up to date of inviting tender or as otherwise specified in the tender documents .

I also agree to maintain such works for the period specified below from the date of completion:

(a) Repair and maintenance work including white/color washing: three calendar months from date of completion.

(b) All new works except earth work: Six calendar months from date of completion.

Contractor _____(Signature)

Railway: Designation_____

Address _____

For President of India)

Date _____

Date _____

Signature of Witnesses (to Signature of Contractor) with address

1. _____

2. _____

RAILWAY

CONTRACT AGREEMENT OF WORKS

CONTRACT AGREEMENT NO. _____ DATED _____

ARTICLES OF AGREEMENT made this ____ day of _____ 20____ between President of India acting through the Railway Administration hereafter called the "Railway" of the one part and _____ herein after called the "Contractor" of other part.

WHEREAS the Contractor has agreed with the Railway for performance of the works _____ set forth in the Bill(s) of Quantities hereto annexed upon the Standard General Conditions of Contract, updated with correction slips issued up to date of inviting tender or as otherwise specified in the tender documents and the Specifications of _____ updated with correction slips issued up to date of inviting tender or as otherwise specified in the tender documents and the applicable Standard Schedule of Rates (SSOR) of _____ updated with correction slips issued up to date of inviting tender or as otherwise specified in the tender documents and the Special Conditions and Special Specifications, if any and in conformity with the drawings here-into annexed AND WHEREAS the performance of the said works is an act in which the public are interested.

NOW THIS INDENTURE WITNESSETH that in consideration to the payments to be made by the Railways, the Contractors will duly perform the said works in the said Bill(s) of Quantities set forth and shall execute the same with great promptness, care and accuracy in a workman like manner to the satisfaction of the Railway and will complete the same in accordance with the said specifications and said drawings and said conditions of contract on or before the ____ day of _____ 20____ and will maintain the said works for a period of ____ Calendar months from the certified date of their completion and will observe, fulfill and keep all the conditions therein mentioned (which shall be deemed and taken to be part of this contract, as if the same have been fully set forth herein), AND the Railway, both hereby agree that if the Contractor shall duly perform the said works in the manner aforesaid and observe and keep the said terms and conditions, the Railway will pay or cause to be paid to the Contractor for the said works on the final completion thereof the amount due in respect thereof at the rates specified in the Bill(s) of Quantities hereto annexed.

Contractor _____ (Signature) Railway: Designation _____

Address _____ (For President of India)

Date _____

Date _____

Signature of **Witnesses** (to Signature of Contractor) with address:**Witnesses:**_____

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 downloaded the tender documents from Indian Railway website www.ireps.gov.in . I/we have verified the content of the document from the website 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 in 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 or incorrect 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 upto 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 or incorrect 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 upto 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 fulfil all the requirements in this regard and am/are eligible to be considered (evidence of valid registration by the competent authority is enclosed)

Place:
Dated:

SEAL AND SIGNATURE OF THE
TENDERER

SEAL AND SIGNATURE OF THE
TENDERER

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

This Certificate is to be given by each member of JV or Partners of Partnership firm/LLP/etc.

(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:**

TENDERER'S CREDENTIALS (BID CAPACITY)
RAILWAY

For tenders having advertised value more than Rs 10 crore wherein eligibility criteria includes bid capacity also, the tenderer will be qualified only if its available bid capacity is equal to or more than the total bid value of the present tender. The available bid capacity shall be calculated as under:

Available Bid Capacity = $[A \times N \times 2] - 0.33 \times N \times B$ Where,

A = Maximum value of construction works executed and payment received in any one of the previous three financial years or the current financial year (up to date of inviting tender), taking into account the completed as well as works in progress.

N= Number of years prescribed for completion of work for which bids has been invited.

B = Existing commitments and balance amount of ongoing works with tenderer as per the prescribed proforma of Railway for statement of all works in progress and also the works which are awarded to tenderer but yet not started upto the date of inviting of tender.

Note:

- (a) The Tenderer(s) shall furnish the details of -
 - (a.i) Maximum value of construction works executed and payment received in any one of the previous three financial years or the current financial year (up to date of inviting tender) for calculating A, and
 - (a.ii) Existing commitments and balance amount of ongoing works with tenderer as per the prescribed proforma of Railway for statement of all works in progress and also the works which are awarded to tenderer but yet not started upto the date of inviting of tender for calculating B. In case of no works in hand, a 'NIL' statement should be furnished. The submitted details for (i) and (ii) above should be duly verified by Chartered Accountant.
- (b) In case if a bidder is JV, the tenderer(s) must furnish the details of
 - (b.i) Maximum value of construction works executed and payment received in any one of the previous three financial years or the current financial year (up to date of inviting tender) by each member of JV for calculating A, and
 - (b.ii) Existing commitments and balance amount of ongoing works with each member of JV either in individual capacity or as a member of other JV as per the prescribed proforma of Railway for statement of all works in progress and also the works which are awarded to each member of JV either in individual capacity or as a member of other JV but yet not started upto the date of inviting of tender for calculating B. In case of no works in hand, a 'NIL' statement should be furnished.

The submitted details for (i) and (ii) above should be duly verified by Chartered Accountant.
- (c) Value of a completed work/work in progress/work awarded but yet not started for a Member in an earlier JV shall be reckoned only to the extent of the concerned member's share in that JV for the purpose of satisfying his/her compliance to the above mentioned bid capacity in the tender under consideration.
- (d) The arithmetic sum of individual "bid capacity" of all the members shall be taken as

JV's "bid capacity".

- (e) In case, the tenderer/s failed to submit the above statement along with offer, their/his offer shall be considered as incomplete and will be rejected **summarily**.
- (f) The available bid capacity of tenderer shall be assessed based on the details submitted by the tenderer. In case, the available bid capacity is lesser than estimated cost of work put to tender, his offer shall not be considered even if he has been found eligible in other eligibility criteria/tender requirement.

(Bid Security)

Bank Guarantee Bond from any scheduled commercial bank of India
(On non-judicial stamp paper, which should be in the name of the Executing Bank).

Name of the Bank: -----

President of India,

Acting through,

... Railway,

Beneficiary Railway

Date:.....

Bank Guarantee Bond No.:

Date:-----

In consideration of the President of India acting through-----**(Designation & address of Contract Signing Authority)**, Railway, (hereinafter called "The Railway") having invited the bid for_____through Notice inviting tender (NIT) No._____, We have been informed that **[Insert name of the Bidder]**.....**(hereinafter called "the Bidder")** intends to submit its bid (hereinafter called "the Bid") .

WHEREAS, the Bidder is required to furnish Bid Security for the sum of **[Insert required Value of Bid Security]**, in the form of Bank Guarantee, according to conditions of Bid.

AND

WHEREAS,**[Insert Name of the Bank]**, with its Branch.....**[Insert Address]** having its Headquarters office at..... **[Insert Address]**, hereinafter called the **Bank**, acting through**[Insert Name and Designation of the authorised persons of the Bank]**, have, at the request of the Bidder, agreed to give guarantee for Bid Security as hereinafter contained, in favour of the Railway:

1. KNOW ALL MEN that by these present that I/We the undersigned **[Insert name(s) of authorized representatives of the Bank]**, being fully authorized to sign and incur obligations for and on behalf of the Bank, confirm that the Bank, hereby, unconditionally and irrevocably guarantee to pay to the Railway full amount in the sum of **[Insert required Value of Bid Security]** as above stated.
2. The Bank 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 Bank shall be final, conclusive and binding, absolute and unequivocal on the Bank notwithstanding any disputes raised/ pending before any Court, Tribunal, Arbitration or any Authority or any threatened litigation by the Bidder or Bank.

3. The Bank shall pay the amount as demanded immediately on presentation of the demand by Railway without any reference to the Bidder and without the Railway being required to show grounds or give reasons for its demand of the amount so demanded.
4. The guarantee hereinbefore shall not be affected by any change in the constitution of the Bank or in the constitution of the Bidder.
5. The Bank agrees that no change, addition, modifications to the terms of the Bid document or to any documents, which have been or may be made between the Railway and the Bidder, will in any way absolve the Bank from the liability under this guarantee; and the Bank, hereby, waives any requirement for notice of any such change, addition or modification made by Railway at any time.
6. This guarantee will remain valid and effective from.....**[insert date of issue]** till**[insert date, which should be minimum 90 days beyond the expiry of validity of Bid]**. Any demand in respect of this Guarantee should reach the Bank within the validity period of Bid Security.
7. The Bank Guarantee is unconditional and irrevocable.
8. The expressions Bank and Railway herein before used shall include their respective successors and assigns.
9. The Bank hereby undertakes not to revoke the guarantee during its currency, except with the previous consent in writing of the Railway. This guarantee is subject to the Uniform Rules for Demand Guarantees, ICC Publication No.758.
10. The Bank hereby confirms that it is on the SFMS (Structured Financial Messaging System) and shall invariably send the advice of this Bank Guarantee 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

11. The Guarantee shall be valid in addition to and without prejudice to any other security Guarantee(s) of Bidder in favour of the Railway. The Bank, under this Guarantee, shall be deemed as Principal Debtor of the Railway.

Date

.....

Place.....

Bank's Seal and authorized signature(s)

[Name in Block letters]

[Designation with Code No.].....

[P/Attorney] No.

Witness:

1 Signature, Name & Address & Seal

2 Signature, Name& address & Seal

Bank's Seal

*[P/Attorney]*No.

Note: All italicized text is for guidance on how to prepare this bank guarantee and shall be deleted from the final document.

Reference -Para 10.2 & 17.15.2 of Tender Form (Second Sheet) of Annexure I of ITT

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
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)

Part-II

STANDARD GENERAL CONDITIONS OF CONTRACT

1.(1) Definitions: In these Standard General Conditions of Contract, the following terms shall have the meaning assigned hereunder except where the context otherwise requires:

- (a) "Railway" shall mean the President of the Republic of India or the Administrative Officers of the Railway or of the Successor Railway authorized to deal with any matters which these presents are concerned on his behalf.
- (b) "General Manager" shall mean the Officer in-charge of the General Superintendence and Control of the Railway and shall also include Addl. General Manager, the General Manager (Construction) and shall mean and include their successors, of the successor Railway.
- (c) "Chief Engineer" shall mean the Officer in-charge of the Engineering Department of Railway and shall also include Chief Engineer (Construction), Chief Signal & Telecommunication Engineer, Chief Signal & Telecommunication Engineer (Construction), Chief Electrical Engineer, Chief Electrical Engineer (Construction), Chief Mechanical Engineer and shall mean & include their successors, of the Successor Railway.
- (d) "Divisional Railway Manager" shall mean the Officer in-charge of a Division of the Railway and shall mean and include the Divisional Railway Manager of the Successor Railway.
- (e) "Engineer" shall mean the Divisional Engineer or the Executive Engineer, Divisional Signal & Telecom Engineer, Divisional Electrical Engineer, Divisional Mechanical Engineer in executive charge of the works and shall include the superior officers of Open Line and Construction organisations on the Railway of the Engineering, Signal & Telecom, Electrical and Mechanical Departments, i.e. the Senior Divisional Engineer/Deputy Chief Engineer, Senior Divisional Signal & Telecom Engineer / Dy.Chief Signal & Telecom Engineer, Senior Divisional Electrical Engineer / Deputy Chief Electrical Engineer, Senior Divisional Mechanical Engineer and shall mean & include the Engineers of the Successors Railway.
- (f) "Engineer's Representative" shall mean the Assistant Engineer, Assistant Signal & Telecommunication Engineer and Assistant Electrical Engineer, Assistant Mechanical Engineer in direct charge of the works and shall include any Sr. Section/Junior Engineer of Civil Engineering/Signal and Telecommunication Engineering/Mechanical Engineering/Electrical Engineering Departments appointed by the Railway and shall mean and include the Engineer's Representative of the Successor Railway.
- (g) "Contractor" shall mean the Person/Firm/LLP/Trust/Co-operative Society or Company whether incorporated or not who enters into the contract with the Railway and shall include their executors, administrators, successors and permitted assigns.
- (h) "Contract" shall mean and include the Agreement, the Work Order, the accepted Bill(s) of Quantities or Chapter(s) of Standard Schedule of Rates (SSOR) of the Railway modified by the tender percentage for items of works quantified, or not quantified, the Standard General Conditions of Contract, the Special Conditions of Contracts, if any; the Drawing, the Specifications, the Special Specifications, if any and Tender Forms, if any.
- (i) "Works" shall mean the works to be executed in accordance with the contract.
- (j) "Specifications" shall mean the Standard Specifications for Materials & Works of Railway as specified by Railway under the authority of the Chief Engineer or as amplified, added to or superseded by Special Specifications, if any.
- (k) Standard Schedule of Rates (SSOR) shall mean the schedule of Rates adopted by the Railway, which includes-

1. "Unified Standard Schedule of Rates of the Railway (USSOR)" i.e. the Standard Schedule of

Rates of the Railway issued under the authority of the Chief Engineer from time to time, updated with correction slips issued up to date of inviting tender or as otherwise specified in the tender documents;

2. "Delhi Schedule Of Rates (DSR)" i.e. the Standard Schedule of Rates published by Director General/ Central Public Works Department, Government of India, New Delhi, as adopted and modified by the Railway under the authority of the Chief Engineer from time to time, updated with correction slips issued up to date of inviting tender or as otherwise specified in the tender documents.
- (l) "Drawing" shall mean the maps, drawings, plans and tracings or prints there of annexed to the contract and shall include any modifications of such drawings and further drawings as may be issued by the Engineer from time to time.
- (m) "Constructional Plant" shall mean all appliances or things of whatsoever nature required for the execution, completion or maintenance of the works or temporary works (as hereinafter defined) but does not include materials or other things intended to form or forming part of the permanent work.
- (n) "Temporary Works" shall mean all temporary works of every kind required for the execution completion and/or maintenance of the works.
- (o) "Site" shall mean the lands and other places on, under, in or through which the works are to be carried out and any other lands or places provided by the Railway for the purpose of the contract.
- (p) "Period of Maintenance" shall mean the specified period of maintenance from the date of completion of the works, as certified by the Engineer.
- (q) 'Contractor's authorized Engineer' shall mean a graduate Engineer or equivalent, having more than 3 years experience in the relevant field of construction work involved in the contract, duly approved by Engineer.
- (r) Date of inviting tender shall be the date of publishing tender notice on IREPS website if tender is published on website or the date of publication in newspaper in case tender is not published on website.
- (s) "Bill of Quantities" shall mean Schedule of Item(s) included in the tender document along with respective quantities and rates, accepted by the Railway.

1.(2) Singular and Plural: Words importing the singular number shall also include the plural and vice versa where the context requires.

1.(3) Headings and Marginal Headings: The headings and marginal headings in these Standard General Conditions are solely for the purpose of facilitating reference and shall not be deemed to be part thereof or be taken into consideration in the interpretation or construction thereof the contract.

GENERAL OBLIGATIONS

2.(1) Execution Co-Relation and Intent of Contract Documents: The contract documents shall be signed in triplicate by the Railway and the Contractor. The contract documents are complementary and what is called for by anyone shall be as binding as if called for by all, the intention of the documents is to include all labour and materials, equipments and transportation necessary for proper execution of work. Materials or works not covered by or properly inferable from any heading or class of the specifications shall not be supplied by the Railway to the Contractors unless distinctly specified in the contract documents. Materials or works described in words which so applied have a well-known technical or trade meaning, shall be held to refer to such recognized standards.

- 2.(2)** If a work is transferred from the jurisdiction of one Railway to another Railway or to a Project authority or vice versa while contract is in subsistence, the contract shall be binding on the Contractor and the Successor Railway/Project in the same manner & take effect in all respects as if the Contractor and the Successor Railway/Project were parties thereto from the inception and the corresponding officer or the Competent Authority in the Successor Railway/Project will exercise the same powers and enjoy the same authority as conferred to the Predecessor Railway/Project under the original contract/agreement entered into.
- 2.(3)** **If for administrative or other reasons the contract is transferred to the Successor Railway, the contract shall, notwithstanding any things contained herein contrary there to, be binding on the Contractor and the Successor Railway in the same manner and take effect in all respects as if the Contractor and the Successor Railway had been parties thereto from the date of this contract.**
- 3.(1) Law Governing the Contract:** The contract shall be governed by the law for the time being in force in the Republic of India.
- 3.(2) 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 lighting companies or undertakings, with whose system the work is proposed to be connected and shall before making any variation from the drawings 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.
- 3.(3) Environmental and Forest clearances:**
- The Railway represents and warrants that the environmental and forest clearances pertaining to the work commensurate with the progress of work/agreed programme, will be obtained by Engineer. In the event of any delay in securing respective clearances leading to delay in execution of work, the Contractor shall be entitled to Extension of Time for the period of such delay in accordance with the provisions of Clause-17A(ii).
- 4. Communications 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 inter-se concerning the works shall be in writing or e-mail on registered e-mail IDs i.e. the e mail id provided for correspondence in the contract agreement, otherwise email id registered with IREPS and no notice, communication, reference or complaint not in writing or through e-mail, shall be recognized.
- 5. 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 course of post/ e-mail or on the day on which they were so delivered or left. In the case of contract by partners, any change in the constitution of the firm shall be forthwith notified by the Contractor to the Engineer.

- 6. Occupation and Use of Land:** No land belonging to or in the possession of the Railway shall be occupied by the Contractor without the permission of the Railway. The Contractor shall not use, or allow to be used the site for any purposes other than that of executing the works. Whenever non-railway bodies/persons are permitted to use railway premises with competent authority's approval, conservancy charges as applicable from time to time may be levied.
- 7. Assignment or Subletting of Contract:** The Contractor shall not assign or sublet the contract or any part thereof or allow any person to become interested therein in any manner whatsoever without the special permission in writing of the Chief Engineer, save as provided below. Any breach of this condition shall entitle the Railway to rescind the contract under Clause 62 of these Conditions and also render the Contractor liable for payment to the Railway in respect of any loss or damage arising or ensuing from such cancellation; provided always that execution of the details of the work by petty Contractor under the direct and personal supervision of the Contractor or his agent shall not be deemed to be sub-letting under this clause.

In case Contractor intends to subcontract part of work, he shall submit a proposal in writing seeking permission of Chief Engineer for the same. While submitting the proposal to railway, Contractor shall ensure the following:

- (a)(i) The Contractor shall not sub- contract the Works comprising more than 40% (forty per cent) of the Contract Price and shall carry out Works for at least 60% (sixty per cent) of the total Contract Price directly under its own supervision and through its own personnel. The Parties expressly agree that- for the purposes of computing the value of sub-contracts under this Clause 3.2.1, the Contract Price shall exclude any sub-contract for the procurement of goods and equipment like [rails, sleepers and track fittings, signaling and telecommunication & Power supply equipment]. The Parties agree that all obligations and liabilities under this Agreement for the entire Railway Project shall at all time remain with the Contractor. {The Parties agree that works equal to at least 30% (thirty per cent) of the Contract Price shall be discharged solely by the Lead Member.} \$.

Procurement of material, hire of equipment or engagement of labour by prime contractor or procuring entity will not mean sub-contracting.

\$ May be deleted if the Contractor is not a Consortium/Joint Venture.

- (ii) The subcontractor shall have successfully completed at least one work similar to work proposed for subcontract in last 5 years, ending date of submission of proposal by Contractor to Railway, costing not less than 35% value of work to be subletted, through a works contract. For fulfilment of above, Work Experience Certificate issued by a Govt. Department/Organisation shall be considered. Further, Work Experience Certificate issued by a Public listed company shall be considered provided the company is having average annual turnover of Rs 500 crore and above in last 3 financial years excluding the current financial year, listed on National Stock Exchange or Bombay Stock Exchange, registered at least 5 years back from the date of submission of proposal by Contractor to Railway and work experience certificate issued by a person authorised by the Public Listed Company to issue such certificates.

Note: for subletting of work costing up to Rs 50 lakh no previous work experience shall be asked for by the Railway.

In case contractor submits subcontractor's work experience certificate issued by public listed company, the contractor shall also submit along with work experience certificate, the relevant copy of work order, bill of quantities, bill wise details of payment received duly certified by Chartered Accountant, TDS certificates for all payments received and copy of final/last bill paid by company in support of above work experience certificate.

(iii) There is no banning of business with the sub-contractor in force over IR.

- (a) The Contractor shall provide to the Engineer a copy of the agreement to be entered into by Contractor with subcontractor. No subcontractor shall be permitted without a formal agreement between Contractor and subcontractor. This agreement shall clearly define the scope of work to be carried out by subcontractor and the terms of payment in clear & unambiguous manner.
- (b) On receipt of approval from Chief Engineer, Contractor shall enter into a formal agreement legally enforceable in Court of Law with subcontractor and submit a copy of the same to the Engineer.
- (c) The Contractor shall intimate to the Engineer not less than 7 days in advance, the intended date of commencement of subcontractor's work.
- (d) Once having entered into above arrangement, Contractor shall discontinue such arrangement, if he intends to do so at his own or on the instructions of Railway, with prior intimation to Chief Engineer.
- (e) The Contractor shall indemnify railway against any claim of subcontractor.
- (f) The Contractor shall release payment to the Sub-contractor(s) promptly and shall endeavour to resolve all issues amicably and speedily with the Sub-contractor(s), so that the execution of work is not affected in any manner whatsoever.
- (g) In addition to issuance of work experience certificate to Contractor, the Engineer, when, based on documents, is satisfied that subcontracted work has been carried out by subcontractor, shall issue work experience certificate to the subcontractor also for the portion of work subcontracted and successfully completed by the sub-contractor.

*Note: Work Experience Certificate to the subcontractor shall be issued only when the contractor's work is complete and contractor is entitled for the issuance of Work Experience Certificate. However, in the same contract, when the Chief Engineer, based on documents, is satisfied that the subcontractor has successfully carried out subletted work; without issuance of work experience certificate to subcontractor at this stage, the Chief Engineer can, **only once**, consider the successfully completed subletted work for the fulfilment of eligibility for further subletting of work to the subcontractor in the same contract. When the contractor's work is complete and contractor is entitled for the issuance of work experience certificate, the subcontractor shall be issued one Work Experience Certificate for the total scope of work executed by the subcontractor in the contract.*

- (h) The responsibility of successful completion of work by subcontractor shall lie with Contractor. Subcontracting will in no way relieve the Contractor to execute the work as per terms of the Contract.
- (i) Further, in case Engineer is of the view that subcontractor's performance is not satisfactory, he may instruct the Contractor to remove the subcontractor from the work and Contractor has to comply with the above instructions with due promptness. Contractor shall intimate the actual date of discontinuation of subcontract to Engineer. No claim of Contractor whatsoever on this account shall be entertained by the Railway and this shall be deemed as 'excepted matter' (matter not arbitrable).

(j) The permitted subcontracting of work by the Contractor shall not establish any contractual relationship between the sub-contractor and the Railway and shall not relieve the Contractor of any responsibility under the Contract.

8. Assistance by Railway for the Stores to be obtained by the Contractor: Owing to difficulty in obtaining certain materials (including Tools & Plant) in the market, the Railway may have agreed without any liability therefore to endeavour to obtain or assist the Contractor in obtaining the required quantities of such materials as may be specified in the Tender. In the event of delay or failure in obtaining the required quantities of the aforesaid material, the Contractor shall not be deemed absolved of his own responsibility and shall keep in touch with the day to day position regarding their availability and accordingly adjust progress of works including employment of labour and the Railway shall not in any way be liable for the supply of materials or for the non-supply thereof for any reasons whatsoever nor for any loss or damage arising in consequence of such delay or non-supply.

1. Railway Passes: No free railway passes shall be issued by the Railway to the Contractor or any of his employee/worker.

2. Carriage of Materials: No forwarding orders shall be issued by the Railway for the conveyance of Contractor's materials, tools and plant by train which may be required for use in the works and the Contractor shall pay full freight charges at public tariff rates therefor.

3. Use of Ballast Trains: The Railway may agree to allow the Contractor use of the ballast or material trains under such conditions as shall be specially prescribed, provided that the Contractor shall pay for the use thereof charges calculated at public tariff rates on the marked carrying capacity of each vehicle subject to specified minimum charge per day or part of day and provided further that the Contractor shall indemnify the Railway against any claims or damages arising out of the use or misuse thereof and against any liabilities under the Workmen's Compensation Act, 1923 or any statutory amendments thereto.

4. Representation on Works: The Contractor shall, when he is not personally present on the site of the works place, 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 the Engineer's representative to the agent shall be deemed to have the same force as if they had been given to the Contractor. Before absenting himself, the Contractor shall furnish the name and address of his agent for the purpose of this clause and failure on the part of the Contractor to comply with the provision at any time will entitle the Railway to rescind the contract under Clause 62 of these Conditions.

5. Relics and Treasures: All gold, silver, oil, other minerals of any description, all precious stones, coins, treasures relics antiquities and other similar things which shall be found in or upon the site shall be the property of the Railway and the Contractor shall duly preserve the same to the satisfaction of the Railway and shall from time to time deliver the same to such person or persons as the Railway may appoint to receive the same.

6. Excavated Material: The Contractor shall not sell or otherwise dispose of or remove except for the purpose of this contract, the sand, stone, clay ballast, earth, trees, rock or other substances or materials which may be obtained from any excavation made for the purpose of the works or any building or produced upon the site at the time of delivery of the possession thereof but all the

substances, materials, buildings and produce shall be the property of the Railway provided that the Contractor may, with the permission of the Engineer, use the same for the purpose of the works either free of cost or pay the cost of the same at such rates as may be determined by the Engineer.

7. Indemnity by Contractors: The Contractor shall indemnify and save harmless the Railway from and against all actions, suit, proceedings, losses, costs, damages, charges, claims and demands of every nature and description brought or recovered against the Railways by reason of any act or omission of the Contractor, his agents or employees, in the execution of the works or in his guarding of the same. All sums payable by way of compensation under any of these conditions shall be considered as reasonable compensation to be applied to the actual loss or damage sustained, and whether or not any damage shall have been sustained.

16. (1) Security Deposit: The Security Deposit shall be 5% of the contract value. The Bid Security submitted by the Contractor with his tender will be retained/encashed by the Railways as part of security for the due and faithful fulfillment of the contract by the Contractor. Provided further that, if Contractor submits the Cash or Term Deposit Receipt issued from a Scheduled commercial bank of India or irrevocable Bank Guarantee Bond from a Scheduled commercial bank of India, either towards the Full Security Depositor the Part Security Deposit equal to or more than Bid Security, the Railway shall return the Bid Security, to the Contractor.

Balance of Security Deposit may be deposited by the Contractor in cash or Term Deposit Receipt issued from Scheduled commercial bank of India or irrevocable Bank Guarantee bond issued from Scheduled commercial bank of India, or may be recovered at the rate of 6% of the bill amount till the full Security Deposit is recovered. Provided also 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 (including amount guaranteed through Performance Guarantee) may not exceed 10% of the total value of the contract.

The Irrevocable Bank Guarantee submitted towards Security deposit shall be initially valid up to the stipulated date of Maintenance period plus 60 days and shall be extended from time to time, depending upon extension of contract granted in terms of Clause 17A and 17B of the Standard General Conditions of Contract.

Note: Security Deposit deposited in cash by the Contractor or recovered from the running bills of a Contractor or submitted by contractor as Term Deposit Receipt(s) can be refunded/returned to the contractor, in lieu of irrevocable Bank Guarantee bond issued from scheduled commercial bank of India, to be submitted by him, for an amount equal to or more than the already available Security Deposit, provided however that, in a contract of value less than Rs. 50 Crore, such refund/ return of the already available Security Deposit is permitted up to two times and in a contract of value equal to or more than Rs. 50 Crore, such refund / return of the already available Security Deposit is permitted up to three times.

16.(2) (i) Refund of Security Deposit: Security Deposit mentioned in sub clause (1) above shall be returned to the Contractor along with or after, the following:

- (a) Final Payment of the Contract as per clause 51.(1) **and**
- (b) Execution of Final Supplementary Agreement or Certification by Engineer that Railway has No Claim on Contractor **and**
- (c) Maintenance Certificate issued, on expiry of the maintenance period as per clause 50.(1), in case applicable.

16.(2) (ii) Forfeiture of Security Deposit: Whenever the contract is rescinded as a whole under clause 62

(1) of these conditions, the Security Deposit already with railways under the contract shall be forfeited. However, in case the contract is rescinded in part or parts under clause 62 (1) of these conditions, the Security Deposit shall not be forfeited.

- 16.(3) No interest shall be payable upon the Bid Security and Security Deposit or amounts payable to the Contractor under the Contract, but Government Securities deposited in terms of Sub-Clause 16.(4)(b) of this clause will be payable with interest accrued thereon.

16.(4) 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 upto 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.

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

- (b) The successful bidder shall submit the Performance Guarantee (PG) **amounting to 5% of the original contract value and Additional Performance Guarantee as per clause 16(4)(h) 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 existing 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 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 FA & CAO (free from any encumbrance) may be accepted.
- (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 upto 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.
 - (iii) 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 %

17. Force Majeure Clause: If at any time, during the continuance of this contract, the performance in whole or in part by either party of any obligation under this contract shall be prevented or delayed by reason of any war, hostility, acts of public enemy, civil commotion, sabotage, serious loss or damage by fire, explosions, epidemics/pandemics, strikes, lockouts or acts of God (hereinafter, referred to events) provided, notice of the happening of any such event is given by either party to the other within 30 days from the date of occurrence thereof, neither party shall by reason of such event, be entitled to terminate this contract nor shall either party have any claim for damages against the other in respect of such non-performance or delay in performance, and works under the contract shall be resumed as soon as practicable after such event has come to an end or ceased to exist, and the decision of the Engineer as to whether the works have been so resumed or not shall be final and conclusive, PROVIDED FURTHER that if the performance in whole or in part of any obligation under this contract is prevented or delayed by reason of any such event for a period exceeding 120 days, either party may at its option terminate the contract by giving notice to the other party.

17A Extension of Time in Contracts: Subject to any requirement in the contract as to completion of any portion or portions of the works before completion of the whole, the Contractor shall fully and finally complete the whole of the works comprised in the contract (with such modifications as may be directed under conditions of this contract) by the date entered in the contract or extended date in terms of the following clauses:

(i) **Extension due to Modification:** If any modifications have been ordered which in the opinion of the Engineer have materially increased the magnitude of the work, then such extension of the contracted date of completion may be granted as shall appear to the Engineer to be reasonable in the circumstances, provided moreover that the Contractor shall be responsible for requesting such extension of the date as may be considered necessary as soon as the cause thereof shall arise.

(ii) **Extension for Delay not due to Railway or Contractor:** If in the opinion of the Engineer, the progress of work has any time been delayed by any act or neglect of Railway's employees or by other Contractor employed by the Railway under Sub-Clause (4) of Clause 20 of these Conditions or in executing the work not forming part of the contract but on which Contractor's performance necessarily depends or by reason of proceeding taken or threatened by or dispute with adjoining or to neighbouring owners or public authority arising otherwise through the Contractor's own default etc. or by the delay authorized by the Engineer pending arbitration or in consequences of the Contractor not having received in due time necessary instructions from the Railway for which he shall have specially applied in writing to the Engineer or his authorized representative then upon happening of any such event causing delay, the Contractor shall immediately give notice thereof in writing to the Engineer within 15 days of such happening, but shall nevertheless make constantly his best endeavours to bring down or make good the delay and shall do all that may be reasonably required of him to the satisfaction of the Engineer to proceed with the works. The Contractor may also indicate the period for which the work is likely to be delayed and shall be bound to ask for necessary extension of time.

(iii) **Extension for Delay due to Railways:** In the event of any failure or delay by the Railway to hand over the Contractor possession of the lands necessary for the execution of the works or to give the necessary notice to commence the works or to provide the necessary drawings or instructions or any other delay caused by the Railway due to any other cause whatsoever, then such failure or delay shall in no way affect or vitiate the contract or alter the character thereof or entitle the Contractor to damages or compensation therefor, but in any such case, the Railway may grant such extension or extensions of the completion date as may be considered reasonable.

The Contractor shall indicate the period for which the work is likely to be delayed and shall seek extension of time as may be considered necessary under clause 17A(i) or/and 17A(ii) or/and 17A(iii) above, as soon as the cause thereof shall arise and, in any case, not less than 15 days before the expiry of the date fixed for completion of the works. The Engineer shall consider the same and shall grant and communicate such extension of time as in his opinion is reasonable having regard to the nature and period of delay and the type and quantum of work affected thereby. No other compensation shall be payable for works so carried forward to the extended period of time; the same rates, terms and conditions of contract being applicable, as if such extended period of time was originally provided in the original contract itself. The non-submission of request for extension or submission of request within less than 15 days before the expiry of the date fixed for completion of the works, shall make him ineligible for extension under these sub clauses, subject to final decision of Engineer.

17B Extension of Time with Liquidated Damages (LD) for delay due to Contractor: The time for the execution of the work or part of the works specified in the contract documents shall be deemed to be the essence of the contract and the works must be completed not later than the date(s) as specified in the contract. If the Contractor fails to complete the works

within the time as specified in the contract for the reasons other than the reasons specified in Clause 17 and 17A, the Railway may, if satisfied that the works can be completed by the Contractor within reasonable short time thereafter, allow the Contractor for further extension of time (Proforma at Annexure-VII) as the Engineer may decide. On such extension the Railway will be entitled without prejudice to any other right and remedy available on that behalf, to recover from the Contractor as agreed damages and not by way of penalty for each week or part of the week, a sum calculated at the rate of *Liquidated Damages as decided by Engineer between 0.05 % to 0.30 % of the contract value of the works for each week or part of the week.*

For the purpose of this Clause, the contract value of the works shall be taken as value of work as per contract agreement including any supplementary work order/contract agreement issued. Provided also, that the total amount of liquidated damages under this condition shall not exceed 5% of the contract value or of the total value of the item or groups of items of work for which a separate distinct completion period is specified in the contract.

Provided further, that if the Railway is not satisfied that the works can be completed by the Contractor and in the event of failure on the part of the contractor to complete the work within further extension of time allowed as aforesaid, the Railway shall be entitled without prejudice to any other right or remedy available in that behalf, to appropriate the contractor's Security Deposit and rescind the contract under Clause 62 of these Conditions, whether or not actual damage is caused by such default.

NOTE:

In a contract, where extension(s) of time have been allowed once under clause 17B, further request(s) for extension of time under clause 17A can also be considered under exceptional circumstances. Such extension(s) of time under clause 17A shall be without any Liquidated damages, but the Liquidated damages already recovered during extension(s) of time granted previously under clause 17B shall not be waived. However, Price variation during such extension(s) shall be dealt as applicable for extension(s) of time under clause 17B.

17C Bonus for Early Completion of Work: In open tenders having advertised value more than Rs.50 crore and original period of completion 12 months or more, when there is no reduction in original scope of work by more than 10%, and no extension granted on either railway or Contractor's account, Contractor shall be entitled for a bonus of 1% for each 30 days early completion of work. The period of less than 30 days shall be ignored while working out bonus. The maximum bonus shall be limited to 5% of original contract value. The completion date shall be reckoned as the date of issuance of completion certificate by Engineer.

18.(1) Illegal Gratification:

Procuring authorities as well as bidders, contractors and consultants should observe the highest standard of ethics and should not indulge in the following prohibited practices, either directly or indirectly, at any stage during the procurement process or during execution of resultant contracts:

- i) "Corrupt practice": making offers, solicitation or acceptance of bribe, rewards or gifts or any material benefit, in exchange for an unfair advantage in the procurement process or to otherwise influence the procurement process or contract execution;
- ii) "Fraudulent practice": any omission or misrepresentation that may mislead or attempt to mislead so that financial or other benefits may be obtained or an obligation avoided. This includes making false declaration or providing false information for participation in a tender process or to secure a contract or in execution of the contract;
- iii) "Anti-competitive practice": any collusion, bid rigging or anti-competitive arrangement, or any

other practice coming under the purview of The Competition Act, 2002, between two or more bidders, with or without the knowledge of the procuring entity, that may impair the transparency, fairness and the progress of the procurement process or to establish bid prices at artificial, non-competitive levels;

iv) "Coercive practice": any coercion or any threat to impair or harm, directly or indirectly, any party or its property to influence the procurement process or affect the execution of a contract;

v) "Conflict of interest" (COI): any personal, financial, - or – business relationship between the bidder and any personnel of the procuring entity who are directly or indirectly related to the procurement or execution process of the contract, which can affect the decision of the procuring entity directly or indirectly;

vi) "Undue Advantage": improper use of information obtained by the bidder from the procuring entity with an intent to gain an unfair advantage in the procurement process or for personal gain. This also includes if the bidder (or his allied firm) provided services for the need assessment/ procurement planning of the tender process in which he is participating;

vii) "Obstructive practice": materially impede the procuring entity's investigation of a procurement process either by deliberately destroying, falsifying, altering; or by concealing of evidence material to the investigation; or by making false statements or by threatening, harassing or intimidating any party to prevent it from disclosing its knowledge of matters relevant to such investigation or from pursuing the investigation; or by impeding the procuring entity's rights of audit or access to information;.

18.(2) Punitive Provisions:

Without prejudice to and in addition to the rights of the procuring entity to other penal provisions as per the bid documents or contract, if the procuring entity comes to a conclusion that a (prospective) bidder/ contractor directly or through an agent, has violated this code of integrity in competing for the contract or in executing a contract, the procuring entity may take appropriate measures including one or more of the following:

i) If his bids are under consideration in any procurement

a) Forfeiture or encashment of bid security;

b) calling off of any pre-contract negotiations; and

c) rejection and exclusion of the bidder from the procurement process

ii) If a contract has already been awarded

a) Cancellation of the relevant contract and recovery of compensation for loss incurred by the procuring entity;

b) Forfeiture or encashment of any other security or bond relating to the procurement;

c) Recovery of payments including advance payments, if any, made by the procuring entity along with interest thereon at the prevailing rate;

iii) Provisions in addition to above:

a) Removal from the list of enlisted contractors and banning/ debarment of the bidder from participation in future procurements of the procuring entity for a period not less than one year;

b) In case of anti-competitive practices, information for further processing may be filed under a signature of the Joint Secretary level officer, with Competition Commission of India;

c) Initiation of suitable disciplinary or criminal proceedings against any individual or staff found responsible.

Any question or dispute as to the commission of any such offence or compensation payable to the Railway under this Clause shall be settled by the General Manager of the Railway, in such a manner as he shall consider fit & sufficient and his decision shall be final & conclusive.

EXECUTION OF WORKS

19.(1) Contractor's understanding: It is understood and agreed that the Contractor has, by careful examination, satisfied himself as to the nature and location of the work, the

conformation of the ground, the character, quality and quantity of the materials to be encountered, the character of equipment and facilities needed preliminary to and during the progress of the works, the general and local conditions, the labour conditions prevailing therein and all other matters which can in any way affect the works under the contract.

19.(2) Commencement of Works: The Contractor shall commence the works within 30 days after the receipt by him of an order in writing to this effect from the Engineer and shall proceed with the same with due expedition and without delay

19.(3) Accepted Programme of Work: The Contractor who has been awarded the work shall as soon as possible but not later than 30 days after the date of receipt of the acceptance letter in respect of contracts with initial completion period of two years or less or not later than 90 days for other contracts have to submit the detailed programme of work indicating the time schedule of various items of works in the form of Bar Chart/PERT/CPM. He shall also submit the details of organisation (in terms of labour and supervisors), plant and machinery that he intends to utilize (from time to time) for execution of the work within stipulated date of completion. The programme of work amended as necessary by discussions with the Engineer, shall be treated as the agreed programme of the work for the purpose of this contract and the Contractor shall endeavor to fulfill this programme of work. The progress of work will be watched accordingly and the liquidated damages will be with reference to the overall completion date. Nothing stated herein shall preclude the Contractor in achieving earlier completion of item or whole of the works than indicated in the programme.

In Contracts for works of New Line/Gauge Conversion/Doubling/Railway Electrification, finalized through Tenders having advertised value more than Rs.100 crores, the Contractor shall submit a detailed time programme to the Engineer within 30 days after issue of LOA. The program shall include the physical and Financial Progress vis-à-vis program and forecast cash flow adopting Project Management Software such as **Primavera/Sure Track/MS Project etc.** The program must identify the milestones, interface requirements and program reporting elements. The Contractor shall supply, free of cost one set of authorized software to the Engineer and the soft copy of structured program for the project. This shall be updated every month. The Contractor shall also submit a revised programme whenever the previous programme is inconsistent with actual progress. Each programme shall include:

The order in which the Contractor intends to carry out the Works, including the anticipated timing of each stage, Contractor's Documents, procurement, manufacture of Plant, delivery to Site, construction, erection and testing, each of these stages for work by each Subcontractor, if any, the sequence and timing of inspections and tests specified in the Contract, and a supporting report which includes:

a general description of the methods which the Contractor intends to adopt, and of the major stages, in the execution of the Works, and

details showing the Contractor's reasonable estimate for the number of each class of Contractor's Personnel & Equipment, required on the Site for each major stage.

Unless the Engineer, within 21 days after receiving a programme, gives notice to the Contractor stating the extent to which it does not comply with the Contract, the Contractor shall proceed in accordance with the programme, subject to his other obligations under the Contract. The Engineer shall be entitled to rely upon the programme when planning their activities.

If, at any time, the Engineer gives notice to the Contractor that a programme fails (to the extent stated) to comply with the Contract or to be consistent with actual progress and the

Contractor's stated intentions, the Contractor shall submit a revised programme to the Engineer within 15 days in accordance with this Sub-Clause.

19.(4) Setting out of Works: The Contractor shall be responsible for the correct setting out of all works in relation to original points, lines and levels of reference at his cost. The Contractor shall execute the work true to alignment, grade, levels and dimensions as shown in the drawing and as directed by the Engineer's representative and check these at frequent intervals. The Contractor shall provide all facilities like labour and instruments and shall co-operate with the Engineer's representative for checking of all alignment, grades, levels and dimensions. If, at any time, during the progress of the works any error appear or arise in any part of the work, the Contractor, on being required so to do by the Engineer's representative shall, at his own cost rectify such errors, to the satisfaction of the Engineer's representative.

Such checking shall not absolve the Contractor of his own responsibility of maintaining accuracy in the work. The Contractor shall carefully protect and preserve all bench marks, sight rails, pegs and other things used in setting out the work.

20.(1) Compliance to Engineer's Instructions: The Engineer shall direct the sequence in which the several parts of the works shall be executed and the Contractor shall execute without delay all orders given by the Engineer from time to time; but the Contractor shall not be relieved thereby from responsibility for the due performance of the works in all respects.

20.(2) Alterations to be Authorized: No alterations in or additions to or omissions or abandonment of any part of the works shall be deemed authorised, except under written instructions from the Engineer.

20.(3) Extra Works: Should works over and above those included in the contract require to be executed at the site, the Contractor shall have no right to be entrusted with the execution of such works which may be carried out by another Contractor or Contractors or by other means at the option of the Railway.

20.(4) Separate Contracts in Connection with Works: The Railway shall have the right to let other contracts in connection with the works. The Contractor shall afford other Contractors reasonable opportunity for the storage of their materials and the execution of their works and shall properly connect and coordinate his work with theirs. If any part of the Contractor's work depends upon proper execution or result upon the work of another Contractor(s), the Contractor shall inspect and promptly report to the Engineer any defects in such works that render it unsuitable for such proper execution and results. The Contractor's failure so to inspect and report shall constitute an acceptance of the other Contractor's work as fit and proper for the reception of his work, except as to defects which may develop in the other Contractor's work after the execution of his work.

21. Instruction of Engineer's Representative: Any instructions or approval given by the Engineer's representative to Contractor in connection with the works shall bind the Contractor as though it had been given by the Engineer provided always as follows:

(a) Failure of the Engineer's representative to disapprove any work or materials shall not prejudice the power of the Engineer thereafter to disapprove such work or material and to order the removal or breaking up thereof.

(b) If the Contractor shall be dissatisfied by reason of any decision of the Engineer's representative, he shall be entitled to refer the matter to the Engineer who shall there upon confirm or vary such decision.

22.(1) Adherence to Specifications and Drawings: The site and the detailed drawings shall be made available to the contractor commensurate with the accepted programme of work submitted under clause 19(3). The whole of the works shall be executed in perfect conformity with the specifications and drawings of the contract. If Contractor performs any works in a manner contrary to the specifications or drawings or any of them and without such reference to the Engineer, he shall bear all the costs arising or ensuing therefrom and shall be responsible for all loss to the Railway.

22.(2) Drawings and Specifications of the Works: The Contractor shall keep one copy of Drawings and Specifications at the site, in good order, and such contract documents as may be necessary, available to the Engineer or the Engineer's Representative.

22.(3) Ownership of Drawings and Specifications: All Drawings and Specifications and copies thereof furnished by the Railway to the Contractor are deemed to be the property of the Railway. They shall not be used on other works and with the exception of the signed contract set, shall be returned by the Contractor to the Railway on completion of the work or termination of the Contract.

22.(4) Compliance with Contractor's Request for Details: The Engineer shall furnish with reasonable promptness, after receipt by him of the Contractor's request, additional instructions by means of drawings or otherwise, necessary for the proper execution of the works or any part thereof. All such drawings and instructions shall be consistent with the Contract Documents and reasonably inferable there from.

22.(5) Meaning and Intent of Specification and Drawings: If any ambiguity arises as to the meaning and intent of any portion of the Specifications and Drawings or as to execution or quality of any work or material, or as to the measurements of the works the decision of the Engineer thereon shall be final subject to the appeal (within 7 days of such decision being intimated to the Contractor) to the Chief Engineer who shall have the power to correct any errors, omissions, or discrepancies in aforementioned items and whose decision in the matter in dispute or doubt shall be final and conclusive.

23. Working during Night: The Contractor shall not carry out any work between sun-set and sun-rise without the previous permission of the Engineer. However, if the Engineer is satisfied that the work is not likely to be completed in time except by resorting to night work, he may order the same without confirming any right on the Contractor for claiming any extra payment for the same.

24. Damage to Railway Property or Private Life and Property: The Contractor shall be responsible for all risk to the work and for trespass and shall make good at his own expense all loss or damage whether to the works themselves or to any other property of the Railway or the lives, persons or property of others from whatsoever cause in connection with the works until they are taken over by the Railway, although all reasonable and proper precautions may have been taken by the Contractor. In case the Railway shall be called upon to make good any costs, loss or damages, or to pay any compensation, including that payable under the provisions of the Workmen's Compensation Act or any statutory amendments thereof to any person or persons sustaining damages as aforesaid by reason of any act, or any negligence or omissions on the part of the Contractor; the amount of any costs or charges including costs and charges in connection with legal proceedings, which the Railway may incur in reference thereto, shall be

charged to the Contractor. The Railway shall have the power and right to pay or to defend or compromise any claim of threatened legal proceedings or in anticipation of legal proceedings being instituted consequent on the action or default of the Contractor, to take such steps as may be considered necessary or desirable to ward off or mitigate the effect of such proceedings, charging to Contractor, as aforesaid; any sum or sums of money which may be paid and any expenses whether for reinstatement or otherwise which may be incurred and the propriety of any such payment, defence or compromise, and the incurring of any such expenses shall not be called in question by the Contractor.

25. Sheds, Storehouses and Yards: The Contractor shall at his own expense provide himself with sheds, storehouses and yards in such situations and in such numbers as in the opinion of the Engineer is requisite for carrying on the works and the Contractor shall keep at each such sheds, storehouses and yards a 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 free access to the said sheds, store houses and yards at any time 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, storehouses or yards by the Contractor. The Contractor shall at his own expenses provide and maintain suitable mortar mills, soaking vats or any other equipments necessary for the execution of the works.

26. Provision of Efficient and Competent Staff at Work Sites by the Contractor:

26.1 The Contractor shall place and keep on the works at all times efficient and competent staff to give the necessary directions to his workmen and to see that they execute their work in sound & proper manner and shall employ only such supervisors, workmen & labourers in or about the execution of any of these works as are careful and skilled in the various trades.

26.2 The Contractor shall at once remove from the works any agents, permitted sub-contractor, supervisor, workman or labourer who shall be objected to by the Engineer and if and whenever required by the Engineer, he shall submit a correct return showing the names of all staff and workmen employed by him.

26.3 In the event of the Engineer being of the opinion that the Contractor is not employing on the works a sufficient number of staff and workmen as is necessary for proper completion of the works within the time prescribed, the Contractor shall forthwith on receiving intimation to this effect deploy the additional number of staff and labour as specified by the Engineer within seven days of being so required and failure on the part of the Contractor to comply with such instructions will entitle the Railway to rescind the contract under Clause 62 of these conditions.

26A. Deployment of Qualified Engineers at Work Sites by the Contractor:

26A.1 The Contractor shall also employ qualified Graduate Engineer(s) or equivalent, or qualified Diploma Engineer(s), as prescribed in the tender documents.

26A.2 In case the Contractor fails to employ the Engineer, as aforesaid in Para 26A.1, he shall be liable to pay liquidated damages at the rates, as prescribed in the tender documents.

26A.3 No. of qualified Engineers required to be deployed by the Contractor for various activities contained in the works contract shall be specified in the tender documents as 'Special Condition of Contract'.

27.(1) Workmanship and Testing: The whole of the works and/or supply of materials specified and provided in the contract or that may be necessary to be done in order to form and complete any part thereof shall be executed in the best and most substantial workman like manner with materials of the best and most approved quality of their respective kinds,

agreeable to the particulars contained in or implied by the specifications and as referred to in and represented by the drawings or in such other additional particulars, instructions and drawings given during the carrying on of the works and to the entire satisfaction of the Engineer according to the instructions and directions which the Contractors may from time to time receive from the Engineer. The materials may be subjected to tests by means of such machines, instruments and appliances as the Engineer may direct and wholly at the expense of the Contractor.

27.(2) Removal of Improper Work and Materials: The Engineer or the Engineer's Representative shall be entitled to order from time to time:

(a) The removal from the site, within the time specified in the order, of any materials which in his opinion are not in accordance with the specifications or drawings.

(b) The substitution of proper and suitable materials, and

(c) the removal and proper re-execution, notwithstanding any previous tests thereof or on account payments therefor, of any work which in respect of materials or workmanship is not in his opinion in accordance with the specifications and in case of default on the part of the Contractor in carrying out such order, the Railway shall be entitled to rescind the contract under Clause 62 of these conditions.

(d) The provision of Construction and Demolition Waste Management Rule 2016 issued by Ministry of Environment Forest and Climate Change dated 29.03.2016 and published in the Gazette of India, Part – II, Section -3, Sub-section (ii) are binding upon the Contractor. Contractor shall implement these provisions at worksites, for which no extra payment will be payable.

28. Facilities for Inspection: The Contractor shall afford the Engineer and the Engineer's Representative every facility for entering in and upon every portion of the work at all hours for the purpose of inspection or otherwise and shall provide all labour, materials, planks, ladders, pumps, appliances and things of every kind required for the purpose and the Engineer and the Engineer's Representative shall at all times have free access to every part of the works and to all places at which materials for the works are stored or being prepared.

29. Examination of Work before Covering Up: The Contractor shall give 7 days' notice to the Engineer or the Engineer's Representative whenever any work or materials are intended to be covered up in the earth, in bodies or walls or otherwise to be placed beyond the reach of measurements in order that the work may be inspected or that correct dimensions may be taken before being so covered, placed beyond the reach of measurement in default whereof, the same shall at the option of the Engineer or the Engineer's Representative be uncovered and measured at the Contractor's expense or no allowance shall be made for such work or materials.

30. Temporary Works: All temporary works necessary for the proper execution of the works shall be provided and maintained by the Contractor and subject to the consent of the Engineer shall be removed by him at his expenses when they are no longer required and in such manner as the Engineer shall direct. In the event of failure on the part of the Contractor to remove the temporary works, the Engineer will cause them to be removed and cost as increased by supervision and other incidental charges shall be recovered from the Contractor. If temporary huts are provided by the Contractor on the Railway land for labour engaged by him for the execution of works, the Contractor shall arrange for handing over vacant possession of the said land after the work is completed; if the Contractor's labour refuse to vacate, and have to be evicted by the Railway, necessary expenses incurred by the Railway in connection therewith shall be borne by the

Contractor.

31.(1) Contractor to Supply Water for Works: Unless otherwise provided in the Contract, the Contractor shall be responsible for the arrangements to obtain supply of water necessary for the works.

31.(2) Water Supply from Railway System: The Railway may supply to the Contractor part or whole of the quantity of the water required for the execution of works from the Railway's existing water supply system at or near the site of works on specified terms and conditions and at such charges as shall be determined by the Railway and payable by the Contractor, provided that the Contractor shall arrange, at his own expense, to effect the connections and lay additional pipelines and accessories on the site and that the Contractor shall not be entitled to any compensation for interruption or failure of the water supply.

31.(3) Water Supply by Railway Transport: In the event of the Railway arranging supply of water to the Contractor at or near the site of works by travelling water tanks or other means, the freight and other charges incurred thereby, including demurrage charges that may be levied, shall be paid by the Contractor in addition to the charges referred to in Sub-Clause (2) of the Clause provided that the Contractor shall not be entitled to any compensation for interruption or failure of the water supply.

31.(4)(a) Contractor to Arrange Supply of Electric Power for Works: Unless otherwise provided in the contract, the Contractor shall be responsible for arrangements to obtain supply of Electric Power for the works.

(b) Electric Supply from the Railway System: The Railway may supply to the Contractor part or whole of the electric power wherever available and possible, required for execution of works from the Railway's existing electric supply systems at or near the site of works on specified terms and conditions and such charges as shall be determined by the Railway and payable by the Contractor provided the cost of arranging necessary connections to the Railway's Electric Supply systems and laying of underground/overhead conductor, circuit protection, electric power meters, transmission structure, shall be borne by the Contractor and that the Contractor shall not be entitled to any compensation for interruption or failure of the Electric supply system.

32. Property in Materials and Plant: The materials and plant brought by the Contractor upon the site or on the land occupied by the Contractor in connection with the works and intended to be used for the execution thereof shall immediately be deemed to be the property of the Railway. Such of them as during the progress of the works are rejected by the Engineer under Clause 25 of these conditions or are declared by him not to be needed for the execution of the works or such as on the grant of the certificate of completion remain unused shall immediately on such rejection, declaration or grant cease to be deemed the property of the Railway and the Contractor may then (but not before) remove them from the site or the said land. This clause shall not in any way diminish the liability of the Contractor nor shall the Railway be in any way answerable for any loss or damage which may happen to or in respect of any such materials or plant either by the same being lost, stolen, injured or destroyed by fire, tempest or otherwise.

33.(1) Tools, Plant and Materials Supplied by Railway: The Contractor shall take all reasonable care of all tools, plant and materials or other property whether of a like description or not belonging to the Railway and committed to his charge for the purpose of the works and shall be responsible for all damage or loss caused by him, his agents, permitted sub-contractor, or his workmen or others while they are in his charge. The Contractors shall sign accountable receipts for tools, plants and materials made over to him by the Engineer and on completion of the works shall hand over the unused balance of the same to the Engineer in good order and repair, fair

wear and tear excepted, and shall be responsible for any failure to account for the same or any damage done thereto.

33.(2) Hire of Railway's Plant: The Railway may hire to the Contractor such plant as concrete mixers, compressors and portable engines for use during execution of the works on such terms as may be specified in the special conditions or in a separate agreement for Hire of Plant.

34.(1) Precaution During Progress of Works: During the execution of works, unless otherwise specified, the Contractor shall at his own cost provide the materials for and execute all shoring, timbering and strutting works as is necessary for the stability and safety of all structures, excavations and works and shall ensure that no damage, injury or loss is caused or likely to be caused to any person or property.

34.(2) Roads and Water Courses: Existing roads or water courses shall not be blocked cut through, altered, diverted or obstructed in any way by the Contractor, except with the permission of the Engineer. All compensations claimed for any unauthorized closure, cutting through, alteration, diversion or obstruction to such roads or water courses by the Contractor or his agent or his staff shall be recoverable from the Contractor's bills/Security Deposit or any other dues of Contractor with the Government of India.

34.(3) Provision of Access to Premises: During progress of work in any street or thoroughfare, the Contractor shall make adequate provision for the passage of traffic, for securing safe access to all premises approached from such street or thoroughfare and for any drainage, water supply or means of lighting which may be interrupted by reasons of the execution of the works and shall erect and maintain at his own cost barriers, lights and other safeguards as prescribed by the Engineer, for the regulation of the traffic, and provide watchmen necessary to prevent accidents. The works shall in such cases be executed night and day, if so ordered by the Engineer and with such vigour so that the traffic way be impeded for as short a time as possible.

34.(4) Safety of Public: The Contractor shall be responsible to take all precautions to ensure the safety of the public whether on public or railway property and shall post such look out men as may,

in the opinion of the Engineer, be required to comply with regulations appertaining to the work. Contractor shall ensure placement of barricading / partitions at the place of work to ensure safety of habitants of adjacent area, failing which Engineer may advise stoppage of work as per his discretion.

34.(5) Display Board: The Contractor shall be responsible for displaying the details of works i.e. name of work, approximate cost, expected date of completion, name and address of the Contractor and address of Engineer on a proper steel Board of size not less than 1m x 1m.

35. Use of Explosives: Explosives shall not be used on the works or on the site by the Contractor without the permission of the Engineer and then also only in the manner and to the extent to which such permission is given. Where explosives are required for the works, they shall be stored in a special magazine to be provided by and at the cost of the Contractor in accordance with the Explosive Rules. The Contractor shall obtain the necessary license for the storage and the use of explosives. All operations in which or for which explosives are employed shall be at the sole risk and responsibility of the Contractor and the Contractor shall indemnify the Railway in respect thereof.

36.(1) Suspension of Works: The Contractor shall on the order of the Engineer, suspend the progress of the works or any part thereof for such time or times and in such manner as the Engineer may consider necessary and shall during such suspension properly protect and secure the work so

far as is necessary in the opinion of the Engineer. If such suspension is:

- (a) Provided for in the contract, or
- (b) Necessary for the proper execution of the works or by the reason of weather conditions or by some default on the part of the Contractor, and or
- (c) Necessary for the safety of the works or any part thereof, or
- (d) Necessary for the safety of adjoining public or other property or safety of the public or workmen or those who have to be at the site, or
- (e) Necessary to avoid disruption of traffic and utilities, as also to permit fast repair and restoration of any damaged utilities, or
- (f) Due to instruction of The National Green Tribunal or any other statutory authority due to high level of pollution in the city of worksite.

36.(2) The Contractor shall not be entitled to the extra costs, if any, incurred by him during the period of suspension of the works, but in the event of any suspension ordered by the Engineer for reasons other than aforementioned and when each such period of suspension exceeds 14 days, the Contractor shall be entitled to such extension of time for completion of the works as the Engineer may consider proper having regard to the period or periods of such suspensions and to such compensations as the Engineer may consider reasonable in respect of salaries or wages paid by the Contractor to his employees during the periods of such suspension.

36.(3) Suspension Lasting More than 3 Months: If the progress of the works or any part thereof is suspended on the order of the Engineer for more than three months at a time, the Contractor may serve a written notice on the Engineer requiring permission within 15 days from the receipt thereof to proceed with the works or that part thereof in regard to which progress is suspended and if such permission is not granted within that time the Contractor by further written notice so served may, but is not bound to, elect to treat the suspension where it affects part only of the works as an omission of such part or where it affects the whole of the works, as an abandonment of the contract by the Railway.

37. Rates for Items of Works:

(i) The rates, entered in the accepted Bill(s) of Quantities of the Contract are intended to provide for works duly and properly completed in accordance with the General and Special (if any) Conditions of the Contract and the Specifications and drawings together with such enlargements, extensions, diminutions, reductions, alterations or additions as may be ordered in terms of Clause 42 of these conditions and without prejudice to the generality thereof and shall be deemed to include and cover superintendence and labour, supply, including full freight of materials, stores, patterns, profiles, moulds, fittings, centerings, scaffolding, shoring props, timber, machinery, barracks, tackle, roads, pegs, posts, tools and all apparatus and plant required on the works, except such tools, plant or materials as may be specified in the contract to be supplied to the Contractor by the Railway, the erection, maintenance and removal of all temporary works and buildings, all watching, lighting, bailing, pumping and draining, all prevention of or compensation for trespass, all barriers and arrangements for the safety of the public or of employees during the execution of works, all sanitary and medical arrangements for labour camps as may be prescribed by the Railway, the setting of all work and of the construction, repair and upkeep of all center lines, bench marks and level pegs thereon, site clearance, all fees duties, royalties, rent and compensation to owners for surface damage or taxes and impositions payable to local authorities in respect of land, structures and all material supplied for the work or other duties or expenses for which the Contractor may become liable or may be put to under any provision of law for the purpose of or in connection with the execution

of the contract and all such other incidental charges or contingencies as may have been specially provided for in the Specifications.

However, if rates of existing GST or cess on GST for Works Contract is increased or any new tax /cess on Works Contract is imposed by Statute after the date of opening of tender but within the original date of completion/date of completion extended under clause 17 & 17A and the Contractor thereupon properly pays such taxes/cess, the Contractor shall be reimbursed the amount so paid.

Further, if rates of existing GST or cess on GST for Works Contract is decreased or any tax/cess on Works Contract is decreased / removed by Statute after the date of opening of tender, the reduction in tax amount shall be recovered from Contractor's bills/Security Deposit or any other dues of Contractor with the Government of India.

38. Demurrage and Wharfage Dues: Demurrage charges calculated in accordance with the scale in force for the time being on the Railway and incurred by the Contractor failing to load or unload any goods or materials within the time allowed by the Railway for loading as also wharfage charges, of materials not removed in time, as also charges due on consignments booked by or to him shall be paid by the Contractor, failing which such charges shall be debited to the Contractor's account in the hands of the Railway and shall be deducted from any sums which may become due to him in terms of the contracts.

39.(1) Rates for Extra Item(s) of Works:

(a) Standard Schedule of Rates (SSOR) Items: Any item of work carried out by the Contractor on the instructions of the Engineer which is not included in the accepted Bill(s) of Quantities but figures in the Standard Schedule of Rates (SSOR), shall be executed at the rates set forth in the "Standard Schedule of Rates (SSOR)" modified by the tender percentage as accepted in the contract for that chapter of Standard Schedule of Rates (SSOR).

For item(s) not covered in this sub clause, the rate shall be decided as agreed upon between the Engineer and the Contractor before the execution of such items of work as per sub clause (b).

(b) Other Items: For any item of work to be carried out by the Contractor but not included in the accepted Bill(s) of Quantities and also not covered under sub clause (a) above, the Contractor shall be bound to notify the Engineer at least seven days before the necessity arises for the execution of such items of works that the accepted Bill(s) of Quantities does not include rate or rates for such extra work involved. The rates payable for such items shall be decided at the meeting to be held between the Engineer and Contractor, in as short a period as possible after the need for the special item has come to the notice. In case the Contractor fails to attend the meeting after being notified to do so or in the event of no settlement being arrived at, the Railway shall be entitled to execute the extra works by other means and the Contractor shall have no claim for loss or damage that may result from such procedure.

The assessment of rates for extra item(s) shall be arrived at based on the prevailing market rates of labour, machinery & materials and by taking guidance from the following documents in order of priority:

- i. Analysis of Rates for "Unified Standard Schedule of Rates of Indian Railways (USSOR)"
- ii. Analysis of Rates for "Delhi Schedule of Rates issued by CPWD (DSR)"
- iii. Market Analysis

39.(2) Provided that if the Contractor commences work or incurs any expenditure in regard thereto before the rates as determined and agreed upon as lastly hereuntofore-mentioned, then

and in such a case the Contractor shall only be entitled to be paid in respect of the work carried out or expenditure incurred by him prior to the date of determination of the rates as aforesaid according to the rates as shall be fixed by the Engineer. However, if the Contractor is not satisfied with the decision of the Engineer in this respect, he may appeal to the Chief Engineer within 30 days of getting the decision of the Engineer, supported by analysis of the rates claimed. The Chief Engineer's decision after hearing both the parties in the matter would be final and binding on the Contractor and the Railway.

40. (1) Handing over of Works: The Contractor shall be bound to hand over the works executed under the contract to the Railway complete in all respects to the satisfaction of the Engineer. The Engineer shall determine the date on which the work is considered to have been completed, in support of which his certificate shall be regarded as sufficient evidence for all purposes. The Engineer shall determine from time to time, the date on which any particular section of the work shall have been completed, and the Contractor shall be bound to observe any such determination of the Engineer.

40.(2) Clearance of Site on Completion: On completion of the works, the Contractor shall clear away and remove from the site all constructional plant, surplus materials, rubbish and temporary works of every kind and leave the whole of the site and works clean and in a workman like condition to the satisfaction of the Engineer. No final payment in settlement of the accounts for the works shall be paid, held to be due or shall be made to the, Contractor till, in addition to any other condition necessary for final payment, site clearance shall have been effected by him, and such clearance may be made by the Engineer at the expense of the Contractor in the event of his failure to comply with this provision within 7 days after receiving notice to that effect. Should it become necessary for the Engineer to have the site cleared at the expenses of the Contractor, the Railway shall not be held liable for any loss or damage to such of the Contractor's property as may be on the site and due to such removal there from which removal may be affected by means of public sales of such materials and property or in such a way as deemed fit and convenient to the Engineer.

40A Offloading of Part(s) of Work: At the final stage of completion/ commissioning of work, in case the contractor fails to complete the final part(s) of the work and the value of such part(s) of the work is limited to 5% of the original contract value, the Engineer may allow/decide for offloading of such part(s) of works, either after the Contractor's request in writing to do so or after serving a 14 (Fourteen) days suo-moto notice (as per annexure- VIIA), if the Engineer is of the opinion that :-

- (i) Such Offloading of works (up to 5% of original contract value) would enable successful completion of contract/work,
- (ii) Termination/ Part termination of the contract at this stage is not be in the interest of the Railway/work;, and
- (iii) The anticipated additional cost for execution of such works through other mode would not be substantial and can be recovered from the pending dues of the contractor;

The Contractor shall be informed, in due course, by the Engineer of the mode and cost of execution of such offloaded work through other agency(ies) (as per annexure- VIIB). The extra expenditure so incurred in execution of the offloaded work, shall be recovered from subsequent Bill(s) or any other dues of the Contractor, but not exceeding the value of Performance Guarantee available in the contract. There shall be no other repercussion of such offloading on execution of the balance contract. The Contractor shall have no claim on account of above mentioned offloading of works.

VARIATIONS IN EXTENT OF CONTRACT

41. Modification to Contract to be in Writing: In the event of any of the provisions of the contract required to be modified after the contract documents have been signed, the modifications shall be made in writing and signed by the Railway and the Contractor and no work shall proceed under such modifications until this has been done. Any verbal or written arrangement abandoning, modifying, extending, reducing or supplementing the contract or any of the terms thereof shall be deemed conditional and shall not be binding on the Railway unless and until the same is incorporated in a formal instrument and signed by the Railway and the Contractor, and till then the Railway shall have the right to repudiate such arrangements.

42.(1) Powers of Modification to Contract: The Engineer on behalf of the Railway shall be entitled by order in writing to enlarge or extend, diminish or reduce the works or make any alterations in their design, character position, site, quantities, dimensions or in the method of their execution or in the combination and use of materials for the execution thereof or to order any additional work to be done or any works not to be done and the Contractor will not be entitled, to any compensation for any increase/reduction in the quantities of work but will be paid only for the actual amount of work done and for approved materials supplied against a specific order.

42.(2) (i) Unless otherwise specified in the special conditions of the contract, the accepted variation in quantity of each individual item of the contract would be upto 25% of the quantity originally contracted, except in case of foundation work (in which no variation limit shall apply). However, the rates for the increased quantities shall be as per sub- para (iii) below.

(ii) The Contractor shall be bound to carry out the work at the agreed rates and shall not be entitled to any claim or any compensation whatsoever upto the limit of 25% variation in quantity of individual item of works.

(iii) In case an increase in quantity of an individual item by more than 25% of the agreement quantity is considered unavoidable, then same shall be executed at following rates

- a. Quantities operated in excess of 125% but upto 140% of the agreement quantity of the concerned item, shall be paid at 98% of the rate awarded for that item in that particular tender;
- b. Quantities operated in excess of 140% but upto 150% of the agreement quantity of the concerned item shall be paid at 96% of the rate awarded for that item in that particular tender;
- c. Variation in quantities of individual items beyond 150% will be avoided and would be permitted only in exceptional unavoidable circumstances and shall be paid at 96% of the rate awarded for that item in that particular tender.

d. Variation to quantities of Minor Value Item:

The limit for varying quantities for minor value items shall be 100% (as against 25% prescribed for other items). A minor value item for this purpose is defined as an item whose original agreement value is less than 1 % of the total original contract value.

d.(i) Quantities operated upto and including 100% of the agreement quantity of the concerned minor value item, shall be paid at the rate awarded for that item in that particular tender;

d.(ii) Quantities operated in excess of 100% but upto 200% of the agreement quantity of the concerned minor value item, shall be paid at 98% of the rate awarded for that item in that particular tender;

d.(iii) Variation in quantities of individual minor value item beyond 200% will be avoided and would be permitted only in exceptional unavoidable circumstances and shall be paid at 96% of the rate awarded for that item in that particular tender.

(iv) In case of earthwork items, the variation limit of 25% shall apply to the gross quantity of

earthwork items and variation in the quantities of individual classifications of soil shall not be subject to this limit.

(v) As far as Standard Schedule of Rates (SSOR) items are concerned, the variation limit of 25% would apply to the value of SSOR schedule(s) as a whole and not on individual SSOR items. However, in case of Non Standard Schedule of Rates (SSOR) items, the limit of 25% would apply on the individual items irrespective of the manner of quoting the rate (single percentage rate or individual item rate).

42.(3) Valuation of Variations: The enlargements, extensions, diminution, reduction, alterations or additions referred to in Sub-Clause (2) of this Clause shall in no degree affect the validity of the contract; but shall be performed by the Contractor as provided therein and be subject to the same conditions, stipulations and obligations as if they had been originally and expressly included and provided for in the Specifications and Drawings and the amounts to be paid therefor shall be calculated in accordance with the accepted Bill(s) of Quantities. Any extra item(s)/quantities of work falling outside the purview of the provisions of Sub-Clause (2) above shall be paid for at the rates determined under Clause-39 of these Conditions.

CLAIMS

43.(1) Quarterly Statement of Claims: The Contractor shall prepare and furnish to the Engineer once in every quarter commencing from the month following the month of issue of Letter of Acceptance, an account giving full and detailed particulars of all claims for any additional expenses to which the Contractor may consider himself entitled to and of all extra or additional works ordered by the Engineer which he has executed during the preceding quarter and no claim for payment for such work will be considered which has not been included in such particulars.

43.(2) Signing of "No Claim" Certificate : The Contractor shall not be entitled to make any claim whatsoever against the Railway under or by virtue of or arising out of this contract, nor shall the Railway entertain or consider any such claim, if made by the Contractor, after he shall have signed a "No Claim" Certificate in favour of the Railway in such form as shall be required by the Railway after the works are finally measured up. The Contractor shall be debarred from disputing the correctness of the items covered by "No Claim" Certificate or demanding a clearance to arbitration in respect thereof.

MEASUREMENTS, CERTIFICATES AND PAYMENTS

44. Quantities in Bill(s) of Quantities Annexed to Contract: The quantities set out in the accepted Bill(s) of Quantities with items of works quantified are the estimated quantities of the works and they shall not be taken as the actual and correct quantities of the work to be executed by the Contractor in fulfillment of his obligations under the contract.

45(i). Measurement of Works by Railway: The Contractor shall be paid for the works at the rates in the accepted Bill(s) of Quantities and for extra works at rates determined under Clause 39 of these Conditions on the measurements taken by the Engineer or the Engineer's representative in accordance with the rules prescribed for the purpose by the Railway. The quantities for items the unit of which in the accepted Bill(s) of Quantities is 100 or 1000 shall be calculated to the nearest whole number, any fraction below half being dropped and half and above being taken as one; for items the unit of which in the accepted Bill(s) of Quantities is single, the quantities shall be calculated to two places of decimals. Such measurements will be taken of the work in progress from time to time and at such intervals as in the opinion of the Engineer shall be proper having regard to the progress of works. The date and time on which 'on account' or 'final' measurements are to be made shall be communicated to the Contractor who shall be present at the site and shall sign the results of the

measurements (which shall also be signed by the Engineer or the Engineer's representative) recorded in the official measurements book as an acknowledgement of his acceptance of the accuracy of the measurements. Failing the Contractor's attendance, the work may be measured up in his absence and such measurements shall, notwithstanding such absence, be binding upon the Contractor whether or not he shall have signed the measurement books provided always that any objection made by him to measurement shall be duly investigated and considered in the manner set out below:

(a) It shall be open to the Contractor to take specific objection to any recorded measurements or Classification on any ground within seven days of the date of such measurements. Any re-measurement taken by the Engineer or the Engineer's representative in the presence of the Contractor or in his absence after due notice has been given to him in consequence of objection made by the Contractor shall be final and binding on the Contractor and no claim whatsoever shall thereafter be entertained regarding the accuracy and Classification of the measurements.

(b) If an objection raised by the Contractor is found by the Engineer to be incorrect the Contractor shall be liable to pay the actual expenses incurred in measurements.

45(ii). **Measurement of Works by Contractor's Authorized Representative (in case the contract provides for the same):**

(a) The Contractor shall be paid for the works at the rates in the accepted Bill(s) of Quantities and for extra works at rates determined under Clause 39 of these Conditions on the measurements taken by the Contractor's authorized Engineer in accordance with the rules prescribed for the purpose by the Railway. The quantities for items the unit of which in the accepted Bill(s) of Quantities is 100 or 1000 shall be calculated to the nearest whole number, any fraction below half being dropped and half and above being taken as one; for items the unit of which in the accepted Bill(s) of Quantities is single, the quantities shall be calculated to two places of decimals. Such measurements will be taken of the work in progress from time to time. The date and time on which 'on account' or 'final' measurements are to be made shall be communicated to the Engineer.

The date and time of test checks shall be communicated to the Contractor who shall be present at the site and shall witness the test checks, failing the Contractor's attendance the test checks may be conducted in his absence and such test checks shall notwithstanding such absence be binding upon Contractor provided always that any objection made by Contractor to test check shall be duly investigated and considered in the manner set out below:

(i) It shall be open to the Contractor to take specific objection to test checks of any recorded measurement within 7 days of date of such test checks. Any re-test check done by the concerned Railway's authority in the presence of the Contractor or in his absence after due notice given to him in consequent of objection made by the Contractor shall be final and binding on the Contractor and no claim whatsoever shall thereafter be entertained regarding the accuracy and classification of the measurements.

(ii) If an objection raised by the Contractor is found by the Engineer to be incorrect the Contractor shall be liable to pay the actual expenses incurred in measurements.

(b) Incorrect measurement, actions to be taken: If in case during test check or otherwise, it is detected by the Engineer that agency has claimed any exaggerated measurement or has claimed any false measurement for the works which have not been executed; amounting to variation of 5% or more of claimed gross bill amount, action shall be taken as following:

- (i) On first occasion of noticing exaggerated/ false measurement, Engineer shall recover liquidated damages equal to 10% of claimed gross bill value.
- (ii) On any next occasion of noticing any exaggerated/false measurement, railway shall recover liquidated damages equal to 15% of claimed gross bill value. In addition, the facility of recording of measurements by Contractor as well as release of provisional payment shall be withdrawn. Once withdrawn, measurements shall be done by railway as per clause 45(i) above.

46.(1) "On-Account " Payments: The Contractor shall be entitled to be paid from time to time by way of "On-Account" payment only for such works as in the opinion of the Engineer he has executed in terms of the contract. All payments due on the Engineer's/Engineer's Representative's certificates of measurements or Engineer's certified "Contractor's authorized Engineer's measurements" shall be subject to any deductions which may be made under these presents and shall further be subject to, unless otherwise required by Clause 16 of these Conditions, a retention of six percent by way of Security Deposits, until the amount of Security Deposit by way of such retentions shall amount to 5% of the total value of the contract provided always that the Engineer may by any certificate make any correction or modification in any previous certificate which shall have been issued by him and that the Engineer may withhold any certificate, if the works or any part thereof are not being carried out to his satisfaction.

46.(2) Rounding off Amounts: The total amount due on each certificate shall be rounded off to the nearest rupee, i.e. sum less than 50 paise shall be omitted and sums of 50 paise and more upto ₹1 will be reckoned as ₹ 1.

46.(3) On Account Payments not Prejudicial to Final Settlement: "On-Account" payments made to the Contractor shall be without prejudice to the final making up of the accounts (except where measurements are specifically noted in the Measurement Book as "Final Measurements" and as such have been signed by the Contractor and Engineer/Engineer's Representative) and shall in no respect be considered or used as evidence of any facts stated in or to be inferred from such accounts nor of any particular quantity of work having been executed nor of the manner of its execution being satisfactory.

46.(4) If payment(s) of Advances are applicable in the contract, as mentioned in the Tender Documents, Railway shall make payment(s) of Interest bearing advances, on the request of contractor. The payment and recovery of such Advances shall be made as under:

(a): Mobilisation Advance –

This shall be limited to 10% of the Contract value and shall be paid in 2 stages :

Stage 1 – 5% of Contract Value on signing of the contract agreement.

Stage 2 – 5% on mobilization of site-establishment, setting up offices, bringing in equipment and actual commencement of work.

The stage 1 of advance shall be payable immediately after signing of contract agreement.

The stage 2 of advance shall be payable at the time of mobilisation, only after submission of an utilization certificate by the contractor that the Stage 1 advance has been properly utilized in the contract.

These Advances shall be payable against irrevocable guarantee (Bank Guarantee, FDRs) from a scheduled commercial bank of India of at least 110% of the value of the sanctioned advance amount (covering principal plus interest).

(b): Advance Against Machinery and Equipment –

This advance shall be limited to a maximum of 10% of the contract value against new Machinery &

Equipment, involving substantial outlay, brought to site and essentially required for the work. This advance shall not exceed 75% of the purchase price of such Equipment and shall be payable when Equipment is hypothecated to the President of India by a suitable bond or alternatively covered by an irrevocable Bank Guarantee from a scheduled commercial bank of India for full cost of the Plant & Equipment in a form acceptable to Railways. The Plant & Equipment shall be insured for the full value and for the entire period, they are required for the work. This Plant & Equipment shall not be removed from the site of work without prior written permission of the Engineer. No advance should be given against old Plant & Machinery.

The advances under sub clause (a) and (b) above, are subject to the following conditions -

(i) The full amount of Advances shall be recovered from contractor dues. The recovery shall commence when the value of contract executed reaches 15% of original contract value and shall be completed when the value of work executed reaches 85% of the original contract value. The installments on each "on account bill" will be on pro-rata basis.

Interest shall be recovered on the advance outstanding for the period commencing from the date of payment of advance till date of particular on-account bill (through which recovery of principal is effected) and adjusted fully against on-account bill along with pro-rata principal recovery. In the event of any short-fall, the same shall be carried forward to the next on-account bill and shall attract interest.

(ii) The advances shall be used by the Contractor for the purpose of the Contract, and for the purpose for which they are paid. Under no circumstances, shall the advances be diverted for other purposes. Any such diversion shall be construed as a breach of the Contract and the Contractor shall be asked to return the advance at once and pay interest at 15% per annum till the advance is recovered back from him. The Contractor shall return the advance and pay the interest in one go without demur. The Contractor, if required by the Engineer shall provide the details of utilisation of Mobilisation advance.

(iii) If the Contractor is found to have contravened the provision, it will constitute a breach of contract and Railway shall be entitled to terminate the contract and forfeit his Performance Guarantee as well as Security Deposit.

(iv) In cases, where the Contract is rescinded as per clause 62 of the contract or short closed under any other condition(s) of the contract, without making full recovery of advances and accrued interest thereon, by the Railway, such balance of advances and accrued interest thereon shall immediately become due and payable by the Contractor to the Railway. The same shall be recovered from any due of Contractor with the Government of India.

46.(5) Manner of Payment: Unless otherwise specified payments to the Contractor will be transferred electronically to his bank account.

46A. Price Variation Clause (PVC):

46A.1 Applicability: Price Variation Clause (PVC) shall be applicable only in tender having advertised value above **Rs. 2 Crores**. Provided further that, in a contract where PVC is applicable, following shall be outside the purview of price adjustments (i.e. shall be excluded from the gross value of the work for the purpose of price variation) :

- (a) Materials supplied by Railway to the Contractors, either free or at fixed rate;
- (b) Any extra item(s) included in subsequent variation falling outside the purview of the Bill(s) of Quantities of tender, under clause 39. (1)(b) of these Standard General Conditions, unless applicability of PVC and 'Base Month' has been specially agreed, while fixing the rates of such extra item(s).

46A.2 Base Month: The Base Month for 'Price Variation Clause' shall be taken as the one month

prior to closing of tender, unless otherwise stated elsewhere. The quarter for applicability of PVC shall commence from the month following the Base month. The Price Variation shall be based on the average Price Index of the quarter under consideration.

46A.3 Validity:

Rates accepted by Railway Administration shall hold good till completion of work and no additional individual claim shall be admissible except:

- Payment/recovery for increase/decrease in GST on works contract or imposition/removal of any tax/cess on Works Contract as per Clause 37,
- Payment/recovery for overall market situation as per Price Variation Clause given hereunder.

46A.4 Components of various items in a contract on which variation in prices be admissible, shall be steel, cement, ferrous material, non-ferrous material, insulators, zinc and other materials, labour, plant & machinery, fuel, explosives, detonators etc. Adjustment for variation in prices of these items shall be determined in the manner prescribed.

46A.5 No price variation shall be admissible for fixed components.

46A.6 The percentages of various components in various type of works shall be as specified for all item (s)/ Bill(s) of Quantities in tender document and the same shall be fixed as per table & classifications given below:

(I). For Civil Engineering Works

S N	Classification		1A, 2 & 3A	4A	5A	6A	7	8A	9A	1B, 3B, 4B, 5B, 6B 8B & 9B	1C, 3C, 4C, 5C, 6C, 8C & 9C	3D, 4D, 5D, 6D, 8D & 9D	3E, 4E, 5E, 6E, 8E & 9E
	Components												
1	Fixed	*	15	15	15	15	15	15	15	15	15	15	15
2	Labour	L _c	20	25	30	20	50	20	20	0	0	10	25
3	Steel	S _c	0	0	0	0	0	0	0	85	0	50	0
4	Cement	C _c	0	0	15	0	0	0	0	0	85	0	0
5	Plant Machinery & Spares	PM _c	30	15	5	20	15	20	30	0	0	10	30
6	Fuel & Lubricants	F _c	25	15	5	15	15	20	15	0	0	10	20
7	Other materials	M _c	10	15	30	30	5	25	20	0	0	5	10
8	Detonators & Explosive	E _c	0	15	0	0	0	0	0	0	0	0	0
Total			100	100	100	100	100	100	100	100	100	100	100

* It shall not be considered for any price variation.

The classification mentioned in the table above represents following type of item(s) in the work(s) –

1 **Earthwork in Formation**

- 1A All Item(s) excluding 1B or/and 1C
- 1B Item(s) for supply of Steel
- 1C Item(s) for supply of Cement

2 Ballast Supply Works

3 Tunnelling Works (Without Explosives)

- 3A All Item(s) excluding 3B or/and 3C or/and 3D or/and 3E
- 3B Item(s) for supply of Steel
- 3C Item(s) for supply of Cement or/and Grout
- 3D Item(s) for Fabrication & Erection of Structures including supply of Steel
- 3E Item(s) for Fabrication & Erection of Structures excluding supply of Steel.

4 Tunnelling Works (With explosives)

- 4A All Item(s) excluding 4B or/and 4C or/and 4D or/and 4E
- 4B Item(s) for supply of Steel
- 4C Item(s) for supply of Cement or/and Grout
- 4D Item(s) for Fabrication & Erection of Structures including supply of Steel
- 4E Item(s) for Fabrication & Erection of Structures excluding supply of Steel.

5 Building Works

- 5A All Item(s) excluding 5B or/and 5C or/and 5D or/and 5E
- 5B Item(s) for supply of Steel
- 5C Item(s) for supply of Cement
- 5D Item(s) for Fabrication & Erection of Structures including supply of Steel
- 5E Item(s) for Fabrication & Erection of Structures excluding supply of Steel.

6. Bridges & Protection work

- 6A All Item(s) excluding 6B or/and 6C or/and 6D or/and 6E
- 6B Item(s) for supply of Steel
- 6C Item(s) for supply of Cement
- 6D Item(s) for Fabrication, Assembly, Erection & Launching of Girders including supply of Steel
- 6E Item(s) for Fabrication, Assembly, Erection & Launching of Girders excluding supply of Steel

7. Permanent Way linking

8. Platform, Passenger Amenities

- 8A All Item(s) excluding 8B or/and 8C or/and 8D or/and 8E
- 8B Item(s) for supply of Steel item/fittings
- 8C Item(s) for supply of Cement Item
- 8D Item(s) for Fabrication & Erection of Structures including supply of Steel
- 8E Item(s) for Fabrication & Erection of Structures excluding supply of Steel

9. Any Other Works not covered in Classification 1 to 8

- 9A All Item(s) excluding 9B or/and 9C or/and 9D or/and 9E
- 9B Item(s) for supply of Steel
- 9C Item(s) for supply of Cement or/and Grout
- 9D Item(s) for Fabrication & Erection of Structures including supply of Steel
- 9E Item(s) for Fabrication & Erection of Structures excluding supply of Steel

46A.7 Formulae: The Amount of variation in prices in various components (labour, material etc.) shall be

worked out by the following formulae:

$$\begin{aligned}
 \text{(i) } L &= \frac{(W \text{ or } W_{SE} \text{ or } W_E \text{ or } W_{SFL} \text{ or } W_{FL}) \times (L_Q - L_B) \times L_C}{L_B \times 100} \\
 \text{(ii) } M &= \frac{(W \text{ or } W_{SE} \text{ or } W_E \text{ or } W_{SFL} \text{ or } W_{FL}) \times (M_Q - M_B) \times M_C}{M_B \times 100} \\
 \text{(iii) } F &= \frac{(W \text{ or } W_{SE} \text{ or } W_E \text{ or } W_{SFL} \text{ or } W_{FL}) \times (F_Q - F_B) \times F_C}{F_B \times 100} \\
 \text{(iv) } E &= \frac{(W) \times (E_Q - E_B) \times E_C}{E_B \times 100} \\
 \text{(v) } PM &= \frac{(W \text{ or } W_{SE} \text{ or } W_E \text{ or } W_{SFL} \text{ or } W_{FL}) \times (PM_Q - PM_B) \times PM_C}{PM_B \times 100} \\
 \text{(vi) } S &= \frac{(W \text{ or } W_S \text{ or } W_{SE}) \times (S_Q - S_B) \times S_C}{S_B \times 100} \\
 \text{(vii) } C &= \frac{(W \text{ or } W_C) \times (C_Q - C_B) \times C_C}{C_B \times 100}
 \end{aligned}$$

(II) For Railway Electrification Works:

$$\begin{aligned}
 \text{(viii) } T &= [0.4136 \times (C_Q - C_B) / C_B] \times 85 \\
 \text{(ix) } R &= [0.94 \times (R_T - R_O) / R_O + 0.06 \times (Z_T - Z_O) / Z_O] \times 85 \\
 \text{(x) } N &= [(P_T - P_O) / P_O] \times 85 \\
 \text{(xi) } I &= [(I_T - I_O) / I_O] \times 85 \\
 \text{(xii) } G &= [(M_Q - M_B) / M_B] \times 85 \\
 \text{(xiii) } Er &= [(L_Q - L_B) / L_B] \times 85
 \end{aligned}$$

Where,

L Amount of price variation in Labour

M Amount of price variation in Materials

F Amount of price variation in Fuel

E Amount of price variation in Explosives

PM Amount of price variation in Plant, Machinery and Spares

S Amount of price variation in Steel Supply Item

C Amount of price variation in Cement Supply Item

T Percentage variation payable on the gross value of bill of Concreting (Bill(s) of

Quantities for concrete items)

- R Percentage variation payable on the gross value of bill of Ferrous Items (Bill(s) of Quantities for ferrous items)
- N Percentage variation payable on the gross value of bill of Non-Ferrous Items (Bill(s) of Quantities for non-ferrous items)
- I Percentage variation payable on the gross value of bill of Insulator (Bill(s) of Quantities for Insulator items)
- G Percentage variation payable on the gross value of bill of General Works (Bill(s) of Quantities for General items)
- Er Percentage variation payable on the gross value of erection (Bill(s) of Quantities for Erection Item)
- L_C % of Labour Component in the item(s)
- M_C % of Material Component in the item(s)
- F_C % of Fuel Component in the item(s)
- E_C % of Explosive Component in the item(s)
- PM_C % of Plant, Machinery and Spares Component in the item(s)
- S_C % of Steel Supply item Component in the item(s)
- C_C % of Cement Supply item Component in the item(s)
- W Gross value of work done by Contractor as per on-account bill(s) excluding the Gross value of work under W_S or/and W_C or/and W_{SF} or/and W_F or/and W_{SFL} or/and W_{FL} and cost of materials supplied by Railway either free or at fixed rate,
- W_S Gross value of work done by Contractor for item(s) of supply of steel.
- W_C Gross value of work done by Contractor for item(s) of supply of cement and /or supply of grout material.
- W_{SF} Gross value of work done by Contractor for item(s) of Fabrication & Erection of Structures including supply of Steel.
- W_F Gross value of work done by Contractor for Fabrication & Erection of Structures excluding supply of Steel.
- W_{SFL} Gross value of work done by Contractor for item(s) of Fabrication, Assembly, Erection / Launching of Girders including supply of Steel.
- W_{FL} Gross value of work done by Contractor for item(s) of Fabrication, Assembly, Erection / Launching of Girders excluding supply of Steel.
- L_B Consumer Price Index for Industrial Workers - All India: Published in R.B.I. Bulletin for the base period
- L_Q Consumer Price Index for Industrial Workers - All India: Published in R.B.I. Bulletin for the average price index of the 3 months of the quarter under consideration
- M_B Wholesale Price Index: All commodities – as published in the R.B.I. Bulletin for the base period
- M_Q Wholesale Price Index: All commodities – as published in the R.B.I. Bulletin for the average price index of the 3 months of the quarter under consideration
- F_B The average of official prices of Diesel available on the official website of 'Petroleum Planning and Analysis cell' under Ministry of Petroleum and Natural Gas for Delhi, Kolkata, Mumbai & Chennai, for the base period
- F_Q The average of official prices of Diesel available on the official website of 'Petroleum Planning and Analysis cell' under Ministry of Petroleum and Natural Gas for Delhi, Kolkata,

Mumbai & Chennai, for the 3 months of the quarter under consideration

- E_B Index number of Monthly Whole Sale Price Index for the category 'Explosive' of (g). Manufacture of other chemical products under (J) MANUFACTURE OF CHEMICALS AND CHEMICAL PRODUCTS, published by Office of Economic Adviser, Govt. of India, Ministry of Commerce & Industry, Department of Industrial Policy & Promotion (DIPP), for the base period.
- E_Q Index number of Monthly Whole Sale Price Index for the category 'Explosive' of (g). Manufacture of other chemical products under (J) MANUFACTURE OF CHEMICALS AND CHEMICAL PRODUCTS, published by Office of Economic Adviser, Govt. of India, Govt. of India, Ministry of Commerce & Industry, Department of Industrial Policy & Promotion (DIPP), for the average price index of 3 months of the quarter under consideration.
- PM_B Index Number of Wholesale Prices in India by Groups and Sub Groups (Averages) for 'Manufacture of machinery for mining, quarrying and construction'– published in RBI (Reserve Bank of India) Bulletin, for the base period.
- PM_Q Index Number of Wholesale Prices in India by Groups and Sub Groups (Averages) for 'Manufacture of machinery for mining, quarrying and construction'– published in RBI (Reserve Bank of India) Bulletin, for the average price index of 3 months of the quarter under consideration.
- S_B The average rate provided by the Joint Plant Committee for the relevant category of steel item as mentioned in Clause 46A.9; for the base period.
- S_Q The average rate provided by the Joint Plant Committee for the relevant category of steel item as mentioned in Clause 46A.9; for the 3 months of the quarter under consideration.
- C_B Index No. of Wholesale Price Index of sub-group Cement, Lime & Plaster as published in RBI Bulletin for the base period
- C_Q No. of Wholesale Price Index of sub-group Cement, Lime & Plaster as published in RBI Bulletin for the average price index of the 3 months of the quarter under consideration
- R_T IEEMA price index for Steel Blooms (size 150mmx150mm) for the month which is two months prior to date of inspection of material.
- R_O IEEMA price index for Steel Blooms (size 150mmx150mm) for the month which is one month prior to date of opening of tender.
- P_T IEEMA price index for Copper wire rods for the month which is two months prior to date of inspection of material.
- P_O IEEMA price index for Copper wire rods for the month which is one month prior to date of opening of tender.
- Z_T IEEMA price index for Zinc for the month which is two months prior to date of inspection of material
- Z_O IEEMA price index for Zinc for the month which is one month prior to date of opening of tender
- I_T RBI wholesale price index for the sub-group "Insulators" for the month which is two months prior to date of inspection of material
- I_O RBI wholesale price index for the sub-group "Insulators" for the month which is one month prior to date of opening of tender

(III) SIGNALING & TELECOMMUNICATION WORKS:

- (a) The following expressions and meanings are assigned to the value of the work done for signalling and telecommunication works:

SIGWK = Value of signalling works for a stage payment of the item signalling works;

INVSIG = Value of inventory for signalling works for a stage payment of the item inventory for signalling works;

INTGTESTSIG = Value of integrated testing and commission for signalling works of the Railway Project;

COMWK= Value of telecommunication works for a stage payment of the item telecommunication works;

INVCOM = Value of inventory for telecommunication works for a stage payment of the item inventory for telecommunication works; and

INTGTESTCOM = Value of integrated testing and commission for telecommunication works of the Railway Project.

(b) Price adjustment for changes in cost of signalling works and telecommunication works shall be paid in accordance with the following formula:

(i) $VSIGWK = 0.85 SIGWK \times [PELEX \times (ELEX_i - ELEX_o) / ELEX_o + POFC \times (OFC_i - OFC_o) / OFC_o + PLB \times (LBI - LBo) / LBo + POTH \times (OTH_i - OTH_o) / OTH_o + S30C \times (P30C_i - P30C_o) / P30C_o + S24C \times (P24C_i - P24C_o) / P24C_o + S19C \times (P19C_i - P19C_o) / P19C_o + S12C \times (P12C_i - P12C_o) / P12C_o + S9C \times (P9C_i - P9C_o) / P9C_o + S6C \times (P6C_i - P6C_o) / P6C_o + S4C \times (P4C_i - P4C_o) / P4C_o + S2C \times (P2C_i - P2C_o) / P2C_o + S12C2.5 \times (P12C2.5_i - P12C2.5_o) / P12C2.5_o + S2C2.5 \times (P2C2.5_i - P2C2.5_o) / P2C2.5_o + S2C25 \times (P2C25_i - P2C25_o) / P2C25_o + QC \times (PQC_i - PQC_o) / PQC_o];$

(ii) $VINVSIG = 0.85 SIGWK \times [PELEX \times (ELEX_i - ELEX_o) / ELEX_o + POTH \times (OTH_i - OTH_o) / OTH_o];$

(iii) $VINTGTESTSIG = 0.85 INTGTESTSIG \times [PLB \times (LBI - LBo) / LBo + POTH \times (OTH_i - OTH_o) / OTH_o];$

(iv) $VCOMWK = 0.85 COMWK \times [PELEX \times (ELEX_i - ELEX_o) / ELEX_o + POFC \times (OFC_i - OFC_o) / OFC_o + PLB \times (LBI - LBo) / LBo + POTH \times (OTH_i - OTH_o) / OTH_o + S30C \times (P30C_i - P30C_o) / P30C_o + S24C \times (P24C_i - P24C_o) / P24C_o + S19C \times (P19C_i - P19C_o) / P19C_o + S12C \times (P12C_i - P12C_o) / P12C_o + S9C \times (P9C_i - P9C_o) / P9C_o + S6C \times (P6C_i - P6C_o) / P6C_o + S4C \times (P4C_i - P4C_o) / P4C_o + S2C \times (P2C_i - P2C_o) / P2C_o + S12C2.5 \times (P12C2.5_i - P12C2.5_o) / P12C2.5_o + S2C2.5 \times (P2C2.5_i - P2C2.5_o) / P2C2.5_o + S2C25 \times (P2C25_i - P2C25_o) / P2C25_o + QC \times (PQC_i - PQC_o) / PQC_o + PCEQP \times (CEQP_i - CEQP_o) / CEQP_o];$

(v) $VINVCOM = 0.85 SIGWK \times [PELEX \times (ELEX_i - ELEX_o) / ELEX_o + PCEQP \times (CEQP_i - CEQP_o) / CEQP_o + POTH \times (OTH_i - OTH_o) / OTH_o];$ and

(vi) $VINTGTESTCOM = 0.85 INTGTESTCOM \times [PLB \times (LBI - LBo) / LBo + POTH \times (OTH_i - OTH_o) / OTH_o].$

Where

VSIGWK = Increase or decrease in the cost of signalling works during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (h);

VINVSIG = Increase or decrease in the cost of inventory for signalling during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (h);

VINTGTESTSIG = Increase or decrease in the cost of integrated testing and commissioning of signalling works of the Railway Project during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (h);

VCOMWK = Increase or decrease in the cost of communication works during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (h);

during the period under consideration due to changes in the rates for relevant components as

specified in sub-paragraph (h);

VINTGTESTCOM = Increase or decrease in the cost of integrated testing and commissioning of telecommunication works of the Railway Project during the period under consideration due to changes in the rates for relevant components as specified in sub- paragraph (h);

PCEQP, PELEX, PIC, PLB, POFC, and POTH are the percentages of communication equipment, electronics, PVC insulated cables, labour, optical fibre cables, and other materials respectively;

CEQPo = The wholesale price index as published by the Ministry of Commerce and Industry, Government of India (hereinafter called "**WPI**") for communication equipment for the month of the Base Month;

CEQPi = The WPI for communication equipment for the average price index of the 3 months of the quarter under consideration;

ELEXo = The WPI for electronics for the month of the Base Month;

ELEXi = The WPI for electronics for the average price index of the 3 months of the quarter under consideration;

P30Ci = Price payable per Km as adjusted in accordance with price variation Clause for size 30C x 1.5 sq mm signalling cable

P30Co = Price per Km of cable as per purchase order/ Contract agreement.

S30C = Percentage of size 30C x 1.5 sq mm signalling cable shall govern the price adjustment of the contract price for signalling and telecommunication works.

P24Ci = Price payable per Km as adjusted in accordance with price variation Clause for size 24C x 1.5 sq mm signalling cable

P24Co = Price per Km of cable as per purchase order/ Contract agreement.

S24C = Percentage of size 24C x 1.5 sq mm signalling cable shall govern the price adjustment of the contract price for signalling and telecommunication works.

P19Ci = Price payable per Km as adjusted in accordance with price variation Clause for size 19C x 1.5 sq mm signalling cable

P19Co = Price per Km of cable as per purchase order/ Contract agreement.

S19C = Percentage of size 19C x 1.5 sq mm signalling cable shall govern the price adjustment of the contract price for signalling and telecommunication works.

P12Ci = Price payable per Km as adjusted in accordance with price variation Clause for size 12C x 1.5 sq mm signalling cable

P12Co = Price per Km of cable as per purchase order/ Contract agreement.

S12C = Percentage of size 12C x 1.5 sq mm signalling cable shall govern the price adjustment of the contract price for signalling and telecommunication works.

P9Ci = Price payable per Km as adjusted in accordance with price variation Clause for size 9C x 1.5 sq mm signalling cable

P9Co = Price per Km of cable as per purchase order/ Contract agreement.

S9C = Percentage of size 9C x 1.5 sq mm signalling cable shall govern the price adjustment of the contract price for signalling and telecommunication works.

P6Ci = Price payable per Km as adjusted in accordance with price variation Clause for size 6C x 1.5 sq mm signalling cable

P6Co = Price per Km of cable as per purchase order/ Contract agreement.

S6C = Percentage of size 6C x 1.5 sq mm signalling cable shall govern the price adjustment of the contract price for signalling and telecommunication works.

P4C_i = Price payable per Km as adjusted in accordance with price variation Clause for size 4C x 1.5 sq mm signalling cable

P4C_o = Price per Km of cable as per purchase order/ Contract agreement.

S4C = Percentage of size 4C x 1.5 sq mm signalling cable shall govern the price adjustment of the contract price for signalling and telecommunication works.

P2C_i = Price payable per Km as adjusted in accordance with price variation Clause for size 2C x 1.5 sq mm signalling cable

P2C_o = Price per Km of cable as per purchase order/ Contract agreement.

S2C = Percentage of size 2C x 1.5 sq mm signalling cable shall govern the price adjustment of the contract price for signalling and telecommunication works.

P12C2.5_i = Price payable per Km as adjusted in accordance with price variation Clause for size 12C x 2.5 sq mm signalling cable

P12C2.5_o = Price per Km of cable as per purchase order/ Contract agreement.

S12C2.5 = Percentage of size 12C x 2.5 sq mm signalling cable shall govern the price adjustment of the contract price for signalling and telecommunication works.

P2C2.5_i = Price payable per Km as adjusted in accordance with price variation Clause for size 2C x 2.5 sq mm signalling cable

P2C2.5_o = Price per Km of cable as per purchase order/ Contract agreement.

S2C2.5 = Percentage of size 2C x 2.5 sq mm signalling cable shall govern the price adjustment of the contract price for signalling and telecommunication works.

P2C25_i = Price payable per Km as adjusted in accordance with price variation Clause for size 2C x 25 sq mm signalling cable

P2C25_o = Price per Km of cable as per purchase order/ Contract agreement.

S2C25 = Percentage of size 2C x 25 sq mm signalling cable shall govern the price adjustment of the contract price for signalling and telecommunication works.

PQC_i = Price payable per Km as adjusted in accordance with price variation Clause for size 0.9mm dia, 6 Quad cable.

PQC_o = Price per Km of cable as per purchase order/ Contract agreement. QC

= Percentage of size 0.9mm dia, 6 Quad cable shall govern the price.

LBo = The consumer price index for industrial workers – All India, published by Labour Bureau, Ministry of Labour, Government of India, (hereinafter called "**CPI**") for the month of the Base Month;

LBi = The CPI for industrial workers – All India for the average price index of the 3 months of the quarter under consideration;

OFC_o = The WPI for fibre cables for the month of the Base Month;

OFC_i = The WPI for fibre cables for the average price index of the 3 months of the quarter under consideration;

OTH_o = The WPI for all commodities for the month of the Base Month; and

OTH_i = The WPI for all commodities for the average price index of the 3 months of the quarter under consideration.

- (c) The following percentages shall govern the price adjustment of the Contract Price for signalling and telecommunication works:

Works Component	Signalling			Telecommunication	
	Signalling Works	Signalling inventory	Integrated testing and Commissioning	Telecommunication Works	Telecommunication inventory
Electronics (PELEX)	***%	***%	—	***%	***%
Communication Equipment (PCEQP)	—	—	—	***%	***%
Optical Fibre Cable (POFC)	***%	—	—	***%	—
30C x 1.5 sq mm signalling cable (\$30C)	***%	—	—	***%	—
24C x 1.5 sq mm signalling cable (\$24C)	***%	—	—	***%	—
19C x 1.5 sq mm signalling cable (\$19C)	***%	—	—	***%	—
12C x 1.5 sq mm signalling cable (\$12C)	***%	—	—	***%	—
9C x 1.5 sq mm signalling cable (\$9C)	***%	—	—	***%	—
6C x 1.5 sq mm signalling cable (\$6C)	***%	—	—	***%	—
4C x 1.5 sq mm signalling cable (\$4C)	***%	—	—	***%	—

2C x 1.5 sq mm signalling cable (\$2C)	***%	—	—	***%	—	—
12C x 2.5 sq mm signalling cable (\$12C2.5)	***%	—	—	***%	—	—
2C x 2.5 sq mm signalling cable (\$2C2.5)	***%	—	—	***%	—	—
2C x 25 sq mm signalling cable (\$2C25)	***%	—	—	***%	—	—
0.9 mm dia, 6Quad cable (QC)	***%	—	—	***%	—	—
Labour (PLB)	***%	—	***%	***%	***%	***%

Other materials	***%	***%	***%	***%	***%	***%
Total	100%	100%	100%	100%	100%	100%

(Note- the percentages may be finalized by tendering authority depending on BOQ)

FORMULAE FOR SIGNALING & TELECOM CABLE

The price payable for signalling cables is variable as per Price Variation Formula given below:

For Signalling Copper Cables:

$$P_i = P_o + CuF (Cu - C_{uo}) + CCFCu(CC - C_{Co}) + FeF (Fe - Fe_o)$$

For Telecom Copper Cables For Jelly Filled, 0.9 mm dia, 6 quad cable

$$P_i = P_o + CuF (Cu - C_{uo}) + AlFCu(Al - A_{lo}) + CCFCu (CC - C_{Co}) + FeF (Fe - Fe_o)$$

For Aluminium Power Cables:

$$P_i = P_o + AlF (Al - A_{lo}) + CCFAI(CC - C_{Co}) + FeF (Fe - Fe_o)$$

Where,

P_i = Price payable per KM as adjusted in accordance with Price variation clause. P_o = Price per KM of cable as per Purchase order.

CuF = Variation factor for Copper

C_{uo} = Price of copper Rod in Rs. Per MT

$CCFCu$ = Variation factor for PVC Compound for Copper Signalling & Telecom cable C_{Co} = Price of PVC Compound in Rs. Per MT

AlF = Variation factor for Aluminium

A_{lo} = Price of EC grade LME Aluminium rods (Properzi rods) in Rs. Per MT.

$CCFAI$ = Variation factor for PVC Compound for Aluminium power cable

FeF = Variation factor for Steel

Fe_o = Price of Steel for Armour (Flat strip 4 mm. x 0.8mm/ Round 1.4mm dia) in Rs. Per MT

(Prices per MT for C_{uo} , C_{Co} , Fe_o , A_{lo} as applicable on the 1st working day of the month, one month prior to the deadline for submission of bids. The above prices and indices are as published by IEEMA vide circular reference no. IEEMA (PVC) /CABLE --/--/-- one month prior to the deadline for submission of bids.)

Cu = Price of Copper Rod in Rs. Per MT.

C_c = Price of PVC Compound in Rs. Per MT.

Fe = Price of Steel for Armouring (Flat strip 4mm x 0.8 mm/ Round 1.4mm dia) in Rs. Per MT.

Al = Price of EC grade LME Aluminium rods (Properzi rods) in Rs. Per MT.

(Prices per MT for Cu , CC , Fe , Al as prevailing on 1st working day of the calendar month covering the date One month prior to the date of inspection call letter will be applicable for the calculation of updated price. The above prices and indices are as published by IEEMA vide circular reference no. IEEMA (PVC) /CABLE --/--/-- one

month prior to the date of inspection.)

The value of variation factors for copper, steel and PVC Compound are different for different sizes of signalling cables. Accordingly, the PVC formula for some of the types of signalling cable is as given under:-

Underground Railway Signalling Cable unscreened and armoured copper conductor

- (i) Size 30 C x 1.5 sq.mm.

$$P30C_i = P30C_o + 0.391(Cu - C_{uo}) + 0.557(CC - CC_o) + 0.425(Fe - Fe_o)$$

For armouring, price of steel flat strip of size 4mmx0.8mm is to be taken into consideration.

- (ii) Size 24C x 1.5 sq.mm

$$P24C_i = P24C_o + 0.313(Cu - C_{uo}) + 0.481(CC - CC_o) + 0.398(Fe - Fe_o)$$

For armouring, value of steel flat strip of size 4mmx0.8mm is to be taken into consideration.

- (iii) Size 19C x 1.5 sq.mm

$$P19C_i = P19C_o + 0.248(Cu - C_{uo}) + 0.395(CC - CC_o) + 0.343(Fe - Fe_o)$$

For armouring, value of steel flat strip of size 4mmx0.8mm is to be taken into consideration.

- (iv) Size 12C x 1.5 sq.mm

$$P12C_i = P12C_o + 0.157(Cu - C_{uo}) + 0.277(CC - CC_u) + 0.289(Fe - Fe_o)$$

For armouring, value of steel wire size 1.4mm dia is to be taken into consideration.

- (v) Size 9C x 1.5 sq.mm

$$P9C_i = P9C_o + 0.117(Cu - C_{uo}) + 0.241(CC - CC_u) + 0.383(Fe - Fe_o)$$

For armouring, value of steel wire size 1.4mm dia is to be taken into consideration.

- (vi) Size 6C x 1.5 sq.mm

$$P6C_i = P6C_o + 0.078(Cu - C_{uo}) + 0.199(CC - CC_u) + 0.329(Fe - Fe_o)$$

For armouring, value of steel wire size 1.4mm dia is to be taken into consideration.

- (vii) Size 4C x 1.5 sq.mm

$$P4C_i = P4C_o + 0.052(Cu - C_{uo}) + 0.152(CC - CC_o) + 0.277(Fe - Fe_o)$$

For armouring, value of steel wire size 1.4mm dia is to be taken into consideration.

- (viii) Size 2C x 4 sq.mm(multistrand)

$$P2C_i = P2C_o + 0.073(Cu - C_{uo}) + 0.156(CC - CC_o) + 0.3(Fe - Fe_o)$$

For armouring, value of steel wire size 1.4mm dia is to be taken into consideration.

- (ix) Size 12C x 2.5 sq.mm

$$P12C_{2.5i} = P12C_{2.5o} + 0.282(Cu - C_{uo}) + 0.371(CC - CC_o) + 0.342(Fe - Fe_o)$$

For armouring, value of steel flat strip of size 4mmx0.8mm is to be taken into consideration.

- (x) Size 2C x 2.5 sq.mm

$$P2C_{2.5i} = P2C_{2.5o} + 0.047(Cu - C_{uo}) + 0.139(CC - CC_o) + 0.277(Fe - Fe_o)$$

For armouring, value of steel wire size 1.4mm dia is to be taken into consideration.

(xi)

Size 2C x 25 sq.mm PVC insulated, armoured,

Aluminium power cable $P2C25_i = P2C25_o + 0.146 (Al-Alo) + 0.303 (CC-CCo) + 0.306 (Fe-Feo)$

For armouring, value of steel flat strip of size 4mmx0.8mm is to be taken into consideration.

(xii)

For Jelly filled, 0.9mm dia, 6 quad cable

$PQC_i = PQC_o + 0.135 (Al-Alo) + 0.139 (Cu-Cuo) + 0.515 (CC-Cco) + 0.693 (Fe-Feo)$.

For PVC Compound Grade CW-22, is to be taken into consideration.

46A.8 The demands for escalation of cost shall be allowed on the basis of provisional indices as mentioned above in Clause 46A.7. Any adjustment needed to be done based on the finally published indices shall be made as and when they become available.

46A.9: (1) Relevant categories of steel for the purpose of operating Price Variation formula as mentioned in this Clause shall be as under:

SL	Classification	Rates to be used for calculating S_Q or S_B
1.	Reinforcement bars and other rounds	Average of per tonne rates of 10mm dia TMT & 25mm dia TMT; confirming IS1786; Fe 500
2.	All types and sizes of angles, channels and joists	Average of per tonne rates of 'Angle 75x75x6mm, Mild Steel Plate 10mm thickness and Channel 150x75mm; confirming IS2062, E250 Gr "A"
3.	All types and sizes of plates	Average of per tonne rates of 'MS Plates 10mm thickness and 25mm thickness; confirming IS2062, E250 Gr "A"
4.	Any other section of steel not covered in the above categories	Average of price for the 3 categories covered under SL 1, 2 & 3 in this table.

(2). Relevant city for referring "JPC (Joint Plant Committee)" rates of steel items (S_Q / S_B) in different Zonal Railways shall be as under :

SL	City	Railway
1.	Delhi	Northern , North Central, North Eastern, North Western
2.	Kolkata	Eastern, East Central, East Coast, Northeast Frontier, South Eastern, Southeast Central
3.	Mumbai	Central, Western, West Central
4.	Chennai	Southern, South Central&South Western

46A.10 Price Variation during Extended Period of Contract

The price adjustment as worked out above, i.e. either increase or decrease shall be applicable upto the stipulated date of completion of work including the extended period of completion where such extension has been granted under Clause 17A of the Standard General Conditions of Contract. However, where extension of time has been granted due to Contractor's failure under Clause 17B of the

Standard General Conditions of Contract, price adjustment shall be done as follows:

- a. In case the indices increase above the indices applicable to the last month of original completion period or the extended period under Clause 17A, the price adjustment for the period of extension granted under Clause 17B shall be limited to the amount payable as per the Indices applicable to the last month of the original completion period or the extended period under Clause 17A of the Standard General Conditions of Contract; as the case may be.
- b. In case the indices fall below the indices applicable to the last month of original/ extended period of completion under Clause 17A, as the case may be; then the lower indices shall be adopted for the price adjustment for the period of extension under Clause 17B of the Standard General Conditions of Contract.

47. Maintenance of Works: The Contractor shall at all times during the progress and continuance of the works and also for the period of maintenance specified in the Tender Form after the date of issue of the certificate of completion by the Engineer or any other earlier date subsequent to the completion of the works that may be fixed by the Engineer, be responsible for and effectively maintain and uphold in good substantial, sound and perfect condition all and every part of the works and shall make good from time to time and at all times as often as the Engineer shall require, any damage or defect that may during the above period arise in or be discovered or be in any way connected with the works, provided that such damage or defect is not directly caused by errors in the contract documents, act of providence or insurrection or civil riot, and the Contractor shall be liable for and shall pay and make good to the Railway or other persons legally entitled thereto whenever required by the Engineer so to do, all losses, damages, costs and expenses they or any of them may incur or be put or be liable to by reasons or in consequence of the operations of the Contractor or of his failure in any respect.

48.(1) Certificate of Completion of Works: As soon as in the opinion of the Engineer, the work has been completed and has satisfactorily passed any final test or tests that may be prescribed, the Engineer shall issue a certificate of completion duly indicating the date of completion in respect of the work and the period of maintenance of the work shall commence from the date of completion mentioned in such certificate. 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 Contractor and that there is no due from the Contractor to Railways against the contract concerned.

The Engineer may also issue such a certificate indicating date of completion with respect to any part of the work (before the completion of the whole of work), which has been both completed to the satisfaction of the Engineer and occupied or used by the Railway. When any such certificate is given in respect of part of a work, such part shall be considered as completed and the period of maintenance of such part shall commence from the date of completion mentioned in the completion certificate issued for that part of the work.

48.(2) Contractor not Absolved by Completion Certificate: The Certificate of Completion in respect of the works referred to in Sub-Clause (1) of this Clause shall not absolve the Contractor from his liability to make good any defects imperfections, shrinkages or faults which may appear during the period of maintenance specified in the tender arising in the opinion of the Engineer from materials or workmanship not in accordance with the drawings or specifications or instruction of the Engineer, which defects, imperfections, shrinkages 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, shrinkages 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 the contract.

48(3) Final Supplementary Agreement: After the work is completed or otherwise concluded by the parties with mutual consent, and taken over by the Railway as per terms and conditions of the contract agreement, and there is unequivocal no claim on either side under the Contract other than as mentioned in item 4 of Annexure XIV, the parties shall execute the Final Supplementary Agreement as per Annexure XIV.

49. Approval only by Maintenance Certificate: No certificate other than Maintenance Certificate, if applicable, referred to in Clause 50 of the Conditions shall be deemed to constitute approval of any work or other matter in respect of which it is issued or shall be taken as an admission of the due performance of the contract or any part thereof.

50.(1) Maintenance Certificate: The Contract shall not be considered as completed until a Maintenance Certificate, if applicable, shall have been signed by the Engineer stating that the works have been completed and maintained to his satisfaction. The Maintenance Certificate shall be given by the Engineer upon the expiration of the period of maintenance or as soon thereafter as any works ordered during such period pursuant to Sub Clause (2) to Clause 48 of these Conditions shall have been completed to the satisfaction of the Engineer, and full effect shall be given to this Clause notwithstanding the taking possession of or using the works or any part thereof by the Railway.

The Competent Authority to issue above Maintenance Certificate shall normally be the authority who is competent to sign the contract. If this Competent Authority is of the rank lower than JA Grade, then a JA Grade Officer (concerned with the work) should issue the Certificate. 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 Contractor and that there is no due from the Contractor to Railways against the contract concerned

50.(2) Cessation of Railway's Liability: The Railway shall not be liable to the Contractor for any matter arising out of or in connection with the contract for execution of the works unless the Contractor has made a claim in writing in respect thereof before the issue of the Maintenance Certificate under this clause.

50.(3) Unfulfilled Obligations: Notwithstanding the issue of the Maintenance Certificate the Contractor and (subject to Sub-Clause (2) of this Clause) the Railway shall remain liable for the fulfillment of any obligation incurred under the provision of the contract prior to the issue of the Maintenance Certificate which remains unperformed at the time such Certificate is issued and for the purposes of determining the nature and extent of any such obligations, the contract shall be deemed to remain in force between the parties thereto.

51.(1) Final Payment: On the Engineer's certificate of completion in respect of the works, adjustment shall be made and the balance of account based on the Engineer or the Engineer's representative's certified measurements or Engineer's certified "contractor's authorized engineer's measurements" of the total quantity of work executed by the Contractor upto the date of completion and on the rates accepted in Bill(s) of Quantities and for extra works on rates determined under Clause 39 of these Conditions shall be paid to the Contractor subject always to any deduction which may be made under these presents and further subject to the Contractor having signed delivered to the Engineer enclosing either a full account in detail of all claims he may have on the Railway in respect of the works or having delivered No Claim Certificate and the Engineer having after the receipt of such account given a certificate in writing that such claims are not covered under excepted matter i.e. Clauses 7(j), 8, 18, 22(5), 39.1, 39.2, 40A, 43(2), 45(i)(a), 55, 55-A(5), 57, 57A, 61(1), 61(2) and 62(1), 63(iv) and

63.2.11 of the Standard General Conditions of Contract or in any Clause (stated as excepted matter) of the Special Conditions of the Contract, that the whole of the works to be done under the provisions of the Contracts have been completed, that they have been inspected by him since their completion and found to be in good and substantial order, that all properties, works and things, removed, disturbed or injured in consequence of the works have been properly replaced and made good and all expenses and demands incurred by or made upon the Railway for or in the respect of damage or loss by from or in consequence of the works, have been satisfied agreeably and in conformity with the contract.

51.(2) Post Payment Audit: It is an agreed term of contract that the Railway reserves to itself the right to carry out a post-payment audit and/ or technical examination of the works and the Final Bill including all supporting vouchers, abstracts etc. and to make a claim on the Contractor for the refund of any excess amount paid to him till the release of security deposit or settlement of claims, whichever is later, if as a result of such examination any over-payment to him is discovered to have been made in respect of any works done or alleged to have been done by him under the contract.

51-A. Production of Vouchers etc. by the Contractor:

- (i) For a contract of more than one crore of rupees, the Contractor shall, whenever required, produce or cause to be produced for examination by the Engineer any quotation, invoice, costor other account, book of accounts, voucher, receipt, letter, memorandum, paper of writing or any copy of or extract from any such document and also furnish information and returns verified in such manner as may be required in any way relating to the execution of this contract or relevant for verifying or ascertaining cost of execution of this contract (the decision of the Engineer on the question of relevancy of any documents, information or return being final and binding in the parties). The Contractor shall similarly produce vouchers etc., if required to prove to the Engineer, that materials supplied by him, are in accordance with the specifications laid down in the contract.
- (ii) If any portion of the work in a contract of value more than one crore of rupees be carried out by a sub-contractor or any subsidiary or allied firm or company (as per Clause 7 of the Standard General Conditions of Contract), the Engineer shall have power to secure the books of such sub-contract or any subsidiary or allied firm or company, through the Contractor, and such books shall be open to his inspection.
- (iii) The obligations imposed by Sub Clause (i) & (ii) above is without prejudice to the obligations of the Contractor under any statute rules or orders binding on the Contractor.

52. Withholding and Lien in Respect of Sums Claimed: Whenever any claim or claims for payment of a sum of money arises out of or under the contract against the Contractor, the Railway shall be entitled to withhold and also have a lien to retain such sum or sums in whole or in part from the security, if any, deposited by the Contractor and for the purpose aforesaid, the Railway shall be entitled to withhold the said cash Security Deposit or the Security if any, furnished as the case may be and also have a lien over the same pending finalization or adjudication of any such claim. In the event of the security being insufficient to cover the claimed amount or amounts or if no security has been taken from the Contractor, the Railway shall be entitled to withhold and have a lien to the extent of the such claimed amount or amounts referred to supra, from any sum or sums found payable or which at any time thereafter may become payable to the Contractor under the same contract or any other contract with this or any other Railway or any Department of the Central Government pending finalization or adjudication of any such claim.

It is an agreed term of the contract that the sum of money or moneys so withheld or retained under the lien referred to above, by the Railway will be kept withheld or retained as such by the

Railways till the claim arising out of or under the contract is determined by the arbitrator (if the contract governed by the Arbitration Clause) or by the competent court as the case may be and that the Contractor will have no claim for interest or damages whatsoever on any account in respect of such withholding or retention under the lien referred to supra and duly notified as such to the Contractor. For the purpose of this clause, where the Contractor is a partnership firm or a company, the Railway shall be entitled to withhold and also have a lien to retain towards such claimed amount or amounts in whole or in part from any sum found payable to any partner / company, as the case may be whether in his individual capacity or otherwise.

52-A Lien in Respect of Claims in other Contracts:

- (i) Any sum of money due and payable to the Contractor (including the Security Deposit returnable to him) under the contract may be withheld or retained by way of lien by the Railway, against any claim of this or any other Railway or any other Department of the Central Government in respect of payment of a sum of money arising out of or under any other contract made by the Contractor with this or any other Department of the Central Government.
- (ii) However, recovery of claims of Railway in regard to terminated contracts may be made from the Final Bill, Security Deposits and Performance Guarantees of other contract or contracts, executed by the Contractor. The Performance Guarantees submitted by the Contractor against other contracts, if required, may be withheld and encashed. In addition, 10% of each subsequent 'on-account bill' may be withheld, if required, for recovery of Railway's dues against the terminated contract.
- (iii) It is an agreed term of the contract that the sum of money so withheld or retained under this Clause by the Railway will be kept withheld or retained as such by the Railway till the claim arising out of or under any other contract is either mutually settled or determined by arbitration, if the other contract is governed by Arbitration Clause or by the competent court as the case may be and Contractor shall have no claim for interest or damages whatsoever on this account or on any other ground in respect of any sum of money withheld or retained under this Clause and duly notified as such to the Contractor.

53. Signature on Receipts for Amounts: Every receipt for money which may become payable or for any security which may become transferable to the Contractors under these presents, shall, if signed in the partnership name by anyone of the partners of a Contractor's firm be a good and sufficient discharge to the Railway in respect of the moneys or security purported to be acknowledged thereby and in the event of death of any of the Contractor, partners during the pendency of the contract, it is hereby expressly agreed that every receipt by anyone of the surviving Contractor partners shall if so signed as aforesaid be good and sufficient discharge as aforesaid provided that nothing in this Clause contained shall be deemed to prejudice or effect any claim which the Railway may hereafter have against the legal representative of any Contractor partner so dying for or in respect to any breach of any of the conditions of the contract, provided also that nothing in this clause contained shall be deemed to prejudice or effect the respective rights or obligations of the Contractor partners and of the legal representatives of any deceased Contractor partners interse.

LABOUR

54. Wages to Labour: The Contractor shall be responsible to ensure compliance with the provision of the Minimum Wages Act, 1948 (hereinafter referred to as the "said Act") and the Rules made thereunder in respect of any employees directly or through petty Contractors or sub-contractors employed by him for the purpose of carrying out this contract.

If, in compliance with the terms of the contract, the Contractor supplied any labour to be

used wholly or partly under the direct orders and control of the Railways whether in connection with any work being executed by the Contractor or otherwise for the purpose of the Railway such labour shall, for the purpose of this Clause, still be deemed to be persons employed by the Contractor. If any moneys shall, as a result of any claim or application made under the said Act be directed to be paid by the Railway, such money shall be deemed to be moneys payable to the Railway by the Contractor and on failure by the Contractor to repay the Railway any moneys paid by it as aforesaid within seven days after the same shall have been demanded, the Railways shall be entitled to recover the same from Contractor's bills/Security Deposit or any other dues of Contractor with the Government of India.

54-A. Apprentices Act: The Contractor shall be responsible to ensure compliance with the provisions of the Apprentices Act, 1961 and the Rules and Orders issued thereunder from time to time in respect of apprentices directly or through petty Contractors or sub-contractors employed by him for the purpose of carrying out the Contract.

If the Contractor directly or through petty Contractors or sub-contractors fails to do so, his failure will be a breach of the contract and the Railway may, in its discretion, rescind the contract. The Contractor shall also be liable for any pecuniary liability arising on account of any violation of the provisions of the Act.

55. Provisions of Payments of Wages Act: The Contractor shall comply with the provisions of the Payment of Wages Act, 1936 and the rules made thereunder in respect of all employees employed by him either directly or through petty Contractors or sub-contractors in the works. If in compliance with the terms of the contract, the Contractor directly or through petty Contractors or sub-contractors shall supply any labour to be used wholly or partly under the direct orders and control of the Engineer whether in connection with the works to be executed hereunder or otherwise for the purpose of the Engineer, such labour shall nevertheless be deemed to comprise persons employed by the Contractor and any moneys which may be ordered to be paid by the Engineer shall be deemed to be moneys payable by the Engineer on behalf of the Contractor and the Engineer may on failure of the Contractor to repay such money to the Railways deduct the same from any moneys due to the Contractor in terms of the contract. The Railway shall be entitled to recover the same from Contractor's bills/Security Deposit or any other dues of Contractor with the Government of India all moneys paid or payable by the Railway by way of compensation of aforesaid or for costs of expenses in connection with any claim thereto and the decision of the Engineer upon any question arising out of the effect or force of this Clause shall be final and binding upon the Contractor.

55-A. Provisions of Contract Labour (Regulation and Abolition) Act, 1970:

55-A.(1) The Contractor shall comply with the provision of the contract labour (Regulation and Abolition) Act, 1970 and the Contract labour (Regulation and Abolition) Central Rules 1971 as modified from time to time, wherever applicable and shall also indemnify the Railway from and against any claims under the aforesaid Act and the Rules.

55-A.(2) The Contractor shall obtain a valid license under the aforesaid Act as modified from time to time before the commencement of the work and continue to have a valid license until the completion of the work. Any failure to fulfill the requirement shall attract the penal provision of the Act.

55-A.(3) The Contractor shall pay to the labour employed by him directly or through sub-contractors the wages as per provision of the aforesaid Act and the Rules wherever applicable. The

Contractor shall notwithstanding the provisions of the contract to the contrary, cause to be paid the wages to labour, indirectly engaged on the works including any engaged by sub-contractors in connection with the said work, as if the labour had been immediately employed by him.

55-A.(4) In respect of all labour directly or indirectly employed in the work for performance of the Contractor's part of the contract, the Contractor shall comply with or cause to be complied with the provisions of the aforesaid Act and Rules wherever applicable.

55-A.(5) In every case in which, by virtue of the provisions of the aforesaid Act or the rules, the Railway is obliged to pay any amount of wages to a workman employed by the Contractor or his sub- contractor in execution of the work or to incur any expenditure on account of the contingent, liability of the Railway due to the Contractor's failure to fulfill his statutory obligations under the aforesaid Act or the rules, the Railway will recover from the Contractor, the amount of wages so paid or the amount of expenditure so incurred and without prejudice to the rights of the Railway under the Section 20, Sub-Section (2) and Section 2, Sub-Section (4) of the aforesaid Act, the Railway shall be at liberty to recover such amount or part thereof from Contractor's bills/Security Deposit or any other dues of Contractor with the Government of India. The Railway shall not be bound to contest any claim made against it under Sub-Section (1) of Section 20 and Sub-Section (4) of Section 21 of the aforesaid Act except on the written request of the Contractor and upon his giving to the Railway full security for all costs for which the Railway might become liable in contesting such claim. The decision of the Chief Engineer regarding the amount actually recoverable from the Contractor as stated above shall be final and binding on the Contractor.

55-B.Provisions of Employees Provident Fund and Miscellaneous Provisions Act, 1952:The Contractor shall comply with the provisions of Para 30 & 36-B of the Employees Provident Fund Scheme, 1952; Para 3 & 4 of Employees' Pension Scheme, 1995; and Para 7 & 8 of Employees Deposit Linked Insurance Scheme, 1976; as modified from time to time through enactment of "Employees Provident Fund & Miscellaneous Provisions Act, 1952", wherever applicable and shall also indemnify the Railway from and against any claims under the aforesaid Act and the Rules.

55-C (i) Contractor is to abide by the provisions of various labour laws in terms of above clause 54, 55, 55-A and 55-B of the Standard General Conditions of Contract. In order to ensure the same, an application has been developed and hosted on website 'www.shramikkalyan.indianrailways.gov.in'. Contractor shall register his firm/company etc. and upload requisite details of labour and their payment in this portal. These details shall be available in public domain. The registration/ updation in Portal shall be done as under:

(a) Contractor shall apply for onetime registration of his company/firm etc. in the Shramikkalyan portal with requisite details subsequent to issue of Letter of Acceptance. Engineer shall approve the contractor's registration in the portal within 7 days of receipt of such request.

(b) Contractor once approved by any Engineer, can create password with login ID (PAN No.) for subsequent use of portal for all Letter of Acceptances (LoAs) issued in his favour.

(c) The contractor once registered on the portal, shall provide details of his Letter of Acceptances (LoAs) / Contract Agreements on shramikkalyan portal within 15 days of issue of any LoA for approval of concerned Engineer. Engineer shall update (if required) and approve the details of LoA filled by contractor within 7 days of receipt of such request.

(d) After approval of LoA by Engineer, contractor shall fill the salient details of contract labours engaged in the contract and ensure updating of each wage payment to them on shramikkalyan portal on monthly basis.

(e) It shall be mandatory upon the contractor to ensure correct and prompt uploading of all salient details of engaged contractual labour & payments made thereof after each wage period.

(ii) While processing payment of any 'On Account Bill' or 'Final Bill' or release of 'Advances' or 'Performance Guarantee / Security Deposit', contractor shall submit a certificate to the Engineer or Engineer's representatives that "I have uploaded the correct details of contract labours engaged in connection with this contract and payments made to them during the wage period in Railway's Shramikkalyan portal at 'www.shramikkalyan.indianrailways.gov.in' till ____Month, ____Year."

55-D. Provisions of "The Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996" and "The Building and Other Construction Workers' Welfare Cess Act, 1996":

The tenderers, for carrying out any construction work, shall get themselves registered with the Registering Officer under Section-7 of the Building and Other Construction Workers Act, 1996 and Rules made thereto by the concerned State Govt., and submit Certificate of Registration issued by Registering Officer of the concerned State Govt. (Labour Dept.). The Cess shall be deducted from contractor's bills as per provisions of the Act.

56. Reporting of Accidents: The Contractor shall be responsible for the safety of all employees directly or through petty Contractors or sub-contractor employed by him on the works and shall report serious accidents to any of them however and wherever occurring on the works to the Engineer or the Engineers Representative and shall make every arrangement to render all possible assistance.

57. Provision of Workmen's Compensation Act: In every case in which by virtue of the provisions of Section 12 Sub-Section (1) of the Workmen's Compensation Act 1923, Railway is obliged to pay compensation to a workman directly or through petty Contractor or sub-contractor employed by the Contractor in executing the work, Railway will recover from the Contractor the amount of the compensation so paid, and, without prejudice to the rights of Railway under Section 12 Sub-section (2) of the said Act, Railway shall be at liberty to recover such amount or any part thereof from Contractor's bills/Security Deposit or any other dues of Contractor with the Government of India. Railway shall not be bound to contest any claim made against it under Section 12 Sub-Section (1) of the said Act except on the written request of the Contractor and upon his giving to Railway full security for all costs for which Railway might become liable in consequence of contesting such claim.

57-A. Provision of Mines Act: The Contractor shall observe and perform all the provisions of the Mines Act, 1952 or any statutory modifications or re-enactment thereof for the time being in force and any rules and regulations made thereunder in respect of all the persons directly or through the petty Contractors or sub-contractors employed by him under this contract and shall indemnify the Railway from and against any claims under the Mines Act, or the rules and regulations framed thereunder, by or on behalf of any persons employed by him or otherwise.

58. Railway not to Provide Quarters for Contractors: No quarters shall normally be provided by the Railway for the accommodation of the Contractor or any of his staff employed on the work. In exceptional cases where accommodation is provided to the Contractor at the Railway's discretion, recoveries shall be made at such rates as may be fixed by the Railway for the full rent of the buildings and equipments therein as well as charges for electric current, water supply and conservancy.

59.(1) Labour Camps: The Contractor shall at his own expense make adequate arrangements for the housing, supply of drinking water and provision of latrines and urinals for his staff and workmen, directly or through the petty Contractors or sub-contractors and for temporary creche (Bal-Mandir) where 50 or more women are employed at a time. Suitable sites on Railway land, if available, may be allotted to the Contractor for the erection of labour camps, either free of charge or on such

terms and conditions that may be prescribed by the Railway. All camp sites shall be maintained in clean and sanitary conditions by the Contractor at his own cost.

59.(2) Compliance to Rules for Employment of Labour: The Contractor(s) shall conform to all laws, bye-laws rules and regulations for the time being in force pertaining to the employment of local or imported labour and shall take all necessary precautions to ensure and preserve the health and safety of all staff employed directly or through petty contractors or sub-contractors on the works.

59.(3) Preservation of Peace: The Contractor shall take requisite precautions and use his best endeavours to

(i) Prevent any riotous or unlawful behaviour by or amongst his workmen and other employed directly or through the petty Contractors or sub-contractors on the works and for the preservation of peace and protection of the inhabitants and

(ii) Security of property in the neighbourhood of the works. In the event of the Railway requiring the maintenance of a Special Police Force at or in the vicinity of the site during the tenure of works, the expenses thereof shall be borne by the Contractor and if paid by the Railway shall be recoverable from the Contractor.

59.(4) Sanitary Arrangements: The Contractor shall obey all sanitary rules and carry out all sanitary measures that may from time to time be prescribed by the Railway Medical Authority and permit inspection of all sanitary arrangements at all times by the Engineer, the Engineer's Representative or the Medical Staff of the Railway. Should the Contractor fail to make the adequate sanitary arrangements, these will be provided by the Railway and the cost thereof recovered from the Contractor.

59.(5) Outbreak of Infectious Disease: The Contractor shall remove from his camp such labour and their families as refuse protective inoculation and vaccination when called upon to do so by the Engineer or the Engineer's Representative on the advice of the Railway Medical Authority. Should cholera, plague, or other infectious disease break out, the Contractor shall burn the huts, beddings,

clothes and other belongings of or used by the infected parties and promptly erect new huts on healthy sites as required by the Engineer, failing which within the time specified in the Engineer's requisition, the work may be done by the Railway and the cost thereof recovered from the Contractor.

59.(6) Treatment of Contractor's Staff in Railway Hospitals: The Contractor and his staff, other than labourers and their families requiring medical aid from the railway hospital and dispensaries will be treated as private patients and charged accordingly. The Contractors' labourers and their Families will be granted free treatment in railway hospitals and dispensaries where no other hospitals or dispensaries are available provided the Contractor pays the cost of medicines, dressing and diet money according to the normal scale and additional charges for special examinations such as pathological and bacteriological examination, X-Ray, etc. and for surgical operation.

59. (7) Medical Facilities at Site: The Contractor shall provide medical facilities at the site as may be prescribed by the Engineer on the advice of the Railway Medical Authority in relation to the strength of the Contractor's resident staff and workmen.

59. (8) Use of Intoxicants: The sale of ardent spirits or other intoxicating beverages upon the work or in any of the buildings, encampments or tenements owned, occupied by or within the control of the Contractor or any of his employees shall be forbidden and the Contractor shall exercise his

influence and authority to the utmost extent to secure strict compliance with this condition.

59.(9) Restrictions on the Employment of Retired Engineers of Railway Services Within One Year of their Retirement: The Contractor shall not, if he is a retired Government Engineer of Gazetted rank, himself engage in or employ or associate a retired Government Engineer of Gazetted rank, who has not completed one year from the date of retirement, in connection with this contract in any manner whatsoever without obtaining prior permission of the President and if the Contractor is found to have contravened this provision it will constitute a breach of contract and administration will be entitled to terminate the contract and forfeit his Performance Guarantee as well as Security Deposit.

60.(1) Non-Employment of Labourers below the age of 15: The Contractor shall not employ children below the age of 15 as labourers directly or through petty Contractors or sub-contractors for the execution of work.

60.(2) Medical Certificate of Fitness for Labour: It is agreed that the Contractor shall not employ a person above 15 and below 19 years of age for the purpose of execution of work under the contract unless a medical certificate of fitness in the prescribed form (Proforma at Annexure-VIII) granted to him by a certifying surgeon certifying that he is fit to work as an adult, is obtained and kept in the custody of the Contractor or a person nominated by him in this behalf and the person carries with him, while at work; a token giving a reference to such certificate. It is further agreed that the responsibility for having the adolescent examined medically at the time of appointment or periodically till he attains the age of 19 years shall devolve entirely on the Contractor and all the expenses to be incurred on this account shall be borne by him and no fee shall be charged from the adolescent or his parent for such medical examination.

60.(3) Period of Validity of Medical Fitness Certificate: A certificate of fitness granted or renewed for the above said purposes shall be valid only for a period of one year at a time. The certifying surgeon shall revoke a certificate granted or renewed if in his opinion the holder of it, is no longer fit for work in the capacity stated therein. Where a certifying surgeon refuses to grant or renew a certificate or revoke a certificate, he shall, if so required by the person concerned, state his reasons in writing for doing so.

60.(4) Medical Re-Examination of Labourer: Where any official appointed in this behalf by the Ministry of Labour is of the opinion that any person employed in connection with the execution of any work under this contract in the age group 15 to 19 years is without a certificate of fitness or is having a certificate of fitness but no longer fit to work in the capacity stated in the certificate, he may serve on the Contractor, or on the person nominated by him in this regard, a notice requiring that such persons shall be examined by a certifying surgeon and such person shall not if the concerned official so directs, be employed or permitted to do any work under this contract unless he has been medically examined and certified that he is fit to work in the capacity stated in the certificate.

60.(5) The following to be provided to the labours:-

- i. Timely payment of wages
- ii. Issuance of appointment letters
- iii. Issuance of wage slips
- iv. Provision of welfare facilities by principal employer
- v. Grievance redressal mechanism for contract labour

EXPLANATIONS:

(1) Only Qualified Medical Practitioners can be appointed as "Certifying Surgeons" and the term "Qualified Medical Practitioners" means a person holding a qualification granted by an authority specified in the Schedule to the Indian Medical Degrees Act, 1916 (VII to 1916) or in the Schedule to the Indian Medical Council Act, 1933 (XXVII) of 1933.

(2) The Certifying surgeon may be a medical officer in the service of State or Municipal Corporation.

DETERMINATION OF CONTRACT

61.(1) Right of Railway to Determine the Contract: The Railway shall be entitled to determine and terminate the contract at any time should, in the Railway's opinion, the cessation of work becomes necessary owing to paucity of funds or from any other cause whatever, in which case the value of approved materials at site and of work done to date by the Contractor will be paid for in full at the rate specified in the contract. Notice in writing from the Railway of such determination and the reasons therefor shall be conclusive evidence thereof.

61.(2) Payment on Determination of Contract: Should the contract be determined under sub clause (1) of this clause and the Contractor claims payment for expenditure incurred by him in the expectation of completing the whole of the work, the Railways shall admit and consider such claims as are deemed reasonable and are supported by vouchers to the satisfaction of the Engineer. The Railway's decision on the necessity and propriety of such expenditure shall be final and conclusive.

61.(3) The Contractor shall have no claim to any payment of compensation or otherwise, howsoever on account of any profit or advantage which he might have derived from the execution of the work in full but which he did not derive in consequence of determination of contract.

62.(1) Determination of Contract owing to Default of Contractor:

If the Contractor should:

- (i) Becomes bankrupt or insolvent, or
- (ii) Make an arrangement for assignment in favour of his creditors, or agree to carry out the contract under a Committee of Inspection of his creditors, or
- (iii) Being a Company or Corporation, go into liquidation (other than a voluntary liquidation for the purposes of amalgamation or reconstruction), or
- (iv) Have an execution levied on his goods or property on the works, or
- (v) Assign the contract or any part thereof otherwise than as provided in Clause 7 of these Conditions, or
- (vi) Abandon the contract, or
- (vii) Persistently disregard the instructions of the Engineer, or contravene any provision of the contract, or
- (viii) Fail to adhere to the agreed programme of work by a margin of 10% of the stipulated period, or
- (ix) Fail to Execute the contract documents in terms of Para 8 of the Instructions to Tenderers.
- (x) Fail to submit the documents pertaining to identity of JV and PAN in terms of Para 17.11 of Tender Form (Second Sheet) of Annexure I available in the Instructions to Tenderers.

- (xi) Fail to remove materials from the site or to pull down and replace work after receiving from the Engineer notice to the effect that the said materials or works have been condemned or rejected under Clause 25 and 27 of these Conditions, or
- (xii) Fail to take steps to employ competent or additional staff and labour as required under Clause 26 of these Conditions, or
- (xiii) Fail to afford the Engineer or Engineer's representative proper facilities for inspecting the works or any part thereof as required under Clause 28 of these Conditions, or
- (xiv) Promise, offer or give any bribe, commission, gift or advantage either himself or through his partner, agent or servant to any officer or employee of the Railway or to any person on his or on their behalf in relation to the execution of this or any other contract with this Railway.
- (xv) Fail to adhere to the provisions of Para 16 of Tender Form (Second Sheet) of Annexure I of the Instructions to Tenderers, or provision Clause 59(9) of these Conditions.
- (xvi) Submits copy of fake documents / certificates in support of credentials, submitted by the tenderer

Then and in any of the **said Clause**, the Engineer on behalf of the Railway may serve the Contractor with a notice (Proforma at Annexure-IX) in writing to that effect and if the Contractor does not within seven days after the delivery to him of such notice proceed to make good his default in so far as the same is capable of being made good and carry on the work or comply with such directions as aforesaid of the entire satisfaction of the Engineer, the Railway shall be entitled after giving 48 hours' notice (Proforma at Annexure-X or XII, as the case may be) in writing under the hand of the Engineer to rescind the contract as a whole or in part or parts (as may be specified in such notice) and after expiry of 48 hours' notice, a final termination notice (Proforma at Annexure-XI or XIII, as the case may be) should be issued.

Note: Engineer at his discretion may resort to the part termination of contract with notices (Proforma at Annexure- IX, XII and XIII), only in cases where progress of work is more than or equal to 80% of the original scope of work.

62.(2) Right of Railway after Rescission of Contract owing to Default of Contractor: In the event of any or several of the courses, referred to in Sub-Clause (1) of this Clause, being adopted:

(a) The Contractor shall have no claim to compensation for any loss sustained by him by reason of his having purchased or procured any materials or entered into any commitments or made any advances on account of or with a view to the execution of the works or the performance of the contract and Contractor shall not be entitled to recover or be paid any sum for any work thereto for actually performed under the contract unless and until the Engineer shall have certified the performance of such work and the value payable in respect thereof and the Contractor shall only be entitled to be paid the value so certified.

(b) In the contract which has been rescinded as a whole, the Security Deposit already with railways under the contract shall be encashed/ forfeited and the Performance Guarantee already submitted for the contract shall be encashed. The balance work shall be got done independently without risk & cost of the failed Contractor. The failed Contractor shall be debarred from participating in the tender for executing the balance work. If the failed Contractor is a JV or a Partnership firm, then every member/partner of such a firm shall be debarred from participating in the tender for the balance work in his/her individual capacity or as a partner of any other JV /partnership firm.

Further the authorized representative of failed Contractor cannot be accepted as authorized representative in new contract.

(c) In the contract rescinded in part or parts,

(i) The full Performance Guarantee available for the contract shall be recovered. No additional Performance Guarantee shall be required for balance of work being executed through the part terminated contract. The contract value of part terminated contract stands reduced to the balance value of work under the contract.

(ii) The Security Deposit of part terminated contract shall be dealt as per clause 16(2) of these Conditions.

(iii) The defaulting Contractor shall not be issued any completion certificate for the contract.

(iv) The balance work shall be got done independently without risk & cost of the failed Contractor. The failed Contractor shall be debarred from participating in the tender for executing the balance work. If the failed Contractor is a JV or a Partnership firm, then every member/partner of such a firm shall be debarred from participating in the tender for the balance work in his/her individual capacity or as a partner of any other JV /partnership firm.

(v) Further the authorized representative of failed Contractor will not be accepted as authorized representative in new contract.

(d) The Engineer or the Engineer's Representative shall be entitled to take possession of any materials, tools, implements, machinery and buildings on the works or on the property on which these are being or ought to have been executed, and to retain and employ the same in the further execution of the works or any part thereof until the completion of the works without the Contractor being entitled to any compensation for the use and employment thereof or for wear and tear or destruction thereof. The Engineer shall as soon as may be practicable after removal of the Contractor fix and determine ex-parte or by or after reference to the parties or after such investigation or enquiries as he may consider fit to make or institute and shall certify what amount (if any) had at the time of rescission of the contract been reasonably earned by or would reasonably accrue to the Contractor in respect of the work then actually done by him under the contract and what was the value of any unused, or partially used materials, any constructional plant and any temporary works upon the site. The legitimate amount due to the Contractor after making necessary deductions and certified by the Engineer should be released expeditiously.

SETTLEMENT OF DISPUTES–INDIAN RAILWAY ARBITRATION AND CONCILIATION RULES

63. Conciliation of Disputes:

(i) This clause is applicable in the tender having advertised value less than or equal to Rs 50 Crore.

(ii) All disputes and differences of any kind whatsoever arising out of or in connection with the contract, whether during the progress of the work or after its completion and whether before or after the determination of the contract, shall be referred by the Contractor to the "Chief Engineer" or "Divisional Railway Manager" through "Notice of Dispute" provided that no such notice shall be served later than 30 days after the date of issue of Completion Certificate by the Engineer. Chief Engineer or Divisional Railway Manager shall, within 30 days after receipt of the Contractor's "Notice of Dispute", notify the name of conciliator(s) to the Contractor.

(iii) The Conciliator(s) shall assist the parties to reach an amicable settlement in an independent and impartial manner within the terms of contract.

(iv) If the parties reach agreement on a settlement of the dispute, they shall draw up and sign a written settlement agreement duly signed by Engineer In-charge, Contractor and conciliator(s). When the parties sign the settlement agreement, it shall be final and binding on the parties.

- (v) The parties shall not initiate, during the conciliation proceedings, any arbitral or judicial proceedings in respect of a dispute that is the subject matter of the conciliation proceedings.
- (vi) The conciliation proceedings shall be terminated as per Section 76 of 'The Arbitration and Conciliation Act, 1996.

63.1 Matters Finally Determined by the Railway: All disputes and differences of any kind whatsoever arising out of or in connection with the contract, whether during the progress of the work or after its completion and whether before or after the determination of the contract, shall be referred by the Contractor to the GM and the GM shall, within 120 days after receipt of the Contractor's representation, make and notify decisions on all matters referred to by the Contractor in writing provided that matters for which provision has been made in Clauses 7(j), 8, 18, 22(5), 39.1, 39.2, 40A, 43(2), 45(i)(a), 55, 55-A(5), 57, 57A, 61(1), 61(2), 62(1), 63(iv) and 63.2.11 of the Standard

General Conditions of Contract or in any Clause (stated as excepted matter) of the Special Conditions of the Contract, shall be deemed as 'excepted matters' (matters not arbitrable) and decisions of the Railway authority, thereon shall be final and binding on the Contractor; provided further that 'excepted matters' shall stand specifically excluded from the purview of the Dispute Adjudication Board (DAB) and Arbitration.

63.2 Dispute Adjudication Board (DAB): This clause is applicable in the tender having advertised value more than Rs 50 Crore.

63.2.1 Any dispute/s if not settled with the Engineer, shall be referred to DAB.

The DAB shall consist of a panel of three Retired Railway Officers, retired not below senior administrative grade (SAG). The DAB shall be formed within 90 days of signing of Contract Agreement. For this purpose, a panel of DAB members shall be maintained in the General Manager's office. The complete panel, which shall not be less than five members, shall be sent by Chief Engineer to the Contractor to nominate one member of the DAB from the panel as Contractor's nominee within two weeks of receipt of the panel. On receipt of Contractor's nominee, the Chief Engineer shall nominate one member from the same panel as Railway nominee for the DAB. Both above nominees shall jointly select presiding member of the DAB from the same panel.

63.2.2 The appointment of DAB shall be effectuated by way of a tri-partite agreement among the Railway, Contractor and the respective DAB members. The terms of the remuneration of each member shall be as fixed by Ministry of Railways from time to time. Each party shall be responsible for paying one-half of this remuneration.

63.2.3 If one or more of the members appointed refuses to act as DAB member, or is unable or unwilling to perform his functions as DAB member for any reason whatsoever or dies or in the opinion of the Chief Engineer fails to act without undue delay, the parties shall terminate the mandate of such DAB member and thereupon new DAB member shall be appointed in the same manner, as the outgoing DAB member had been appointed.

63.2.4 The appointment of any member may be terminated by mutual agreement of both Parties, but not by the Railway or the Contractor acting alone. Unless otherwise agreed by both the Parties, the appointment of the DAB (including each member) shall expire upon expiry of this Contract Agreement.

63.2.5 Before start of DAB proceedings, each DAB member shall give the following certificate to the Railway and the Contractor:

"I have no any past or present relationship in relation to the subject matter in dispute, whether financial, business, professional or other kind. Further, I have no any past or present relationship with or interest in any of the parties whether financial, business, professional or other kind, which is likely to give rise to justifiable doubts as to my independence or impartiality."

63.2.6 DAB proceedings shall be conducted as decided by the DAB. The DAB shall give its decision within 90 days of a Dispute referred to it by any of the Parties, duly recording the reasons before arriving at the decision. The DAB shall decide the issue within terms and conditions of the contract. This time limit shall be extendable subject to the Parties mutual agreement.

63.2.7 The DAB decision shall not be binding on both the Parties. In case any party is not satisfied by the decision of DAB, then the aggrieved party may approach Arbitral Tribunal for arbitration proceedings.

63.2.8 No dispute shall be referred to Arbitral Tribunal unless the same has been referred to DAB for adjudication. However, in case DAB is not formed due to any reason, the disputes can be directly referred to Arbitral Tribunal to adjudicate the dispute.

63.2.9 In the specific cases of any misconduct by any of the members of the DAB, the parties shall have the right to specifically bring it to the notice of the DAB such conduct, through a statement filed with necessary documents in proof of such misconduct and the DAB, after taking NOTICE of such conduct initiate the replacement of the member concerned, in the same manner the member to be replaced was appointed.

63.2.10 Once the decision is given by DAB, DAB cannot review the decision at its own or on the request of one party, unless both parties agree for review of decision by DAB.

63.2.11 In case DAB decision is not challenged by either party within 180 days of receipt of decision of DAB, the decision shall be considered as final and parties would be barred for referring the same to Arbitral Tribunal for adjudication.

63.2.12 The obligation of the Railway and the Contactor shall not be altered by reasons of issue being or under reference to DAB.

63.2.13 The DAB shall conduct the proceedings at any convenient venue which shall be decided by DAB in consultations with parties.

63.2.14 It is a term of this contract that the Parties shall not approach any Court of Law for settlement of such disputes or differences unless an attempt has first been made by the parties to settle such disputes or differences through DAB and Arbitral Tribunal.

64.(1) : Demand for Arbitration:

64.(1)(i)(a): In the event of any dispute or difference between the parties hereto as to the construction or operation of this contract, or the respective rights and liabilities of the parties on any matter in question, dispute or difference on any account or as to the withholding by the Railway of any certificate to which the Contractor may claim to be entitled to, or if the Railway fails to make a decision within 120 days, then and in any such case, but except in any of the "excepted matters" referred to in Clause 63.1 of these Conditions, the Contractor, after 120 days

but within 180 days of his presenting his final claim on disputed matters shall demand in writing that the dispute or difference be referred to arbitration.

64.(1)(i)(b): Arbitration as a method of dispute resolution should not be routinely or automatically included in procurement contracts/tenders, especially in large contracts.

64.(1)(i)(c): As a norm, arbitration as a method of dispute resolution may be restricted to disputes with a value less than Rs. 10 crore. This figure is with reference to the value of the dispute (not the value of the contract, which may be much higher).

64.(1)(i)(d): Inclusion of arbitration clauses covering disputes with a value exceeding Rs. 10 crore, should be based on careful application of mind and recording of reasons and with the approval of an officer not below the rank of Senior Administrative Grade (SAG) or the Accepting Authority of the tender whichever is higher.

64.(1)(ii)(a): The demand for arbitration shall specify the matters which are in question, or subject of the dispute or difference as also the amount of claim item-wise. Only such dispute or difference, in respect of which the demand has been made, together with counter claims or set off, given by the Railway, shall be referred to arbitration and other matters shall not be included in the reference.

64.(1)(ii)(b): The parties may waive off the applicability of Sub-Section 12(5) of Arbitration and Conciliation (Amendment) Act 2015, if they agree for such waiver in writing, after dispute having arisen between them, in the format given under Annexure XV of these conditions.

64.(1)(iii)(a): The Arbitration proceedings shall be assumed to have commenced from the day, a written and valid demand for arbitration is received by the Railway.

64.(1)(iii)(b): The claimant shall submit his claims stating the facts supporting the claims alongwith all the relevant documents and the relief or remedy sought against each claim within a period of 30 days from the date of appointment of the Arbitral Tribunal.

64.(1)(iii)(c): The Railway shall submit its defence statement and counter claim(s), if any, within a period of 60 days of receipt of copy of claims from Tribunal, unless otherwise extension has been granted by Tribunal.

64.(1)(iii)(d): Place of Arbitration: The place of arbitration would be within the geographical limits of the Division of the Railway where the cause of action arose or the Headquarters of the concerned Railway or any other place with the written consent of both the parties.

64.(1)(iv): No new claim shall be added during proceedings by either party. However, a party may amend or supplement the original claim or defense thereof during the course of arbitration proceedings subject to acceptance by Tribunal having due regard to the delay in making it.

64.(1)(v): If the Contractor(s) does/do not prefer his/their specific and final claims in writing, within a period of 90 days of receiving the intimation from the Railways that the final bill is ready for payment, he/they will be deemed to have waived his/their claim(s) and the Railway shall be discharged and released of all liabilities under the contract in respect of these claims.

64.(2): Obligation During Pendency of Arbitration: Work under the contract shall, unless otherwise directed by the Engineer, continue during the arbitration proceedings, and no payment due or payable by the Railway shall be withheld on account of such proceedings, provided, however, it shall be open for Arbitral Tribunal to consider and decide whether or not such work should continue during arbitration proceedings.

64.(3) : Appointment of Arbitrator:

64.(3)(a): The Arbitral Tribunal shall consist of a panel of three arbitrators. General Manager/Additional General Manager will appoint two arbitrators, one railway nominee and other from among the contractor's nominee. Contractor can recommend his nominee either from approved panel of Railways or from approved panel of Indian Council of Arbitration (ICA) within 30 days from the date of dispatch of approval of written and valid acceptance of demand for arbitration by the General Manager/Additional General Manager.

64.(3)(a)(i): If contractor wants to choose his nominee from Railway panel, the Railway will send a panel of at least four (4) names of retired Railway Officers empanelled to work as Arbitrator within 30 days from the day when a written and valid demand and valid demand for arbitration is received by the General Manager/Additional General Manager. Contractor will be asked to suggest to General Manager/Additional General Manager at least 2 names out of the panel for appointment as Contractor's nominee within 30 days from the date of dispatch of the request by Railway. The General Manager/Additional General Manager shall appoint at least one out of them as the Contractor's nominee within 30 days from the receipt of the names of Contractor's nominees. The railway panel shall be provided free of cost to the contractor.

64.(3)(a)(ii): If contractor wants to choose his nominee from Indian Council of Arbitration panel, Contractor will send at least 2 names of Arbitrators from the ICA panel for appointment as Contractor's nominee within 30 days from the date of dispatch of the request by Railway. The General Manager/Additional General Manager shall appoint at least one out of them as the Contractor's nominee within 30 days from the receipt of the names of Contractor's nominees. Nomination and appointment of arbitrators from ICA panel shall be as per the ICA Rules for Domestic Commercial Arbitration and amended from time to time.

Some general guidelines of ICA Rules for Domestic Commercial Arbitration are as under:-

- i. Contractor may access the ICA's panel of arbitration through ICA's official webpage: <https://icaindia.co.in/pdf/Engineers.pdf>.
- ii. A formal request for nomination shall be submitted to ICA, accompanied by:-
 - a. A brief Statement of Claim outlining the nature and quantum of the disputes.
 - b. A copy of the relevant contract and any supporting documents.
 - c. A copy of the notice intimating the other party of the initiation of arbitration proceedings, with proof of delivery (if any).
- iii. Ad-hoc appointment fees for the nomination and appointment of arbitrators shall be as per the ICA Rules for Domestic Commercial Arbitration and revised from time to time and shall be submitted along with the request.

64.(3)(b): Two selected arbitrators are free to select presiding arbitrator (3rd arbitrator) within thirty (30) days from the date of their appointment. The presiding arbitrator may be selected from approved panel of Railways or approved panel of Indian Council of Arbitration (as per mutual agreement), which will be approved by General Manager/Additional General Manager. General Manager/Additional General Manager shall complete this exercise of appointing the Arbitral Tribunal within 30 days from the receipt of the names of all the three arbitrators.

64.(3)(c)(i): If one or more of the arbitrators appointed as above refuses to act as arbitrator, withdraws from his office as arbitrator, or vacates his/their office/offices or is/are unable or unwilling to perform his functions as arbitrator for any reason whatsoever or dies or in the opinion of the General Manager/Additional General Manager fails to act without undue delay, the General Manager/Additional General Manager shall appoint new arbitrator/arbitrators to act in his/their place in the same manner in which the earlier arbitrator/arbitrators had been

appointed. Such re-constituted Tribunal may, at its discretion, proceed with the reference from the stage at which it was left by the previous arbitrator (s).

64.(3) (c) (ii): (a) The Arbitral Tribunal shall have power to call for such evidence by way of affidavits or otherwise as the Arbitral Tribunal shall think proper, and it shall be the duty of the parties hereto to do or cause to be done all such things as may be necessary to enable the Arbitral Tribunal to make the award without any delay. The proceedings shall normally be conducted on the basis of documents and written statements.

(b) Before proceeding into the merits of any dispute, the Arbitral Tribunal shall first decide and pass its orders over any plea submitted/objections raised by any party, if any, regarding appointment of Arbitral Tribunal, validity of arbitration agreement, jurisdiction and scope of the Tribunal to deal with the dispute (s) submitted to arbitration, applicability of time 'limitation' to any dispute, any violation of agreed procedure regarding conduct of the arbitral proceedings or plea for interim measures of protection and record its orders in day to day proceedings. A copy of the proceedings duly signed by all the members of tribunal should be provided to both the parties.

64.3(c)(iii): (i) Qualification of Railway Empanelled Arbitrator (s):

(a) Retired Railway Officers not below SA Grade level, one year after his date of retirement.

(b) Age of arbitrator at the time of appointment shall be below 70 years.

(c) Persons not involved in any current vigilance/CHI cases or against whom disciplinary or prosecution proceedings are not in process.

(d) Persons who had not been imposed a major penalty or two or more minor penalties or against whom administrative action has not been taken three times or more or

(e) Persons who have not been imposed one minor Penalty and against whom two administrative actions have not been taken as a result of vigilance/CHI action while in service on Railways.

(ii) An arbitrator may be appointed notwithstanding the total number of arbitration cases in which he has been appointed in the past.

(iii) While appointing arbitrator(s) under Sub-Clause 64.(3)(a), 64.(3)(a)(i), 64.(3)(a)(ii) & 64.(3)(b) above, due care shall be taken that he/they is/are not the one/those who had an opportunity to deal with the matters to which the contract relates or who in the course of his/their duties as Railway servant(s) expressed views on all or any of the matters under dispute or differences. A certification to this effect as per annexure- XVI shall be taken from Arbitrators also. The proceedings of the Arbitral tribunal or the award made by such Tribunal will, however, not be invalid merely for the reason that one or more arbitrator had, in the course of his service, opportunity to deal with the matters to which the contract relates or who in the course of his/their duties expressed views on all or any of the matters under dispute.

64.(3)(d)(i): The arbitral award shall state item wise, the sum and reasons upon which it is based. The analysis and reasons shall be detailed enough so that the award could be inferred therefrom.

64.(3)(d)(ii): A party may apply for corrections of any computational errors, any typographical or clerical errors or any other error of similar nature occurring in the award of a Tribunal and interpretation of a specific point of award to Tribunal within 60 days of receipt of the award.

64.(3)(d)(iii): A party may apply to Tribunal within 60 days of receipt of award to make an additional award as to claims presented in the arbitral proceedings but omitted from the arbitral

award.

64.(4): Any ruling on award shall be made by a majority of members of Tribunal. In the absence of such a majority, the views of the Presiding Arbitrator shall prevail.

64.(5): Where the arbitral award is for the payment of money, no interest shall be payable on whole or any part of the money for any period till the date on which the award is made.

64 (6): The cost of arbitration shall be borne by the respective parties. If all the three arbitrators are selected from the Railway Panel, the fee of the arbitrators shall be determined as per the rates fixed/revised by Railway Board from time to time and the fee shall be borne equally by both the parties, provided parties sign an agreement in the format given at Annexure XV to these conditions after/ while referring these disputes to Arbitration. However, if any of the three arbitrators is selected from the Panel of Indian Council of Arbitration (ICA), the fee of the arbitrators shall be determined as per the rates fixed/revised by the Indian Council of Arbitration.

64.(7) Subject to the provisions of the aforesaid Arbitration and Conciliation Act 1996 and the rules thereunder and relevant para of the Standard General Conditions of Contract and any statutory modifications thereof shall apply to the appointment of arbitrators and arbitration proceedings under this Clause.

64.(8) In case arbitration award is challenged by a party in the Court of Law, 75% of award amount, pending adjudication by Court of Law, shall be made by party to other party. In case payment is to be made by Railway to Contractor, the terms & conditions as incorporated in the Ministry of Railways letter No. 2016/CE(I)/CT/ARB/3(NITI Aayog)/Pt. dated 08th Mar, 2017 as amended from time to time, shall be followed. In case Contractor has to pay to the Railway, then 75% of the award amount shall be deducted by the Railway from the Contractor's bills, Performance Guarantee/ Security Deposit or any other dues of Contractor with the Government of India.

PART-II ANNEXURES

ANNEXURE – VII

Reference Para 17B

Registered Acknowledgement Due

PROFORMA FOR TIME EXTENSION

No. _____

Dated: _____

Sub: (i) _____ (name of work).

(ii) Acceptance letter no. _____

(iii) Understanding/Agreement no. _____

Ref: _____ (Quote specific application of Contractor
for extension to the date received) _____

Dear Sir,

1. The stipulated date for completion of the work mentioned above is _____.
From the progress made so far and the present rate of progress, it is unlikely that the work will be completed by the above date (or 'However, the work was not completed on this date').

2. Expecting that you may be able to complete the work if some more time is given, the competent authority, although not bound to do so, hereby extends the time for completion from _____ to _____.

3. Please note that an amount equal to the liquidated damages for delay in the completion of the work after the expiry of _____ (give here the stipulated date for completion with/without any liquidated damage fixed earlier) will be recovered from you as mentioned in Clause 17B of the Standard General Conditions of Contract for the extended period, notwithstanding the grant of this extension. You may proceed with the work accordingly.

4. The above extension of the completion date will also be subject to the further condition that no increase in rates on any account will be payable to you.

5. Please intimate within a week of the receipt of this letter your acceptance of the extension of the conditions stated above.

6. Please note that in the event of your declining to accept the extension on the above said conditions or in the event of your failure after accepting or acting upto this extension to complete the work by _____ (here mention the extended date), further action will be taken in terms of Clause 62 of the Standard General Conditions of Contract.

Yours faithfully For
and on behalf of the President of India

PROFORMA OF 14 DAYS NOTICE FOR OFFLOADING OF PART OF CONTRACT WORK

_____ **RAILWAY**
(Without Prejudice)

To

M/s _____

Dear Sir,

Contract Agreement No. _____

In connection with _____

In spite of repeated instructions to you by the subordinate offices as well as by this office through various letters of even no. _____, dated _____; you have failed to show adequate progress of work so as to complete the contract within the original / extended date of completion of contract and part(s) of contract work are yet to be started/ still lagging behind the agreed program of work, listed as under:

(Details of part(s) of work which is delayed and can be executed independently, to be mentioned).

6.2.

ur attention is invited to this office/Chief Engineer's office letter no. _____, dated _____ in reference to your representation, dated ____.

6.3.

As you have failed to abide by the instructions issued to commence the work /to show adequate progress of work, you are hereby given 14 days' notice in accordance with Clause 40A of the Standard General Conditions of Contract to deploy adequate resources i.e. *(the details of resource requirement, to be mentioned)* and commence / to make good the progress for part(s) of works detailed above, failing which action as provided in Clause 40A of the Standard General Conditions of Contract shall be commenced after expiry of 14 days' notice period viz. to offload few/ all part(s) of work mentioned above to any of the existing or new contractor without your participation and at your Risk & Cost, not exceeding the value of Performance Guarantee of this contract, which may please be noted.

Kindly acknowledge receipt.

Yours faithfully

Yours faithfully

For and on behalf of the President of India

(Reference Clause 40(A)

Registered Acknowledgement Due

NOTICE FOR PART OF CONTRACT WORK OFFLOADED

_____ **RAILWAY**

(Without Prejudice)

To

M/s _____

Dear Sir,

Contract Agreement No. _____

In connection with _____

1. Fourteen days' notice under Clause 40A of the Standard General Conditions of Contract was given to you under this office letter of even no., dated _____; but you have taken no/inadequate action to deploy adequate resources to commence the part(s) of work/show adequate progress of the part(s) of work, mentioned therein.

As you have failed to abide by the instructions issued to commence the part(s) of work/show adequate progress of the part(s) of work even at the lapse of 14 days' notice period under Clause 40A of the Standard General Conditions of Contract, few part(s) of the work under the contract have been offloaded and being executed by other mode(s) at the cost detailed below:

Or,

1. Please refer your request letter no..... dated, wherein it was requested under clause 40 A of the Standard General Conditions of Contract to offload part(s) of works at your risk & cost. The details of part(s) of the work under the contract which have been offloaded and being executed by other mode(s) at the cost detailed below:

(List of Part(s) of work offloaded, Details of mode of execution of such offloaded work alongwith approximate cost thereof to be mentioned)

2. The final measurement of work(s) already executed for above part(s) of work recorded as per clause 45 (A) or/and 45 (B) of the Standard General Conditions of Contract is enclosed herewith.

3. The Bill(s) of Quantities for Part(s) of work offloaded is enclosed herewith.

4. The additional cost in execution of offloaded work through mode(s) mentioned in para (1) above is determined as Rs. _____, over& above the cost of execution under this contract (including the

PVC amount payable as per contract, as on the date of issue of this notice). This additional cost shall be

recovered from your next on account bill(s) or any other dues payable to you under contract.

5. The Contract value gets reduced to Rs.....:

6. You are requested to continue with the balance work in the contract subsequent to offloading of above part(s) of work.

Kindly acknowledge receipt.

Yours faithfully

Yours faithfully

For and on behalf of the President of India

ANNEXURE – VIII

Reference Para 60.(2)

CERTIFICATE OF FITNESS

1. (a) Serial Number _____
(b) Date _____
2. Name of person examined _____
3. Father's Name: son/daughter of _____
Residing at _____
4. Sex _____
5. Residence: _____

6. Physical fitness _____

7. Identification marks _____

8. Date of birth, if available, and/or certified age _____

I certify that I have personally examined (name) _____ who is desirous of being employed in a factory or on a work requiring manual labour and that his/her age as nearly as can be ascertained from my examination, is _____ years.

I certify that he/she is fit for employment in a factory or on a work requiring manual labour as an adult/child.

9. Reasons for :

(a) Refusal to grant certificate, or _____

(b) Revoking the certificate _____

Signature or left hand

Thumb impression of the person examined.

Signature of Certifying Surgeon

Note: In case of physical disability, the exact details and cause of the physical disability should be clearly stated.

ANNEXURE – IX

(Reference Clause 62. (1)

Registered Acknowledgement Due

PROFORMA OF 7 DAYS NOTICE FOR WORKS AS A WHOLE/ IN PARTS

(DETAILS OF PART OF WORK TO BE MENTIONED)

_____ RAILWAY

(Without Prejudice)

To

M/s _____

Dear Sir,

Contract Agreement No. _____

In connection with _____

In spite of repeated instructions to you by the subordinate offices as well as by this office through various letters of even no. _____, dated _____; you have failed to start work/show adequate progress and/or submit detailed programme for completing the work/ part of work (details of part of work to be mentioned).

2. Your attention is invited to this office/Chief Engineer's office letter no. _____, dated _____ in reference to your representation, dated _____.

3. As you have failed to abide by the instructions issued to commence the work /to show adequate progress of work you are hereby given 7 days' notice in accordance with Clause 62 of the Standard General Conditions of Contract to commence works / to make good the progress, failing which further action as provided in Clause 62 of the Standard General Conditions of Contract viz. to terminate your Contract and complete the balance work without your participation will be taken.

Kindly acknowledge receipt.

Yours faithfully

For and on behalf of the President of India

PROFORMA OF 48 HRS. NOTICE FOR WHOLE WORK

_____ **RAILWAY**

(Without Prejudice)

To

M/s _____

Dear Sir,

Contract Agreement No. _____

In connection with _____

Seven days' notice under Clause 62 of the Standard General Conditions of Contract was given to you under this office letter of even no., dated _____; but you have taken no action to commence the work/show adequate progress of the work.

2. You are hereby given 48 hours' notice in terms of Clause 62 of the Standard General Conditions of Contract to commence works / to make good the progress of works, failing which and on expiry of this period your above contract will be rescinded and the work under this contract will be carried out independently without your participation and your Security Deposit shall be forfeited and Performance Guarantee shall also be encashed and any other consequences which may please be noted.

Kindly acknowledge receipt.

Yours faithfully

For and on behalf of the President of India

Registered Acknowledgement Due/Standard Correspondence through IR-WCMS/Email on
registered IREPS Email

PROFORMA OF TERMINATION NOTICE

RAILWAY

(Without Prejudice)

No. _____

Dated _____

To

M/s _____

Dear Sir,

Contract Agreement No. _____

In connection with _____

Forty eight hours (48 hrs.) notice was given to you under this office letter of even no., dated _____; but you have taken no action to commence the work/show adequate progress of the work.

Since the period of 48 hours' notice has already expired, the above contract stands rescinded in terms of Clause 62 of the Standard General Conditions of Contract and the balance work under this contract will be carried out independently without your participation. Your participation as well as participation of every member/partner in any manner as an individual or a partnership firm/JV is hereby debarred from participation in the tender for executing the balance work and your Security Deposit shall be forfeited and Performance Guarantee shall also be encashed.

The Final measurements of work executed by you against the said contract will be taken/started on _____ at _____ hrs. at site. The measurement will be continued till all the measurement are taken. You are advised to be present at site on the above mentioned date and time to witness the measurements, otherwise measurements will be taken ex-parte and thereafter, variation (addendum & corrigendum) & final bill of work executed till date of termination based on ex-parte final measurements shall also be processed ex-parte.

Yours faithfully

For and on behalf of the President of India

ANNEXURE – XII

Reference Para 62.(1)

Registered Acknowledgement Due

PROFORMA OF 48 HRS. NOTICE FOR PART OF THE WORK.....

(DETAILS OF PART OF WORK TO BE MENTIONED)

_____ RAILWAY

(Without Prejudice)

To

M/s _____

Dear Sir,

Contract Agreement No. _____

In connection with _____

1. Seven days' notice under Clause 62 of the Standard General Conditions of Contract was given to you under this office letter of even no., dated _____; but you have taken no action to commence the work/show adequate progress of the part of work(details of part to be mentioned).

2. You are hereby given 48 hours' notice in terms of Clause 62 of the Standard General Conditions of Contract to commence works / to make good the progress of works, failing which and on expiry of this period your above part of work(Details of part to be mentioned) in contract will be rescinded and the work will be carried out independently without your participation.

3. Your full Performance Guarantee for the contract shall be forfeited and you shall not be issued any completion certificate for the contract. However, no additional Performance Guarantee shall be required for balance of work being executed through the part terminated contract.

4. The contract value of part terminated contract shall stands reduced to

Kindly acknowledge receipt.

Yours faithfully

For and on behalf of the President of India

ANNEXURE – XIII

Reference Para 62.(1)

Registered Acknowledgement Due

PROFORMA OF TERMINATION NOTICE FOR PART OF THE WORK.....

(DETAILS OF PART OF WORK TO BE MENTIONED)

_____ **RAILWAY**

(Without Prejudice)

No. _____

Dated _____

To

M/s _____

Dear Sir,

Contract Agreement No. _____

In connection with _____

1. Forty eight hours (48 hrs.) notice was given to you under this office letter of even no., dated _____; but you have taken no action to commence the work/show adequate progress of the part of work (details of part to be mentioned).
2. Your above part of work in contract (details of part to be mentioned) stands rescinded in terms of Clause 62 of the Standard General Conditions of Contract and the same will be carried out independently without your participation. Your participation as well as participation of every member/partner in any manner as an individual or a partnership firm/JV is hereby debarred from participation in the tender for executing the balance work
3. Your full Performance Guarantee for the contract shall be forfeited and you shall not be issued any completion certificate for the contract. However, no additional Performance Guarantee shall be required for balance of work being executed through the part terminated contract.
4. The contract value of the part terminated contract stands reduced to.....

Kindly acknowledge receipt.

Yours faithfully

For and on behalf of the President of India

ANNEXURE – XIV

Reference Para 48.(3)

FINAL SUPPLEMENTARY AGREEMENT

1. Articles of agreement made this day ____ in the year _ between the President of India, acting through the _____ Railway Administration having his office at _ herein after called the Railway of the one part and _____ of the second part.
2. Whereas the party hereto of the second part executed an agreement with the party hereto of the first part being agreement Number _____ dated _____ for the performance _____ herein after called the 'Principal Agreement'.
3. And whereas it was agreed by and between the parties hereto that the works would be completed by the party hereto of the second part on _____ date last extended and whereas the party hereto of the second part has executed the work to the entire satisfaction of the party hereto of the first part.
4. And whereas the party hereto of the first part already made payment to the party hereto of the second part diverse sums from time to time aggregating to ₹ ____ including the Final Bill bearing voucher No. _____ date of value _ duly adjusted as per price variation clause, if applicable (the receipt of which is hereby acknowledged by the party hereto of the second part in full and final settlement of all his /its claims under the principal agreement.

And whereas the party hereto of the second part have received sum of ₹ _____ through the Final Bill bearing voucher No. _____ dated duly adjusted as per price variation clause (PVC), if applicable (the receipt of which is hereby acknowledged by the party thereto of the second part) from the party hereto of the first part in full and final settlement of all his/its disputed claims under principal agreement.

Now, it is hereby agreed by and between the parties in the consideration of sums already paid by the party hereto of the first part to the party hereto of the second part against all outstanding dues and claims for all works done under the aforesaid principal agreement excluding the Security Deposit, the party hereto of the second part have no further dues of claims against the party hereto of the first part under the said Principal Agreement. It is further agreed by and between the parties that the party hereto of the second part has accepted the said sums mentioned above in full and final satisfaction of all its dues and claims under the said Principal Agreement.

(Applicable in case Final Supplementary Agreement is signed after release of Final Payment)

Or

And whereas the party hereto of the first part already made payment to the party hereto of the second part diverse sums from time to time aggregating to ₹ _____ through various On Account Bills (the receipt of which is hereby acknowledged by the party hereto of the second part).

And whereas the party hereto of the second part have received sum of ₹ ____ through various On Account Bills (the receipt of which is hereby acknowledged by the party thereto of the second part) from the party hereto of the first part and party hereto of the second part have accepted final measurements recorded on Page No..... to Page No.... of Measurement Book No.....and corresponding Final Bill duly adjusted as per price variation clause (PVC), if applicable, for full and final settlement of all his/its disputed claims under principal agreement.

Now, it is hereby agreed by and between the parties in the consideration of sums already paid

through various On Account Bills and sums to be paid through Final Bill duly adjusted as per price variation clause (PVC), if applicable, based on accepted final measurements including the Security Deposit by the party hereto of the first part to the party hereto of the second part against all outstanding dues and claims for all works done under the aforesaid principal agreement, the party hereto of the second part have no further dues of claims against the party hereto of the first part under the said Principal Agreement.

(Applicable in case Final Supplementary Agreement is signed before release of Final Payment)

5. It is further agreed and understood by and between the parties that the arbitration clause contained in the said principal agreement shall cease to have any effect and/or shall be deemed to be non-existent for all purposes.

Signature of the Contractor/s

for and on behalf of the President of India

Witnesses

ADDRESS:_____

ANNEXURE-XV

Reference Para 64.3 & 64.6

Agreement towards Waiver under Section 12(5) and Section 31A (5) of Arbitration and Conciliation (Amendment) Act

I/we..... (Name of agency/Contractor) with reference to agreement no.....raise disputes as to the construction and operation of this contract, or the respective rights and liabilities, withholding of certificate and demand arbitration in respect of following claims :

Brief of claim:

- (i) Claim 1- Detailed at Annexure-
- (ii) Claim 2 –
- (iii) Claim 3 –

I/we..... (post of Engineer) with reference to agreement no..... hereby raise disputes as to the construction and operation of this contract, or the respective rights and liabilities, withholding of certificate and demand arbitration in respect of following claims:

I/we do/do not agree to waive off applicability of section 12(5) of Arbitration and Conciliation (Amendment) Act.

Signature of Claimant_____Signature of Respondent _____

Agreement under Section 31(5)

I/we..... (Name of claimant) with reference to agreement nohereby waive off the applicability of sub section 31-A (2) to 31-A (4) of the Arbitration and Conciliation (Amendment) Act. We further agree that the cost of arbitration will be shared by the parties as per Clause 64(6) of the Standard General Conditions of Contract.

Signature of Claimant_____Signature of Respondent _____

*Strike out whichever not applicable.

ANNEXURE-XVI

Reference Para 64.(3)

Certification by Arbitrators appointed under Clause 63 & 64 of Indian Railways General Conditions of Contract

1. Name:

2. Contact Details:

3. Prior experience (Including Experience with Arbitrations):

4. I do not have more than ten on-going Arbitration cases with me.

5. I hereby certify that I have retired from Railways w.e.f. ____ and empanelled as Railway Arbitrator as per 'The Arbitration and Conciliation Act- 1996'.

6. I have no any past or present relationship in relation to the subject matter in dispute, whether financial, business, professional or other kind.

Or

I have past or present relationship in relation to the subject matter in dispute, whether financial, business, professional or other kind. The list of such interests is as under:

7. I have no any past or present relationship with or interest in any of the parties whether financial, business, professional or other kind, which is likely to give rise to justifiable doubts as to my independence or impartiality in terms of The Arbitration and Conciliation Act- 1996.

Or

I have past or present relationship with or interest in any of the parties whether financial, business, professional or other kind, which is likely to give rise to justifiable doubts as to my independence or impartiality in terms of The Arbitration and Conciliation Act-1996. The details of such relationship or interests are as under:

8. There are no concurrent Circumstances which are likely to affect my ability to devote sufficient time to the arbitration and in particular to finish the entire arbitration within twelve months.

Or

There are Circumstances which are likely to affect my ability to devote sufficient time to the arbitration and in particular to finish the entire arbitration within twelve months. The list of such circumstances is as under:

Insurance Surety Bond for Performance Security

Name of the issuer of surety bond:

President of India,

Acting

through ,

..... Railway.

Date :.....

Surety Bond No:.....

Issue

Date:.....

Amount of Bond:.....

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.

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.

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 2026

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

Bill(s) of Quantities

Name of Work: Shalimar Setting up of mechanized departmental laundries.

Schedule of rates and quantities

Standard Schedule of Rates (DSR) / Non-Standard Items:

S N	DSR Item no.	Description of Item of Work	Qty.	Unit	Rates in Figures and Words to be filled by tenderer (₹)	Amount (₹)
1	2	3	4	5	6	7
Schedule-A: Civil:- Construction of Laundry Infrastructure at Shalimar						
1	NS-1	Preparation of Design & drawing for station building & other buildings (Should be as per latest circular). Notes: (i) The contractor will carryout detailed survey and prepare GAD and get it approved from Railway. (ii) The rates are inclusive of visits to site if required. The site of the work falls under the jurisdiction of DEN/East/KGP. (iii) The above quantities are approximate. The Railway reserves the right to increase/decrease the same. Additional special conditions of contract: i) The Agency will get the design checked from Railway. For this purpose Agency will ensure the presence of his representative in the offices of Railway authorities whenever required. Nothing extra will be payable for the above and the rate is inclusive of above. ii) After drawing got approved by Railway, the Agency will have to submit three copies of initial design calculations with 3 ferro copies of drawings to Railway for record. Design calculation should be clearly written and bound in book form. iii) On clearance of design criteria from Railway for any modification, agency will carry out detailed design again as required without any loss of time after clearance of design parameters. He will also be prompt in clarifying the observations/doubts of the Railways. No extra payment shall be made for the any alterations. iv) Design and drawing after approval shall be property of S. E. Railway who shall have exclusive right to use or reuse it elsewhere. The consultant shall have no claim whatsoever in this regards. v) Based on the design note approved by Rly, the Agency will prepare final general arrangement drawing. Mode of payment: i) Visit to site and collection of field data from site, and detailed design of and preparation of GAD, submission to Railway 3 sets of GAD (Ferro copy), design calculation 3 booklet = 20%. ii) After acceptance of Railway = 50%. iii) Final submission of drawing approved in item (ii) above in reproducing tracing films 3 copies and soft copy on CD, 3 sets of ferro prints for each drawings, final design calculation booklet. Payment will be made after signature of Railway authorities in final drawing =30%.	1500	Sqm	₹ 126.00	₹ 1,89,000.00

2	021011	Exploratory drilling of boreholes down to required depth, drilling of 150mm dia. boreholes in all type of soils except hard rock & large boulders (boulder core more than 30cm) including refilling, reinstating surface and disposing off surplus material including use of mechanical rigs with power operated winches as well as percussion/chiselling tool for advancing through occasional seams of hard strata to be employed, where necessary in Dry area.: 0m to 10m	20	Metre	₹ 1,441.73	₹ 28,834.60
3	021110	Taking out 100mm dia. & 450mm long undisturbed samples of soil from bore holes, including provision of air tight containers for packing and, labeling incl. transporting the samples to laboratory. Piston sampler shall be used for extracting undisturbed samples wherenecessary. Samples shall be collected as per IS:2720.	1	Each	₹ 130.80	₹ 130.80
4	021120	Taking out 100mm dia. & 450mm long disturbed samples of soil from bore holes, including provision of air tight containers for packing, labeling and transporting the samples to laboratory. Samples shall becollected as per IS:2720.	1	Each	₹ 144.18	₹ 144.18
5	021130	Conducting standard penetration test as per IS:2131 at approximate 1.5m intervals in bore holes, as directed by the Engineer in charge	1	Each	₹ 751.44	₹ 751.44
6	021150	Conducting laboratory Tests on collected soil samples as per relevant IS code				
7	021151	Moisture Content/Dry Density	1	Each	₹ 360.44	₹ 360.44
8	021152	Atterberg Limits	1	Each	₹ 865.04	₹ 865.04
9	021153	Specific Gravity	1	Each	₹ 384.46	₹ 384.46
10	021154	Grain size analysis including Hydrometer analysis	1	Each	₹ 706.46	₹ 706.46
11	021155	Direct Shear Test	1	Each	₹ 2847.43	₹ 2847.43
12	021156	Natural Density	1	Each	₹ 384.46	₹ 384.46
13	021157	Consolidation Test	1	Each	₹ 2,883.47	₹ 2,883.47
14	021159	Tri-axial Test	1	Each	₹ 2,214.50	₹ 2,214.50
15	2.6.1	Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer-in- charge. : All kinds of soil	690	cum	₹ 177.50	₹ 1,22,475.00
16	2.18.1	Close timbering over areas including strutting, shoring and packing cavities (wherever required) etc. complete. (Measurements to be taken of the face area timbered) : Depth not exceeding 1.5 m	920	sqm	₹ 125.80	₹ 1,15,736.00
17	2.18.2	Close timbering over areas including strutting, shoring and packing cavities (wherever required) etc. complete. (Measurements to be taken of the face area timbered) : Depth exceeding 1.5 m but not exceeding 3 m	345	sqm	₹ 144.10	₹ 49,714.50
18	2.25	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	690	cum	₹ 196.00	₹ 1,35,240.00

19	2.27	Supplying and filling in plinth with sand under floors, including watering, ramming, consolidating and dressing complete.	518	cum	₹ 2,123.75	₹ 11,00,102.50
20	4.1.3	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level : - 1:2:4 (1 cement : 2 coarse sand (zone-III) derived from natural sources : 4 graded stone aggregate 20 mm nominal size derived from natural sources)	253	cum	₹ 7,878.50	₹ 19,93,260.50
21	4.1.2	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level : - 1:1½:3 [1 Cement: 1½ coarse sand (zone-III) derived from natural sources : 3 graded stone aggregate 20 mm nominal size derived from natural sources]	299	cum	₹ 8,340.85	₹ 24,93,914.15
22	5.12	Providing, hoisting and fixing above plinth level up to floor five level precast reinforced cement concrete work in string courses, bands, copings, bed plates, anchor blocks, plain window sills and the like, including the cost of required centering, shuttering but excluding cost of reinforcement with 1:1.5:3 (1 cement : 1.5 coarse sand (zone-III) derived from natural sources : 3 graded stone aggregate 20 mm nominal size derived from natural sources).	12	cum	₹ 10,585.90	₹ 1,27,030.80
23	13.50.4	Applying priming coat: With ready mixed red oxide zinc chromate primer of approved brand and manufacture on steel work (second coat)	2300	sqm	₹ 36.10	₹ 83,030.00
24	10.6.1	Supplying and fixing rolling shutters of approved make, made of required size M.S. laths, interlocked together through their entire length and jointed together at the end by end locks, mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete, including the cost of providing and fixing necessary 27.5 cm long wire springs manufactured from high tensile steel wire of adequate strength conforming to IS: 4454 - part 1 and M.S. top cover of required thickness for rolling shutters. 80x1.25 mm M.S. laths with 1.25 mm thick top cover	78	sqm	₹ 3,653.20	₹ 2,84,949.60
25	10.8.1	Extra for providing mechanical device chain and crank operation for operating rolling shutters. Exceeding 10.00 sqm and upto 16.80 sqm in the area	69	sqm	₹ 1,281.35	₹ 88,413.15
26	12.47.1	Providing & fixing UV stabilised fiberglass reinforced plastic sheet roofing up to any pitch, including fixing with polymer coated 'J' or 'L' hooks, bolts & nuts 8 mm dia. G.I plain/bitumen washers complete but excluding the cost of purlins, rafters, trusses etc. The sheets shall be manufactured out of 2400 TEX panel rovigs incorporating minimum 0.3% ultra-violet stabiliser in resin system under approximately 2400 psi and hot cured. They shall be of uniform pigmentation and thickness without air pockets and shall conform to IS 10192 and IS 12866. The sheets shall be opaque or translucent, clear or pigmented, textured or smooth as specified. 2 mm thick corrugated (2.5" or 4.2" or 6") or step-down (2" or 3" or 6") as specified	403	sqm	₹ 1,401.35	₹ 5,64,744.05

27	4.3.1	Centering and shuttering including strutting, propping etc. and removal of form work for : Foundations, footings, bases for columns	115	sqm	₹ 392.15	₹ 45,097.25
28	4.3.2	Centering and shuttering including strutting, propping etc. and removal of form work for : Retaining walls, return walls, walls (any thickness) including attached pilasters, buttresses, plinth and string courses fillets, kerbs and steps etc.	115	sqm	₹ 842.50	₹ 96,887.50
29	5.9.1	Form Work: Foundations, footings, bases of columns, etc. for mass concrete	230	sqm	₹ 392.15	₹ 90,194.50
30	5.9.2	Walls (any thickness) including attached pilasters, buttresses, plinth and string courses etc.	115	sqm	₹ 842.50	₹ 96,887.50
31	5.9.5	Centering and shuttering including strutting, propping etc. and removal of form for : Lintels, beams, plinth beams, girders, bressumers and cantilevers	403	sqm	₹ 608.35	₹ 2,45,165.05
32	5.9.6	Centering and shuttering including strutting, propping etc. and removal of form for : Columns, Pillars, Piers, Abutments, Posts and Struts	782	sqm	₹ 961.30	₹ 7,51,736.60
33	5.22.6	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level. TMT bars of grade Fe-500D or more	23000	kg	₹ 107.85	₹ 24,80,550.00
34	5.22A.6	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete above plinth level. TMT bars of grade Fe-500D or more	32200	kg	₹ 107.85	₹ 34,72,770.00
35	5.33.1.2	Providing and laying in position ready mixed or site batched design mix cement concrete for reinforced cement concrete work; using coarse aggregate and fine aggregate derived from natural sources, Portland Pozzolana / Ordinary Portland /Portland Slag cement, admixtures in recommended proportions as per IS: 9103 to accelerate / retard setting of concrete, to improve durability and workability without impairing strength; including pumping of concrete to site of laying, curing, carriage for all leads; but excluding the cost of centering, shuttering, finishing and reinforcement as per direction of the engineer-in-charge, for the following grades of concrete.:All works upto plinth level Concrete of M30 grade with minimum cement content of 350 kg /cum	334	cum	₹ 9,655.70	₹ 32,25,003.80
36	5.33.2.2	Providing and laying in position ready mixed or site batched design mix cement concrete for reinforced cement concrete work; using coarse aggregate and fine aggregate derived from natural sources, Portland Pozzolana / Ordinary Portland /Portland Slag cement, admixtures in recommended proportions as per IS: 9103 to accelerate / retard setting of concrete, to improve durability and workability without impairing strength; including pumping of concrete to site of laying, curing, carriage for all leads; but excluding the cost of centering, shuttering, finishing and reinforcement as per direction of the engineer-in-charge, for the following grades of concrete.: All works above plinth level upto floor V level Concrete of M30 grade with minimum cement content of 350 kg /cum	121	cum	₹ 10,011.35	₹ 12,11,373.35

37	11.5	62 mm thick cement concrete flooring with concrete hardener topping, under layer 50 mm thick cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) and top layer 12 mm thick cement hardener consisting of mix 1:2 (1 cement hardener mix : 2 graded stone aggregate, 6 mm nominal size) by volume, hardening compound mixed @ 2 litre per 50 kg of cement or as per manufacture's specifications. This includes cost of cement slurry, but excluding the cost of nosing of steps etc. complete.	805	sqm	₹ 1,056.15	₹ 8,50,200.75
38	11.41A.1.2	Providing and laying Vitrified tiles in floor in different sizes (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS:15622, of approved brand & manufacturer, in all colours and shade, laid on 20 mm thick cement mortar 1:4 (1 cement: 4 coarse sand) jointing with grey cement slurry @3.3 kg/sqm including grouting the joints with white cement and matching pigments etc. The tiles must be cut with the zero chipping diamond cutter only . Laying of tiles will be done with the notch trowel, plier, wedge, clips of required thickness, leveling system and rubber mallet for placing the tiles gently and easily. Size of Tile 800 x 800 mm	1323	sqm	₹ 1,534.85	₹ 20,30,606.55
39	15.2.1	Demolishing cement concrete manually/ by mechanical means including disposal of material within 50 metres lead as per direction of Engineer -in - charge.Nominal concrete 1:3:6 or richer mix (including equivalent design mix)	92	cum	₹ 2,434.25	₹ 2,23,951.00
40	6.1.1	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundation and plinth in: Cement mortar 1:4 (1 cement : 4 coarse sand)	46	cum	₹ 7,370.65	₹ 3,39,049.90
41	6.4.1	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level in all shapes and sizes in : Cement mortar 1:4 (1 cement : 4 coarse sand)	207	cum	₹ 9,344.35	₹ 19,34,280.45
42	13.2.1	15 mm cement plaster on the rough side of single or half brick wall of mix : 1:4 (1 cement: 4 fine sand)	2415	sqm	₹ 399.45	₹ 9,64,671.75
43	13.112.1	Old work (Two or more coats applied @ 1.43 ltr/ 10 sqm) over existing cement paint surface	1265	sqm	₹ 131.3	₹ 1,66,094.50
44	13.26	Providing and applying plaster of paris putty of 2 mm thickness over plastered surface to prepare the surface even and smooth complete.	1150	sqm	₹ 262.7	₹ 3,02,105.00
45	13.82.1	Wall painting with acrylic emulsion paint, having VOC (Volatile Organic Compound) content less than 50 grams/ litre, of approved brand and manufacture, including applying additional coats wherever required, to achieve even shade and colour: One Coat	1380	sqm	₹ 92.00	₹ 1,26,960.00
46	10.2	Structural steel work riveted, bolted or welded in built up sections, trusses and framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.	109250	kg	₹ 133.70	₹ 1,46,06,725.00
47	10.19	Providing and fixing mild steel round holding down bolts with nuts and washer plates complete.	1035	kg	₹ 97.20	₹ 1,00,602.00

48	10.25.2	Steel work welded in built up sections/ framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required. In gratings, frames, guard bar, ladder, railings, brackets, gates and similar works	4025	kg	₹ 172.60	₹ 6,94,715.00
49	10.28	Providing and fixing stainless steel (Grade 304) railing made of Hollow tubes, channels, plates etc., including welding, grinding, buffing, polishing and making curvature (wherever required) and fitting the same with necessary stainless steel nuts and bolts complete, i/c fixing the railing with necessary accessories & stainless steel dash fasteners , stainless steel bolts etc., of required size, on the top of the floor or the side of waist slab with suitable arrangement as per approval of Engineer-in-charge, (for payment purpose only weight of stainless steel members shall be considered excluding fixing accessories such as nuts, bolts, fasteners etc.).	805	kg	₹ 772.40	₹ 6,21,782.00
50	13.63.1	Painting with aluminium paint of approved brand and manufacture to give an even shade . Two or more coats on new work	2300	sqm	₹ 146.80	₹ 3,37,640.00
51	12.50	Providing and fixing precoated galvanised iron profile sheets (size, shape and pitch of corrugation as approved by Engineer-in-charge) 0.50 mm (+ 0.05 %) total coated thickness with zinc coating 120 grams per sqm as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns. Sheet should have protective guard film of 25 microns minimum to avoid scratches during transportation and should be supplied in single length upto 12 metre or as desired by Engineer- in-charge. The sheet shall be fixed using self drilling /self tapping screws of size (5.5x 55 mm) with EPDM seal, complete upto any pitch in horizontal/ vertical or curved surfaces, excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required.	2070	sqm	₹ 738.65	₹ 15,29,005.50
52	20.2.2	450 mm dia piles	2200	metre	₹ 2,278.30	₹ 50,12,260.00
53	20.6.1.1	Initial test (Test Load 2.5 times the Safe capacity)	1	Each (per test)	₹ 54,771.50	₹ 54,771.50
54	NS-2	Add 15% as increase as per BCI DSR (KGP division)	1	15%	₹ 4,87,69,701.05	₹ 73,15,455.16
55	NS-3	Add GST impact on USSOR-2021	1	5.35%	₹ 40,505.00	₹ 2,167.02
Total Cost of Civil Sub-Work (Including All Charges)						₹ 5,63,16,826.16
SCHEDULE - B1 (Electrical Sub work): Laundry Building						
1	NS-1	Supply of 20W or higher wattage LED tube light with Batten (integrated electronic driver).As per CEGE approved Specification for LED tube light-high power,2100 Lumen output,220V, 50Hz AC with constant current driver with short circuit and overload protection etc. Make- philips, crompton, havells, century LED, goldwyn, IS approved.	50	Nos	₹ 337.29	₹ 16,864.50
2	NS-2	Fixing and Commisioning of 20W or higher wattage LED tube light with Batten	50	Nos	₹ 40.59	₹ 2,029.50

3	NS-3	Supply of 40W or higher wattage LED tube light with Batten, IP65 corrosion resistant, glarefree, impact proof, surface mounting MCPCB based LED, CRI 80 +, 4000 Kelvin or more, similar to the product Century LED Elite prime capsule cat ref No XCEL040C (integrated electronic driver). Make- philips, crompton, havells, bajaj, Goldwyn, Century led.	20	Nos	₹ 3,945.76	₹ 78,915.20
4	NS-4	Fixing and Commissioning of 40W or higher wattage LED tube light with Batten	20	Nos	₹ 35.72	₹ 714.40
5	NS-5	Supply, of LED High Bay light fittings 200W LED, LED chip Efficacy (Lumen/watt) ≥ 130, Luminaire System Efficacy - Lumen output - (Lumen/watt) ≥ 120, 6000 K IP-65, IK 07. Accessories for each luminaire: Metallic adjustable Brackets (Stainless steel), SS Eye Bolts (as per IS:4190:1984 latest), Set of Bolt, Nut, Washers (SS), Die cast aluminium brackets etc. ISI Marked 3 Core cable for input power (min Length:250 mm). Test report from NABL lab to be submitted Warranty period (in Months) 36 or more. .similar to . Make- philips, crompton, havells,	16	Nos	₹ 26,271.19	₹ 4,20,339.04
6	NS-6	Fixing and commissioning of LED High Bay light fittings.	16	Nos	₹ 298.87	₹ 4,781.92
7	NS-7	Supply, of LED Street light fittings 45W LED, LED chip Efficacy ≥130 Lm/Watt, IP-66. Light should be as per HQ specification. philips, crompton, havells, century LED, goldwyn, IS approved.	10	Nos	₹ 1,271.19	₹ 12,711.90
8	NS-8	Fixing and commissioning of LED Street light fittings 45 W LED, IP-66.	10	Nos	₹ 127.12	₹ 1,271.20
9	NS-9	Supply and Testing of LT distribution panel consisting of 400A MCCB 4 pole 50 kA as incoming microprocessor based and 2x250A, 36 kA, 2X100A, 36 kA, 2x63A, 36 kA, MCCB, 4 pole, 2x32A DP MCB 10 kA as out going complete with HRC back up fuse with locking arrangement. LT panel shall be as per CEGE/GRC's specification SER/ELEC/GS /DESCRIPTION/LT/PANEL/1/REV-0/MAR 2024. Note:- Tenderer shall submit tentative GAD & technical particulars, type test report of same range of LT panel from NABL accredited laboratory along with their bid offer. Make: ABB, L&T, Schinder, Legrand, Any IS approved. Panel should be as per IEC 61439 or latest.	1	Nos	₹ 1,85,550.00	₹ 1,85,550.00
10	NS-10	Erection, Installation and commissioning of TTA make Distribution panel . including civil job.	1	Nos	₹ 29,248.90	₹ 29,248.90
11	NS-11	Supply and Testing of LT panel consist of 1 No. 125 Amp 36 kA FP MCCB as a incoming , 02Nos. 63 Amp FP MCCB as a outgoing and 32 A DP MCB-7 Nos. as a outgoing with cable termination. Make: ABB, L&T, Schinder, Legrand. . Panel should be as per IEC 61439 or latest.	3	Nos	₹ 62,250.00	₹ 1,86,750.00
12	NS-12	Erection, Installation and commissioning of TTA make Distribution panel . including civil job.	3	Nos	₹ 29,248.90	₹ 87,746.70
13	NS-13	Supply of SP&N 12-way DB (SD) Thermoplastic Circuit breaker boxes IP 65 (with metric knockouts for cable entry) consisting with DP 32A 10kA MCB-1 no as incoming and SP 20 A, 10kA MCB - 4 nos, SP 16 A, 10kA MCB - 4 nos, as outgoing with Neutral links and Earth bar etc., Make: L&T/Havells/C&S/Legrand/ Honeywell/ABB.	4	Sets	₹ 9,939.15	₹ 39,756.60

14	NS-14	Fixing and Commissioning of SP&N 12-way DB (SD) Thermoplastic Circuit breaker boxes IP 65 (with metric knockouts for cable entry)consisting with DP 32A 10kA MCB-1 no as incoming and SP 20 A,10kA MCB - 4 nos, SP 16 A,10kA MCB - 4 nos, as outgoing with Neutral links and Earth bar etc.,	4	Sets	₹ 361.47	₹ 1,445.88
15	NS-15	Supply of TP&N 6-way DB (DD) consisting with FP 63A 10kA MCB-1 no as incoming and 20A 10kA SP MCB-8 Nos, 16A 10kA SP MCB-8 Nos as outgoing with Cu.bus-bar, Neutral links , Spreader Link, Earth bar and DinRail etc.,(ALL MCB will be C series. Thickness of material (in mm)1.6 mm (MSsheet). Make: L&T/Havells/C&S/Legrand/ Honeywell/ABB.	5	Nos.	₹ 7,295.76	₹ 36,478.80
16	NS-16	Fixing and Commissioning of TP&N 6-way DB (DD) consisting with FP 63A 10kA MCB-1 no as incoming and 20A 10kA SP MCB-8 Nos, 16A 10kA SP MCB-8 Nos as outgoingwith Cu.bus-bar, Neutral links , Spreader Link, Earth bar and DinRail etc., with complete wiring and accessories to complete job.	5	Sets.	₹ 487.54	₹ 2,437.70
17	NS-17	Supply of Industrial type Socket 3 phase 5 pin, (3P+1N+1E) 125Amp IP 67 with mechanical interlocking and plug 125 amp 3P + N + E water tight IP 67(similar to hensel cat no 9755100 and 045-6), Make: Hensel, Schnider, ABB, Legrand .	15	Nos	₹ 91,140.00	₹ 13,67,100.00
18	NS-18	Installation & commissioning of Industrial type Socket and plug with all accessories.	15	Nos	₹ 598.32	₹ 8,974.80
19	NS-19	Supply of Industrial type Socket 3 phase 5 pin, (3P+1N+1E) 63Amp IP 67 with mechanical interlocking and plug 63 amp 3P + N + E water tight IP 67(similar to hensel cat no 75352-6 and 035-6), Make: Hensel, Schnider, ABB, Legrand .	15	Nos	₹ 30,100.00	₹ 4,51,500.00
20	NS-20	Installation & commissioning of Industrial type Socket and plug with all accessories.	15	Nos	₹ 598.32	₹ 8,974.80
21	NS-21	Supply of 40 amps C series MCB 2 pole -qty -2 with suitable enclosure. Make: C&S, HPL, Legrand, Schnider, hensel, L&T, ABB, BCH	20	Nos	₹ 3,220.34	₹ 64,406.80
22	NS-22	Fixing and Commissioning of 40 amps C series MCB 2 pole -qty -2 with suitable enclosure.	20	Nos	₹ 161.02	₹ 3,220.40
23	NS-23	Supply of Cable Junction Boxes of size (Box Dimensions LXBXH in mm) 450x375x200 mm or as per site requirement, IP 65 with metric knockouts for cable entry with 3-Phase in- coming and out going connection consists of 3-Phase and neutral terminal as per relevant ISS, with suitable bridge arrangement with all necessary accessories. Make-IS standard Indian make	20	Nos.	₹ 2,350.00	₹ 47,000.00
24	NS-24	Fixing and commissioning of Cable junction box (of fibre body) for 3-Phase in- coming and out going connection consists of 3-Phase and neutral terminal as per relevant ISS, with suitable bridge arrangement of size : 450mm X 375mm x 200 mm or as per site requirement., as per relevent specification/drawing. Fixing shall be made with necessary arrangements as per site requirement, cables are to be terminated with proper socketing arrangement to complete job.	20	Nos	₹ 58.18	₹ 1,163.60

25	NS-25	Supply of Brushless DC (BLDC) Motor Ceiling Fan, ISI marked, Sweep size: 1400 mm, Minimum Air delivery-210 Cubic Meter/Min, total harmonic distortion- 8% [max], Rated Voltage: 230 V,50HZ Single phase AC, Blade thickness (Min): 1.1mm, Blade material : Aluminium, Bearing: Double ball bearings, Down rod size (without shackle) : 300mm, Shank & Shackle thickness(Min) : 2mm, canopy : 2 nos., colour standard: white, BEE rating : 5 star (as per Ministry of Power Notification Number: S.O. 2210 (E) and S.O. 2211 (E) dated. 12th May 2022 or latest), Rated power-28 watt [max], Warranty [Min] 30 Months. Conforming to- (i)IS:374/2019 with Amendment No. 1/2022 or latest (ii)IS:302 (Part 2/Sec 80) - For safety requirement (iii)IS:14700 (Part 3/Sec2) for THD. Speed control with electronic regulator(step type with minimum 5 running positions) and Regulators shall be provided with radio and television interference suppressing devices as per clause 10.7 of Amendment No. 1/2022to IS 374/2019 or latest. Make: Polar/Atomberg/Usha/Orient	5	Nos	₹ 2,400.00	₹ 12,000.00
26	NS-26	Fixing and commissioning of Brushless DC (BLDC) Motor Ceiling Fan, ISI marked, Sweep size: 1400 mm, suitable for 230V, 50Hz, AC supply confirming to Class: I of IS: 374/latest. Fixing of the fan shall be done with suitable clamp, hook, nut/bolts etc. and connection with flexible twin twisted multi strand Copper wire and removing of the existing old fan (if any) and handing over of the same to Railway Store with clear acknowledgement, as per site requirement.	5	Nos	₹ 116.22	₹ 581.10
27	NS-27	Supply of heavy duty Wall Mounted Fan WITH 5 STAR and above RATING 600 mm size , suitable for 230V, 50Hz, AC supply as per site requirement. Make:- havells/Usha/Orient/ Polar/Crompton/ RR Electricals/any IS Panel.	20	Nos	₹ 9,364.41	₹ 1,87,288.20
28	NS-28	Fixing and Commissioning of Wall Mounted Fan WITH 5 STAR and above RATING 600mm size with all accessories , as per site requirement .	20	Nos	₹ 468.22	₹ 9,364.40
29	NS-29	Supply of Exhaust Fans 600 mm , 1400 RPM suitable for 230V, 50Hz, AC supply, Conformity to Indian Standrad IS: 2312 (latest).accessories such as Frame, Legs Set, Rubber Clamps & Other Hardware - inclusive in the scope of supply. Make-Havells/ Bajaj /Usha/ Crompton /Orient/Khaitan	20	Nos	₹ 8,389.83	₹ 1,67,796.60
30	NS-30	Fixing and commissioning of Heavy Duty Exhaust Fans as per consignee requirement.	20	Nos	₹ 129.55	₹ 2,591.00
31	NS-31	Supply of Earthing arrangement with supply of Hot Dip Galvanized (HDG) earth cone and all other requisite materials as per CEE/GRC's Drg. No.CEE/G/A3/P-150, Alt.1 including sump box with salt and charcoal, metallic cover etc. as per site supervisor's instruction. Cost includes supply of all materials mentioned in the Drawing including 02 mtrs 25x5mm GI strip for connection from earth electro pipe to light pole /Rail pole etc. Make: Any IS standard Indian make.	8	Each	₹ 3,675.12	₹ 29,400.96
32	NS-32	Erection of Earthing arrangement with erection of Hot Dip Galvanized (HDG) earth cone and all other requisite materials as per CEE/GRC's Drg. No.CEE/G/A3/P-150, Alt.1 including sump box with salt and charcoal, metallic cover etc. as per site supervisor's instruction. Cost includes erection of all materials mentioned in the Drawing including 02 mtrs 25x5mm GI strip for connection from earth electro pipe to light pole /Rail pole etc.	8	Each	₹ 886.62	₹ 7,092.96

33	NS-33	<p>Concealed Wiring of light and fan point by 1.5 sq. mm, Single Core, Multistrand (22/0.3mm), Copper Conductor (flexible), Unsheathed, Flame Retardant Low Smoke and Halogen(FR-LSH), PVC insulated Cable of 1100V grade, Type-C PVC Compound as per IS 5831, Conforming to IS :694 - 2010 (Reaffirmed 2020), ISI marked. Earthing the point with 1.5 sq. mm, Single Core, Multistrand (22/0.3mm), Copper Conductor (flexible), Unsheathed, FR-LSH, PVC insulated Cable of 1100V grade, Type-C PVC Compound as per IS 5831, Conforming to IS :694 - 2010 (Reaffirmed 2020), ISI marked,through PVC Conduit Pipe of Nominal Size 20mm/25mm(as per site requirement) and in the length of 3 mtrs, Socket ended (at one end), medium mechanical stress, White Color, Resistant to Flame Propagation to grade UL-94 V0, Conforming to IS 9537 (Part 3) 1983 (Reaffirmed Year : 2017) with amendment no. 2 or latest with ISI mark. Modular Electrical Switch, 6 A, 230 V, SP, 1 Way, 1 Module, Unenclosed type as per Clause no.7.1.3, Method of Activation of switch shall be of Rocker type as per Clause no. 7.1.5, Switch shall be Flush type as per Clause no.7.1.6 and shall be installed as per Design A mentioned in the Clause no.7.1.7, Current carrying material as per Clause no. 22.5, with cover made of tough non-ignitable insulating material and bare of tough non-ignitable insulating material or of vitrified ceramic material, Conforming to IS:3854/1997 (reaffirmed 2017) with latest amendments and ISI mark. including supply of all required materials like lamp holder,Aluminium, batten type, with shade carrier ring,ISI marked, Base: B-22 suitable for use at 250V, Conforming to IS: 1258(Rev.-3)-2005)with amdt-3. With BACK plate of 53 MM. Dia & 45 MM PCD..., ceiling rose, Modular type Socket outlet suitable for 3 pin plug, 6A, 230V, 2 Module, Shuttered (Operation of Shutter should be independant of Earthing Point), Cover made of tough Non-Ignitable insulating material, material of base -vitrified ceramic, Conforming to IS : 1293-2019, Amendment no. 1 or latest with ISI mark ,suitable moduler stainless steel JB box with moduler PVC cover , stainless steel switch Board with moduler PVC cover,PVC Spacers, PVC Saddles,PVC Bends, PVC Tees to be provided as and where required as per direction of consignee,. Provision of moduler fan regulator should be kept on switch board . The plate should include 2 blank space for further installation of switches.including stainless steel fastener, Pin Type Terminal End Lugs as per specification attached. All materilas would be as per latest specification as issued from HQ/GRC time to time if available or latest IS and IE rules which is available.Covers or cover parts or parts of them, which are intended to ensure protection against electric shock, shall be held in place at two or more points by effective fixings..The cost includes supply of all materials to complete job. (Two 5-ampere socket point treated as one point).</p>	90	Nos (Pts)	₹ 650.79	₹ 58,571.10
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34	NS-34	<p>Concealed Sub circuit wiring by 2.5 sq. mm, Single Core, Multistrand (36/0.3mm), Copper Conductor(flexible), Unsheathed, Flame Retardant Low Smoke and Halogen (FR-LSH), PVC insulated Cable of 1100V grade, Type C PVC Compound as per IS 5831, Conforming to IS: 694-2010(reaffirmed 2020), ISI marked. with 2.5sq mm earthing wire of Single Core, Multistrand (36/0.3mm), Copper Conductor(flexible), Unsheathed, Flame Retardant Low Smoke and Halogen (FR-LSH), PVC insulated Cable of 1100V grade, Type C PVC Compound as per IS 5831, Conforming to IS: 694-2010(reaffirmed 2020), ISI marked. through PVC Conduit Pipe of Nominal Size 25mm and in the length of 3 mtrs, Socket ended (at one end), medium mechanical stress, White Color, Resistant to Flame Propagation to grade UL-94 V0, Conforming to IS 9537 (Part 3) 1983 (Reaffirmed Year : 2017) with amendment no. 2 or latest with ISI mark with Supply & fixing of PVC Circular Box and Ceiling rose if required with connection from running circuit as per direction of Consignee. including stainless steel fastener, Pin Type Terminal End Lugs as per specification attached. All materilas would be as per latest specification as issued from HQ/GRC time to time if available or latest IS and IE rules which is available.The cost includes supply of all materials to complete the job.</p> <p>*Quantity per meter means-one meter conduit with 2 (two) meters Cu. cable of size 2.5 sq mm for phase & neutal and 1mtr of 2.5 Sq.mm PVC Cu. cable as earthing with Supply of PVC Circular Box and Ceiling rose as per direction of Consignee.</p>	270	Mtrs	₹ 142.21	₹ 38,396.70
35	NS-35	<p>Concealed Sub circuit wiring by 4 sq. mm, Single Core, Multistrand (56/0.3mm), Copper Conductor (flexible), Unsheathed, Flame Retardant Low Smoke and Halogen(FR-LSH), PVC insulated Cable of 1100V grade, Type C PVC Compound as per IS 5831, Conforming to IS :694 - 2010 (Reaffirmed 2020), ISI marked with 4 Sq mm earthing wire of Single Core, Multistrand (56/0.3mm), Copper Conductor (flexible), Unsheathed, Flame Retardant Low Smoke and Halogen(FR-LSH), PVC insulated Cable of 1100V grade, Type C PVC Compound as per IS 5831, Conforming to IS :694 - 2010 (Reaffirmed 2020), ISI marked through PVC Conduit Pipe of Nominal Size 25mm and in the length of 3 mtrs, Socket ended (at one end), medium mechanical stress, White Color, Resistant to Flame Propagation to grade UL-94 V0, Conforming to IS 9537 (Part 3) 1983 (Reaffirmed Year : 2017) with amendment no. 2 or latest with ISI mark including stainless steel fastener, Pin Type Terminal End Lugs as per specification attached. All materilas would be as per latest specification as issued from HQ/GRC time to time if available or latest IS and IE rules which is available.The cost includes supply of all materials to complete the job.</p> <p>*Quantity per meter means-one meter conduit with 2 (two) meters Cu. cable of size 4 sq mm for phase & neutal and 1mtr of 4 Sq.mm PVC Cu. cable as earthing.</p>	150	Mtrs	₹ 180.04	₹ 27,006.00

36	NS-36	<p>Point Wiring by PVC conduit /PVC Casing & Capping : -- Internal wiring for light, fan , plug points and night lamp points by 1.5 sq. mm, Single Core, Multistrand (22/0.3mm), Copper Conductor (flexible), Unsheathed, Flame Retardant Low Smoke and Halogen(FR-LSH), PVC insulated Cable of 1100V grade, Type-C PVC Compound as per IS 5831, Conforming to IS :694 - 2010 (Reaffirmed 2020), ISI marked. Earthing the point with 1.5 sq. mm, Single Core, Multistrand (22/0.3mm), Copper Conductor (flexible), Unsheathed, Flame Retardant Low Smoke and Halogen(FR-LSH), PVC insulated Cable of 1100V grade, Type-C PVC Compound as per IS 5831, Conforming to IS :694 - 2010 (Reaffirmed 2020), ISI marked through PVC Conduit Pipe of Nominal Size 25mm and in the length of 3 mtrs, Socket ended (at one end), medium mechanical stress, White Color, Resistant to Flame Propagation to grade UL-94 V0, Conforming to IS 9537 (Part 3) 1983 (Reaffirmed Year : 2017) with amendment no. 2 or latest with ISI mark. or PVC Casing & capping, ISI marked, white color, double locking, Resistant to Flame Propagation to grade UL-94 V0, as per IS:14927 Part 2 : 2001 (Reaffirmed Year : 2017) or latest, Standard Length: 2 meter, Size: 25x16mm. including Modular Electrical Switch, 6 A, 230 V, SP, 1 Way, 1 Module, Unenclosed type as per Clause no.7.1.3, Method of Activation of switch shall be of Rocker type as per Clause no. 7.1.5, Switch shall be Flush type as per Clause no.7.1.6 and shall be installed as per Design A mentioned in the Clause no.7.1.7, Current carrying material as per Clause no. 22.5, with cover made of tough non-ignitable insulating material and bare of tough non-ignitable insulating material or of vitrified ceramic material, Conforming to IS:3854/1997 (reaffirmed 2017) with latest amendments and ISI mark., including supply of all required materials like lamp holder,Aluminium, batten type, with shade carrier ring,ISI marked, Base: B-22 suitable for use at 250V, Conforming to IS: 1258(Rev.-3)-2005)with amdt-3. With BACK plate of 53 MM. Dia & 45 MM PCD..., ceiling rose, Modular type Socket outlet suitable for 3 pin plug, 6A, 230V, 2 Module, Shuttered (Operation of Shutter should be independant of Earthing Point), Cover made of tough Non-Ignitable insulating material, material of base -vitrified ceramic, Conforming to IS : 1293-2019, Amendment no. 1 or latest with ISI mark ,suitable PVC moduler JB box ,switch Board, Spacers, Saddles,Bends, Tees to be provided as and where required as per direction of consignee., Provision of moduler fan regulator should be kept on switch board .The plate should include 2 blank space for further installation of switches.including stainless steel fastener, Pin Type Terminal End Lugs as per specification attached. All materilas would be as per latest specification as issued from HQ/GRC time to time if available or latest IS and IE rules which is available.The cost includes supply of all materials to complete job. (Two 5-ampere socket point treated as one point).</p>	50	Each	₹ 605.55	₹ 30,277.50
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37	NS-37	<p>Circuit/Sub-circuit wiring by PVC conduit/PVC casing capping wiring by 2.5 sq. mm, Single Core, Multistrand (36/0.3mm), Copper Conductor(flexible), Unsheathed, Flame Retardant Low Smoke and Halogen (FR-LSH), PVC insulated Cable of 1100V grade, Type C PVC Compound as per IS 5831, Conforming to IS: 694-2010(reaffirmed 2020), ISI marked. Continuous Earthing with 2.5 sq. mm, Single Core, Multistrand (36/0.3mm), Copper Conductor(flexible), Unsheathed, Flame Retardant Low Smoke and Halogen (FR-LSH), PVC insulated Cable of 1100V grade, Type C PVC Compound as per IS 5831, Conforming to IS: 694-2010(reaffirmed 2020), ISI marked through PVC Conduit Pipe of Nominal Size 25mm and in the length of 3 mtrs, Socket ended (at one end), medium mechanical stress, White Color, Resistant to Flame Propagation to grade UL-94 V0, Conforming to IS 9537 (Part 3) 1983 (Reaffirmed Year : 2017) with amendment no. 2 or latest with ISI mark. or PVC Casing & capping, ISI marked, white color, double locking, Resistant to Flame Propagation to grade UL-94 V0, as per IS:14927 Part 2 : 2001 (Reaffirmed Year : 2017) or latest, Standard Length: 2 meter, Size: 25x16mm. to be provided as and where required as per direction of consignee including PVC Circular Box and Ceiling rose if required with connection from running circuit as per direction of Consignee, stainless steel fastener, Pin Type Terminal End Lugs as per specification attached. All materials would be as per latest specification as issued from HQ/GRC time to time if available or latest IS and IE rules which is available. The cost includes supply of all materials to complete job.</p> <p>*Quantity per meter means-one meter conduit with 2 (two) meters Cu. cable of size 2.5 sq mm for phase & neutral and 1mtr of 2.5 Sq.mm PVC Cu. cable for earthing with Supply of PVC Circular Box and Ceiling rose as per direction of Consignee.</p>	150	Mtrs	₹ 129.23	₹ 19,384.50
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38	NS-38	<p>Circuit/Sub-circuit wiring by PVC conduit/PVC casing capping wiring by 4 sq. mm, Single Core, Multistrand (56/0.3mm), Copper Conductor (flexible), Unsheathed, Flame Retardant Low Smoke and Halogen(FR-LSH), PVC insulated Cable of 1100V grade, Type C PVC Compound as per IS 5831, Conforming to IS :694 - 2010 (Reaffirmed 2020), ISI marked. Continuous Earthing with 4 sq. mm, Single Core, Multistrand (56/0.3mm), Copper Conductor (flexible), Unsheathed, Flame Retardant Low Smoke and Halogen(FR-LSH), PVC insulated Cable of 1100V grade, Type C PVC Compound as per IS 5831, Conforming to IS :694 - 2010 (Reaffirmed 2020), ISI marked. Cable through PVC Conduit Pipe of Nominal Size 25mm and in the length of 3 mtrs, Socket ended (at one end), medium mechanical stress, White Color, Resistant to Flame Propagation to grade UL-94 V0, Conforming to IS 9537 (Part 3) 1983 (Reaffirmed Year : 2017) with amendment no. 2 or latest with ISI mark. or PVC Casing & capping, ISI marked, white color, double locking, Resistant to Flame Propagation to grade UL-94 V0, as per IS:14927 Part 2 : 2001 (Reaffirmed Year : 2017) or latest, Standard Length: 2 meter, Size: 25x16mm. to be provided as and where required as per direction of consignee including PVC Circular Box and Ceiling rose if required with connection from running circuit as per direction of Consignee, stainless steel fastener, Pin Type Terminal End Lugs as per specification attached. All materials would be as per latest specification as issued from HQ/GRC time to time if available or latest IS and IE rules which is available. The cost includes supply of all materials to complete job.</p> <p>*Quantity per meter means-one meter conduit with 2 (two) meters Cu. cable of size 4 sq mm for phase & neutral and 1mtr of 4 Sq.mm PVC Cu. cable for earthing with Supply of PVC Circular Box and Ceiling rose as per direction of Consignee.</p>	100	Mtrs	₹ 160.53	₹ 16,053.00
39	NS-39	<p>Supply of 3 modular plate and metal/pvc box with 6A/16A twin socket Shutter type and 16 or 20A switch. All item will be modular type and separate (as per PCEE specification no.CEE/P/56/301 /MAINTENANCE, Dtd. 17/11/2022.) Make:Goldmedal/Havells/Polycab /HPL/ GM Modular/Orpat Electricals.</p>	20	Nos	₹ 455.00	₹ 9,100.00
40	NS-40	<p>Fixing and commissioning of 3 modular plate and metal/pvc box with 6A/16A twin socket Shutter type and 16 or 20A switch. All item will be modular type and separate. (Wiring will be covered under Shedule item No.2 as per site requirement).</p>	20	Nos	₹ 26.95	₹ 539.00

41	NS-41	Supply of modular PC Board consisting of 03 nos. switches with inbuilt LED indication, 03 nos. sockets and modular SP MCB 10A, 10kA, Type B- 01 No. with Stainless Steel 12M Box and all other accessories to complete job for concealed wiring. Specs: Modular Electrical Switch, 6 A, 230 V, SP, 1 Way, 1 Module, Unenclosed type as per Clause no.7.1.3, Method of Activation of switch shall be of Rocker type as per Clause no. 7.1.5, Switch shall be Flush type as per Clause no.7.1.6 and shall be installed as per Design A mentioned in the Clause no.7.1.7, Current carrying material as per Clause no. 22.5, with cover made of tough non-ignitable insulating material and bare of tough non-ignitable insulating material or of vitrified ceramic material, Conforming to IS:3854/1997 (reaffirmed 2017) with latest amendments and ISI mark and Modular type Socket outlet suitable for 3 pin plug, 6A, 230V, 2 Module, Shuttered (Operation of Shutter should be independant of Earthing Point), Cover made of tough Non-Ignitable insulating material, material of base -vitrified ceramic, Conforming to IS : 1293-2019, Amendment no. 1 or latest with ISI mark. with modular SP MCB 10A, 10kA, Type B- 01 No. ISI marked, rated voltage: 240V AC, conforming to IS/IEC 60898-1:2015 (Reaffirmed Year:2024) or latest, with rated short circuit current capacity 10KA, fixed unadjustable time current characteristics suitable for use in protection of industrial, commercial and domestic electrical installations. along with 12M stainless steel Box, moduler cover plate and Stainless Steel boxes and all other accessories including stainless steel fastener, Pin Type Terminal End Lugs to complete job as per specification attached or with latest amendment or specification issued from HQ/GRC if any time to time. Make: Goldmedal/Havells/Polycab/GM Modular/Orpat Electricals/ Anchor/ Pressfit/IS standard Indian make .	10	Nos	₹ 1,440.94	₹ 14,409.40
42	NS-42	Fixing and commissioning of modular PC Board consisting of 03 nos. switches with inbuilt LED indication, 03 nos. sockets and modular SP MCB 10A, 10kA, Type B- 01 No. with Stainless Steel 12M Box, moduler cover plate duly Concealed in wall surface including all other accessories to complete job with latest amendment or specification issued from HQ/GRC if any time to time, including stainless steel fastener, Pin Type Terminal End Lugs as per specification attached. (Wiring will be covered under Shedule item No. as per site requirement).	10	Nos	₹ 22.19	₹ 221.90
43	NS-43	Supply of L.T. Aluminium Armoured and PVC sheathed stranded XLPE cable of size 4 Core x95 Sqmm for working voltage upto & including 1100 Volts conforming to as per Letter no. CEE/S/185/519/Genl.,Dtd. 02/03/2022 of office of the PCEE/HQ/GRC.	250	Mtrs	₹ 329.66	₹ 82,415.00
44	NS-44	Supply of L.T. Aluminium Armoured PVC XLPE cable of size 4 Core x240 Sq mm 1100 Volts Grade. IS No. 7098-Part-1, 1988, with amendment No. 1 and 2 and 3 reaffirmed 2005.	500	Mtrs	₹ 1,795.76	₹ 8,97,880.00
45	NS-45	Supply of L.T. Aluminium Armoured PVC XLPE cable of size 4 Core x400 Sq mm 1100 Volts Grade. IS No. 7098-Part-1, 1988, with amendment No. 1 and 2 and 3 reaffirmed 2005.	500	Mtrs	₹ 2,249.92	₹ 11,24,960.00

46	NS-46	Laying of cable / cables in under ground along the road through cable trench etc . as per standard drawing including necessary termination , connection and testing.Trenching and laying of U/G cables in any kind of soil trench of size minimum 0.40 mtr wide and 1 mtr deep covered with necessary bricks for protection of the cables including filling of space between brick and cable/cables with sand and refilling the trench with excavated soil, leveling up, and restoring the surface duly rammed.	1000	Mtrs	₹ 109.06	₹ 1,09,060.00
47	NS-47	Laying of cable / cables across the road, track, drain etc through RCC/GI pipe confirming to IS standard of size 100mm or 150mm (or any suitable size as per field requirement based on the actual size of the cable) as per relevant specification and as per standard drawing with necessary termination, connections and testing .Cost also includes collection of cable/cables from Railway store if required.GI pipe will be supplied by contractor.	200	Mtrs	₹ 249.65	₹ 49,930.00
48	NS-48	Laying of cable/ cables on wall / structure through PVC casing pipe of size 4inches or 3inches with accessories or as per site requirement with suitable clamp / saddle/ fixtures etc with necessary termination, connection and testing as per standard drawing.Cost also includes collection of cable/cables from Railway store if required.	50	Mtrs	₹ 75.00	₹ 3,750.00
49	NS-49	Transportation of cables in rolls with or without wooden drums from the store of concerned SSEE or any store of kharagpur to the site of works.	3	Nos (Drum/r oll)	₹ 1,012.08	₹ 3,036.24
50	NS-50	Supply of HDPE pipe of size 110mm dia s per specification ISI mark IS no. 4984;2016 of reputed make,to complete job. Make-TATA/Jindal/Any ISI Approved.	200.00	Mtrs	₹ 157.93	₹ 31,586.00
51	NS-51	Erection and commissioning of HDPE pipe of size 110mm dia to complete job.	200.00	Mtrs	₹ 15.79	₹ 3,158.00
52	NS-52	Supply and installation of centrifugal self priming coupled pump Type: electric driven submersible type single phase 230 v 50 hz , capacity min 300 to 1000 lpm, total head min 5 to 10 min , max power input 2.5 to 3 kw with protection class of IP 68., Net positive suction head min 5 m, accessories : 1 no non returnable flap to be supplied with each pump	1	Nos	₹ 6,24,600.00	₹ 6,24,600.00
53	NS-53	Supply and installation Tower ladder of Aluminium Tiltable Tower Ladder without bucket type having Reach height of 41-50Reach Height, (Foot) 41-50 Ladder Open Height Min (Foot) 39-45, Ladder Closed Height Min (Foot) 18-24, Bottom Width (inch) 18-25, Platform Size (inch) 24x24, Number of Steps 41-50, Adjustable Height Yes, Load Capacity, (Kg) 120-150	1	Nos	₹ 1,39,322.00	₹ 1,39,322.00
54	NS-54	Supply of Energy meter digital LCD display, 3 Phase 4 wire, 415 V AC, primary current settable at site, secondary -/ 5 Amp, Aux:220V AC with display of active,reactive and apparent energy (KWH/KVAH/KVArh), complete set along with 3 Nos. Current transformer of 300/5 Amp or 400/5Amp.	1	Nos	₹ 2,094.92	₹ 2,094.92
55	NS-55	Fixing and commissioning of Energy meter digital LCD display, 3 Phase 4 wire, 415 V AC, primary current settable at site, secondary -/ 5 Amp, Aux:220V AC with display of active,reactive and apparent energy (KWH/KVAH/KVArh), complete set along with 3 Nos. Current transformer of 300/5 Amp or 400/5Amp.	1	Nos	₹ 209.49	₹ 209.49

56	NS-56	Supply of Hot dipped Galvanized wire mesh cable trays size: 54mm/200mm with coupling kit and other accessories. It shall be manufactured with a longitudinal 'T- welded' safety edge All Accessories including couplers , mounting accessories (Mechanically tested & supplied by cable tray manufacturer must be used) are required of same finish as per site requirement. Trays should comply Standard EN ISO 14 61: at least 550 h of SST. The deflection of cable tray must be no more than 1/200th of the distance between two supports and tested in accordance with the standard IEC 61537. Wire-mesh cable trays must be designed with an optimum span of 1.5 m, considering the maximum carrying capacity authorized by the manufacturer. Assemblies with specific fire resistant properties must have an E30-E90 certificate. Rod-dia must be from 3.9mm to 5.9mm for different sizes. Make- Legrand/Panduit/Cope/Leviton/ IS approved.	50	Nos	₹ 1,280.00	₹ 64,000.00
57	NS-57	Fixing and commissioning of Hot dipped Galvanized wire mesh cable trays size: 54mm/200mm with coupling kit and other accessories.	50	Nos	₹ 48.12	₹ 2,406.00
Total Cost of SCHEDULE -B1 (Electrical Sub work): Laundry Building						₹ 68,27,864.61
GST @18% of Total Cost of SCHEDULE -B1						₹ 12,29,015.63
Total Cost of SCHEDULE -B1 (Electrical Sub work): Laundry Building including GST						₹ 80,56,880.24
SCHEDULE -B2 (Electrical Sub work): Sub Station						
1	NS-60	Supply of HT VCB 6.6KV HT VCB 6.6KV 1 x 800A 3 Phase horizontal draw out Panel (with copper busbar all metering arrangement and relevant accessories conforming IS: 3427 & 13118. VCB should be as per HQ specification. Make: L&T, ABB, Paskal or any other OEM make	3	Set	₹ 5,80,000.00	₹ 17,40,000.00
2	NS-61	Erection, testing and commissioning of HT VCB (with copper busbar all metering arrangement and relevant accessories conforming IS: 3427 & 13118.	3	Set	₹ 25,000.00	₹ 75,000.00
3	NS-62	Supply of MS sheet cable Busbar Chamber of Sizes 9" x 10" x 3" (approx) with 4 Nos Copper bus bar of 200Amps capacity. .Make: Havells, HPL, Legrand, C&S .	2	Nos	₹ 6,732.14	₹ 13,464.28
4	NS-63	Fixing and Installation of 4 pole copper bus bar of 200 A capacity in suitable enclosure.	2	Nos	₹ 673.21	₹ 1,346.42
5	NS-64	Supply of Earthing arrangement with supply of Hot Dip Galvanized (HDG) earth cone and all other requisite materials as per CEE/GRC's Drg. No.CEE/G/A3/P-150, Alt.1 including sump box with salt and charcoal, metallic cover etc. as per site supervisor's instruction. Cost includes supply of all materials mentioned in the Drawing including 02 mtrs 25x5mm GI strip for connection from earth electrode pipe to light pole /Rail pole etc.Make: Any IS standard Indian make.	4	Each	₹ 3,675.12	₹ 14,700.48
6	NS-65	Erection of Earthing arrangement with erection of Hot Dip Galvanized (HDG) earth cone and all other requisite materials as per CEE/GRC's Drg. No.CEE/G/A3/P-150, Alt.1 including sump box with salt and charcoal, metallic cover etc. as per site supervisor's instruction. Cost includes erection of all materials mentioned in the Drawing including 02 mtrs 25x5mm GI strip for connection from earth electrode pipe to light pole /Rail pole etc.	4	Each	₹ 886.62	₹ 3,546.48

7	NS-66	Supply of 3(Three Core) x 240 Sq mm, 11KV (E) Stranded compact round Aluminium conductor screen XLPE insulated and Insulation screened and copper screened tape wrapped inner sheath galvanised steel strip armoured and overall PVC outer sheathed HT Cable, As per IS: 7098/(Part-2) 2011 or with latest amendments.	250	Mtrs	₹ 1,197.46	₹ 2,99,365.00
8	NS-67	Laying, Supply at site, testing, drawl & commissioning of HT cable. The price shall cover all requisite materials, digging of cable trench in any kind of soil, supply and spreadings and for cable commissioning, supply and laying of bricks (Class-A) along the road as per site requirement & CEE/GRC's drg. No. CEE/G/A-3/P-134. Price shall also cover for filling up the trench with soil after completion of work including cable marker for proper tracing of cable. Cost also includes collection of cable/cables from Railway store and supply of PVC sleeve/Pipe (or any suitable size as per field requirement based on the actual size of the cable)	200	Mtrs	₹ 165.02	₹ 33,004.00
9	NS-68	Laying of HT cable / cables across the road, track, drain, concrete etc through HDPE/GI/RCC pipe confirming to IS standard of size 100mm (or any suitable size as per field requirement based on the actual size of the cable) as per relevant specification and as per standard drawing with necessary termination, connections and testing. Cost also includes collection of cable/cables from Railway and supply of GI/RCC pipe confirming to IS standard of size 100mm (or any suitable size as per field requirement based on the actual size of the cable)	25	Mtrs	₹ 432.77	₹ 10,819.25
10	NS-69	Laying, Supply at site, testing, drawl & commissioning of HT cable. The price shall cover all requisite for fixing of cables in wall/pole with necessary clamping not more than 50cm apart. For fixing cables on wall, PVC sleeve/Pipe should be used as per site requirement & CEE/GRC's drg. No. CEE/G/A-3/P-134 including cable marker for proper tracing of cable. Cost also includes collection of cable/cables from Railway store.	25	Mtrs	₹ 54.28	₹ 1,357.00
11	NS-70	Supply of HT Heat shrinkable type End Termination/Indoor/ Outdoor type as per requirement suitable for 3 x 240 Sq mm Screened XLPE cable 11KV/6.6 KV E as per IEC-60502-4 or latest. Make: Raychem//Densons/3M/Any Is approved.	2	Nos.	₹ 8,050.85	₹ 16,101.70
12	NS-71	Fixing and Commissioning of HT Heat shrinkable type End Termination Indoor/outdoor type as per requirement suitable for 3 x 240 Sq mm Screened XLPE cable 11KV/6.6 KV.	2	Nos.	₹ 771.03	₹ 1,542.06
13	NS-72	Supply of 11KV/6.6 KV Heat shrinkable Straight Through Joint Kit, XLPE for size 3X240-Sq.mm. As per IEC-60502-4 or latest., Make: Raychem//Densons/3M	4	Nos.	₹ 8,389.83	₹ 33,559.32
14	NS-73	Fixing and Commissioning of 11KV/6.6 KV Heat shrinkable Straight Through Joint Kit, XLPE for size 3X240-Sq.mm.	4	Nos.	₹ 381.36	₹ 1,525.44

15	NS-74	Supply and Testing of ACB distribution panel, consisting of ACB 800 Amps , 4P, 50KA, MPRO, EDO-02 Nos Incoming, MCCB 400Amps, 4P,50 KVA,TM -4 Nos Outgoing , MCCB 250 amps, 4P,50 KVA,TM -4 Nos as Outgoing with Buscoupler 800 Amps -01 No, 4 Pole ACB type suitable for 415volt 4-Pole . Panel should be as per IEC 61439 or latest OEM Make TTA panel. with ammeter, voltmeter indicator lamp etc.	1	Nos	₹ 18,65,000.00	₹ 18,65,000.00
16	NS-75	Erection, Installation and commissioning of TTA make Distribution panel . including civil job.	1	Nos	₹ 29,248.90	₹ 29,248.90
17	NS-76	Preparation and Submission of Drawings of Wiring Lay Out, Cable Route Lay out, Single Line Diagram of Power Distribution System etc. related to this work. The cost also includes supply of 11 copys of drawing, each drawing of 10 copys excluding tracing paper.	1	Job	₹ 9,600.00	₹ 9,600.00
Total cost of SCHEDULE -B2 (Electrical Sub work): Sub Station						₹ 41,49,180.33
GST @18% of Total cost of SCHEDULE -B2						₹ 7,46,852.46
Total cost of SCHEDULE -B2 (Electrical Sub work): Sub Station including GST						₹ 48,96,032.79
Total Electrical Sub work Cost (Schedule B1 + Schedule B2) including GST						₹ 1,29,52,913.03
SCHEDULE -C (Mechanical Sub work): Shalimar Setting up of mechanized departmental laundries						
1	NS-1	Supply, Installation & commissioning and testing of Washer extractor, min. cap 120 kg per cycle.	12	Nos.	₹ 18,95,000.00	₹ 2,27,40,000.00
2	NS-2	Supply, installation and commissioning of flat work ironer, double roller (roll heated), size minimum 800mmdia x 3000 mm automatic feeder , automatic cross folder and stacker	3	Nos.	₹ 64,40,677.97	₹ 1,93,22,033.91
3	NS-3	Supply, Installation & commissioning of Tumbler Dryer, Cap 60 kg per cycle.	6	Nos.	₹ 3,55,043.00	₹ 21,30,258.00
4	NS-4	Supply, installation and commissioning of Steam Boiler (850 kg/Hr) (Solid fuel type)	3	Nos.	₹ 21,73,000.00	₹ 65,19,000.00
5	NS-5	Supply, Installation & commissioning of portable air compressor ,20 hp, max working pressure 12.7 kg/cm2.	3	Nos.	₹ 2,98,500.00	₹ 8,95,500.00
6	NS-6	Supply, Installation and commissioning of water softner, cap 50 KLD.	8	Nos.	₹ 3,27,012.71	₹ 26,16,101.68
7	NS-7	supply, installation, and commissioning of Electric operated dry cleaning machine with 35 Kg capacity for mechanized laundry.	2	Nos.	₹ 20,88,000.00	₹ 41,76,000.00
8	NS-8	Whiteness meter, measure range 0-100 whiteness, unit accuracy 0.2% +/- 1 digit, power supply- input rechargeable batteries with charger display 3-1/2	4	Nos.	₹ 25,553.00	₹ 1,02,212.00
9	NS-9	Plumbing work, supply and fixing/installation and commissioning of GI pipe line dia 1"for air supply for mechanized Laundry as per site requirement.	1000	Meter	₹ 343.22	₹ 3,43,220.00
10	NS-10	Plumbing work, supply and fixing/installation and commissioning of GI pipe line dia1.5" for water supply for mechanized Laundry as per site requirement.	1000	Meter	₹ 406.78	₹ 4,06,780.00

11	NS-11	Plumbing work, supply and fixing/installation and commissioning of GI pipe line dia 2" for steam supply with insulation for mechanized Laundry as per site requirement.	1000	Meter	₹ 635.59	₹ 6,35,590.00
12	NS-12	Supply Installation Testing & Commissioning of CCTV CAMERAS	2	SET	₹ 4,91,525.42	₹ 9,83,050.84
13	NS-13	Wet linen trolley.	50	Nos.	₹ 23,989.00	₹ 11,99,450.00
14	NS-14	Dry Linen trolley.	50	Nos.	₹ 33,000.00	₹ 16,50,000.00
15	NS-15	Supply, Installation & commissioning of ETP with tertiary Treatment plant (MBBR Technology), Cap 200 KLD with operation & maintenance of 3 year.	1	No.	₹ 1,89,00,000.00	₹ 1,89,00,000.00
16	NS-16	Supply, Installation & commissioning of Iron Removal plant, Cap 200 KLD.	1	No.	₹ 82,83,000.00	₹ 82,83,000.00
17	NS-17	Stainless Steel Rake	50	Nos.	₹ 20,791.00	₹ 10,39,550.00
18	NS-18	Desktop computer with ups & original OS & Ms office	20	Nos.	₹ 70,900.11	₹ 14,18,002.20
19	NS-19	Printer	10	Nos.	₹ 27,881.40	₹ 2,78,814.00
20	NS-20	Platform Truck, Cap 3000 kg, Battery operated.	1	Nos.	₹ 6,48,975.00	₹ 6,48,975.00
21	NS-21	Table	20	Nos.	₹ 20,566.95	₹ 4,11,339.00
22	NS-22	Chair	40	Nos.	₹ 5,878.40	₹ 2,35,136.00
23	NS-23	Supply Installation and Commissioning of Split AC 1.5 Ton	12	Nos.	₹ 34,745.76	₹ 4,16,949.12
24	NS-24	Supply Installation Commissioning of Industrial RO Plant Capacity 500 LPH	4	Nos.	₹ 7,21,525.42	₹ 28,86,101.68
25	NS-25	Supply Installation and Commissioning of water cooler Capacity 150 LPH	4	Nos.	₹ 55,810.47	₹ 2,23,241.88
26	NS-26	Porta Cabin with Amenities	4	nos.	₹ 4,30,000.00	₹ 17,20,000.00
Total of SCHEDULE -C (Mechanical Sub work): Shalimar Setting up of mechanized departmental laundries						₹ 10,01,80,305.31
GST @18% of Total of SCHEDULE -C						₹ 1,80,32,454.96
Total of SCHEDULE -C (Mechanical Sub work): Shalimar Setting up of mechanized departmental laundries with GST						₹ 11,82,12,760.27
Total Cost of Project [Schedule-A (Civil Sub-Work) + Schedule-B1&B2 (Electrical Sub-Work) + Schedule-C (Mechanical Sub-Work)]						₹ 18,74,82,499.46

Special Conditions of Contract

Name of the work: Shalimar: Setting up of mechanized departmental laundries

- A. Construction of complete civil engineering works, electrical and other allied works required for erection, supply, installation and commissioning of the Laundry Machines/Equipment's and all related sub-assemblies including accessories
1. Other condition of Contract and General condition of Contract for Works 2022: These other conditions of contract (OCC) (along with specifications of work and other conditions as contained in this tender document) shall be read together with the terms and conditions incorporated in these tender documents and the general conditions of contract (GCC) for Works of Railways.
 2. Scope of Work: The scope of work broadly includes all related Civil Engineering, electrical and other allied works required for erection, installation and commissioning of the Mechanized laundry including sub-assembly equipment's and other allied works.
 - Scope of work involves design, supply, installation, testing & commissioning of machines/ equipment's, effluent treatment plant & other associated works viz. laying of steam, water & compressed air pipelines, drainage arrangements etc. for the augmentation of Departmental Mechanized Laundry. The bidder shall also fill the Indemnity bond to indemnify the Railways from any kind of loss.
 - For the guidance of tender(s), 'Schedule of rates and quantities' are mentioned in 'Tender Form Third Sheet' for the tendered machines/ equipment's, Covered Shed DSR items and General Electrical Arrangements & other associated infrastructure works to be executed under the scope of subject tender.
 - The bidder shall associate with the C&W Depot, Santragachi/Shalimar to study the site.
 - Operation of the plant by contractor's staff and resources for a period of one month after commissioning including consumables.
 3. The bidder shall be responsible for removing the waste generated in the cleaning process from Railway premises.
 4. Before quoting for the work, it will be imperative for the tenderer(s) to fully acquaint himself/ themselves with all the local conditions, nature of work and all other matters pertaining thereto and factors which would have any effect on the performance of the contract and the cost of item of works. Tenderer(s) is / are advised to visit the site personally to ascertain the quantum of work. The "Railway" shall not entertain request for clarification from the tenderer(s) 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 scope of work should also be examined before formulating the rates for complete items of work. The quantities are given in the detailed scope of work are approximate. Since this is a greenfield project, any modifications, alterations, or additional works required for the successful implementation and commissioning of the project shall be carried out by the successful Tenderer. The Tenderer shall be bound to execute such works as directed by the Railway. Payment for any approved extra items of work, wherever applicable, shall be made in accordance with the prevailing Railway rules, regulations, and contractual provisions.
 5. Railway's scope of supply:
 - a. Railway will provide open plot/Space on As-Is-Where-Is basis Construction of laundry by providing Covered Sheds with electrical arrangement and commissioning of machines /equipment's. An Instant work is augmentation shall be as per drawing/photographs submitted by the Railway as Drawing Layout

along-with electric fittings cabling etc to be done simultaneously during construction with setting up of laundry machines and equipment's as per proposed layout.

- b. The Tenderer shall have to be present himself or through his technical expert to ensure that progress of works is as per plan/design. The Tenderer shall have to submit the detailed layout plant of the mechanized laundry, foundation drawings, power supply arrangement, steam pipe lines, compressed air lines, water supply piping work and other relevant details etc. Electric Panel & Accessories i.e. Supply & fixing as per specification required for supply, installation, and commissioning of the mechanized laundry shall be done by the Tenderer. All items will be ISI mark and from reputed firm.
- c. The tender/s are advised to visit the site of work and investigate the actual conditions of works. The scope of work should also be examined before formulating the rates for complete items of work. For other information of site, the tenderer(s) may contact SSE(C&W)/SRC.
- d. Water supply shall be provided by Railway free of cost but necessary infrastructure/equipment's/tools/tackle etc. requirements at site shall be the responsibility of tenderer.
- e. Power supply shall be provided by Railway on pro rata basis by railway as per rules.
- f. Storage space for storage of machines/equipment prior to their installation. However, safety of same shall be sole responsibility of bidder.
- g. Necessary design details/drawings of building shall be provided by the Railway.
- 6. Detail general arrangement drawings, specifications etc. shall be got approved by Sr. CDO/SRC before starting execution of the work. All drawings, equipments, materials etc used in execution of the work shall conform to relevant BIS specifications or other international standards.

7. PERFORMANCE WARRANTY:

- a) The firm shall provide a complete warranty of 24 months from the date of commissioning of the entire system including prefabricated structures as well for trouble free operation with low maintenance and minimum down time. Contractor has essentially to ensure and provide OEM Warranty for the machines & equipment's detailed in Schedule of Rates in Item "C" for period of 24 Months. Besides penalty, such defects shall be repaired at the cost of the firm. The wearing out components/ consumables for maintaining the various items in good fettle shall also be replaced at the cost of the firm during the warranty period.
- b) Civil structure, Trusses hardware, Column Structure (Ceiling items), bearings and all other building components used in building should be of sufficient ruggedness & anticorrosive nature last for minimum 20 years with negligible maintenance.
- c) Qualified Service/application Engineers for rendering ready and quick service and regular preventive maintenance shall be provided periodically during the warranty period. The contractor shall provide details of its representative who shall liaise to organize maintenance and repairs with the concerned nominated Railway Representative. No separate charges whatsoever shall be paid to the contractor for deputing their representative for periodical/break down attention to the machines/equipment's.
- d) During the warranty period, the service engineer shall have to be available within 48 hours of intimation for attending to any problem/issues/defects/faults being encountered in operation of the mechanized laundry/any of the mechanized equipment supplied and installed by the contractor leading to sub optimal output from the mechanized laundry or for any other reason whatsoever.
- a. For intimating breakdown at least two mobile numbers & two email addresses shall be provided by the contractor. SMS & e-mail sent to their mobiles & e-mail shall be treated as time/ date of intimation.
- b. Delay in attending to the warranty complaints will lead to imposition of penalty as per "Penalty clause".

- e) In any case, within the warranty period, the service engineer shall visit the mechanized laundry at least once a month or earlier, as required for carrying out preventive maintenance schedules and for ensuring that the machines/equipment are functioning properly, but for carrying all these works no spares and/or consumable shall be provided by the Railway.
- a. Details of preventive maintenance to be done during warranty period shall be indicated by the contractor while submitting the Quality Assurance Plan & General Approved Drawings as detailed above, which will essentially include type of preventive schedules, periodicity on items to be checked, items to be replaced and expected downtime etc.
- b. Preventive maintenance schedules shall be conducted by the contractor on the days decided by the Nominated Railway Representative of concerned SSE/C&W/Incharge.
- c. The cost of preventive maintenance schedules to be carried out during warranty period has to be borne by the contractor.
- f) The contractor will keep a joint record for maintenance carried out during periodical checks as well as during any breakdown maintenance. He will take the signature of the authorized representative of the Sr.CDO/SRC on all such maintenance records and will also handover a copy of the same to the Railway representative for record.
- 8. The erection and commissioning of the machines and equipment's will be done by the contractor. Necessary civil work like digging, excavation, C.C foundation, erection for commissioning of the machines and equipment's will be done by the contractor.
- 9. It will be in the contractor's scope of work to ensure conformance to all laws of the land as applicable to the scope of this work including fulfilment of all statutory obligations. South Eastern Railway, kharagpur division, Santragachi coaching depot will not be liable for any liabilities of any nature arising out of infringement of statutory and legal obligations by the contractor. Any such liabilities shall be the sole and absolute responsibility of the contractor to fulfil to the satisfaction of the concerned enforcement agency.
- 10. Any other item of work considered necessary for the bidder for execution of the contract may also be indicated and quoted for in the bid. Any other unforeseen item of work can be incorporated into the contract at a later stage through mutual agreement between the contractor and South Eastern Railway, kharagpur division, Santragachi coaching depot.
- 11. As the contractor's staff shall be working in SER premises where train running/shunting operations shall continue round the clock, the contractor shall adequately counsel and sensitize his staff towards ensuring their own safety and safety of the contractor's property. South Eastern Railway, kharagpur division, Santragachi coaching depot shall not be in any way responsible and liable for the same. The contractor shall issue identity cards to its staff manning the facility duly signed by the authorized signatories of the contractor whose specimen signature shall be made available to South Eastern Railway, kharagpur division, Santragachi coaching depot so as to verify the authenticity of such identity cards as the facility will be in sensitive area.
- 12. The contractor shall make his own security arrangement for ensuring safety and security of his assets and staff. The contractor shall also organize his own communication facilities to communicate with South Eastern Railway, kharagpur division, Santragachi coaching depot representative for execution of the contract.
- 13. Successful tenderer/contractor shall have no claim what soever against the railway if the work is postponed to a later date, closed down for completion over a longer period, suspended the course of execution or abandoned either in part or whole in the overall interest of the railway administration or for any reason beyond the control of railway administration. The decision of Railway in this regard shall be final and binding of tenderer/contractor.

14. Erection and commissioning of complete system including all electrical connection from the supply point will be the scope of the contractor. Necessary welding, fabrication, drilling, machining and pipe bending etc. work will be scope of contractor.
15. The bidder shall associate with the South Eastern Railway, kharagpur division, Santragachi coaching depot in preparation of the site drawing. The former shall also prepare, based on inputs given by the consignee, the complete Structural Drawing of covered shed, schematic, Electrical conducting and wiring diagram, Machines Layout etc. For this purpose, South Eastern Railway, kharagpur division, Santragachi coaching depot may be visited in consultation with Sr. CDO/SRC before submission of final bid.
16. Delivery schedule: Within 01 year from the date of issue of letter of Acceptance.
 - a. Following timelines must be adhered
 - i. Submission of General Approve/Arrangement Drawing (GAD) of Civil Structure (Covered Shed), Laundry Washing Process Layout, ETP Drawings, Electrical Drawings, Schematic Drawings and related drawings etc as per site requirement by contractor within 30 days from the issue of Letter of Acceptance
 - ii. Approval of GAD by Railways with 30 days after submission of GAD by the contractor/Bidder. Accordingly, the firm must submit strategic work execution plan of all allied activities to the consignee i.e. SSE/C&W/SRC or nominated railway representative after approval of GAD's.
17. Inspection:
Inspection & commissioning Tests
 - i. Stage Inspection of work: Sr.CDO/SRC, South Eastern Railway, kharagpur and his representative will inspect the work on regular basis. Sr.CDO/SRC has power to conduct inspection by authorize Railway inspecting agencies (RITES) or third party as approved by Railway Board for ensuring the quality of work from time to time and payment for such inspections will be borne by contractor. Inspection schedule will be issued by Railway before commissioning of work. Joint inspection of material supplied by the contractor will be done in presence of contractor or contractor's authorized representative and Railway's authorized Agency (RITES or third party) to ensure the quality of work and conformity to the specification before starting the commissioning work. A joint report should be prepared on the basis of joint inspection. However, inspection at the manufacturer's premises shall not include demonstration of working of the complete plant, which shall be demonstrated during commissioning at the consignee's premises and works inspection at site by nominated representative of Sr.CDO/SRC. Railway reserves rights to inspect any equipments/spares/accessories at the site of original equipment manufacturer.
Note: Material shall be of reputed brand and as per specification, conforming to BIS and other international standards. RB letter no. 2022/RS (G)779/8/Pt.I(E 3424 266) Dated 15.03.2023 will be followed for inspection of product/material, as the case may be
 - ii. Inspection of machine/equipment (Washer extractor, Tumbler Dyer, Flat work ironer/Calender etc.) by RITES at OEM's premises/Depot in case of Indian OEM and in case of imported equipment, inspection by RITES at Firm's premises/ Depot along with inspection of import documents, Original Test and warranty certificate from OEM. The contractor shall provide General / Test Certificate of OEM for all the main equipments. However, this OEM certificate will not be required for accessories like chimney, diesel tank, water tank, trolleys, racks, piping, joints etc.
 - iii. Depot Inspection: Joint inspection of material supplied by the contractor will be done in presence of contractor or contractor's authorized representative and Railway's authorized representative to ensure the quality of work and conformity to the specification before starting the commissioning work. A joint report should be prepared on the basis of joint inspection.
 - iv. After all the installation work has been completed by the contractor, he will intimate in writing his readiness for under taking commissioning tests by consignee i.e. Railway, there after Railway shall conduct following two acceptance tests, which are required to be completed within a maximum period of 15 days (included in the allowed commissioning period i.e. 01 year):

- a) Capacity Proving Test: For the capacity tests only standard items of bedroll (excluding blankets) will be used. All Machines/equipments will be run for 6 cycles of 4 hours each spread over 3 days. The period of 3 days can be extended by up to TWO days at the discretion of the Railway Administration in case sufficient workload for undertaking the tests is not available. The total output of the washer extractors in kilograms for the best five cycles will be averaged to arrive at a figure of average output for 8 hours (i.e. total output of best 5 cycles in Kg-2.5), Which will be taken as the capacity of the laundry. During the course of the capacity proving test, the tumbler dryers should be able to dry all the hand towels and the calendaring machines should be able to press all the bed sheets and pillow covers washed in the course of the capacity proving test.
- b) Endurance Test: For the endurance tests only standard items of bedroll (excluding blankets). The mechanized laundry equipments shall be subjected to 2 cycles of 20 hours continuous working each. All machines should perform satisfactorily without any breakdown or failure. The total output of the washer extractors in kilograms for the two cycles will be averaged to arrive at a figure of average output for 8 hours (i.e. total output of 2 cycles in Kg-5), The average output per shift so calculated during the endurance test shall not be less than 0.8 tonnes (80% of the capacity of the laundry). During the course of the endurance test, the tumble dryers should be able to dry all the hand towels and the calendaring machines should be able to press all the bed sheets and pillow covers washed in the course of the capacity proving test.

Note:

1. In case of failure to meet the above tests, at the most two additional opportunities shall be provided for each of the two above mentioned tests. In the event of continued inability to meet with the requirements of the above tests despite the additional opportunities provided, the Contractor will be required to replace the underperforming machines. Equipment's with all consequential penalties. For this purpose, weight of dry linen shall be considered.
2. The contractor has to provide free of cost the Johnson, Diversey or Ecolab detergent & chemicals as test material for conducting the above-mentioned tests and any retests if required. He has also to arrange external dosing pumps for the trial period for testing of external dosing function. However, diesel and electricity required will be provided by Railways for the above-mentioned tests. Also, manpower support for loading, unloading of linen and other required activities will be given by Railways during the tests. Presently, following chemicals are approved by Railway or being used for washing of Railway linen:
 - M/s. Diversey India
 - M/s. Ecolab
 - M/s. Haylide Chemicals.
 - M/s. Livexpo Ventures Pvt. Ltd.
 - M/s. Buzil Rossary.
 - M/s. Atlantic Care Chemicals Pvt. Ltd.
3. Trial of Machines and Commissioning- After installation of the machines, a trial run is to be conducted by the contractor using Johnson Diversy and Ecolab detergent & chemicals or branded chemicals after getting the approval of Sr.CDO/SRC as test material for cleaning of 2000 Kg. Linen items. Tenderer has to provide chemicals and detergents for the above-mentioned trial and for any retrial if required free of cost. After successful completion of trial run and issue of PTC by the Sr.CDO/SRC, handing over and taking over of machine shall be arranged between contractor and railways. Date of successful completion of trial and PTC (Proven Test Certificate) shall be treated as date of commissioning. One month operation shall be taken from the date of issue of PTC. Contractor is binding to condition mentioned above.
- v. Final Inspection: After completion of work, there will be joint inspection between the representative of Railways and contractor for the following:
 - i) Quality of work and quantity of materials as per scope of work.
 - ii) Correct connection, installation, layout and fitment.
 - iii) Date and time of completion shall be recorded in the inspection report.

18. Training: Tenderer shall have to give training to at least 15 Railway staff in operation & maintenance of various machines/equipment for a minimum duration of 6 hours per day for minimum period of 30 days as per the training programme/schedule mutually decided well in advance by the Tenderer and authorized Railway representative. The training could comprise of on-the-job training, visit to premises of reputed mechanized laundries/manufacturers of laundry equipment, class room training, power point presentations etc. The Tenderer may also provide virtual training module can be arranged at Santragachi coaching depot by the Railway free of cost. After completion of training, the nominated staff should become conversant with operating procedures of the individual machines and mechanized laundry. They should be in a position to understand the machine related works, failing which the duration of the training may be extended, as per requirement, solely at the discretion of Railways. No additional cost shall be payable by Railways for said training. At least 5 hard and 5 soft copies of the complete specifications, and maintenance, operating manuals of each machine/equipment shall be supplied by the Tenderer.

19. Payment Terms: The payment shall be made to the contractor as per the following milestones:

Schedule-A & B(B1&B2) (Civil & Electrical Works)

- i. Based on measurement of completed work in measurement book duly verified and certified by Sr. CDO/SRC Nominated Railway Representative i.e. ADME/SRC or ADME/SHM or SSE/C&W/SRC or SSE/C&W/HM or Any Other representative certified by Sr. CDO/SRC duly following the GCC for works clause-44 & 45 (Measurements, Certificates and Payments)

Note: Sr.CDO/SRC can nominate SSE/Works (Inspector of Works) in consultation with Sr.DEN/KGP for inspecting, verifying and certifying the Civil works.

Note: Sr.CDO/SRC can nominate SSE/Electrical (Inspector of Works) in consultation with Sr.DEE/G/SRC for inspecting, verifying and certifying the Electrical works.

Schedule-C (Work of supply, installation & commissioning of Laundry Machines/ Equipment's)

The payment shall be made to the contractor for the supplied machines on the following terms

- ii. 60% of the Total cost (cost of the machines & equipments) on receipt of all the mechanized equipment at mechanized laundry/Santragachi site and after inspection and acceptance of the same by the authorized Railway representative duly deducting penalties if any.
- iii. 25 % of cost of Work of supply, installation & commissioning of Laundry Machines/ Equipment's with ETP Payment shall be made on successful commissioning of plant and issue of Proven Test Certificate after completion and satisfactory inspection report of the nominated representative of Sr.CDO/SRC. Illustration Annexures for Joint Commissioning & Proven Test Certificate is enclosed as reference.

Note for illustration: The payment of 25% value of total cost of material received along with 100% payment of all other items will be done after successful installation & commissioning of the plant in 2nd Running Bill at location individually or jointly as per work executed by contractor. The cost of supply, installation, testing and commissioning of Machines & Equipment's. Payment shall be made on receipt of material after completion and satisfactory inspection report by SSE/C&W/SRC OR SSE/C&W/SHM or the nominated representative of Sr. CDO/SRC on successful commissioning of plant and issue of Proven Test Certificate, jointly signed by contractor representative and Railway nominated official.

- iv. The net balance payment of 15% value of the total contract awarded cost (SCHEDULE-C) shall be released on submission of a separate bill by the bidder after 03 months of successful operation/running along with the following documents:
- a) Final Acceptance Certificate issued by the Railway.
 - b) Bank Guarantee of 5% of the contract value with validity of 24 months (i.e. Warranty Bank Guarantee (WBG) from date of issue of Proven Test Certificate.
 - c) No objection certificate (NOC) issued by the Railway.
 - d) No claim certificate (NCC) submitted by the firm.

- v. All payments shall be subject to compliances of all payment's formalities viz. verification & execution of agreement, measurement book entries and bills in Railway standard form, submission of Performance Guarantee, deduction of Security Deposit, etc. Payment will be made after deducting the cost of damages, penalties if any and any taxes and dues as applicable.
- vi. The bill / invoice shall be submitted in triplicate of the actual work executed duly verified by SSE/C&W/SRC or SSE/C&W/SHM and submit the bill to the nominated Railway Authority.
- vii. Contractor to attach certificate from their bank certifying the correctness of all above-mentioned information. In case of non-payment through ECS/EFT or where ESC/EFT facility is not available, payment will be released through cheque.
- viii. Sr.CDO/SRC will be the final authority to sign the Bill & Measurement Book duly verified by nominated officer and senior supervisor.
- ix. The paying authority will be the Sr.DFM/KGP.
- x. Contractor has to follow the provisions of Minimum Wages Act all the time during the currency of the contract including all labour laws. Contractor shall be responsible for payment of various statutory provisions all taxes, as applicable during the course of contract as applicable.
- xi. It is the responsibility of the contractor to ensure the wages of labour through bank payment.

20. Penalty: Penalty during Warranty period

- i South Eastern Railway, Kharagpur division santragachi coaching depot shall levy a token penalty of RS 1, 00,000/-- per month or part thereof for delay on part of contractor in commissioning and making LAUNDRY MACHINES functional within 1 year Sr.CDO/SRC decision in this regard is final and acceptable to Contractor.
- ii Bidder shall ensure that in case a failure is reported by a consignee during warranty period and AMC period, qualified service engineers will rush to the site immediately.
- iii Penalty shall be levied on the contractor for maintaining plant up time below the limit of 95%. Penalty shall be calculated as %age of AMC cost for a particular year and will be deducted from the same as detailed below:

S. No.	Description	Penalty
1	First 24 Hrs	Nil Penalty
2	Break Down time of any Laundry Machine & Equipment's is more than 36 Hrs in any calendar month:	0.20% of cost of supply, installation, testing and commissioning of Laundry Machines with ETP
3	Break Down time of any Laundry Machine & Equipment's is more than 48 Hrs in any calendar month:	0.30% of cost of supply, installation, testing and commissioning of Laundry Machines with ETP
4	Break Down time of any Laundry Machine & Equipment's is more than 60 Hrs in any calendar month	0.75% of cost of supply, installation, testing and commissioning of Laundry Machines with ETP
5	Total Break down time of more than 500 Hrs in any calendar year:	1% of cost of supply, installation, testing and commissioning of Laundry Machines with ETP

- 21. The performance record/measurement book of the work shall be maintained for every item provided under this contract along with the description of work, date of start, details of item specified under Schedule of rates, actual quantity provided and date of commission etc. The representatives of the concerned Sr.CDO/SRC or nominated railway representative and the Contractor shall sign this jointly.

The bills raised by the contractor shall be verified by Sr.CDO/SRC or nominated railway representative based on this record. The Performa/measurement book shall be made available by the contractor at his own cost.

22. The contractor shall give the warranty of 2 (two) years or the warranty period prescribed by the OEMs for individual machines/equipment whichever may be later for the various machines/equipments supplied and commissioned by the tenderer and should render reasonably trouble-free service with no major breakdown during the warranty period. In the event of any major break down in any of the machines/equipments supplied by the tenderer which is attributable to inadequate machine/equipment design/ specifications for tackling the work load up to the desired capacity/quality, the tenderer shall be required to immediately replace the same with machine/equipment of suitable design and specifications at his own cost within a maximum period of 4 weeks. The contract agreement shall be liable for termination in the event of contractor s failure to do so Railways decision in this regard shall be final and binding on the contractor.
23. The evaluation of the various bids shall be carried out in a manner that the turn key contract is awarded to the bidder whose bid is most beneficial to Railways. Railways reserve the right to obtain opinion of a consultant or any other knowledgeable person while evaluating the venous offers received. The contract may not necessarily be awarded to the tenderer quoting the least cost since other factors such as operating cost, reliability of system, terms of AMC or maintenance or other relevant factors may also be taken into consideration while evaluating the offers Railways reserve the right to reject the any of the offers without assigning any reason.
24. The value of contract and quantities given in the attached schedule are approximate. The accepting authority shall have the discretion to vary the quantity of items as well as to vary the items in the contract in accordance with the prevalent SOP (Schedule of Power) on works matters of Indian Railways.
25. All the clauses of GCC for works (April-2022) shall applicable to this contract unless and otherwise mentioned. Any modifications /Amendments issued to GCC for works (April-2022) during the course of this contract period are applicable to this contract also.
26. In case of any contradiction between special terms & conditions of tender and general conditions (GCC, April 2022), then the special terms & conditions shall prevail.

Technical Specifications (Scope of Work Cum Specifications & Conditions)

Name of work: Shalimar: Setting up of mechanized departmental laundries

Place of Work: Shalimar Coaching Depot

1. Description/Schedule of Work:

i. Engineering Work:

- (a) Construction of Covered Shed for Laundry equipment Mechanized Laundry 44.2x23 sqm. (as per detail scope of work).
- (b) Construction of Covered Shed for Laundry Boiler Mechanized Laundry 30x23 sqm.(as per detail scope of work).

ii. Electrical Work:

- (a) General Electrical work for Mechanized Laundry (as per detail scope of work).
- (b) Sub-station for power supply of laundry equipment and boiler and shed.

iii. Mechanical Work:

- (a) Mechanized Laundry Machines & Equipment's (as per detail scope of work).

Engineering Work: Detail Scope of Engineering Work (Construction work of Mechanized Laundry Equipment shed and boiler shed)
& Special Condition:

SN	DSR Item no.	Description of Item of Work	Qty.	Unit
Schedule-A: Civil:- Construction of Laundry Infrastructure at Shalimar				
1	NS-1	Preparation of Design & drawing for station building & other buildings (Should be as per latest circular). Notes: (i) The contractor will carryout detailed survey and prepare GAD and get it approved from Railway. (ii) The rates are inclusive of visits to site if required. The site of the work falls under the jurisdiction of DEN/East/KGP. (iii) The above quantities are approximate. The Railway reserves the right to increase/decrease the same. Additional special conditions of contract: i) The Agency will get the design checked from Railway. For this purpose Agency will ensure the presence of his representative in the offices of Railway authorities whenever required. Nothing extra will be payable for the above and the rate is inclusive of above. ii) After drawing got approved by Railway, the Agency will have to submit three copies of initial design calculations with 3 ferro copies of drawings to Railway for record. Design calculation should be clearly written and bound in book form. iii) On clearance of design criteria from Railway for any modification, agency will carry out detailed design again as required without any loss of time after clearance of design parameters. He will also be prompt in clarifying the observations/doubts of the Railways. No extra payment shall be made for the any alterations. iv) Design and drawing after approval shall be property of S. E. Railway who shall have exclusive right to use or reuse it elsewhere. The consultant shall have no claim whatsoever in this regards. v) Based on the design note approved by Rly, the Agency will prepare final general arrangement drawing. Mode of payment: i) Visit to site and collection of field data from site, and detailed design of and preparation of GAD, submission to Railway 3 sets of GAD (Ferro copy), design calculation 3 booklet = 20%. ii) After acceptance of Railway = 50%. iii) Final submission of drawing approved in item (ii) above in reproducing tracing films 3 copies and soft copy on CD, 3 sets of ferro prints for each drawings, final design calculation booklet. Payment will be made after signature of Railway authorities in final drawing =30%.	1500	Sqm

2	021011	Exploratory drilling of boreholes down to required depth, drilling of 150mm dia. boreholes in all type of soils except hard rock & large boulders (boulder core more than 30cm) including refilling, reinstating surface and disposing off surplus material including use of mechanical rigs with power operated winches as well as percussion/chiselling tool for advancing through occasional seams of hard strata to be employed, where necessary in Dry area.: 0m to 10m	20	Metre
3	021110	Taking out 100mm dia. & 450mm long undisturbed samples of soil from bore holes, including provision of air tight containers for packing and, labeling incl. transporting the samples to laboratory. Piston sampler shall be used for extracting undisturbed samples wherenecessary. Samples shall be collected as per IS:2720.	1	Each
4	021120	Taking out 100mm dia. & 450mm long disturbed samples of soil from bore holes, including provision of air tight containers for packing, labeling and transporting the samples to laboratory. Samples shall becollected as per IS:2720.	1	Each
5	021130	Conducting standard penetration test as per IS:2131 at approximate1.5m intervals in bore holes, as directed by the Engineer in charge	1	Each
6	021150	Conducting laboratory Tests on collected soil samples as per relevant IS code		
7	021151	Moisture Content/Dry Density	1	Each
8	021152	Atterberg Limits	1	Each
9	021153	Specific Gravity	1	Each
10	021154	Grain size analysis including Hydrometer analysis	1	Each
11	021155	Direct Shear Test	1	Each
12	021156	Natural Density	1	Each
13	021157	Consolidation Test	1	Each
14	021159	Tri-axial Test	1	Each
15	2.6.1	Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer-in-charge. : All kinds of soil	690	cum
16	2.18.1	Close timbering over areas including strutting, shoring and packing cavities (wherever required) etc. complete. (Measurements to be taken of the face area timbered) : Depth not exceeding 1.5 m	920	sqm
17	2.18.2	Close timbering over areas including strutting, shoring and packing cavities (wherever required) etc. complete. (Measurements to be taken of the face area timbered) : Depth exceeding 1.5 m but not exceeding 3 m	345	sqm
18	2.25	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	690	cum
19	2.27	Supplying and filling in plinth with sand under floors, including watering, ramming, consolidating and dressing complete.	518	cum
20	4.1.3	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level : - 1:2:4 (1 cement : 2 coarse sand (zone-III) derived from natural sources : 4 graded stone aggregate 20 mm nominal size derived from natural sources)	253	cum
21	4.1.2	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level : - 1:1½:3 [1 Cement: 1½ coarse sand (zone-III) derived from natural sources : 3 graded stone aggregate 20 mm nominal size derived from natural sources]	299	cum

22	5.12	Providing, hoisting and fixing above plinth level up to floor five level precast reinforced cement concrete work in string courses, bands, copings, bed plates, anchor blocks, plain window sills and the like, including the cost of required centering, shuttering but excluding cost of reinforcement with 1:1.5:3 (1 cement : 1.5 coarse sand (zone-III) derived from natural sources : 3 graded stone aggregate 20 mm nominal size derived from natural sources).	12	cum
23	13.50.4	Applying priming coat: With ready mixed red oxide zinc chromate primer of approved brand and manufacture on steel work (second coat)	2300	sqm
24	10.6.1	Supplying and fixing rolling shutters of approved make, made of required size M.S. laths, interlocked together through their entire length and jointed together at the end by end locks, mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete, including the cost of providing and fixing necessary 27.5 cm long wire springs manufactured from high tensile steel wire of adequate strength conforming to IS: 4454 - part 1 and M.S. top cover of required thickness for rolling shutters. 80x1.25 mm M.S. laths with 1.25 mm thick top cover	78	sqm
25	10.8.1	Extra for providing mechanical device chain and crank operation for operating rolling shutters. Exceeding 10.00 sqm and upto 16.80 sqm in the area	69	sqm
26	12.47.1	Providing & fixing UV stabilised fiberglass reinforced plastic sheet roofing up to any pitch, including fixing with polymer coated 'J' or 'L' hooks, bolts & nuts 8 mm dia. G.I plain/bitumen washers complete but excluding the cost of purlins, rafters, trusses etc. The sheets shall be manufactured out of 2400 TEX panel roovigs incorporating minimum 0.3% ultra-violet stabiliser in resin system under approximately 2400 psi and hot cured. They shall be of uniform pigmentation and thickness without air pockets and shall conform to IS 10192 and IS 12866. The sheets shall be opaque or translucent, clear or pigmented, textured or smooth as specified. 2 mm thick corrugated (2.5" or 4.2" or 6") or step-down (2" or 3" or 6") as specified	403	sqm
27	4.3.1	Centering and shuttering including strutting, propping etc. and removal of form work for : Foundations, footings, bases for columns	115	sqm
28	4.3.2	Centering and shuttering including strutting, propping etc. and removal of form work for : Retaining walls, return walls, walls (any thickness) including attached pilasters, buttresses, plinth and string courses fillets, kerbs and steps etc.	115	sqm
29	5.9.1	Form Work: Foundations, footings, bases of columns, etc. for mass concrete	230	sqm
30	5.9.2	Walls (any thickness) including attached pilasters, butteresses, plinth and string courses etc.	115	sqm
31	5.9.5	Centering and shuttering including strutting, propping etc. and removal of form for : Lintels, beams, plinth beams, girders, bressumers and cantilevers	403	sqm
32	5.9.6	Centering and shuttering including strutting, propping etc. and removal of form for : Columns, Pillars, Piers, Abutments, Posts and Struts	782	sqm
33	5.22.6	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level. TMT bars of grade Fe-500D or more	23000	kg
34	5.22A.6	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete above plinth level. TMT bars of grade Fe-500D or more	32200	kg
35	5.33.1.2	Providing and laying in position ready mixed or site batched design mix cement concrete for reinforced cement concrete work; using coarse aggregate and fine aggregate derived from natural sources, Portland Pozzolana / Ordinary Portland /Portland Slag cement, admixtures in recommended proportions as per IS: 9103 to accelerate / retard setting of concrete, to improve durability and workability without impairing strength; including pumping of concrete to site of laying, curing, carriage for all leads; but excluding the cost of centering, shuttering, finishing and reinforcement as per direction of the engineer-in-charge, for the following grades of concrete.:All works upto plinth level Concrete of M30 grade with minimum cement content of 350 kg /cum	334	cum

36	5.33.2.2	Providing and laying in position ready mixed or site batched design mix cement concrete for reinforced cement concrete work; using coarse aggregate and fine aggregate derived from natural sources, Portland Pozzolana / Ordinary Portland /Portland Slag cement, admixtures in recommended proportions as per IS: 9103 to accelerate / retard setting of concrete, to improve durability and workability without impairing strength; including pumping of concrete to site of laying, curing, carriage for all leads; but excluding the cost of centering, shuttering, finishing and reinforcement as per direction of the engineer-in-charge, for the following grades of concrete.: All works above plinth level upto floor V level Concrete of M30 grade with minimum cement content of 350 kg /cum	121	cum
37	11.5	62 mm thick cement concrete flooring with concrete hardener topping, under layer 50 mm thick cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) and top layer 12 mm thick cement hardener consisting of mix 1:2 (1 cement hardener mix : 2 graded stone aggregate, 6 mm nominal size) by volume, hardening compound mixed @ 2 litre per 50 kg of cement or as per manufacture's specifications. This includes cost of cement slurry, but excluding the cost of nosing of steps etc. complete.	805	sqm
38	11.41A.1.2	Providing and laying Vitrified tiles in floor in different sizes (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS:15622, of approved brand & manufacturer, in all colours and shade, laid on 20 mm thick cement mortar 1:4 (1 cement: 4 coarse sand) jointing with grey cement slurry @3.3 kg/sqm including grouting the joints with white cement and matching pigments etc. The tiles must be cut with the zero chipping diamond cutter only . Laying of tiles will be done with the notch trowel, plier, wedge, clips of required thickness, leveling system and rubber mallet for placing the tiles gently and easily. Size of Tile 800 x 800 mm	1323	sqm
39	15.2.1	Demolishing cement concrete manually/ by mechanical means including disposal of material within 50 metres lead as per direction of Engineer -in - charge.Nominal concrete 1:3:6 or richer mix (including equivalent design mix)	92	cum
40	6.1.1	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundation and plinth in: Cement mortar 1:4 (1 cement : 4 coarse sand)	46	cum
41	6.4.1	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level in all shapes and sizes in : Cement mortar 1:4 (1 cement : 4 coarse sand)	207	cum
42	13.2.1	15 mm cement plaster on the rough side of single or half brick wall of mix : 1:4 (1 cement: 4 fine sand)	2415	sqm
43	13.112.1	Old work (Two or more coats applied @ 1.43 ltr/ 10 sqm) over existing cement paint surface	1265	sqm
44	13.26	Providing and applying plaster of paris putty of 2 mm thickness over plastered surface to prepare the surface even and smooth complete.	1150	sqm
45	13.82.1	Wall painting with acrylic emulsion paint, having VOC (Volatile Organic Compound) content less than 50 grams/ litre, of approved brand and manufacture, including applying additional coats wherever required, to achieve even shade and colour: One Coat	1380	sqm
46	10.2	Structural steel work riveted, bolted or welded in built up sections, trusses and framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.	109250	kg
47	10.19	Providing and fixing mild steel round holding down bolts with nuts and washer plates complete.	1035	kg
48	10.25.2	Steel work welded in built up sections/ framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required. In gratings, frames, guard bar, ladder, railings, brackets, gates and similar works	4025	kg

49	10.28	Providing and fixing stainless steel (Grade 304) railing made of Hollow tubes, channels, plates etc., including welding, grinding, buffing, polishing and making curvature (wherever required) and fitting the same with necessary stainless steel nuts and bolts complete, i/c fixing the railing with necessary accessories & stainless steel dash fasteners , stainless steel bolts etc., of required size, on the top of the floor or the side of waist slab with suitable arrangement as per approval of Engineer-in- charge, (for payment purpose only weight of stainless steel members shall be considered excluding fixing accessories such as nuts, bolts, fasteners etc.).	805	kg
50	13.63.1	Painting with aluminium paint of approved brand and manufacture to give an even shade . Two or more coats on new work	2300	sqm
51	12.50	Providing and fixing precoated galvanised iron profile sheets (size, shape and pitch of corrugation as approved by Engineer-in-charge) 0.50 mm (+ 0.05 %) total coated thickness with zinc coating 120 grams per sqm as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns. Sheet should have protective guard film of 25 microns minimum to avoid scratches during transportation and should be supplied in single length upto 12 metre or as desired by Engineer- in-charge. The sheet shall be fixed using self drilling /self tapping screws of size (5.5x 55 mm) with EPDM seal, complete upto any pitch in horizontal/ vertical or curved surfaces, excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required.	2070	sqm
52	20.2.2	450 mm dia piles	2200	metre
53	20.6.1.1	Initial test (Test Load 2.5 times the Safe capacity)	1	per test

Special conditions for Civil Engineering Work

- a. The entire work should be completed within 01 year from the date of issuing of acceptance letter.
- b. The entire work will be executed under supervision of authorized representative of Sr.CDO/SRC at site.
- c. All the clauses of GCC for works (April-2022) shall applicable to this contract unless and otherwise mentioned. Any modifications /Amendments issued to GCC for works (April-2022) during the course of this contract period are applicable to this contract also.
- d. Variation in quantities specified in contracts shall be applicable as per GCC (Works)-April-2022 and MSOP with latest guidelines/correction issued from Railway Board.
- e. No such quantity variation limit shall apply for foundation items.
- f. The rate accepted are inclusive of all lead, lift, loading, unloading, handling, sales tax and all other charges and taxes leviable by the Govt. from time to time.
- g. The materials are to be used should be approved by the Sr.CDO/SRC or his authorized representative at site before use in the work.
- h. Supply of materials should be well in advance from the date of execution of all works as per requirement given by the Sr.CDO/SRC or his authorized representative) at site.
- i. Contractor should produce the voucher for the materials supplied by him to the Railway.
- j. No payment will be made for wastage/surplus materials.
- k. Drawing for the set up shall be submitted by the contractor and shall be got approved by the Competent Authority i.e. Sr.CDO/SRC of Railway before starting of the work. Schedule of dimension as specified in the drawing must be followed strictly; any change should not be made without written permission of competent authority.
The structure shall be bifurcated into 02 phases:
 - i. Construction of Covered Shed for laundry equipment measuring size **44.2 m X 23 m** (as per proposed and approved drawing or space available).
 - ii. Construction of Covered Shed for boiler measuring size **30 m X 20 m** (as per proposed and approved drawing or space available).
- l. All pipes, reinforcement, steel, channel, angles, plates & flats must be of TATA, SAIL, JINDAL, BANSAL company.
- m. Contractor's should take all precautions for safety of his /their staffs. The Railway will not entertain any claims towards accident what so ever of the staffs engaged by the contractor.

- n. For execution of concrete work, only design mix for concrete of grade as mentioned in the specification of items will be executed. Contractor should obtain the proportion of involved components for these design mix grade from any reputed laboratory at his own cost. No extra cost will be paid for execution of these activities.
- o. Vehicle for transportation of material, Tools & plants and equipment's required for execution of above work should be arranged by the contractor at his own cost.

Electrical Work: Detail Scope of **Electrical** Work (General Electrical work for Mechanized Laundry and Sub-station for power supply of laundry equipment and boiler and shed) & Special Condition:

Detail Scope:

SN	DSR Item no.	Description of Item of Work	Qty.	Unit
SCHEDULE -B1(Electrical Sub work): Laundry Building				
1.	NS-1	Supply of 20W or higher wattage LED tube light with Batten (integrated electronic driver).As per CEGE approved Specification for LED tube light-high power,2100 Lumen output,220V, 50Hz AC with constant current driver with short circuit and overload protection etc. Make- philips, crompton, havells, century LED, goldwyn, IS approved.	50	Nos
2.	NS-2	Fixing and Commissioning of 20W or higher wattage LED tube light with Batten	50	Nos
3.	NS-3	Supply of 40W or higher wattage LED tube light with Batten, IP65 corrosion resistant, glarefree, impact proof, surface mounting MCPCB based LED, CRI 80 +, 4000 Kelvin or more, similar to the product Century LED Elite prime capsule cat ref No XCEL040C (integrated electronic driver). Make- philips, crompton, havells, bajaj, Goldwyn, Century led.	20	Nos
4.	NS-4	Fixing and Commissioning of 40W or higher wattage LED tube light with Batten	20	Nos
5.	NS-5	Supply, of LED High Bay light fittings 200W LED, LED chip Efficacy (Lumen/watt) ≥ 130 , Luminaire System Efficacy - Lumen output - (Lumen/watt) ≥ 120 , 6000 K IP-65, IK 07. Accessories for each luminaire: Metallic adjustable Brackets (Stainless steel),SS Eye Bolts (as per IS:4190:1984 latest),Set of Bolt, Nut, Washers (SS),Die cast aluminium brackets etc. ISI Marked 3 Core cable for input power (min Length:250 mm).Test report from NABL lab to be submitted Warranty period (in Months) 36 or more. .similar to . Make- philips, crompton, havells,	16	Nos
6.	NS-6	Fixing and commissioning of LED High Bay light fittings.	16	Nos
7.	NS-7	Supply, of LED Street light fittings 45W LED, LED chip Efficacy ≥ 130 Lm/Watt, IP-66. Light should be as per HQ specification. philips, crompton, havells, century LED, goldwyn, IS approved.	10	Nos
8.	NS-8	Fixing and commissioning of LED Street light fittings 45 W LED, IP-66.	10	Nos

9.	NS-9	Supply and Testing of LT distribution panel consisting of 400A MCCB 4 pole 50 kA as incoming microprocessor based and 2x250A, 36 kA, 2X100A, 36 kA, 2x63A, 36 kA, MCCB, 4 pole, 2x32A DP MCB 10 kA as out going complete with HRC back up fuse with locking arrangement. LT panel shall be as per CEGE/GRC's specification SER/ELEC/GS /DESCRIPTION/LT/PANEL/1/REV-0/MAR 2024. Note:- Tenderer shall submit tentative GAD & technical particulars, type test report of same range of LT panel from NABL accredited laboratory along with their bid offer. Make: ABB, L&T, Schinder, Legrand, Any IS approved. Panel should be as per IEC 61439 or latest.	1	Nos
10.	NS-10	Erection, Installation and commissioning of TTA make Distribution panel . including civil job.	1	Nos
11.	NS-11	Supply and Testing of LT panel consist of 1 No.125 Amp 36 kA FP MCCB as a incoming , 02Nos. 63 Amp FP MCCB as a outgoing and 32 A DP MCB-7 Nos. as a outgoing with cable termination. Make: ABB, L&T, Schinder, Legrand. . Panel should be as per IEC 61439 or latest.	3	Nos
12.	NS-12	Erection, Installation and commissioning of TTA make Distribution panel . including civil job.	3	Nos
13.	NS-13	Supply of SP&N 12-way DB (SD) Thermoplastic Circuit breaker boxes IP 65 (with metric knockouts for cable entry)consisting with DP 32A 10kA MCB-1 no as incoming and SP 20 A,10kA MCB - 4 nos, SP 16 A,10kA MCB - 4 nos, as outgoing with Neutral links and Earth bar etc.,.Make: L&T/Havells/C&S/Legrand/ Honeywell/ABB.	4	Sets
14.	NS-14	Fixing and Commisioning of SP&N 12-way DB (SD) Thermoplastic Circuit breaker boxes IP 65 (with metric knockouts for cable entry)consisting with DP 32A 10kA MCB-1 no as incoming and SP 20 A,10kA MCB - 4 nos, SP 16 A,10kA MCB - 4 nos, as outgoing with Neutral links and Earth bar etc.,.	4	Sets
15.	NS-15	Supply of TP&N 6-way DB (DD) consisting with FP 63A 10kA MCB-1 no as incoming and 20A 10kA SP MCB-8 Nos, 16A 10kA SP MCB-8 Nos as outgoing with Cu.bus-bar, Neutral links , Spreader Link, Earth bar and DinRail etc.,(ALL MCB will be C series. Thickness of material (in mm)1.6 mm (MSsheet). Make: L&T/Havells/C&S/Legrand/ Honeywell/ABB.	5	Nos.
16.	NS-16	Fixing and Commisioning of TP&N 6-way DB (DD) consisting with FP 63A 10kA MCB-1 no as incoming and 20A 10kA SP MCB-8 Nos, 16A 10kA SP MCB-8 Nos as outgoingwith Cu.bus-bar, Neutral links , Spreader Link, Earth bar and DinRail etc., with complete wiring and accessories to complete job.	5	Sets.
17.	NS-17	Supply of Industrial type Socket 3 phase 5 pin, (3P+1N+1E) 125Amp IP 67 with mechanical interlocking and plug 125 amp 3P + N + E water tight IP 67(similar to hensel cat no 9755100 and 045-6), Make: Hensel, Schnider, ABB, Legrand .	15	Nos
18.	NS-18	Installation & commissioning of Industrial type Socket and plug with all accessories.	15	Nos
19.	NS-19	Supply of Industrial type Socket 3 phase 5 pin, (3P+1N+1E) 63Amp IP 67 with mechanical interlocking and plug 63 amp 3P + N + E water tight IP 67(similar to hensel cat no 75352-6 and 035-6), Make: Hensel, Schnider, ABB, Legrand .	15	Nos
20.	NS-20	Installation & commissioning of Industrial type Socket and plug with all accessories.	15	Nos
21.	NS-21	Supply of 40 amps C series MCB 2 pole -qty -2 with suitable enclosure. Make: C&S, HPL, Legrand, Schnider, hensel, L&T, ABB, BCH	20	Nos
22.	NS-22	Fixing and Commissioning of 40 amps C series MCB 2 pole -qty -2 with suitable enclosure.	20	Nos
23.	NS-23	Supply of Cable Junction Boxes of size (Box Dimensions LXBXH in mm) 450x375x200 mm or as per site requirement, IP 65 with metric knockouts for cable entry with 3-Phase in- coming and out going connection consists of 3-Phase and neutral terminal as per relevant ISS, with suitable bridge arrangement with all necessary accessories. Make-IS standard Indian make	20	Nos.

24.	NS-24	Fixing and commissioning of Cable junction box (of fibre body) for 3-Phase incoming and out going connection consists of 3-Phase and neutral terminal as per relevant ISS, with suitable bridge arrangement of size : 450mm X 375mm x 200 mm or as per site requirement., as per relevant specification/drawing. Fixing shall be made with necessary arrangements as per site requirement, cables are to be terminated with proper socketing arrangement to complete job.	20	Nos
25.	NS-25	Supply of Brushless DC (BLDC) Motor Ceiling Fan, ISI marked, Sweep size: 1400 mm, Minimum Air delivery-210 Cubic Meter/Min, total harmonic distortion- 8% [max], Rated Voltage: 230 V,50HZ Single phase AC, Blade thickness (Min): 1.1mm, Blade material : Aluminium, Bearing: Double ball bearings, Down rod size (without shackle) : 300mm, Shank & Shackle thickness(Min) : 2mm, canopy : 2 nos., colour standard: white, BEE rating : 5 star (as per Ministry of Power Notification Number: S.O. 2210 (E) and S.O. 2211 (E) dated. 12th May 2022 or latest), Rated power-28 watt [max], Warranty [Min] 30 Months. Conforming to-(i)IS:374/2019 with Amendment No. 1/2022 or latest (ii)IS:302 (Part 2/Sec 80) - For safety requirement (iii)IS:14700 (Part 3/Sec2) for THD. Speed control with electronic regulator(step type with minimum 5 running positions) and Regulators shall be provided with radio and television interference suppressing devices as per clause 10.7 of Amendment No. 1/2022to IS 374/2019 or latest. Make: Polar/Atomberg/Usha/Orient	5	Nos
26.	NS-26	Fixing and commissioning of Brushless DC (BLDC) Motor Ceiling Fan, ISI marked, Sweep size: 1400 mm, suitable for 230V, 50Hz, AC supply confirming to Class: I of IS: 374/latest. Fixing of the fan shall be done with suitable clamp, hook, nut/bolts etc. and connection with flexible twin twisted multi strand Copper wire and removing of the existing old fan (if any) and handing over of the same to Railway Store with clear acknowledgement, as per site requirement.	5	Nos
27.	NS-27	Supply of heavy duty Wall Mounted Fan WITH 5 STAR and above RATING 600 mm size , suitable for 230V, 50Hz, AC supply as per site requirement. Make:- havells/Usha/Orient/ Polar/Crompton/ RR Electricals/any IS Panel.	20	Nos
28.	NS-28	Fixing and Commissioning of Wall Mounted Fan WITH 5 STAR and above RATING 600mm size with all accessories , as per site requirement .	20	Nos
29.	NS-29	Supply of Exhaust Fans 600 mm , 1400 RPM suitable for 230V, 50Hz, AC supply, Conformity to Indian Standard IS: 2312 (latest).accessories such as Frame, Legs Set, Rubber Clamps & Other Hardware - inclusive in the scope of supply. Make-Havells/ Bajaj /Usha/ Crompton /Orient/Khaitan	20	Nos
30.	NS-30	Fixing and commissioning of Heavy Duty Exhaust Fans as per consignee requirement.	20	Nos
31.	NS-31	Supply of Earthing arrangement with supply of Hot Dip Galvanized (HDG) earth cone and all other requisite materials as per CEE/GRC's Drg. No.CEE/G/A3/P-150, Alt.1 including sump box with salt and charcoal, metallic cover etc. as per site supervisor's instruction. Cost includes supply of all materials mentioned in the Drawing including 02 mtrs 25x5mm GI strip for connection from earth electrode pipe to light pole /Rail pole etc. Make: Any IS standard Indian make.	8	Each
32.	NS-32	Erection of Earthing arrangement with erection of Hot Dip Galvanized (HDG) earth cone and all other requisite materials as per CEE/GRC's Drg. No.CEE/G/A3/P-150, Alt.1 including sump box with salt and charcoal, metallic cover etc. as per site supervisor's instruction. Cost includes erection of all materials mentioned in the Drawing including 02 mtrs 25x5mm GI strip for connection from earth electrode pipe to light pole /Rail pole etc.	8	Each
33.	NS-33	Concealed Wiring of light and fan point by 1.5 sq. mm, Single Core, Multistrand (22/0.3mm), Copper Conductor (flexible), Unsheathed, Flame Retardant Low Smoke and Halogen(FR-LSH), PVC insulated Cable of 1100V grade, Type-C PVC Compound as per IS 5831, Conforming to IS :694 - 2010 (Reaffirmed 2020), ISI marked. Earthing the point with 1.5 sq. mm, Single Core, Multistrand (22/0.3mm), Copper Conductor (flexible), Unsheathed, FR-LSH, PVC insulated Cable of 1100V grade, Type-C PVC Compound as per IS 5831, Conforming to IS :694 - 2010 (Reaffirmed 2020), ISI marked,through PVC Conduit Pipe of Nominal Size 20mm/25mm(as per site requirement) and in the length of 3 mtrs, Socket ended (at one end), medium mechanical stress, White Color, Resistant to Flame Propagation to grade UL-94 V0, Conforming to IS 9537 (Part 3) 1983	90	Pts

		<p>(Reaffirmed Year : 2017) with amendment no. 2 or latest with ISI mark. Modular Electrical Switch, 6 A, 230 V, SP, 1 Way, 1 Module, Unenclosed type as per Clause no.7.1.3, Method of Activation of switch shall be of Rocker type as per Clause no. 7.1.5, Switch shall be Flush type as per Clause no.7.1.6 and shall be installed as per Design A mentioned in the Clause no.7.1.7, Current carrying material as per Clause no. 22.5, with cover made of tough non-ignitable insulating material and bare of tough non-ignitable insulating material or of vitrified ceramic material, Conforming to IS:3854/1997 (reaffirmed 2017) with latest amendments and ISI mark. including supply of all required materials like lamp holder, Aluminium, batten type, with shade carrier ring, ISI marked, Base: B-22 suitable for use at 250V, Conforming to IS: 1258(Rev.-3)-2005)with amdt-3. With BACK plate of 53 MM. Dia & 45 MM PCD., ceiling rose, Modular type Socket outlet suitable for 3 pin plug, 6A, 230V, 2 Module, Shuttered (Operation of Shutter should be independant of Earthing Point), Cover made of tough Non-Ignitable insulating material, material of base -vitrified ceramic, Conforming to IS : 1293-2019, Amendment no. 1 or latest with ISI mark ,suitable moduler stainless steel JB box with moduler PVC cover , stainless steel switch Board with moduler PVC cover,PVC Spacers, PVC Saddles,PVC Bends, PVC Tees to be provided as and where required as per direction of consignee., Provision of moduler fan regulator should be kept on switch board . The plate should include 2 blank space for further installation of switches.including stainless steel fastener, Pin Type Terminal End Lugs as per specification attached. All materilas would be as per latest specification as issued from HQ/GRC time to time if available or latest IS and IE rules which is available.Covers or cover parts or parts of them, which are intended to ensure protection against electric shock, shall be held in place at two or more points by effective fixings..The cost includes supply of all materials to complete job. (Two 5-ampere socket point treated as one point).</p>		
34.	NS-34	<p>Concealed Sub circuit wiring by 2.5 sq. mm, Single Core, Multistrand (36/0.3mm), Copper Conductor(flexible), Unsheathed, Flame Retardant Low Smoke and Halogen (FR-LSH), PVC insulated Cable of 1100V grade, Type C PVC Compound as per IS 5831, Conforming to IS: 694-2010(reaffirmed 2020), ISI marked. with 2.5Sq mm earthing wire of Single Core, Multistrand (36/0.3mm), Copper Conductor(flexible), Unsheathed, Flame Retardant Low Smoke and Halogen (FR-LSH), PVC insulated Cable of 1100V grade, Type C PVC Compound as per IS 5831, Conforming to IS: 694-2010(reaffirmed 2020), ISI marked. through PVC Conduit Pipe of Nominal Size 25mm and in the length of 3 mtrs, Socket ended (at one end), medium mechanical stress, White Color, Resistant to Flame Propagation to grade UL-94 V0, Conforming to IS 9537 (Part 3) 1983 (Reaffirmed Year : 2017) with amendment no. 2 or latest with ISI mark with Supply & fixing of PVC Circular Box and Ceiling rose if required with connection from running circuit as per direction of Consignee. including stainless steel fastener, Pin Type Terminal End Lugs as per specification attached. All materilas would be as per latest specification as issued from HQ/GRC time to time if available or latest IS and IE rules which is available.The cost includes supply of all materials to complete the job. *Quantity per meter means-one meter conduit with 2 (two) meters Cu. cable of size 2.5 sq mm for phase & neutal and 1mtr of 2.5 Sq.mm PVC Cu. cable as earthing with Supply of PVC Circular Box and Ceiling rose as per direction of Consignee.</p>	270	Mtrs
35.	NS-35	<p>Concealed Sub circuit wiring by 4 sq. mm, Single Core, Multistrand (56/0.3mm), Copper Conductor (flexible), Unsheathed, Flame Retardant Low Smoke and Halogen(FR-LSH), PVC insulated Cable of 1100V grade, Type C PVC Compound as per IS 5831, Conforming to IS :694 - 2010 (Reaffirmed 2020), ISI marked with 4 Sq mm earthing wire of Single Core, Multistrand (56/0.3mm), Copper Conductor (flexible), Unsheathed, Flame Retardant Low Smoke and Halogen(FR-LSH), PVC insulated Cable of 1100V grade, Type C PVC Compound as per IS 5831, Conforming to IS :694 - 2010 (Reaffirmed 2020), ISI marked through PVC Conduit Pipe of Nominal Size 25mm and in the length of 3 mtrs, Socket ended (at one end), medium mechanical stress, White Color, Resistant to Flame Propagation to grade UL-94 V0, Conforming to IS 9537 (Part 3) 1983 (Reaffirmed Year : 2017) with amendment no. 2 or latest with ISI mark including stainless steel fastener, Pin Type Terminal End Lugs as per specification attached. All materilas would be as per latest specification as issued from HQ/GRC time to time if available or latest IS and IE rules which is available.The cost includes supply of all materials to complete the job. *Quantity per meter means-one meter conduit with 2 (two) meters Cu. cable of size 4 sq mm for phase & neutal and 1mtr of 4 Sq.mm PVC Cu. cable as earthing.</p>	150	Mtrs

36.	NS-36	<p>Point Wiring by PVC conduit /PVC Casing & Capping : – Internal wiring for light, fan , plug points and night lamp points by 1.5 sq. mm, Single Core, Multistrand (22/0.3mm), Copper Conductor (flexible), Unsheathed, Flame Retardant Low Smoke and Halogen(FR-LSH), PVC insulated Cable of 1100V grade, Type-C PVC Compound as per IS 5831, Conforming to IS :694 - 2010 (Reaffirmed 2020), ISI marked. Earthing the point with 1.5 sq. mm, Single Core, Multistrand (22/0.3mm), Copper Conductor (flexible), Unsheathed, Flame Retardant Low Smoke and Halogen(FR-LSH), PVC insulated Cable of 1100V grade, Type-C PVC Compound as per IS 5831, Conforming to IS :694 - 2010 (Reaffirmed 2020), ISI marked through PVC Conduit Pipe of Nominal Size 25mm and in the length of 3 mtrs, Socket ended (at one end), medium mechanical stress, White Color, Resistant to Flame Propagation to grade UL-94 V0, Conforming to IS 9537 (Part 3) 1983 (Reaffirmed Year : 2017) with amendment no. 2 or latest with ISI mark. or PVC Casing & capping, ISI marked, white color, double locking, Resistant to Flame Propagation to grade UL-94 V0, as per IS:14927 Part 2 : 2001 (Reaffirmed Year : 2017) or latest, Standard Length: 2 meter, Size: 25x16mm. including Modular Electrical Switch, 6 A, 230 V, SP, 1 Way, 1 Module, Unenclosed type as per Clause no.7.1.3, Method of Activation of switch shall be of Rocker type as per Clause no. 7.1.5, Switch shall be Flush type as per Clause no.7.1.6 and shall be installed as per Design A mentioned in the Clause no.7.1.7, Current carrying material as per Clause no. 22.5, with cover made of tough non-ignitable insulating material and bare of tough non-ignitable insulating material or of vitrified ceramic material, Conforming to IS:3854/1997 (reaffirmed 2017) with latest amendments and ISI mark., including supply of all required materials like lamp holder,Aluminium, batten type, with shade carrier ring,ISI marked, Base: B-22 suitable for use at 250V, Conforming to IS: 1258(Rev.-3)-2005)with amdt-3. With BACK plate of 53 MM. Dia & 45 MM PCD..., ceiling rose, Modular type Socket outlet suitable for 3 pin plug, 6A, 230V, 2 Module, Shuttered (Operation of Shutter should be independant of Earthing Point), Cover made of tough Non-Ignitable insulating material, material of base -vitrified ceramic, Conforming to IS : 1293-2019, Amendment no. 1 or latest with ISI mark ,suitable PVC moduler JB box ,switch Board, Spacers, Saddles,Bends, Tees to be provided as and where required as per direction of consignee., Provision of moduler fan regulator should be kept on switch board .The plate should include 2 blank space for further installation of switches.including stainless steel fastener, Pin Type Terminal End Lugs as per specification attached. All materilas would be as per latest specification as issued from HQ/GRC time to time if available or latest IS and IE rules which is available.The cost includes supply of all materials to complete job. (Two 5-ampere socket point treated as one point).</p>	50	Each
37.	NS-37	<p>Circuit/Sub-circuit wiring by PVC conduit/PVC casing capping wiring by 2.5 sq. mm, Single Core, Multistrand (36/0.3mm), Copper Conductor(flexible), Unsheathed, Flame Retardant Low Smoke and Halogen (FR-LSH), PVC insulated Cable of 1100V grade, Type C PVC Compound as per IS 5831, Conforming to IS: 694-2010(reaffirmed 2020), ISI marked.Continuous Earthing with 2.5 sq. mm, Single Core, Multistrand (36/0.3mm), Copper Conductor(flexible), Unsheathed, Flame Retardant Low Smoke and Halogen (FR-LSH), PVC insulated Cable of 1100V grade, Type C PVC Compound as per IS 5831, Conforming to IS: 694-2010(reaffirmed 2020), ISI marked through PVC Conduit Pipe of Nominal Size 25mm and in the length of 3 mtrs, Socket ended (at one end), medium mechanical stress, White Color, Resistant to Flame Propagation to grade UL-94 V0, Conforming to IS 9537 (Part 3) 1983 (Reaffirmed Year : 2017) with amendment no. 2 or latest with ISI mark. or PVC Casing & capping, ISI marked, white color, double locking, Resistant to Flame Propagation to grade UL-94 V0, as per IS:14927 Part 2 : 2001 (Reaffirmed Year : 2017) or latest, Standard Length: 2 meter, Size: 25x16mm. to be provided as and where required as per direction of consignee including PVC Circular Box and Ceiling rose if required with connection from running circuit as per direction of Consignee,stainless steel fastener, Pin Type Terminal End Lugs as per specification attached. All materilas would be as per latest specification as issued from HQ/GRC time to time if available or latest IS and IE rules which is available.The cost includes supply of all materials to complete job. *Quantity per meter means-one meter conduit with 2 (two) meters Cu. cable of size 2.5 sq mm for phase & neutral and 1mtr of 2.5 Sq.mm PVC Cu. cable for earthing with Supply of PVC Circular Box and Ceiling rose as per direction of Consignee.</p>	150	Mtrs

38.	NS-38	<p>Circuit/Sub-circuit wiring by PVC conduit/PVC casing capping wiring by 4 sq. mm, Single Core, Multistrand (56/0.3mm), Copper Conductor (flexible), Unsheathed, Flame Retardant Low Smoke and Halogen(FR-LSH), PVC insulated Cable of 1100V grade, Type C PVC Compound as per IS 5831, Conforming to IS :694 - 2010 (Reaffirmed 2020), ISI marked. Continuous Earthing with 4 sq. mm, Single Core, Multistrand (56/0.3mm), Copper Conductor (flexible), Unsheathed, Flame Retardant Low Smoke and Halogen(FR-LSH), PVC insulated Cable of 1100V grade, Type C PVC Compound as per IS 5831, Conforming to IS :694 - 2010 (Reaffirmed 2020), ISI marked Cable through PVC Conduit Pipe of Nominal Size 25mm and in the length of 3 mtrs, Socket ended (at one end), medium mechanical stress, White Color, Resistant to Flame Propagation to grade UL-94 V0, Conforming to IS 9537 (Part 3) 1983 (Reaffirmed Year : 2017) with amendment no. 2 or latest with ISI mark. or PVC Casing & capping, ISI marked, white color, double locking, Resistant to Flame Propagation to grade UL-94 V0, as per IS:14927 Part 2 : 2001 (Reaffirmed Year : 2017) or latest, Standard Length: 2 meter, Size: 25x16mm. to be provided as and where required as per direction of consignee including PVC Circular Box and Ceiling rose if required with connection from running circuit as per direction of Consignee, stainless steel fastener, Pin Type Terminal End Lugs as per specification attached. All materials would be as per latest specification as issued from HQ/GRC time to time if available or latest IS and IE rules which is available. The cost includes supply of all materials to complete job. *Quantity per meter means-one meter conduit with 2 (two) meters Cu. cable of size 4 sq mm for phase & neutral and 1mtr of 4 Sq.mm PVC Cu. cable for earthing with Supply of PVC Circular Box and Ceiling rose as per direction of Consignee.</p>	100	Mtrs
39.	NS-39	<p>Supply of 3 modular plate and metal/pvc box with 6A/16A twin socket Shutter type and 16 or 20A switch. All item will be modular type and separate (as per PCEE specification no.CEE/P/56/301 /MAINTENANCE, Dtd. 17/11/2022.) Make:Goldmedal/Havells/Polycab /HPL/ GM Modular/Orpat Electricals.</p>	20	Nos
40.	NS-40	<p>Fixing and commissioning of 3 modular plate and metal/pvc box with 6A/16A twin socket Shutter type and 16 or 20A switch. All item will be modular type and separate. (Wiring will be covered under Shedule item No.2 as per site requirement).</p>	20	Nos
41.	NS-41	<p>Supply of modular PC Board consisting of 03 nos. switches with inbuilt LED indication, 03 nos. sockets and modular SP MCB 10A, 10kA, Type B- 01 No. with Stainless Steel 12M Box and all other accessories to complete job for concealed wiring.</p> <p>Specs: Modular Electrical Switch, 6 A, 230 V, SP, 1 Way, 1 Module, Unenclosed type as per Clause no.7.1.3, Method of Activation of switch shall be of Rocker type as per Clause no. 7.1.5, Switch shall be Flush type as per Clause no.7.1.6 and shall be installed as per Design A mentioned in the Clause no.7.1.7, Current carrying material as per Clause no. 22.5, with cover made of tough non-ignitable insulating material and bare of tough non-ignitable insulating material or of vitrified ceramic material, Conforming to IS:3854/1997 (reaffirmed 2017) with latest amendments and ISI mark and Modular type Socket outlet suitable for 3 pin plug, 6A, 230V, 2 Module, Shuttered (Operation of Shutter should be independant of Earthing Point), Cover made of tough Non-Ignitable insulating material, material of base -vitrified ceramic, Conforming to IS : 1293-2019, Amendment no. 1 or latest with ISI mark. with modular SP MCB 10A, 10kA, Type B- 01 No. ISI marked, rated voltage: 240V AC, conforming to IS/IEC 60898-1:2015 (Reaffirmed Year:2024) or latest, with rated short circuit current capacity 10KA, fixed unadjustable time current characteristics suitable for use in protection of industrial, commercial and domestic electrical installations. along with 12M stainless steel Box, moduler cover plate and Stainless Steel boxes and all other accessories including stainless steel fastener, Pin Type Terminal End Lugs to complete job as per specification attached or with latest amendment or specification issued from HQ/GRC if any time to time. Make: Goldmedal/Havells/Polycab/GM Modular/Orpat Electricals/ Anchor/ Pressfit/IS standard Indian make .</p>	10	Nos

42.	NS-42	Fixing and commissioning of modular PC Board consisting of 03 nos. switches with inbuilt LED indication, 03 nos. sockets and modular SP MCB 10A, 10kA, Type B- 01 No. with Stainless Steel 12M Box, modular cover plate duly Concealed in wall surface including all other accessories to complete job with latest amendment or specification issued from HQ/GRC if any time to time, including stainless steel fastener, Pin Type Terminal End Lugs as per specification attached. (Wiring will be covered under Shedule item No. as per site requirement).	10	Nos
43.	NS-43	Supply of L.T. Aluminium Armoured and PVC sheathed stranded XLPE cable of size 4 Core x95 Sqmm for working voltage upto & including 1100 Volts conforming to as per Letter no. CEE/S/185/519/Genl.,Dtd. 02/03/2022 of office of the PCEE/HQ/GRC.	250	Mtrs
44.	NS-44	Supply of L.T. Aluminium Armoured PVC XLPE cable of size 4 Core x240 Sq mm 1100 Volts Grade. IS No. 7098-Part-1, 1988, with amendment No. 1 and 2 and 3 reaffirmed 2005.	500	Mtrs
45.	NS-45	Supply of L.T. Aluminium Armoured PVC XLPE cable of size 4 Core x400 Sq mm 1100 Volts Grade. IS No. 7098-Part-1, 1988, with amendment No. 1 and 2 and 3 reaffirmed 2005.	500	Mtrs
46.	NS-46	Laying of cable / cables in under ground along the road through cable trench etc . as per standard drawing including necessary termination , connection and testing.Trenching and laying of U/G cables in any kind of soil trench of size minimum 0.40 mtr wide and 1 mtr deep covered with necessary bricks for protection of the cables including filling of space between brick and cable/cables with sand and refilling the trench with excavated soil, leveling up, and restoring the surface duly rammed.	1000	Mtrs
47.	NS-47	Laying of cable / cables across the road, track, drain etc through RCC/GI pipe confirming to IS standard of size 100mm or 150mm (or any suitable size as per field requirement based on the actual size of the cable) as per relevant specification and as per standard drawing with necessary termination, connections and testing .Cost also includes collection of cable/cables from Railway store if required.GI pipe will be supplied by contractor.	200	Mtrs
48.	NS-48	Laying of cable/ cables on wall / structure through PVC casing pipe of size 4inches or 3inches with accessories or as per site requirement with suitable clamp / saddle/ fixtures etc with necessary termination, connection and testing as per standard drawing.Cost also includes collection of cable/cables from Railway store if required.	50	Mtrs
49.	NS-49	Transportation of cables in rolls with or without wooden drums from the store of concerned SSEE or any store of kharagpur to the site of works.	3	Drum/roll
50.	NS-50	Supply of HDPE pipe of size 110mm dia s per specification ISI mark IS no. 4984;2016 of reputed make,to complete job. Make-TATA/Jindal/Any ISI Approved.	200.00	Mtrs
51.	NS-51	Erection and commissioning of HDPE pipe of size 110mm dia to complete job.	200.00	Mtrs
52.	NS-52	Supply and installation of centrifugal self priming coupled pump Type: electric driven submersible type single phase 230 v 50 hz , capacity min 300 to 1000 lpm, total head min 5 to 10 min , max power input 2.5 to 3 kw with protection class of IP 68., Net positive suction head min 5 m, accessories : 1 no non returnable flap to be supplied with each pump	1	Nos
53.	NS-53	Supply and installation Tower ladder of Aluminium Tilttable Tower Ladder without bucket type having Reach height of 41-50Reach Height, (Foot) 41-50 Ladder Open Height Min (Foot) 39-45, Ladder Closed Height Min (Foot) 18-24, Bottom Width (inch) 18-25, Platform Size (inch) 24x24, Number of Steps 41-50, Adjustable Height Yes, Load Capacity, (Kg) 120-150	1	Nos
54.	NS-54	Supplyof Energy meter digital LCD display, 3 Phase 4 wire, 415 V AC, primary current settable at site, secondary -/ 5 Amp, Aux:220V AC with display of active,reactive and apparent energy (KWH/KVAH/KVArh), complete set along with 3 Nos. Current transformer of 300/5 Amp or 400/5Amp.	1	Nos
55.	NS-55	Fixing and commissioning of Energy meter digital LCD display, 3 Phase 4 wire, 415 V AC, primary current settable at site, secondary -/ 5 Amp, Aux:220V AC with display of active,reactive and apparent energy (KWH/KVAH/KVArh), complete set along with 3 Nos. Current transformer of 300/5 Amp or 400/5Amp.	1	Nos

56.	NS-56	Supply of Hot dipped Galvanized wire mesh cable trays size: 54mm/200mm with coupling kit and other accessories. It shall be manufactured with a longitudinal 'T- welded' safety edge. All Accessories including couplers, mounting accessories (Mechanically tested & supplied by cable tray manufacturer must be used) are required of same finish as per site requirement. Trays should comply Standard EN ISO 14 61: at least 550 h of SST. The deflection of cable tray must be no more than 1/200th of the distance between two supports and tested in accordance with the standard IEC 61537. Wire-mesh cable trays must be designed with an optimum span of 1.5 m, considering the maximum carrying capacity authorized by the manufacturer. Assemblies with specific fire resistant properties must have an E30-E90 certificate. Rod-dia must be from 3.9mm to 5.9mm for different sizes. Make-Legrand/Panduit/Cope/Leviton/ IS approved.	50	Nos
57.	NS-57	Fixing and commissioning of Hot dipped Galvanized wire mesh cable trays size: 54mm/200mm with coupling kit and other accessories.	50	Nos
SCHEDULE -B2 (Electrical Sub work): Sub Station				
58.	NS-60	Supply of HT VCB 6.6KV HT VCB 6.6KV 1 x 800A 3 Phase horizontal draw out Panel (with copper busbar all metering arrangement and relevant accessories conforming IS: 3427 & 13118. VCB should be as per HQ specification. Make: L&T, ABB, Paskal or any other OEM make	3	Set
59.	NS-61	Erection, testing and commissioning of HT VCB (with copper busbar all metering arrangement and relevant accessories conforming IS: 3427 & 13118.	3	Set
60.	NS-62	Supply of MS sheet cable Busbar Chamber of Sizes 9" x 10" x 3" (approx) with 4 Nos Copper bus bar of 200Amps capacity. .Make: Havells, HPL, Legrand, C&S .	2	Nos
61.	NS-63	Fixing and Installation of 4 pole copper bus bar of 200 A capacity in suitable enclosure.	2	Nos
62.	NS-64	Supply of Earthing arrangement with supply of Hot Dip Galvanized (HDG) earth cone and all other requisite materials as per CEE/GRC's Drg. No.CEE/G/A3/P-150, Alt.1 including sump box with salt and charcoal, metallic cover etc. as per site supervisor's instruction. Cost includes supply of all materials mentioned in the Drawing including 02 mtrs 25x5mm GI strip for connection from earth electrode pipe to light pole /Rail pole etc.Make: Any IS standard Indian make.	4	Each
63.	NS-65	Erection of Earthing arrangement with erection of Hot Dip Galvanized (HDG) earth cone and all other requisite materials as per CEE/GRC's Drg. No.CEE/G/A3/P-150, Alt.1 including sump box with salt and charcoal, metallic cover etc. as per site supervisor's instruction. Cost includes erection of all materials mentioned in the Drawing including 02 mtrs 25x5mm GI strip for connection from earth electrode pipe to light pole /Rail pole etc.	4	Each
64.	NS-66	Supply of 3(Three Core) x 240 Sq mm, 11KV (E) Stranded compact round Aluminium conductor screen XLPE insulated and Insulation screened and copper screened tape wrapped inner sheath galvanised steel strip armoured and overall PVC outer sheathed HT Cable, As per IS: 7098/(Part-2) 2011 or with latest amendments.	250	Mtrs
65.	NS-67	Laying, Supply at site, testing, drawl & commissioning of HT cable. The price shall cover all requisite materials, digging of cable trench in any kind of soil, supply and spreadings and for cable commissioning, supply and laying of bricks (Class- A) along the road as per site requirement & CEE/GRC's drg. No. CEE/G/A-3/P-134.Price shall also cover for filling up the trench with soil after completion of work including cable marker for proper tracing of cable.Cost also includes collection of cable/cables from Railway store and supply of PVC sleeve/Pipe (or any suitable size as per field requirement based on the actual size of the cable)	200	Mtrs

66.	NS-68	Laying of HT cable / cables across the road, track, drain, concrete etc through HDPE/GI/RCC pipe confirming to IS standard of size 100mm (or any suitable size as per field requirement based on the actual size of the cable) as per relevant specification and as per standard drawing with necessary termination, connections and testing .Cost also includes collection of cable/cables from Railway and supply of GI/RCC pipe confirming to IS standard of size 100mm (or any suitable size as per field requirement based on the actual size of the cable)	25	Mtrs
67.	NS-69	Laying, Supply at site, testing, drawl & commissioning of HT cable. The price shall cover all requisite for fixing of cables in wall/pole with necessary clamping not more than 50cm apart. For fixing cables on wall, PVC sleeve/Pipe should be used as per site requirement & CEE/GRC's drg. No. CEE/G/A-3/P-134 including cable marker for proper tracing of cable. Cost also includes collection of cable/cables from Railway store.	25	Mtrs
68.	NS-70	Supply of HT Heat shrinkable type End Termination/Indoor/ Outdoor type as per requirement suitable for 3 x 240 Sq mm Screened XLPE cable 11KV/6.6 KV E as per IEC-60502-4 or latest. Make: Raychem//Densons/3M/Any Is approved.	2	Nos.
69.	NS-71	Fixing and Commissioning of HT Heat shrinkable type End Termination Indoor/outdoor type as per requirement suitable for 3 x 240 Sq mm Screened XLPE cable 11KV/6.6 KV.	2	Nos.
70.	NS-72	Supply of 11KV/6.6 KV Heat shrinkable Straight Through Joint Kit, XLPE for size 3X240-Sq.mm. As per IEC-60502-4 or latest., Make: Raychem//Densons/3M	4	Nos.
71.	NS-73	Fixing and Commissioning of 11KV/6.6 KV Heat shrinkable Straight Through Joint Kit, XLPE for size 3X240-Sq.mm.	4	Nos.
72.	NS-74	Supply and Testing of ACB distribution panel, consisting of ACB 800 Amps , 4P, 50KA, MPRO, EDO- 02 Nos Incoming, MCCB 400Amps, 4P, 50 KVA, TM -4 Nos Outgoing , MCCB 250 amps, 4P, 50 KVA, TM -4 Nos as Outgoing with Buscoupler 800 Amps -01 No, 4 Pole ACB type suitable for 415volt 4-Pole . Panel should be as per IEC 61439 or latest OEM Make TTA panel. with ammeter, voltmeter indicator lamp etc.	1	Nos
73.	NS-75	Erection, Installation and commissioning of TTA make Distribution panel . including civil job.	1	Nos
74.	NS-76	Preparation and Submission of Drawings of Wiring Lay Out, Cable Route Lay out, Single Line Diagram of Power Distribution System etc. related to this work. The cost also includes supply of 11 cyps of drawing, each drawing of 10 cyps excluding tracing paper.	1	Job

Technical Specification of Electrical Work:

Item No. 01: 20W or higher wattage LED tube light with Batten (integrated electronic driver). As per CEGE approved Specification for LED tube light-high power, 2100 Lumen output, 220V, 50Hz AC with constant current driver with short circuit and overload protection etc. Make- Philips, Crompton, Havells, century LED, Goldwyn, IS approved.

Item No. 02: Fixing and Commissioning of 20W or higher wattage LED tube light with Batten

Item No. 03: 40W or higher wattage LED tube light with Batten, IP65 corrosion resistant, glare free, impact proof, surface mounting MCPCB based LED, CRI 80 +, 4000 Kelvin or more, similar to the product Century LED Elite prime capsule cat ref No XCEL040C (integrated electronic driver). Make- Philips, Crompton, Havells, Bajaj, Goldwyn, Century led.

Item No. 04: Fixing and Commissioning of 40W or higher wattage LED tube light with Batten.

Item No. 05: LED High Bay light fittings 200W LED, LED chip Efficacy (Lumen/watt) ≥ 130 , Luminaire System Efficacy - Lumen output - (Lumen/watt) ≥ 120 , 6000 K IP-65, IK 07. Accessories for each luminaire: Metallic adjustable Brackets (Stainless steel), SS Eye Bolts (as per IS:4190:1984 latest), Set of Bolt, Nut, Washers (SS), Die cast aluminium brackets etc. ISI Marked 3 Core cable for input power (min Length:250 mm). Test report from NABL lab to be submitted Warranty period (in Months) 36 or more, similar to. Make- Philips, Crompton, Havells.

Item No. 06: Fixing and Commissioning of LED High Bay light fittings.

Item No. 07: LED Street light fittings 45W LED, LED chip Efficacy ≥ 130 Lm/Watt, IP-66. Light should be as per HQ specification. Philips, Crompton, Havells, century LED, Goldwyn, IS approved.

Item No. 08: Fixing and Commissioning of LED Street light fittings 45 W LED, IP-66.

Item No. 09: LT distribution panel consisting of 400A MCCB 4 pole 50 kA as incoming microprocessor based and 2x250A, 36 kA, 2x100A, 36 kA, 2x63A, 36 kA, MCCB, 4 pole, 2x32A DP MCB 10 kA as outgoing complete with HRC back up fuse with locking arrangement. LT panel shall be as per CEGE/GRC's specification SER/ELEC/GS /DESCRIPTION/LT/PANEL/1/REV-0/MAR 2024. Note: - Tenderer shall submit tentative GAD & technical particulars, type test report of same range of LT panel from NABL accredited laboratory along with their bid offer. Make: ABB, L&T, Schinder, Legrand, Any IS approved. Panel should be as per IEC 61439 or latest.

Item No. 10: Erection, Installation and Commissioning of TTA make Distribution panel. including civil job.

Item No. 11: LT panel consist of 1 No.125 Amp 36 kA FP MCCB as a incoming, 02Nos. 63 Amp FP MCCB as a outgoing and 32 A DP MCB-7 Nos. as a outgoing with cable termination. Make: ABB, L&T, Schinder, Legrand. Panel should be as per IEC 61439 or latest.

Item No. 12: Erection, Installation and Commissioning of TTA make Distribution panel. including civil job.

Item No. 13: SP&N 12-way DB (SD) Thermoplastic Circuit breaker boxes IP 65 (with metric knockouts for cable entry)consisting with DP 32A 10kA MCB-1 no as incoming and SP 20 A,10kA MCB - 4 nos., SP 16 A,10kA MCB - 4 nos., as outgoing with Neutral links and Earth bar etc., Make: L&T/Havells/C&S/Legrand/ Honeywell/ABB.

Item No. 14: Fixing and Commissioning of SP&N 12-way DB (SD) Thermoplastic Circuit breaker boxes IP 65 (with metric knockouts for cable entry) consisting with DP 32A 10kA MCB-1 no as incoming and SP 20 A,10kA MCB - 4 nos., SP 16 A,10kA MCB - 4 nos., as outgoing with Neutral links and Earth bar etc.,

Item No. 15: TP&N 6-way DB (DD) consisting with FP 63A 10kA MCB-1 no as incoming and 20A 10kA SP MCB-8 Nos, 16A 10kA SP MCB-8 Nos as outgoing with Cu bus-bar, Neutral links, Spreader Link, Earth bar and Din Rail etc., (ALL MCB will be C series. Thickness of material (in mm)1.6 mm (MS sheet). Make: L&T/Havells/C&S/Legrand/ Honeywell/ABB.

Item No. 16: Fixing and Commissioning of TP&N 6-way DB (DD) consisting with FP 63A 10kA MCB-1 no as incoming and 20A 10kA SP MCB-8 Nos, 16A 10kA SP MCB-8 Nos as outgoing with Cu bus-bar, Neutral links, Spreader Link, Earth bar and Din Rail etc., with complete wiring and accessories to complete job.

Item No. 17: Industrial type Socket 3 phase 5 pin, (3P+1N+1E) 125Amp IP 67 with mechanical interlocking and plug 125 Amp 3P + N + E water tight IP 67(similar to Hensel cat no 9755100 and 045-6), Make: Hensel, Schnider, ABB, Legrand.

Item No.18: Installation and Commissioning of Industrial type Socket and plug with all accessories.

Item No. 19: Industrial type Socket 3 phase 5 pin, (3P+1N+1E) 63Amp IP 67 with mechanical interlocking and plug 63 Amp 3P + N + E water tight IP 67(similar to Hensel cat no 75352-6 and 035-6), Make: Hensel, Schnider, ABB, Legrand.

Item No. 20: Installation and Commissioning of Industrial type Socket and plug with all accessories.

Item No. 21: 40 Amps C series MCB 2 pole -qty. - 02 with suitable enclosure. Make: C&S, HPL, Legrand, Schnider, Hensel, L&T, ABB, BCH.

Item No. 22: Fixing and Commissioning of 40 Amps C series MCB 2 pole -qty. -02 with suitable enclosure.

Item No. 23: Cable Junction Boxes of size (Box Dimensions LXBXH in mm) 450x375x200 mm or as per site requirement, IP 65 with metric knockouts for cable entry with 3-Phase in- coming and outgoing connection consists of 3-Phase and neutral terminal as per relevant ISS, with suitable bridge arrangement with all necessary accessories. Make-IS standard Indian make.

Item No. 24: Fixing and Commissioning of Cable junction box (of fibre body) for 3-Phase in- coming and outgoing connection consists of 3-Phase and neutral terminal as per relevant ISS, with suitable bridge arrangement of size: 450mm X 375mm x 200 mm or as per site requirement., as per relevant specification/drawing. shall be made with necessary arrangements as per site requirement, cables are to be terminated with proper socketing arrangement to complete job.

Item No. 25: Brushless DC (BLDC) Motor Ceiling Fan, ISI marked, Sweep size: 1400 mm, Minimum Air delivery- 210 Cubic Meter/Min, total harmonic distortion- 8% [max], Rated Voltage: 230 V,50HZ Single phase AC, Blade thickness (Min): 1.1mm, Blade material : Aluminium, Bearing: Double ball bearings, Down rod size (without shackle) : 300mm, Shank & Shackle thickness(Min) : 2mm, canopy : 2 nos., colour standard: white, BEE rating : 5 star (as per Ministry of Power Notification Number: S.O. 2210 (E) and S.O. 2211 (E) dated. 12th May 2022 or latest), Rated power 28-watt [max], Warranty [Min] 30 Months. Conforming to- (i)IS:374/2019 with Amendment No. 1/2022 or latest (ii)IS:302 (Part 2/Sec 80) - For safety requirement (iii)IS:14700 (Part 3/Sec2) for THD. Speed control with electronic regulator (step type with minimum 5 running positions) and Regulators shall be provided with radio and television interference suppressing devices as per clause 10.7 of Amendment No. 1/2022to IS 374/2019 or latest. Make: Polar/Atomberg/Usha/Orient

Item No. 26: Fixing and Commissioning of Brushless DC (BLDC) Motor Ceiling Fan, ISI marked, sweep size: 1400 mm, suitable for 230V, 50Hz, AC confirming to Class: I of IS: 374/latest. of the fan shall be done with suitable clamp, hook, nut/bolts etc. and connection with flexible twin twisted multistrand Copper wire and removing of the existing old fan (if any) and handing over of the same to Railway Store with clear acknowledgement, as per site requirement.

Item No. 27: Heavy duty Wall Mounted Fan WITH 5 STAR and above RATING 600 mm size, suitable for 230V, 50Hz, AC as per site requirement. Make: - Havells/Usha/Orient/ Polar/Crompton/ RR Electricals/any IS Panel.

Item No. 28: Fixing and Commissioning of Wall Mounted Fan WITH 5 STAR and above RATING 600mm size with all accessories, as per site requirement.

Item No. 29: Exhaust Fans 600 mm, 1400 RPM suitable for 230V, 50Hz, AC, Conformity to Indian Standard IS: 2312 (latest). accessories such as Frame, Legs Set, Rubber Clamps & Other Hardware - inclusive in the scope of. Make-Havells/ Bajaj /Usha/ Crompton /Orient/Khaitan.

Item No. 30: Fixing and Commissioning of Heavy-Duty Exhaust Fans as per consignee requirement.

Item No. 31: Earthing arrangement with of Hot Dip Galvanized (HDG) earth cone and all other requisite materials as per CEE/GRC's Drg. No. CEE/G/A3/P-150, Alt.1 including sump box with salt and charcoal, metallic cover etc. as per site supervisor's instruction. Cost includes of all materials mentioned in the Drawing including 02 mtrs 25x5mm GI strip for connection from earth electrode pipe to light pole /Rail pole etc. Make: Any IS standard Indian make.

Item No. 32: Erection of Earthing arrangement with erection of Hot Dip Galvanized (HDG) earth cone and all other requisite materials as per CEE/GRC's Drg. No. CEE/G/A3/P-150, Alt.1 including sump box with salt and charcoal, metallic cover etc. as per site supervisor's instruction. Cost includes erection of all materials mentioned in the Drawing including 02 mtrs 25x5mm GI strip for connection from earth electrode pipe to light pole /Rail pole etc.

Item No. 33: Concealed Wiring of light and fan point by 1.5 sq. mm, Single Core, Multistrand (22/0.3mm), Copper Conductor (flexible), Unsheathed, Flame-Retardant Low Smoke and Halogen (FR-LSH), PVC insulated Cable of 1100V grade, Type-C PVC Compound as per IS 5831, Conforming to IS :694 - 2010 (Reaffirmed 2020), ISI marked. Earthing the point with 1.5 sq. mm, Single Core, Multistrand (22/0.3mm), Copper Conductor (flexible), Unsheathed, FR-LSH, PVC insulated Cable of 1100V grade, Type-C PVC Compound as per IS 5831, Conforming to IS :694 - 2010 (Reaffirmed 2020), ISI marked, through PVC Conduit Pipe of Nominal Size 20mm/25mm(as per site requirement) and in the length of 3 mtrs, Socket ended (at one end), medium mechanical stress, White Colour, Resistant to Flame Propagation to grade UL-94 V0, Conforming to IS 9537 (Part 3) 1983 (Reaffirmed Year : 2017) with amendment no. 2 or latest with ISI mark. Modular Electrical Switch, 6 A, 230 V, SP, 1 Way, 1 Module, Unenclosed type as per Clause no.7.1.3, Method of Activation of switch shall be of Rocker type as per Clause no. 7.1.5, Switch shall be Flush type as per Clause no.7.1.6 and shall be installed as per Design A mentioned in the Clause no.7.1.7, Current carrying material as per Clause no. 22.5, with cover made of tough non-ignitable insulating material and bare of tough non-ignitable insulating material or of vitrified ceramic material, Conforming to IS:3854/1997 (reaffirmed 2017) with latest amendments and ISI mark. including of all required materials like lamp holder, Aluminium, batten type, with shade carrier ring, ISI marked, Base: B-22 suitable for use at 250V, Conforming to IS: 1258(Rev.-3)-2005) with amdt-3. With BACK plate of 53 MM. Dia & 45 MM PCD., ceiling rose, Modular type Socket outlet suitable for 3 pin plug, 6A, 230V, 2 Module, Shuttered (Operation of Shutter should be independent of Earthing Point), Cover made of tough Non-Ignitable insulating material, material of base -vitrified ceramic, Conforming to IS : 1293-2019, Amendment no. 1 or latest with ISI mark ,suitable modular stainless steel JB box with modular PVC cover , stainless steel switch Board with modular PVC cover, PVC Spacers, PVC Saddles, PVC Bends, PVC Tees to be provided as and where required as per direction of consignee,. Provision of modular fan regulator should be kept on switch board. The plate should include 2 blank spaces for further of switches. Including stainless steel fastener, Pin Type Terminal End Lugs as per specification attached. All materials would be as per latest specification as issued from HQ/GRC time to time if available or latest IS and IE rules which is available. Covers or cover parts or parts of them, which are intended to ensure protection against electric shock, shall be held in place at two or more points by effective fixings. The cost includes of all materials to complete job. (Two 5-ampere socket point treated as one point).

Item No. 34: Concealed Sub circuit wiring by 2.5 sq. mm, Single Core, Multistrand (36/0.3mm), Copper Conductor(flexible), Unsheathed, Flame-Retardant Low Smoke and Halogen (FR-LSH), PVC insulated Cable of 1100V grade, Type C PVC Compound as per IS 5831, Conforming to IS: 694-2010(reaffirmed 2020), ISI marked. with 2.5Sq mm earthing wire of Single Core, Multistrand (36/0.3mm), Copper Conductor(flexible), Unsheathed, Flame-Retardant Low Smoke and Halogen (FR-LSH), PVC insulated Cable of 1100V grade, Type C PVC Compound as per IS 5831, Conforming to IS: 694-2010(reaffirmed 2020), ISI marked. through PVC Conduit Pipe of Nominal Size 25mm and in the length of 3 mtrs, Socket ended (at one end), medium mechanical stress, White Colour, Resistant to Flame Propagation to grade UL-94 V0, Conforming to IS 9537 (Part 3) 1983 (Reaffirmed Year : 2017) with amendment no. 2 or latest with ISI mark with Supply & fixing of PVC Circular Box and Ceiling rose if required with connection from running circuit as per direction of Consignee. including stainless steel fastener, Pin Type Terminal End Lugs as per specification attached. All materials would be as per latest specification as issued from HQ/GRC time to time if available or latest IS and IE rules which is available. The cost includes supply of all materials to complete the job. *Quantity per meter means-one meter conduit with 2 (two) meters Cu. cable of size 2.5 sq mm for phase & neutral and 1mtr of 2.5 Sq.mm PVC Cu. cable as earthing with Supply of PVC Circular Box and Ceiling rose as per direction of Consignee.

Item No. 35: Concealed Sub circuit wiring by 4 sq. mm, Single Core, Multistrand (56/0.3mm), Copper Conductor (flexible), Unsheathed, Flame Retardant Low Smoke and Halogen(FR-LSH), PVC insulated Cable of 1100V grade, Type C PVC Compound as per IS 5831, Conforming to IS :694 - 2010 (Reaffirmed 2020), ISI marked with 4 Sq mm earthing wire of Single Core, Multistrand (56/0.3mm), Copper Conductor (flexible), Unsheathed, Flame Retardant Low Smoke and Halogen(FR-LSH), PVC insulated Cable of 1100V grade, Type C PVC Compound as per IS 5831, Conforming to IS :694 - 2010 (Reaffirmed 2020), ISI marked through PVC Conduit Pipe of Nominal Size 25mm and in the length of 3 mtrs, Socket ended (at one end), medium mechanical stress, White Colour, Resistant to Flame Propagation to grade UL-94 V0, Conforming to IS 9537 (Part 3) 1983 (Reaffirmed Year : 2017) with amendment no. 2 or latest with ISI mark including stainless steel fastener, Pin Type Terminal End Lugs as per specification attached. All materials would be as per latest

specification as issued from HQ/GRC time to time if available or latest IS and IE rules which is available. The cost includes of all materials to complete the job.

*Quantity per meter means-one meter conduit with 2 (two) meters Cu. cable of size 4 sq mm for phase & neutral and 1mtr of 4 Sq.mm PVC Cu. cable as earthing.

Item No. 36: Point Wiring by PVC conduit /PVC Casing & Capping : -- Internal wiring for light, fan , plug points and night lamp points by 1.5 sq. mm, Single Core, Multistrand (22/0.3mm), Copper Conductor (flexible), Unsheathed, Flame Retardant Low Smoke and Halogen(FR-LSH), PVC insulated Cable of 1100V grade, Type-C PVC Compound as per IS 5831, Conforming to IS :694 - 2010 (Reaffirmed 2020), ISI marked. Earthing the point with 1.5 sq. mm, Single Core, Multistrand (22/0.3mm), Copper Conductor (flexible), Unsheathed, Flame Retardant Low Smoke and Halogen(FR-LSH), PVC insulated Cable of 1100V grade, Type-C PVC Compound as per IS 5831, Conforming to IS :694 - 2010 (Reaffirmed 2020), ISI marked through PVC Conduit Pipe of Nominal Size 25mm and in the length of 3 mtrs, Socket ended (at one end), medium mechanical stress, White Colour, Resistant to Flame Propagation to grade UL-94 V0, Conforming to IS 9537 (Part 3) 1983 (Reaffirmed Year : 2017) with amendment no. 2 or latest with ISI mark. or PVC Casing & capping, ISI marked, white colour, double locking, Resistant to Flame Propagation to grade UL-94 V0, as per IS:14927 Part 2 : 2001 (Reaffirmed Year : 2017) or latest, Standard Length: 2 meter, Size: 25x16mm. including Modular Electrical Switch, 6 A, 230 V, SP, 1 Way, 1 Module, Unenclosed type as per Clause no.7.1.3, Method of Activation of switch shall be of Rocker type as per Clause no. 7.1.5, Switch shall be Flush type as per Clause no.7.1.6 and shall be installed as per Design A mentioned in the Clause no.7.1.7, Current carrying material as per Clause no. 22.5, with cover made of tough non-ignitable insulating material and bare of tough non-ignitable insulating material or of vitrified ceramic material, Conforming to IS:3854/1997 (reaffirmed 2017) with latest amendments and ISI mark., including of all required materials like lamp holder, Aluminium, batten type, with shade carrier ring, ISI marked, Base: B-22 suitable for use at 250V, Conforming to IS: 1258(Rev.-3)-2005)with amdt-3. With BACK plate of 53 MM. Dia & 45 MM PCD..., ceiling rose, Modular type Socket outlet suitable for 3 pin plug, 6A, 230V, 2 Module, Shuttered (Operation of Shutter should be independent of Earthing Point), Cover made of tough Non-Ignitable insulating material, material of base -vitrified ceramic, Conforming to IS : 1293-2019, Amendment no. 1 or latest with ISI mark ,suitable PVC modular JB box ,switch Board, Spacers, Saddles, Bends, Tees to be provided as and where required as per direction of consignee,. Provision of modular fan regulator should be kept on switch board. The plate should include 2 blank spaces for further of switches. Including stainless steel fastener, Pin Type Terminal End Lugs as per specification attached. All materials would be as per latest specification as issued from HQ/GRC time to time if available or latest IS and IE rules which is available. The cost includes of all materials to complete job. (Two 5-ampere socket point treated as one point).

Item No. 37: Circuit/Sub-circuit wiring by PVC conduit/PVC casing capping wiring by 2.5 sq. mm, Single Core, Multistrand (36/0.3mm), Copper Conductor(flexible), Unsheathed, Flame-Retardant Low Smoke and Halogen (FR-LSH), PVC insulated Cable of 1100V grade, Type C PVC Compound as per IS 5831, Conforming to IS: 694-2010(reaffirmed 2020), ISI marked. Continuous Earthing with 2.5 sq. mm, Single Core, Multistrand (36/0.3mm), Copper Conductor(flexible), Unsheathed, Flame Retardant Low Smoke and Halogen (FR-LSH), PVC insulated Cable of 1100V grade, Type C PVC Compound as per IS 5831, Conforming to IS: 694-2010(reaffirmed 2020), ISI marked through PVC Conduit Pipe of Nominal Size 25mm and in the length of 3 mtrs, Socket ended (at one end), medium mechanical stress, White Color, Resistant to Flame Propagation to grade UL-94 V0, Conforming to IS 9537 (Part 3) 1983 (Reaffirmed Year : 2017) with amendment no. 2 or latest with ISI mark. or PVC Casing & capping, ISI marked, white color, double locking, Resistant to Flame Propagation to grade UL-94 V0, as per IS:14927 Part 2 : 2001 (Reaffirmed Year : 2017) or latest, Standard Length: 2 meter, Size: 25x16mm. to be provided as and where required as per direction of consignee including PVC Circular Box and Ceiling rose if required with connection from running circuit as per direction of Consignee, stainless steel fastener, Pin Type Terminal End Lugs as per specification attached. All materials would be as per latest specification as issued from HQ/GRC time to time if available or latest IS and IE rules which is available. The cost includes of all materials to complete job. *Quantity per meter means-one meter conduit with 2 (two) meters Cu. cable of size 2.5 sq mm for phase & neutral and 1mtr of 2.5 Sq.mm PVC Cu. cable for earthing with of PVC Circular Box and Ceiling rose as per direction of Consignee.

Item No. 38: Circuit/Sub-circuit wiring by PVC conduit/PVC casing capping wiring by 4 sq. mm, Single Core, Multistrand (56/0.3mm), Copper Conductor (flexible), Unsheathed, Flame-Retardant Low Smoke and Halogen (FR-LSH), PVC insulated Cable of 1100V grade, Type C PVC Compound as per IS 5831, Conforming to IS :694 - 2010 (Reaffirmed 2020), ISI marked. Continuous Earthing with 4 sq. mm, Single Core, Multistrand (56/0.3mm), Copper Conductor (flexible), Unsheathed, Flame Retardant Low Smoke and

Halogen(FR-LSH), PVC insulated Cable of 1100V grade, Type C PVC Compound as per IS 5831, Conforming to IS :694 - 2010 (Reaffirmed 2020), ISI marked Cable through PVC Conduit Pipe of Nominal Size 25mm and in the length of 3 mtrs, Socket ended (at one end), medium mechanical stress, White Colour, Resistant to Flame Propagation to grade UL-94 V0, Conforming to IS 9537 (Part 3) 1983 (Reaffirmed Year : 2017) with amendment no. 2 or latest with ISI mark. or PVC Casing & capping, ISI marked, white colour, double locking, Resistant to Flame Propagation to grade UL-94 V0, as per IS:14927 Part 2 : 2001 (Reaffirmed Year : 2017) or latest, Standard Length: 2 meter, Size: 25x16mm. to be provided as and where required as per direction of consignee including PVC Circular Box and Ceiling rose if required with connection from running circuit as per direction of Consignee, stainless steel fastener, Pin Type Terminal End Lugs as per specification attached. All materials would be as per latest specification as issued from HQ/GRC time to time if available or latest IS and IE rules which is available. The cost includes of all materials to complete job.

*Quantity per meter means-one meter conduit with 2 (two) meters Cu. cable of size 4 sq mm for phase & neutral and 1mtr of 4 Sq.mm PVC Cu. cable for earthing with of PVC Circular Box and Ceiling rose as per direction of Consignee.

Item No. 39: 3 modular plate and metal/pvc box with 6A/16A twin socket Shutter type and 16 or 20A switch. All item will be modular type and separate (as per PCEE specification no. CEE/P/56/301 /MAINTENANCE, Dtd. 17/11/2022.) Make: Goldmedal/Havells/Polycab /HPL/ GM Modular/Orpat Electricals.

Item No. 40: Fixing and Commissioning of 3 modular plate and metal/pvc box with 6A/16A twin socket Shutter type and 16 or 20A switch. All item will be modular type and separate. (Wiring will be covered under Schedule item No.2 as per site requirement).

Item No. 41: Modular PC Board consisting of 03 nos. switches with inbuilt LED indication, 03 nos. sockets and modular SP MCB 10A, 10kA, Type B- 01 No. with Stainless Steel 12M Box and all other accessories to complete job for concealed wiring. Specs: Modular Electrical Switch, 6 A, 230 V, SP, 1 Way, 1 Module, Unenclosed type as per Clause no.7.1.3, Method of Activation of switch shall be of Rocker type as per Clause no. 7.1.5, Switch shall be Flush type as per Clause no.7.1.6 and shall be installed as per Design A mentioned in the Clause no.7.1.7, Current carrying material as per Clause no. 22.5, with cover made of tough non-ignitable insulating material and bare of tough non-ignitable insulating material or of vitrified ceramic material, Conforming to IS:3854/1997 (reaffirmed 2017) with latest amendments and ISI mark and Modular type Socket outlet suitable for 3 pin plug, 6A, 230V, 2 Module, Shuttered (Operation of Shutter should be independent of Earthing Point), Cover made of tough Non-Ignitable insulating material, material of base -vitrified ceramic, Conforming to IS : 1293-2019, Amendment no. 1 or latest with ISI mark. with modular SP MCB 10A, 10kA, Type B- 01 No. ISI marked, rated voltage: 240V AC, conforming to IS/IEC 60898-1:2015 (Reaffirmed Year:2024) or latest, with rated short circuit current capacity 10KA, fixed un-adjustable time current characteristics suitable for use in protection of industrial, commercial and domestic electrical s. along with 12M stainless steel Box, modular cover plate and Stainless Steel boxes and all other accessories including stainless steel fastener, Pin Type Terminal End Lugs to complete job as per specification attached or with latest amendment or specification issued from HQ/GRC if any time to time. Make: Goldmedal/Havells/Polycab/GM Modular/Orpat Electricals/ Anchor/ Pressfit/IS standard Indian make.

Item No. 42: Fixing and Commissioning of Modular PC Board consisting of 03 nos. switches with inbuilt LED indication, 03 nos. sockets and modular SP MCB 10A, 10kA, Type B- 01 No. with Stainless Steel 12M Box, modular cover plate duly Concealed in wall surface including all other accessories to complete job with latest amendment or specification issued from HQ/GRC if any time to time, including stainless steel fastener, Pin Type Terminal End Lugs as per specification attached. (Wiring will be covered under Schedule item No. as per site requirement).

Item No. 43: L.T. Aluminium Armoured and PVC sheathed stranded XLPE cable of size 4 Core x95 Sqmm. for working voltage up to & including 1100 Volts conforming to as per Letter no. CEE/S/185/519/Genl., Dtd. 02/03/2022 of office of the PCEE/HQ/GRC.

Item No. 44: L.T. Aluminium Armoured PVC XLPE cable of size 4 Core x240 Sq mm 1100 Volts Grade. IS No. 7098-Part-1, 1988, with amendment No. 1 and 2 and 3 reaffirmed 2005.

Item No. 45: L.T. Aluminium Armoured PVC XLPE cable of size 4 Core x400 Sq mm 1100 Volts Grade. IS No. 7098-Part-1, 1988, with amendment No. 1 and 2 and 3 reaffirmed 2005.

Item No. 46: Laying of cable / cables in underground along the road through cable trench etc . as per standard drawing including necessary termination, connection and testing. Trenching and laying of U/G cables in any kind of soil trench of size minimum 0.40 mtr wide and 1 mtr deep covered with necessary bricks for protection of the cables including filling of space between brick and cable/cables with sand and refilling the trench with excavated soil, levelling up, and restoring the surface duly rammed.

Item No. 47: Laying of cable / cables across the road, track, drain etc through RCC/GI pipe confirming to IS standard of size 100mm or 150mm (or any suitable size as per field requirement based on the actual size of the cable) as per relevant specification and as per standard drawing with necessary termination, connections and testing .Cost also includes collection of cable/cables from Railway store if required.GI pipe will be supplied by contractor.

Item No. 48: Laying of cable/ cables on wall / structure through PVC casing pipe of size 4inches or 3inches with accessories or as per site requirement with suitable clamp / saddle/ fixtures etc with necessary termination, connection and testing as per standard drawing. Cost also includes collection of cable/cables from Railway store if required.

Item No. 49: Transportation of cables in rolls with or without wooden drums from the store of concerned SSE or any store of kharagpur to the site of works.

Item No. 50: HDPE pipe of size 110mm dia s per specification ISI mark IS no. 4984;2016 of reputed make, to complete job. Make-TATA/Jindal/Any ISI Approved.

Item No. 51: Erection and Commissioning of HDPE pipe of size 110mm dia to complete job.

Item No. 52: Centrifugal self-priming coupled pump Type: electric driven submersible type single phase 230 v 50 hz , capacity min 300 to 1000 lpm, total head min 5 to 10 min , max power input 2.5 to 3 kw with protection class of IP 68., Net positive suction head min 5 m, accessories: 1 no non-returnable flap to be supplied with each pump including installation.

Item No. 53: Tower ladder of Aluminium Tilttable Tower Ladder without bucket type having Reach height of 41-50Reach Height, (Foot) 41-50 Ladder Open Height Min.(Foot) 39-45, Ladder Closed Height Min.(Foot) 18-24, Bottom Width (inch) 18-25, Platform Size (inch) 24x24, Number of Steps 41-50, Adjustable Height Yes, Load Capacity, (Kg) 120-150 including installation.

Item No. 54: Energy meter digital LCD display, 3 Phase 4 wire, 415 V AC, primary current settable at site, secondary -/ 5 Amp, Aux:220V AC with display of active, reactive and apparent energy (KWH/KVAH/KVArh), complete set along with 3 Nos. Current transformer of 300/5 Amp or 400/5Amp.

Item No. 55: Fixing and Commissioning of Energy meter digital LCD display, 3 Phase 4 wire, 415 V AC, primary current settable at site, secondary -/ 5 Amp, Aux:220V AC with display of active, reactive and apparent energy (KWH/KVAH/KVArh), complete set along with 3 Nos. Current transformer of 300/5 Amp or 400/5Amp.

Item No. 56: Hot dipped Galvanized wire mesh cable trays size: 54mm/200mm with coupling kit and other accessories. It shall be manufactured with a longitudinal 'T- welded' safety edge All Accessories including couplers, mounting accessories (Mechanically tested & supplied by cable tray manufacturer must be used) are required of same finish as per site requirement. Trays should comply Standard EN ISO 14 61: at least 550 h of SST. The deflection of cable tray must be no more than 1/200th of the distance between two supports and tested in accordance with the standard IEC 61537. Wire-mesh cable trays must be designed with an optimum span of 1.5 m, considering the maximum carrying capacity authorized by the manufacturer. Assemblies with specific fire-resistant properties must have an E30-E90 certificate. Rod-Dia must be from 3.9mm to5.9mm for different sizes. Make-Legrand/Panduit/Cope/Leviton/ IS approved.

Item No. 57: Fixing and Commissioning of Hot dipped Galvanized wire mesh cable trays size: 54mm/200mm with coupling kit and other accessories.

Item No. 58: HT VCB 6.6KV HT VCB 6.6KV 1 x 800A 3 Phase horizontal draw out Panel (with copper busbar all metering arrangement and relevant accessories conforming IS: 3427 & 13118. VCB should be as per HQ specification. Make: L&T, ABB, Paskal or any other OEM make

Item No. 59: Erection, testing and commissioning of HT VCB (with copper busbar all metering arrangement and relevant accessories conforming IS: 3427 & 13118.

Item No. 60: MS sheet cable Busbar Chamber of Sizes 9" x 10" x 3" (approx.) with 4 Nos Copper bus bar of 200Amps capacity. Make: Havells, HPL, Legrand, C&S .

Item No. 61: Fixing and Installation of 4 pole copper bus bar of 200 A capacity in suitable enclosure.

Item No. 62: Earthing arrangement with supply of Hot Dip Galvanized (HDG) earth cone and all other requisite materials as per CEE/GRC's Drg. No.CEE/G/A3/P-150, Alt.1 including sump box with salt and charcoal, metallic cover etc. as per site supervisor's instruction. Cost includes of all materials mentioned in the Drawing including 02 mtrs 25x5mm GI strip for connection from earth electrode pipe to light pole /Rail pole etc. Make: Any IS standard Indian make.

Item No. 63: Erection of Earthing arrangement with erection of Hot Dip Galvanized (HDG) earth cone and all other requisite materials as per CEE/GRC's Drg. No.CEE/G/A3/P-150, Alt.1 including sump box with salt and charcoal, metallic cover etc. as per site supervisor's instruction. Cost includes erection of all materials mentioned in the Drawing including 02 mtrs 25x5mm GI strip for connection from earth electrode pipe to light pole /Rail pole etc.

Item No. 64: 3(Three Core) x 240 Sq mm, 11KV (E) Stranded compact round Aluminium conductor screen XLPE insulated and Insulation screened and copper screened tape wrapped inner sheath galvanised steel strip armoured and overall PVC outer sheathed HT Cable, As per IS: 7098/(Part-2) 2011 or with latest amendments.

Item No. 65: Laying, Supply at site, testing, drawl & Commissioning of HT cable. The price shall cover all requisite materials, digging of cable trench in any kind of soil, and spreading and for cable, and laying of bricks (Class- A) along the road as per site requirement & CEE/GRC's drg. No. CEE/G/A-3/P-134.Price shall also cover for filling up the trench with soil after completion of work including cable marker for proper tracing of cable. Cost also includes collection of cable/cables from Railway store and of PVC sleeve/Pipe (or any suitable size as per field requirement based on the actual size of the cable)

Item No. 66: Laying of HT cable / cables across the road, track, drain, concrete etc through HDPE/GI/RCC pipe confirming to IS standard of size 100mm (or any suitable size as per field requirement based on the actual size of the cable) as per relevant specification and as per standard drawing with necessary termination, connections and testing .Cost also includes collection of cable/cables from Railway and of GI/RCC pipe confirming to IS standard of size 100mm (or any suitable size as per field requirement based on the actual size of the cable)

Item No. 67: Laying, Supply at site, testing, drawl & commissioning of HT cable. The price shall cover all requisite for of cables in wall/pole with necessary clamping not more than 50cm apart. For cables on wall, PVC sleeve/Pipe should be used as per site requirement & CEE/GRC's drg. No. CEE/G/A-3/P-134 including cable marker for proper tracing of cable. Cost also includes collection of cable/cables from Railway store.

Item No. 68: HT Heat shrinkable type End Termination/Indoor/ Outdoor type as per requirement suitable for 3 x 240 Sq mm Screened XLPE cable 11KV/6.6 KV E as per IEC-60502-4 or latest. Make: Raychem//Densons/3M/Any Is approved.

Item No. 69: Fixing and Commissioning of HT Heat shrinkable type End Termination Indoor/outdoor type as per requirement suitable for 3 x 240 Sq mm Screened XLPE cable 11KV/6.6 KV.

Item No. 70: 11KV/6.6 KV Heat shrinkable Straight Through Joint Kit,XLPE for size3X240-Sq.mm. As per IEC-60502-4 or latest., Make: Raychem//Densons/3M

Item No. 71: Fixing and Commissioning of 11KV/6.6 KV Heat shrinkable Straight Through Joint Kit, XLPE for size3X240-Sq.mm.

Item No. 72: ACB distribution panel, consisting of ACB 800 Amps, 4P, 50KA, MPRO, EDO- 02 Nos Incoming, MCCB 400Amps, 4P,50 KVA, TM -4 Nos Outgoing, MCCB 250 Amps, 4P,50 KVA, TM -4 Nos as Outgoing with Bus coupler 800 Amps -01 No, 4 Pole ACB type suitable for 415volt 4-Pole. Panel should be as per IEC 61439 or latest OEM Make TTA panel. with ammeter, voltmeter indicator lamp etc including Testing.

Item No. 73: Erection, Installation and Commissioning of TTA make Distribution panel. including civil job.

Item No. 74: Preparation and Submission of Drawings of Wiring Lay Out, Cable Route Lay out, Single Line Diagram of Power Distribution System etc. related to this work. The cost also includes of 11 copies of drawing, each drawing of 10 copies excluding tracing paper.

Special conditions for General Electrical Work:

- 1.1 To execute the necessary electrical works. IE rules and all the safety aspects should be strictly followed by the contractor.
- 1.2 To execute the necessary works, explanatory notes for various item of works, drg. Including schedule of works should be carefully read by the contractor.
- 1.3 Before supply of required materials, the sample of all the materials should be got approved by the Rly Engineer and the work be executed under supervision of concerned representative of Sr. CDO/SRC BY the approved materials only.
- 1.4 The supply and erection of materials shall includes all necessary parts, accessories, small parts etc. whether specially mentioned or not for complete the works for efficient functioning of the equipments.
- 1.5 The erection shall mean the erection of the equipments including testing, commissioning and bringing the equipment in to service to the full satisfaction of the Railway and confirming to all safety regulation. The erection also covers earthing connections for the electrical equipments unless otherwise specified.
- 1.6 The supply of materials where I.S. specification has not been mentioned in this schedule should also be reputed make with latest I.S specifications.
- 1.7 All MS item supplied, should be properly galvanized.
- 1.8 All the works along with all the materials should be Guaranteed for one year from the date of commissioning and if any defects occurred should be rectified / replaced immediately ie within three days after getting information from the Railway authority by the Contractor at their own cost The cost of items will be recovered from the Contractor bill, if they fail to rectify the defects within the schedule time.
- 1.9 All the test certificates & Documents in support of Genuineness of materials purchased/manufactured of 11KV Lightning Arrestor, AB Switches, DO fuse, 11KV end termination jotting kits, all type of MCCB & MCBs with other accessories (for LT panel), light fittings, MH Fittings & lamp, wall mounted fans, switch fuse units should be produced by the contractor along with the sample of materials before drawl of payment as well as for official record in the tender file.
- 1.10 The drawing of the GI structure. LT panels, distribution box location box shall have to be furnished and got approved by Railway authority before fabrication.
- 1.11 The price rates should be quoted inclusive of all taxes/ charges etc.

- 1.12 The supply and erection of materials shall include all necessary parts, accessories small parts etc. whether specially mentioned or not for complete the works for efficient functioning of the equipments.
- 1.13 The erection shall mean the erection of the equipments including testing, commissioning and bringing the equipment in to service to the full satisfaction of the Railway and confirming to all safety regulation. The erection also covers earthing connections for the electrical equipments unless otherwise specified.
- 1.14 After completion of work, all walls, roads, lands etc. damaged by the work should be brought in its original shape and color by the contractor.
- 1.15 The supply of materials where IS specification has not been mentioned in this schedule. should also be reputed make with latest I.S specifications.
- 1.16 All MS item supplied, should be properly galvanized.
- 1.17 All the works along with all the materials should be Guaranteed for one year from the date of commissioning and if any defects occurred should be rectified / replaced immediately i.e. within three days after getting information from the Railway authority by the Contractor at their own cost The cost of items will be recovered from the Contractor bill, if they fail to rectify the defects within the schedule time.
- 1.18 The price rates should be quoted inclusive of all taxes / charges etc.

Mechanical Work: Detail Scope of Mechanical Work& Special Condition:

Detail scope : SCHEDULE -C (Mechanical Sub work): Shalimar Setting up of mechanized departmental laundries

1	NS-1	Supply, Installation & commissioning and testing of Washer extractor, min. cap 120 kg per cycle.	12	Nos.
2	NS-2	Supply, installation and commissioning of flat work ironer, double roller (roll heated), size minimum 800mmdia x 3000 mm automatic feeder , automatic cross folder and stacker	3	Nos.
3	NS-3	Supply, Installation & commissioning of Tumbler Dryer, Cap 60 kg per cycle.	6	Nos.
4	NS-4	Supply, installation and commissioning of Steam Boiler (850 kg/Hr) (Solid fuel type)	3	Nos.
5	NS-5	Supply, Installation & commissioning of portable air compressor ,20 hp, max working pressure 12.7 kg/cm2.	3	Nos.
6	NS-6	Supply, Installation and commissioning of water softner, cap 50 KLD.	8	Nos.
7	NS-7	supply, installation, and commissioning of Electric operated dry cleaning machine with 35 Kg capacity for mechanized laundry.	2	Nos.
8	NS-8	Whiteness meter, measure range 0-100 whiteness, unit accuracy 0.2% +/- 1 digit, power supply-input rechargeable batteries with charger display 3-1/2	4	Nos.
9	NS-9	Plumbing work, supply and fixing/installation and commissioning of GI pipe line dia 1"for air supply for mechanized Laundry as per site requirement.	1000	Meter
10	NS-10	Plumbing work, supply and fixing/installation and commissioning of GI pipe line dia1.5" for water supply for mechanized Laundry as per site requirement.	1000	Meter
11	NS-11	Plumbing work, supply and fixing/installation and commissioning of GI pipe line dia 2"for steam supply with insulation for mechanized Laundry as per site requirement.	1000	Meter
12	NS-12	Supply Installation Testing & Commissioning of CCTV CAMERAS	2	SET
13	NS-13	Wet linen trolley.	50	Nos.
14	NS-14	Dry Linen trolley.	50	Nos.
15	NS-15	Supply, Installation & commissioning of ETP with tertiary Treatment plant (MBBR Technology),Cap 200 KLD with operation & maintenance of 3 year.	1	No.
16	NS-16	Supply, Installation & commissioning of Iron Removal plant, Cap 200 KLD.	1	No.
17	NS-17	Stainless Steel Rake	50	Nos.

18	NS-18	Desktop computer with ups & original OS & Ms office	20	Nos.
19	NS-19	Printer	10	Nos.
20	NS-20	Platform Truck, Cap 3000 kg, Battery operated.	1	Nos.
21	NS-21	Table	20	Nos.
22	NS-22	Chair	40	Nos.
23	NS-23	Supply Installation and Commissioning of Split AC 1.5 Ton	12	Nos.
24	NS-24	Supply Installation Commissioning of Industrial RO Plant Capacity 500 LPH	4	Nos.
25	NS-25	Supply Installation and Commissioning of water cooler Capacity 150 LPH	4	Nos.
26	NS-26	Porta Cabin with Amenities	4	nos.

- Detailed specification of the machines required for setting up of the laundry has been appended in the following pages. Tenderers bidding for the work should adhere to the following specifications listed for supplying the materials.

Item No.:1: Supply, Installation & commissioning and testing of Washer extractor, min. cap 120 kg per cycle. Qty.:12 nos

sl no.	Specification name	Remarks
1.	Type	<ul style="list-style-type: none"> • Steam heated, front loading,
2.	Capacity	<ul style="list-style-type: none"> • 120 Kgs or higher Dry Weight per cycle
3.	Cycle time (including loading/unloading)	<ul style="list-style-type: none"> • 50 To 60 Min
4.	Features	<ul style="list-style-type: none"> • Front loading. • Forward and reverse basket rotation • Heavy duty high spin, Single motor (IE3 class or higher), Variable frequency drive. • Multiple (Min. 4) compartment automatic soap dispenser through PLC. • Pneumatically operated water inlet valves. • Electrically operated dual drain. • Suspension with shock absorber & springs. • Pneumatic door interlock with limit switch and emergency stops for safety & trouble-free operation.
5.	Basket Volume	<ul style="list-style-type: none"> • Min.1200 Liters or higher
6.	Final Extract Speed	<ul style="list-style-type: none"> • 650 +/-20 rpm or higher
7.	Washing Speed	<ul style="list-style-type: none"> • Range 25 – 40 rpm.
8.	'G' Force	<ul style="list-style-type: none"> • 350 at Final Extract
9.	Drive Motor	<ul style="list-style-type: none"> • Min 30 HP or 22 kw IE3 class motor • VFD Controlled, • 3 Ph, 415 V • Single motor with variable frequency inverter drive for various speed for wash, Distribution, Low, Medium, High Spin extract.
10.	Tilting Motor	<ul style="list-style-type: none"> • Min 2 Hp or 1.5 kW motor for tilting.
11.	Inverter	<ul style="list-style-type: none"> • Min 30 HP or 22 KW, 3 Phases.
12.	Type of Control	<ul style="list-style-type: none"> • Fully Programmable Logic Controller (PLC) with multiple programs storage capacity with each program, to customize the wash programs according to the type of the linen.
13.	Display	<ul style="list-style-type: none"> • Min 7 inch display to visualize the step by step working process.
14.	Safety	<ul style="list-style-type: none"> • Pneumatic door interlock with limit switch. • Unbalancing emergency stop switch.

		<ul style="list-style-type: none"> Emergency stop for safety & trouble-free operation. Starter with fuse breaker & Single Phase Preventer.
15.	Main Body/ Outer Cabinet	<ul style="list-style-type: none"> Front and chemical side enclosure made of Stainless-Steel 304 grade. Side, Top & Back covers are made of SS LN 1.
16.	Inner Drum / Basket	<ul style="list-style-type: none"> Made of SS 304 grade with perforated basket.
17.	Outer Drum	<ul style="list-style-type: none"> Made of SS 304 grade.
18.	Bearing Housing	<ul style="list-style-type: none"> Heavy duty taper roller bearings, lubricated and sealed in Cast iron housing
19.	Soap Dispenser	<ul style="list-style-type: none"> Chemical box with multiple Compartments and individual jugs made of SS 316 grades. Separate water jet for each jug to flush out liquid / powder washing detergent.
20.	Door	<ul style="list-style-type: none"> Machine with both manual and auto door lock. Safety feature like 'door not to open' during operation.
21.	Water Inlet	<ul style="list-style-type: none"> All water Inlet should be pneumatically operated valve. Cold, Hot & chemical Water inlet compatible with supply line.
22.	Drainage	<ul style="list-style-type: none"> Min. Dual drain & should be electrically operated.
23.	Steam Inlet	<ul style="list-style-type: none"> Steam Inlet valve should be pneumatically operated & should be compatible with machine required inlet steam pressure.
24.	Compressed Air Inlet	<ul style="list-style-type: none"> Pressurized air inlet through PU pipe & should sustain required air pressure.
25.	Electric Supply	<ul style="list-style-type: none"> 415V, 50Hz, 3ph
26.	Warranty	<ul style="list-style-type: none"> Minimum Two (02) year from date of commissioning.
27.	Inspection	<ul style="list-style-type: none"> RITES/TPI as per Railway Board guidelines of Materials procurement

Item No.:2: supply, installation and commissioning of flat work ironer, double roller (roll heated), size minimum 800mm dia x 3000 mm automatic feeder , automatic cross folder and stacker
QTY.:03 NOS

a. supply, installation and commissioning of flat work ironer, double roller (roll heated), size minimum 800mm dia x 3000 mm, **QTY.:03 NOS**

SI no.	Specification name	Remarks
1.	Type	<ul style="list-style-type: none"> Chest Heated, Front Feed, Rear Return. Fixed Chest.
2.	Heating	<ul style="list-style-type: none"> Steam Heated
3.	No. Of Roller	<ul style="list-style-type: none"> Two Roller
4.	Roller Diameter	<ul style="list-style-type: none"> 800-850 mm dia.
5.	Working Length	<ul style="list-style-type: none"> Minimum 3000-3300 mm length
6.	motor	<ul style="list-style-type: none"> Drive Motor: one no, Min 10 HP, 3 phase induction motor. Exhaust Motor :Two nos, min. 1 HP
7.	VFD	<ul style="list-style-type: none"> 10 HP, 3 Ph
8.	Ironing Speed	<ul style="list-style-type: none"> 2 – 14 Mtr/min. (Maximum speed should be 14 mtr/min with output linen in complete dried condition)
9.	Steam Consumption	<ul style="list-style-type: none"> Minimum 300 kg / hr.
10.	Working Principle	<ul style="list-style-type: none"> Chest type industrial ironer with fixed chest and flexible Roll mounted on a crank which should be coupled to the roller arm and gearbox by means of a connecting rod offering a constant pressure and a maximum ironing surface for better ironing quality.
11.	Safety	<ul style="list-style-type: none"> Front feeding side provided emergency finger guard which automatically stops the machine and lifts the roller.

		<ul style="list-style-type: none"> Emergency finger guard automatically activates fast braking and lifts roll Emergency stop buttons should be provided on either end of the machine. Mechanical locking of rolls in raised position
12.	Main Body	<ul style="list-style-type: none"> Base frame should be made out of painted Mild steel channels and stainless steel feeding unit. Side guards made out of MS Fabricated and powder coated.
13.	Chest	<ul style="list-style-type: none"> The chest shall be made of special grade steel which is useful at moderate temperature for pressure purposes (P) with sustainable yield strength at moderate temperature (200 °C).
14.	Roller	<ul style="list-style-type: none"> Roller shall be made of mild steel. The Roller shall have perforations all around and precision machined (surface roughness value less than 10 micron) The feeding belt shall be of imported polyester belts for longer life. Rolls shall be covered with spring press and padding. Padding should be polyester fabric.
15.	Gear Box	<ul style="list-style-type: none"> Shaft mounted heavy duty gear box.
16.	Electricals	<ul style="list-style-type: none"> In built electrical control panel, with indication lamps, contactors, relays, internal wiring. Push button to start and stop the machine and Emergency stops on both sides of the machine. Variable frequency drive with Adjustable speed.
17.	Suction	<ul style="list-style-type: none"> Each roller should be provided with a Suction Blower to remove steam vapors from the cloth and maintain the dryness for higher efficiency.
18.	Gap Piece	<ul style="list-style-type: none"> Gap piece shall be steam heated and provided between the 2 Rolls.
19.	Display and Indication	<p>Display contain following parameter</p> <ul style="list-style-type: none"> speed indicator temperature indicators for Steam inlet, compressed air pressure indicators Indicators for roller pressure with adjustable button on both the sides. Chest and Exhaust temperature indicators.
20.	Electric Supply	<ul style="list-style-type: none"> 415 V \pm 10%, 3 - Phase + N, 50 Hz, AC.
21.	warranty	<ul style="list-style-type: none"> Two (02) years from date of installation & commissioning.
22.	Inspection	<ul style="list-style-type: none"> RITES/TPI as per Railway Board guidelines of Materials procurement

b. supply, installation and commissioning automatic cross folder and stacker, QTY.:03 NOS

Srl	SPECIFICATION	REMARKS
1	Folding Length x Width (mm)	<ul style="list-style-type: none"> 3600 x 3300 or more
2	Speed (m/min)	<ul style="list-style-type: none"> 30 (max)
3	Air Pressure (Mpa)	<ul style="list-style-type: none"> 0.5-0.7

4	Compressed Air Consumption(L/min)	<ul style="list-style-type: none"> 80
5	Motor Power (Kw)	<ul style="list-style-type: none"> 1.12 (max)
6	Power Consumption (Kw/hr)	<ul style="list-style-type: none"> 0.6 (max)
7	Fan Motor (Kw)	<ul style="list-style-type: none"> 0.75
8	Distillation Motor Power (Kw) Elec. Heating	<ul style="list-style-type: none"> 5.4
9	Drying Power (Kw) Elec. Heating	<ul style="list-style-type: none"> 7.2
10	Steam Pressure (Mpa)	<ul style="list-style-type: none"> 0.4-0.5
11	Water Pressure (Mpa)	<ul style="list-style-type: none"> 0.2-0.3
12	Steam Pressure (Mpa)	<ul style="list-style-type: none"> 0.4-0.5
13	warranty	<ul style="list-style-type: none"> Two (02) years from date of installation & commissioning.
14	Inspection	<ul style="list-style-type: none"> UTES/TPI as per Railway Board guidelines of Materials procurement

c. supply, installation and commissioning of automatic feeder, QTY.:03 NOS

1	Usage/Application	<ul style="list-style-type: none"> Industrial
2	Power Supply	<ul style="list-style-type: none"> 5 kW
3	Material	<ul style="list-style-type: none"> Mild Steel
4	No. of stacks	<ul style="list-style-type: none"> 20 stacks
5	Stacking	<ul style="list-style-type: none"> Automatic. However provision should be there for adjustable speed & stacking for perfect synchronization with a maximum of 20 stacks.
6	Attachment arrangement	<ul style="list-style-type: none"> Can be attached with any bed-sheet folder
7	Intended Use	<ul style="list-style-type: none"> To automatically stack & move the folded linens coming out of the flat-work ironer towards the packing area.
8	Safety features	<ul style="list-style-type: none"> Self-diagnostic and safety protection system, easy operation and easy maintenance features.
9	Adjustable speed	<ul style="list-style-type: none"> Adjustable speed can adopt corresponding ironing machine. The folder speed can be synchronised according to the ironing machine speed automatically.
10	warranty	<ul style="list-style-type: none"> Two (02) years from date of installation & commissioning.
11	Inspection	<ul style="list-style-type: none"> UTES/TPI as per Railway Board guidelines of Materials procurement

Item No.: 3: Supply, Installation & commissioning of Tumbler Dryer, Cap 60 kg per cycle. Qty- 06 Nos

Sl no.	Specification	Remarks
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	name	
1	TYPE	<ul style="list-style-type: none"> • Steam Heated.
2	Capacity	<ul style="list-style-type: none"> • 60 Kgs Dry weight per cycle
3	Heating	<ul style="list-style-type: none"> • Steam Heated.
4	Features	<ul style="list-style-type: none"> • Industrial Tumbler drier. • Front loading, open pocket. • Forward and reverses basket rotation. • Automatic with cool down feature. • Fully Programmable Controller. • Door Limit switch and emergency stop for safety & trouble-free operation. • SS fine mesh for collect lint.
5	Drive Motor	<ul style="list-style-type: none"> • Heavy duty high spin, Single motor (IE3 class or higher), min 2 hp capacity, 3 ph
6	Blower Motor	<ul style="list-style-type: none"> • Blower motor of 2 HP.
7	Radiator	<ul style="list-style-type: none"> • 4 Rows steam radiator.
8	Main Body	<ul style="list-style-type: none"> • Made of MS powder coated and cubical welded construction with glass wool insulation.
8	Inner Basket	<ul style="list-style-type: none"> • Made of Stainless Steel (SS304).
9	Electric Supply	<ul style="list-style-type: none"> • 415V, 50Hz, 3ph+N+E.
10	warranty	<ul style="list-style-type: none"> • Two (02) years from date of installation & commissioning.
11	Inspection	<ul style="list-style-type: none"> • RITES/TPI as per Railway Board guidelines of Materials procurement

Item No.: 4: supply, installation and commissioning of steam boiler (850 kg/hr) (solid fuel type) **QTY: 02 NOS**

Sl no.	Specificati on name	Remarks
1.	Capacity	Steam Output: 850 kg/hr Steam Pressure: 7 kg/cm ² to 10.5 kg/cm ² (gauge pressure) Efficiency: 85% to 90%
2.	Fuel Type	Fuel Used: High-Speed Diesel (HSD). Fuel Consumption: Approximately 55 to 65 liters per hour (varies on load conditions).
3.	Boiler Type	Type & Design: Fire-tube boiler, horizontal, three-pass fully wet-back type Configuration: Packaged boiler (pre-assembled)
4.	Burner	Type of Burner: Forced draft burner suitable Combustion Efficiency: Designed to maintain optimal air-to-fuel ratio for high combustion efficiency. Burner Control: Fully automatic with modulating control to adjust flame based on load demand.
5.	Pressure Range	Operating Pressure: Between 7 bar to 10 bar Maximum Allowable Working Pressure (MAWP): 17.5 bar
6.	Construction Materials	Shell Material: High-quality carbon steel or alloy steel with corrosion resistance Tubes: Fire tubes are made of carbon steel or alloy steel, designed for heat transfer efficiency and durability. Insulation: High-density insulation (rock wool or ceramic fiber) to minimize heat loss
7.	Heat Exchanger	Fire-tube Design: Min. three-pass or more design for improved heat exchange efficiency. Boiler Efficiency: Ranges 85% to 90% with proper heat recovery systems.
8.	Water Feed	Feed Water Pump: Centrifugal or positive displacement pump for supplying

	System	feed water to the boiler. Feed water Temperature: Ranges 85°C to 105°C
9.	Steam Quality:	Saturated steam with typical dryness fraction of 0.95 - 0.98, ensuring minimal moisture carryover.
10.	Chimney/Flue System:	Chimney Height: 6-10 meters to ensure safe dispersal of exhaust gases.
11.	Control System:	Automatic Boiler Control Panel: PLC-based, Includes pressure, temperature, and water level monitoring. Can feature safety alarms for low water level, high pressure, and flame failure.
12.	Safety Features	Safety Valves: Enable to release steam when pressure exceeds the set limit Low Water Cutoff: Enable to prevent dry firing of the boiler Pressure Gauge: Monitor the steam pressure Flame Failure Alarm: Enable to give alert in case of burner failure Automatic Blow down System : Enable to Automatic removing sludge and preventing scale buildup Blow down Rate: Not more than 1% to 5 % of steam output.
13.	Auxiliary Systems	Fuel Oil Storage Tank: storing HSD fuel, with capacity sized based on 16 hr. operational and daily fuel usage. Deaerator: Enable with remove dissolved gases from the feed water. Economizer: Enable to recover heat from exhaust gases, preheating the feed water and improving efficiency.
14.	Compliance with Emission Norms	Equipped with low NOx burners and combustion control to reduce emissions in compliance with Govt. regulations
15.	warranty	Two (02) years from date of installation & commissioning.
16.	Inspection	MITES/TPI as per Railway Board guidelines of Materials procurement

The water tube boiler and fire tube boiler must be properly insulated to prevent major heat losses. The pipeline materials used for steam boiler insulation should be fiberglass, mineral wool, or asbestos.

- (a) All Piping works required for machines in the tender as per drawing shall be supplied by the bidder.
- (b) All steam pipes shall be thermal insulated with glass wool and aluminium cladding so that there is minimum heat loss takes place.
- (c) The water tube boiler and fire tube boiler must be properly insulated to prevent major heat losses. The pipeline materials used for steam boiler insulation should be fiberglass, mineral wool, or asbestos.
- (d) All water pipelines, plumbing works required for operation of machines shall be done by the bidder.
- (e) All electrical wires / sockets/MCBs required for connecting machines to the power supply point shall be arranged by the bidder.
- (f) All Steam pipes shall be SS and all water pipe lines shall be GI or higher category
- (g) CIVIL foundations work required for all machines shall be constructed by the bidder.

ITEM NO.:5: Supply, Installation & Commissioning Of Portable Air Compressor ,20 HP, Max Working Pressure 12.7 Kg/Cm2. **QTY.: 03 NOS.**

Sl. no	Specification	Remarks
1.	Type	Portable, Two Stage High Volume Oil-lubricated , air cool ,Reciprocating Compressor
2.	Capacity	20 HP.
3.	Air receiver	Minimum Capacity 500 liters.
4.	Maximum working pressure	12.7 kg/cm ² or above.
5.	Free air delivery	30 CFM
6.	No. of Cylinders.	Two (02)
7.	Starting Device	Starter With Fuse Breaker & Single Phase Preventer
8.	Warranty	Minimum 02 year from date of commissioning.
9.	Inspection	RITES/TPI as per Railway Board guidelines of Materials procurement

Item No.6: Supply,Installation and Commissioning Of Water Softner,Cap 50 Kld. **QTY 08 NOS.**

	Specification	Remarks
1	Construction	Cylindrical type, MOC of vessel poly glass, Flow Rate 5m ³ /Hr, slim diameter, minimum burst pressure of 600 PSI (approx) .Regeneration tank 100 ltrs. It should be suitable for. mechanized laundry and compatible with boiler & other equipments as per schedule of requirement
2	Capacity	50 KLD
3	Inlet flow rate	50 KLD.
4	Tank orientation	Vertical
5	Max water recovery rate	80% -90%
6	Feed water output	Should be capable of supplying boiler feed water(Total hardness < 10 mg/l or 10PPM) from available ground water supply near laundry premises. Total dissolve solids (TDS) , maximum alkalinity and iron content should also be maintained within prescribed limits for boiler feed water.
7	Feed pumps for Water Softener	<ul style="list-style-type: none"> These pumps shall be capable of meeting raw water supply rate to softener and storing of boiler feed water in overhead tanks at maximum output capacity of water softener. Flow :7.8m³/hr@ 25.5m head. Capacity 2HP/ 1.5 KW Mono block set (CI) Suc/del:50mm/40mm
8	warranty	<ul style="list-style-type: none"> Two (02) years from date of installation & commissioning.
9	Inspection	<ul style="list-style-type: none"> RITES/TPI as per Railway Board guidelines of Materials procurement

ITEM NO.:7: Supply, Installation, and Commissioning of Electric Operated Dry Cleaning Machine with 35kg Capacity for Mechanized Laundry. **Qty. 02 nos.**

Srl no	Specification	Remarks
1	Loading Type	Front Loading
2	Size/Dimension	1400x1200x2050 mm or more
3	Power	0.75kw
4	Cleaning Type	Dry Cleaning Machine

5	Capacity Type (dry weight)	35 kg
6	Basket Dia x Depth	950x500 or more
7	Volume	Minimum 350 liters
8	Extract Speed	200 RPM or more
9	Filter Pump	0.37 kw
10	Pump Capacity	Minimum 100 liters/min
11	Base Tank Capacity	Minimum 400 liters
12	Suitable solvent	PERC
13	warranty	Two (02) years from date of installation & commissioning.
14	Inspection	ITES/TPI as per Railway Board guidelines of Materials procurement

Design Parameter of Electric Operated Dry Cleaning Machine with 35kg Capacity

	Parameters	Specifications
1	Capacity of linen	Machine shall be capable of dry-cleaning minimum 35 kg of linen in one cycle. weight of the linen should be taken in dry condition.
2	Suitability of washed blanket	The machine should be suitable for washing blankets used for railway passengers. Blankets should not get damaged, shrink or fading after cleaning.
3	Working of capacity	The machine should be robust and can run minimum 20 hours continuously including loading and unloading time.
4	Drying time and washing time	Quick drying time. One automatic cycle time for washing should not be more than 50 minutes.
5	Heating and cooling mechanism	Machine should have inbuilt heater (Boiler) and refrigeration unit(chiller)
6	Recovery rate of chemicals	Recover rate of chemical should be more than 95%.
7	Mode of operation	System should be fully automatic.
8	Display system	System should have LCD display.
9	Dosing function	Machine should have auto dosing function.
10	Lubrication system	Should have auto lubrication system.
11	Type of body	Should have full SS body-SS-304 or superior.
12	Operation and feeding of parameter	Washing time and washing temperature can be put conveniently.

Item no.:8: whiteness meter, measure range 0-100 whiteness, unit accuracy 0.2% +/- 1 digit, power supply- input rechargeable batteries with charger display 3-1/2, **Qty. 04 Nos.**

Srl no	Specification	Remarks
1	Illumination Condition	45/0
2	Measuring Range	0~100
3	unit accuracy	0.2% +/- 1 digit,
4	Resolution	0.1
5	Illuminant	LED 457 nm
6	Power Supply	4x1.5v AAA Batteries or rechargeable (with charger display)
7	warranty	Two (02) years from date of installation & commissioning.

Item no.:9: Plumbing work, supply and fixing/installation and commissioning of GI pipe line dia 1"for air supply for mechanized Laundry as per site requirement. **Qty.:1000 meters**

Item no.:10: Plumbing work, supply and fixing/installation and commissioning of GI pipe line dia 1.5" for water supply for mechanized Laundry as per site requirement. **Qty.:1000 meters**

Item no.:11: Plumbing work, supply and fixing/installation and commissioning of GI pipe line dia 2" for steam supply with insulation for mechanized Laundry as per site requirement. **Qty.:1000 meters**

Item no.:12: Supply Installation Testing & Commissioning of CCTV CAMERAS, **Qty.:02 Set.**

S No	Specification	Remarks
1.	RAM	4 GB
2.	Flash	512 MB
3.	Video Standard	NTSC/PAL
4.	Scanning System	Progressive
5.	Image Sensor	1/2.8" CMOS
6.	Sensor Size (H x V)	5.216 x 3.928 mm
7.	Number of Pixels (H x V)	4 MP (1920 x 1080)
8.	Minimum Illumination (Color/BW)	Color: 0.002Lux @ F1.6 BW: 0lux @ F1.6 (IR on)
9.	S/N Ratio	> 55 dB
10.	Electronic Shutter Speed	1/3 ~ 1/100,000
11.	IR Distance	50 m
12.	IR Light Control	Smart IR (Auto/Manual)/OFF
13.	IR Light Number	4
14.	Removable IR-Cut Filter	Yes
15.	Day/Night	Auto/Day/Night/Timing
16.	Backlight Compensation	WDR, HLC, BLC
17.	White Balance	Auto/Tungsten/Fluorescent/Daylight/Shadow
18.	Gain Control	0 ~ 100%
19.	Wide Dynamic Range	140 dB
20.	Noise Reduction	3D DNR
21.	Lens	2.7 ~ 13.5 mm, DC-Iris, F1.4 ~ F2.8
22.	Digital Image Stabilization	Yes
23.	Angle of View (H x V)	H: 94.47° ~ 30.9° V: 52.48° ~ 18.09°
24.	Privacy Masking	Off / On (4 Areas)
25.	Defog	Yes
26.	Encryption Chipset	Hardware embedded
27.	Local Storage	Micro SD/SDHC/SDXC card slot (1TB)
28.	Alarm Inputs/Outputs	2 in/1 out
29.	Reset	Supported
30.	VIDEO	
31.	Video Compression	H.265/H.264/MJPEG, Smart codec
32.	Resolution (16/9)	1920 x 1080/1280 x 720
33.	Resolution (4/3)	640 x 480/320 x 240

34.	Number of Video Streams	3
35.	Frame Rate	Main Stream: 1920x1080 50/60fps, 1280x720 25/30fps Second Stream: 1920x1080/704 x 576 (PAL)/704 x 480 (NTSC)/640 x 480/352 x 288 (PAL)/352 x 240 (NTSC) 25/30fps Third Stream: 640 x 480/352 x 288 (PAL)/352 x 240 (NTSC)/320 x 240 25/30fps
36.	Bit Rate	100 K ~ 12 Mbps
37.	Analog Output Support	CVBS
38.	PTZ	
39.	Pan Range	0° ~ 355° (-177.5° ~ 177.5°)
40.	Tilt Range	0° ~ 75°
41.	Rotation Range	0° ~ 354° (-163° ~ 191°)
42.	AUDIO	
43.	Audio Compression	G.711 a/G.711 Mu
44.	Audio Stream	Full duplex
45.	Audio Interface	Line in/out, Built-in Mic
46.	NETWORK	
47.	Ethernet	10 Base-T/100 Base-TX Ethernet (RJ-45)
48.	Supported Web Browsers	Microsoft Edge, Chrome
49.	Supported OS	Microsoft Windows 10, Windows 11
50.	Protocols*	IPv4, IPv6, TCP/IP, HTTP, HTTPS, UPnP, RTSP/RTP/RTCP, IGMP, SMTP, DHCP, NTP, DNS, DDNS, QoS, SNMP, 802.1X, UDP, ICMP, ARP, TLS
51.	Interoperability	ONVIF Profile G/S/T/M
52.	Maximum Users Access	10 Users
53.	Security	Software: Firmware encrypted & signed, SD card encryption, User account and password protection, HTTPS, IP Filter, Digest authentication, TLS1.2 only, Stream encryption, AES128/256, SSH/Telnet closed, PCIDSS compliance & attestation Hardware: Secure boot, Secure authentication chipset built-in
54.	Languages Supported	Arabic, Chinese (Traditional), Czech, Dutch, English, French, German, Italian, Japanese, Korean, Polish, Portuguese (Brazil), Russian, Spanish, Turkish
55.	EVENTS/ANALYTICS	
56.	Video Analytics	Standard: Motion detection, Scene change AI Based: Smart motion, Intrusion, Multi loitering, People counter, Face detection, Line crossing detection, Unattended object detection, Missing object detection
57.	Event Type	Analytics alarm, Security alarm, Disk alarm, Recording alarm, Audio detection
58.	Event Linkage	Email, Push notification, SD card recording, Digital output
59.	Region of Interest	8
60.	Event Notification	Event notification using digital output, SMTP, FTP, MicroSD card
61.	ELECTRICAL	
62.	Power Supply	AC24V, DC12V, PoE (IEEE 802.3af) (Class 0)
63.	Power Consumption (Max)	7.56 W
64.	MECHANICAL	

65.	Dimensions	Ø126.0 mm x 124.0 mm (Ø4.96" x 4.88")
66.	Dome Diameter	Ø96.40 mm (3.80")
67.	Product Weight	0.60 kg (1.32 lb)
68.	Package Weight	0.80 kg (1.76 lb)
69.	Body Material	Plastic
70.	Color	White (RAL9003)
71.	ENVIRONMENTAL	
72.	Operating Temperature	Starting Temperature: 0 °C ~ 50 °C (32 °F ~ 122 °F) Working Temperature: -10 °C ~ 50 °C (14°F ~ 122 °F) (IR off)
73.	Relative Humidity	Less than 90 %, non-condensing
74.	Impact Resistance	IK10 (Bubble only)
75.	REGULATORY	
76.	Emissions	FCC PART 15, CE (EN 55032), ICES-003, Complies with RCM and UKCA
77.	Immunity	CE (EN 50130-4, EN 55035), Complies with RCM and UKCA
78.	Safety	UL listed to UL/CSA 62368-1, CE (EN 62368-1), Complies with RCM and UKCA
79.	RoHS	CE (EN 63000), UAE (Cabinet Decree No.10 of 2017)

Item no.:13: Wet linen trolley., Qty.:50 Nos.

Sl no.	Specification name	Remarks
1.	Materials	Stainless steel of construction (SS304)
2.	Feature	Corners to be rounded for easy movement and fitted with rubber bumpers to avoid any damage. Trolleys to be mounted with 4 nos. ball bearing wheels. Trolleys should have a perforated S.S. mesh at the bottom and to be fitted with a drain valve.
3.	Thickness	Thickness of sheet should be at least 0.8 mm
4.	Size	Overall size of trolley should be at least 37" Wx 25" D x 32" H.
5.	Wheels	Castor wheels should be at least 4" dia
6.	Drain valve size	½" dia
7.	Thickness of SS Mesh	Minimum 0.8 mm thickness

Item no.:14: Dry Linen trolley., Qty.:50 Nos.

Sl no.	Specification name	Remarks
1.	Materials	Stainless steel of construction (SS304)
2.	Feature	Corners to be rounded for easy movement and fitted with rubber bumpers to avoid any damage. Trolleys to be mounted with 4 nos. ball bearing wheels.
3.	Thickness	Thickness of sheet should be at least 0.8 mm
4.	Size	Overall size of trolley should be at least 37" Wx 25" D x 32" H.
5.	Wheels	Castor wheels should be at least 4" dia
6.	Drain valve size	½" dia

Item no.:15: supply, installation & commissioning of ETP with tertiary treatment plant (MBBR technology),cap 200 KLD with operation & maintenance of 3 year.Qty.:01 No.

A. EFFLUENT TREATMENT PLANT

1. DESIGN BASIC
2. INLET RAW SEWAGE & TREATED WATER PARAMETER:
3. SCHEMATIC FLOW DIAGRAM
4. SCOPE OF SUPPLY & WORK
 - a SCHEDULE - A
 - b SCHEDULE - B
 - c SCHEDULE - C
 - d SCHEDULE - D
5. BATTERY LIMIT
6. COMMERCIAL OFFER
7. CLIENT SCOPE

ETP PROCESS FLOW DESCRIPTION: -

- Preliminary Treatment

Bar Screen Tank: This is the first chamber of ETP and floating material up-to 20 mm size will be separate here.

Oil & Grease Tank: O&G layer reduces biological activity of treatment process where oil film formation around microbes in suspended matter and water. This lead to decrease dissolved oxygen levels in the water. Then oxygen molecules are difficulty to be oxidative for microbial on hydrocarbon molecules and cause ecology damages to waste water bodies. The conventional techniques remove oil and grease oil and grease tank in treatment plants.

- Equalization tanks: Equalization tanks are used to reduce the amount of chemicals utilized, minimize temperature variations, maintain the appropriate PH level, reduce the impact of inhibiting constituents, balance levels of organic composites, and equalize the rate of movement.

- Primary Treatment

Primary Settling Tank: This is the primary treatment process that could separate solid and scum from waste water.

- Secondary Treatment

- Aeration Tank: The clear water flow into this stage. Oxygen supplied by air blowers are required for the digestion of the bacteria cultures thriving in and around the plastic media inside the aerated zone, thus reducing the number of contaminants while generating more contacts with the bacteria cultures on the surface area of the media. The quality of water becomes better.

- Secondary Settling Tank: The next step of treatment involves the sedimentation where organic wastes are settled in the sedimentation zone. The settled waste in the bottom of the tank can then be pumped back to the primary settling as a return sludge. To ensure that quality of effluent would pass the standard effluent.

- Filter Feed Tank : The next step of treatment involves the filter feed, from the secondary settling tank overflow water goes into this tank, from this tank water goes through by pumping into the next processing unit, which is called tertiary treatment.

- Tertiary Treatment

- Sand Filter: The pressure sand filter (PSF) is used as a tertiary treatment unit to trap the trace amounts of solids which escape the clarifier, and can typically handle up to 50 mg/l of solids in an economical manner.

- Activated Carbon Filter: An activated carbon filter, like the Pressure Sand Filter, is a tertiary treatment unit. It receives the water that is already filtered by the Pressure Sand Filter and improves multiple quality parameters of the water: BOD, COD, clarity (turbidity), color and odor.

a. DESIGN BASIC

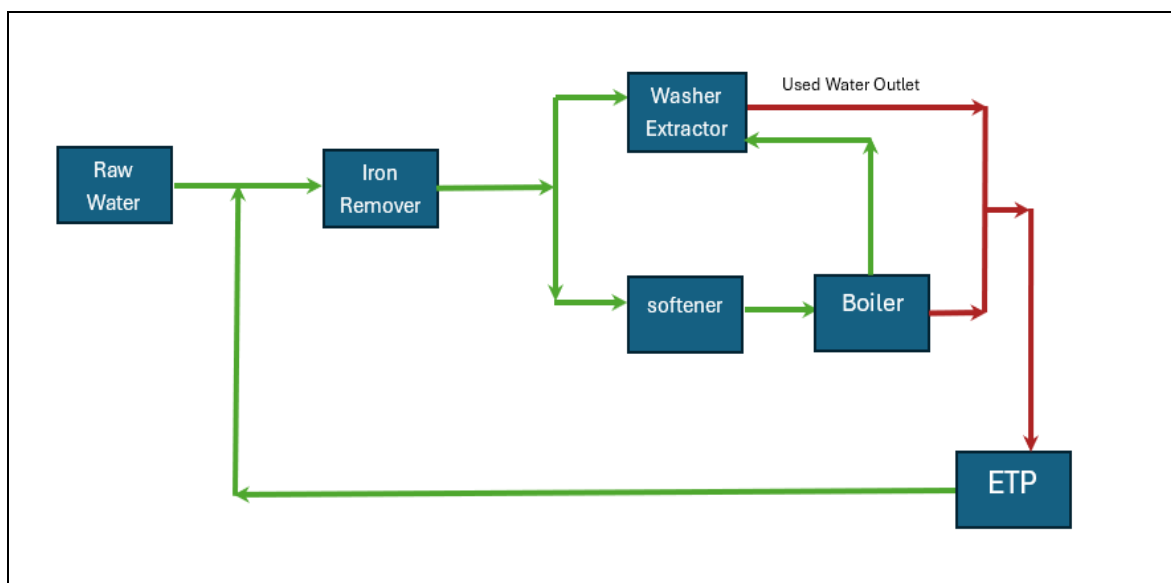
1	DESCRIPTION	PARAMETER
2	Type of waste	MECHANISED LAUNDRY WASTE WATER.
3	Total waste	200kld
4	Operation hour	20Hr
5	Stage of treatment	Preliminary → Primary → Secondary → Tertiary (4 Stage)
6	Use of treated water	BOILER FEEDING

b. INLET RAW SEWAGE & TREATED WATER PARAMETER:-

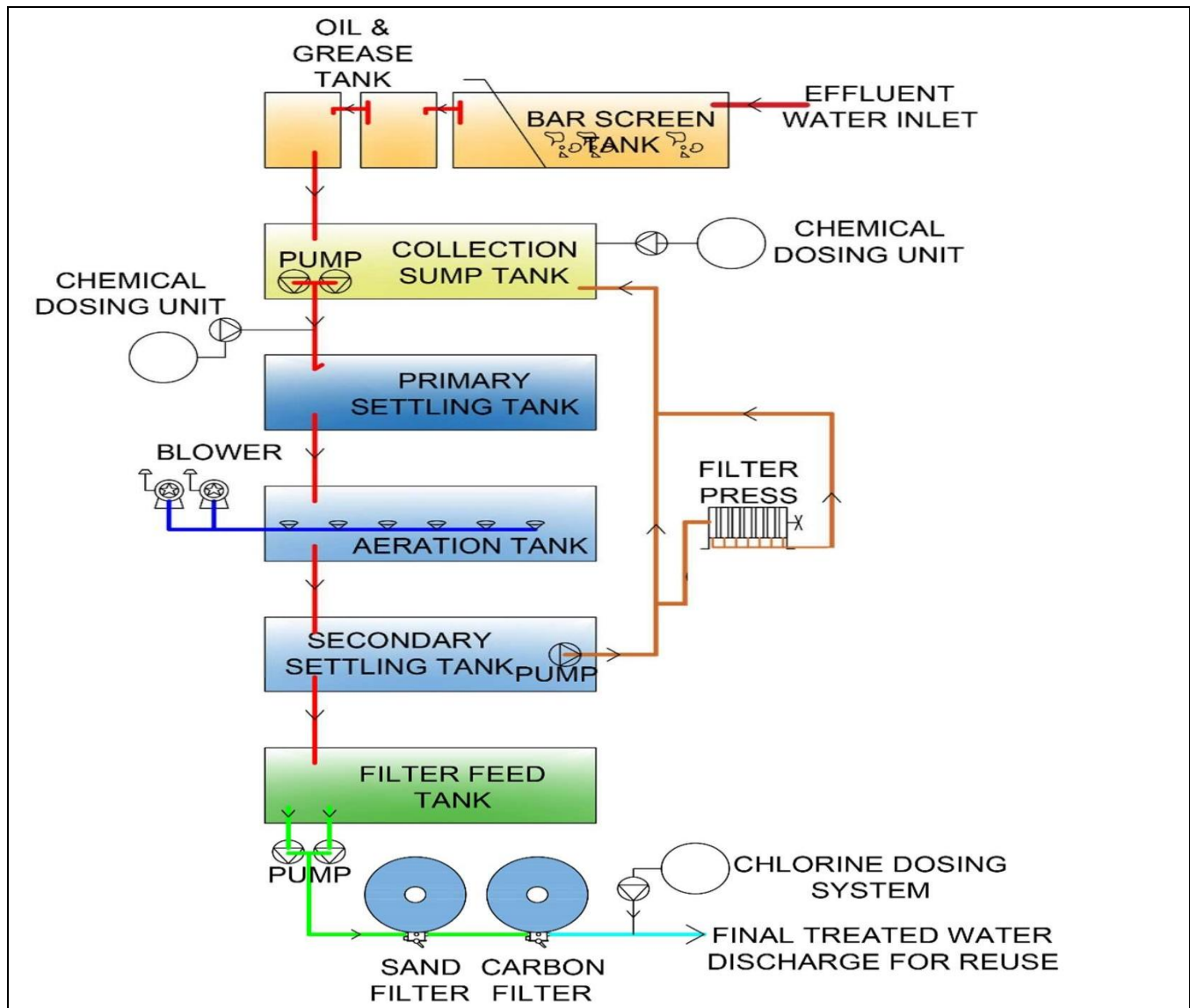
Raw Effluent Water Parameter		Treated Effluent Water Parameter	
pH	6.5-8.5	pH	6.5-8.5
O&G (Oil & Grease)	Unknown	O&G (Oil & Grease)	<10 mg/l
TSS (Total Suspended Solid)	Unknown	TSS (Total Suspended Solid)	<100 mg/l
BOD (Bio logical Oxygen Demand)	Unknown	BOD (Bio logical Oxygen Demand)	<30 mg/l
COD (Chemical Oxygen Demand)	Unknown	COD (Chemical Oxygen Demand)	<250 mg/l

N.B: The parameters of the treated water should match the input water quality of the supplied water of the boiler, allowing the water to be used in a closed loop system to minimize raw water consumption.

Water Flow Diagram



c. Schematic flow diagram



d. SCOPE OF SUPPLY & WORK
TECHNICAL

A. SCHEDULE – A

Sr. no	Item Description	Size (mtr/mm)	Qty	Moc	Make
02	Electro Mechanical For Etp				
Screen, Pump & Blower					
2.1	Fine Bar Screen	1.2x1.2x 0.012	01	msep	JRMS/SSK Ent./EQV
2.2	Coarse Bar screen	0.8x1.0x 0.012	01	msep	JRMS/SSK Ent./EQV
2.3	Raw Effluent Transfer Pump	10m ³ /hr@10mtr hd	02	C.I	Kirlosker/Eqv
2.4	Air blower	Flow-350m ³ /hr Pressure 0.5kg/sqcm	02	C.I	Jrms/Akash/ Aew/Bharat Blowers
2.5	Transfer pump	10m ³ /hr@10mtr hd	02	C.I	Kirlosker/Eqv
2.6	Sludge Re circulation Pump	5.0m ³ /hr@10mtr hd	02	C.I	Kirlosker/Eqv
2.7	Filter feed cum Backwash pump	13m ³ /hr@20mtr hd	02	C.I	Kirlosker/Eqv
2.7	Treated water pump	10.0m ³ /hr@32mtr hd	02	C.I	Kirlosker/Eqv
2.7	FILTER PRESS	24 PLATE PLATE SIZE – 18"X18"	01	C.I	JRMS/AMAR PLAST/NEER AVI/Eqv
2.7	SCREW PUMP	FLOW – 6CUM/HR PRESSURE – 0.6KG/SQCM	01	C.I	JRMS/ROTO/ Eqv
Chemical dosing Unit					
2.8	Chemical dosing tank	200ltr	03	PP	JRMS/JESS industries /SSK Ent.
2.9	Dosing Pump	0-10lph	03		E-doss/ Miltonray/Jr ms
Filter Unit					
2.10	Sand Filter	1200Dx1800L SHELL – 5MM DISH&STRAINER PLATE-6MM	01	MSEP	JRMS/JESSIN DUSTRIES/Ss k enterprise

2.11	Activated Carbon Filter	1200Dx1800L SHELL – 5MM DISH&STRAINER PLATE-6MM VALVE – MULTI PORT VALVE MAKE - JRMS/INITIATIVE/ EQV.	01	MSEP	JRMS/JESSIN DUSTRIES/Ss k enterprise
Media					
2.12	Tube settler media	Type – Vshape Settling velocity 0.5m/s	10cum	PP	JRMS/JESSIN DUSTRIES/Ss k enterprise
2.13	Mbbr media	Type – Poltring Size – 25mm dia x 12mm height	20m ³	PP	JRMS/JESSIN DUSTRIES/Ss k enterprise
2.14	Gravels	As required	1lot		JRMS/JESSIN DUSTRIES/Ss k enterprise
2.15	Sand	As required	1lot		JRMS/JESSIN DUSTRIES/Ss k enterprise
2.16	Carbon	As required	1lot		JRMS/JESSIN DUSTRIES/Ss k enterprise
Electrical Item					
2.17	Control Panel	1500x900x300	01	MSEP Powder coated	PANEL MAKE- JRMS/JESS industries/Ss k enterprise
2.18	Electrical Cable	As required	1lot	Copper	Golster/Have lls
Instrumentation					
2.19	Rotameter	10000lph	01	PP/PVC	Aster
2.20	Pressure Gauge	0.7kg/sqcm	02	SS	Aster
2.21	Ph meter	Range – 0-14	02	Standar d	Aster
2.22	Water meter	Size – 50mm	01	C.I	Dasmesh/Kra nti/Jaldhara
3.0	Piping For Etp				
3.1	Pipe line for Etp plant	40mm, 50nb, 100nb	As requir ed	Upvc& Gray Pvc pipe	Supreme/Ast ral/Ashirvab

3.2	Pipe line for gardening	50mm,40mm,25mm&12.5mm	4.0km	Upvc	Supreme/Astral/Ashirvab
3.3	Valve	50mm,40mm,25mm&12.5mm	As required	Upvc	Supreme/Astral/Ashirvab

SCHEDULE -C

4.0	CIVIL WORK	
4.1	CONSTRUCTION OF ETP TANK COLLECTION CUM EQUALIZATION TANK	TOTAL TANK VOLUME – 330CUM
4.2	Plant room shed	4000x5000x3300
4.3	BAR SCREEN CHAMBER	900X1200X DEPTH AS PER SITE
4.4	OIL&GREASE CHAMBER	900X900X900X2NOS

BATTERY LIMIT

From inlet of Bar Screen to treated water outlet

SCHEDULE –D

4.0	OPERATON & MAINTENANCE	
4.1	OPERATION & MAINTAINANCE OF TOTAL PLANT INCLUDING CONSUMABLE, TOOLS & TACKLES	1NO
4.2	MANPOWER	1NO
4.3	CONSUMEABLES	1LOT

commercial offer

Sr. no	Item	
1.	Basic and detail engineering, process description manual, P&ID .etc	1NO
2.	Supply of all Civil, Plumbing & electro-mechanical equipment (List Attached Above)	1NO
3.	Erection of all Civil, Plumbing & electro-mechanical equipment.	1LOT
4	Commissioning	

Item no.:15: Supply, Installation & commissioning of Iron Removal plant, Cap 200 KLD.**Qty.:01 No.**

Sr. No	Item	Specification	Quantity
01.	Designing, supplying, fitting, fixing and commissioning IRON REMOVAL FILTER having capacity of 25m ³ /hr including 100NB Frontal pipe line, 100mm dia butterfly valve, pressure gauge, sampling cocks with graded gravels and catalytic filtering media, complete with all accessories.	<p>Dimension- Shell - 1600mm (D)x 1800mm (L)x 6mm thk. Disc height - 300mm x 8mm thk. Under bed draw system – Strainer on plate, Plate Thickness – 8mm Manhole – 450mm (flange type) Hand hole – 150mm (flange type) Pipe line (Flange ended) – Dia – 100mm Moc – Mild Steel Make: JRMS Painting – INTERNAL - Black Bitumastic Anticorrossion non-poisonous paint EXTERNAL - EPOXY PRIMER & EPOXY PAINT OF APPROVED SHADE Pipe line painting - FINISHING PAINT SYNTHETIC ENAMEL [DULUX / ASIAN PAINTS / NEROLAC] Working pressure - 3.0kg/Sqcm Test Pressure - 4.5kg/Sqcm Pressure Gauge - Capacity - 4kg/Sqcm Valve – Type – Butterfly, Size – 80mm Working Pressure - 10kg/Sqcm Filter media – Gravels, pebbles, Treated Sand anthracite</p>	2 Nos.
02.	Designing, supplying, fitting, fixing and commissioning ACTIVATED CARBON having capacity of 25m ³ /hr including 100NB Frontal pipe line, 100mm dia butterfly valve, pressure gauge, sampling cocks with graded gravels and catalytic filtering media, complete with all accessories.	<p>Dimension- Shell - 1600mm (D)x 1800mm (L)x 6mm thk. Disc height - 300mm x 8mm thk. Under bed draw system – Strainer on plate, Plate Thickness – 8mm Manhole – 450mm (flange type) Hand hole – 150mm (flange type) Pipe line (Flange ended) – Dia – 100mm Moc – Mild Steel Make: Painting – INTERNAL - Black Bitumastic Anticorrossion non-poisonous paint EXTERNAL - EPOXY PRIMER & EPOXY PAINT OF APPROVED SHADE Pipe line painting - FINISHING PAINT SYNTHETIC ENAMEL [DULUX / ASIAN PAINTS / NEROLAC] Working pressure - 3.0kg/Sqcm Test Pressure - 4.5kg/Sqcm Pressure Gauge - Capacity - 4kg/Sqcm Valve – Type – Butterfly, Size – 80mm Working</p>	

		Pressure - 10kg/Sqcm Filter media – Gravels & Activated Carbon	
03	Designing, supplying, fitting, fixing and commissioning OXIDATION CHAMBER having capacity of 25m3/hr including 80 NB pipe line, with MnO2 & Jhama media, complete with all accessories.	Dimension- Shell - 1200mm (D)x 1200mm (L)x 6mm thk. Disc height - 300mm x 8mm thk. Under bed draw system – Strainer on plate, Plate Thickness – 8mm Manhole – 100mm (flange type) Hand hole – 150mm (flange type) Pipe line (Flange ended) – Dia – 100mm Moc – Mild Steel Make: JRMS Painting – INTERNAL - Black Bitumastic Anticorossion non-poisonous paint EXTERNAL - EPOXY PRIMER & EPOXY PAINT OF APPROVED SHADE Pipe line painting - FINISHING PAINT SYNTHETIC ENAMEL [DULUX / ASIAN PAINTS / NEROLAC] Working pressure - 3.0kg/Sqcm Test Pressure - 4.5kg/Sqcm Filter media – MnO2 & Jhama	1 No.
04	Supplying, Installation & testing and commissioning Twin-lobe AIR BLOWER with all complete of the following details.	Power - 2Hp Phase - 3 phase motor, Protection - TEFC, IP55 protection, class 'F' insulation, continuous rated. Capacity - 15 - 20 cum/hr. Test pressure - 5.0kg/cm2 Accessories - V Pully Belt Drive, Starter, Pressure switch.	1 Nos.
	Supplying, Installation & testing and commissioning Twin-lobe Alum Pot with all complete of the following details.	Dimension- Shell - 450mm (D)x 600mm (L)x 6mm thk. Manhole – 100mm (flange type) Hand hole – 100mm (flange type) Pipe line (Flange ended) – Dia – 100mm Moc – Mild Steel Make: JRMS Painting – INTERNAL - Black Bitumastic Anticorossion non-poisonous paint EXTERNAL - EPOXY PRIMER & EPOXY PAINT OF APPROVED SHADE Pipe line painting - FINISHING PAINT SYNTHETIC ENAMEL [DULUX / ASIAN PAINTS / NEROLAC] Working pressure - 3.0kg/Sqcm Test Pressure - 4.5kg/Sqcm Filter media – Alum	1Nos.
05	CIVIL WORK	FOUNDATION OF IRP & ROOM FOR PUMP, BLOWER AND PANEL	1No.
06	RCC RESERVOIR	RCC RESERVOIR OF CAPACITY - 100KL	1No.

CLIENT SCOPE

1. Fresh water supply
2. Supply of power.
3. All equipment's works and services, not specifically mentioned in our proposal.

4. Storage & site warranty.

Item no.:16: Supply Stainless Steel Rack **Qty.:50 Nos.**

S. NO.	PARAMETER	REMARKS
1.	CONFIGURATION	WITH 5-SHELVES (INCLUDING TOP SHELF)
2.	TYPE OF RACK	OPEN FROM ALL SIDE
3.	DESIGN/ SHAPE OF RACK	RECTANGULAR
4.	SHELVES FITTED	AT RIGHT ANGLES TO THE SIDES AND TO BE PARALLEL TO EACH OTHER.
5.	MODE OF SUPPLY	ASSEMBLED AT USER PREMISES
6.	WIDTH OF SHELF RACK	1220MM
7.	DEPTH OF SHELF RACK	405MM
8.	HEIGHT OF SHELF RACK	1675MM
9.	SHELF MATERIAL	STAINLESS STEEL
10.	SHELF MATERIAL THICKNESS	MINIMUM 1MM
11.	SUPPORT STRUCTURE MATERIAL	STAINLESS STEEL
12.	SUPPORT STRUCTURE THICKNESS	MINIMUM 1.5MM

Item no.:17: Supply Desktop computer with ups & original OS & Ms office, **Qty.:20 Nos.**

A. Desktop COMPUTER:

SL NO	SPECIFICATION	REMARKS
1.	Motherboard	Intel Q670 OR higher
2.	Processor	Intel core i7 12 gen or higher, 6 core, 10 MB cache or higher, with minimum base frequency 3.4 GHZ or higher
3.	Graphics	Integrated
4.	Operating System	Windows 11 Professional with original product key
5.	Other software	Ms word, above acrobat pro with original key.
6.	RAM	16 GB DDR4 With 3200 MHz Speed Minimum With Expandable Capacity 64 GB Or Higher
7.	Storage	1000GB Higher SSD
8.	Display	Non Touch MIN 23.8 inch LED Display WITH MIN Resolution 1920x1080, IPS, Panel Technology Display with Availability of HD Webcam FHD With Availability of Speakers (min 2) integrated with Display
9.	Connectivity	Wireless (Wi-Fi 802.11ac or higher version) , 10/100/1000 on board Integrated Ethernet Ports, Bluetooth
10.	Ports	Min. 3 USB 2.0 & Min. 3 USB 3.0, 1 No USB C , 1 HDMI Ports,
11.	Output	Audio-in ,Audio-out, Headphone out, Microphone-in
12.	Input Devices	OPTICAL Mouse, WIRED KEYBOARD
13.	Other feature	Height Adjustable Stand
14.	Warranty	03 years or more OEM on-site warranty
15.	Make	HP, Dell, Lenovo

b. **UPS (Un-interrupted power supply) with battery:**

S. No	Specification	Remarks
1.	Rating in KVA	1.0 KVA
2.	Switching Technology	IGBT-PWM
3.	Input Voltage	AC Single phase 160V - 260V 50Hz
4.	Output Voltage	AC Single phase 230V +/-1% 50 Hz

Item no.:19: Supply Printer, Qty.:10 Nos.

SL NO	Specification	REMARKS
1	Printing Technology	Ink tank
2	Type of Printing	monocromatic
3	Paper Size	A4
4	Resolution (Dpi)	Min 1200x1200
5	Duplexing Feature	Yes
6	On site OEM warranty (Years)	03 year or higher
7	USB port & Wi-fi	Yes
8	Make	Epson, HP, Canon

Item no.:20: Platfrom Truck,Cap 3000 kg,Battry operated. Qty :01

Make- Joist or similar

Loading capacity	2000 kg
Range	150 kms
Overall dimension	3000x1250x650
Operation type	seated
Ground Clearance	500mm
Parking brake	Hydraulic
Service brake	Hydraulic
Controller unit	AC, DC
Body material	Steel framework plus iron.
Motor power	5 KW
Steering system	Rack & pinion
Nos of wheels	4
Controller	High speed DC controller
Battery Voltage	36 Volt
Nos of Battery	1+1 (standby)
Features	Telescopic suspension
Warranty	3 years or more
inspection	ITES/TPI as per Railway Board guidelines of Materials procurement

Item no.:21: Table. Qty :20

S. No	Specification	Remarks
10.	Type of furniture	Table
11.	Size of table	2400mm x 1200mm x 750mm
12.	Material of table understructure	Metal understructure (Mild Steel)
13.	Support type	Leg
14.	Thickness of metal cross section	1.0mm
15.	Table top edges	Straight
16.	Thickness of table top	25mm minimum
17.	Warranty	12 months or more

Item no.:22: Chair. Qty :40 Nos

Make Godrej interio, Durian, Damro or similar

Chair type	Non-Revolving and Non-Tilting chair with Armrest
Chair frame type	Legs
Armrest type	Moulded armrest continuously fitted with seat bottom to backrest
Seat type	Padded
Backrest type	Padded
Frame material Configuration	Two piece
Frame Material	Steel tube (ERW quality) conforming to IS: 1161 (with latest Amendment)
Seat Material	Moulded plywood
Seat Material thickness	40mm
Density of Polyurethane foam used in Backrest (±2 Kg/Cub Meter)	45
Seat upholstered with	Fabric
Seat Width (± 5 mm)	480 mm
Seat height from floor surface (± 5 mm)	435 mm
Backrest width (± 5 mm)	490 mm
Backrest height from seat (± 5 mm)	440 mm
Paint Type	Epoxy
Make	Godrej, durian, damro or similar
Warranty	03 years

Item no.:21: Supply Installation and Commissioning of Split AC 1.5 Ton Qty :12 Nos.

Specifications:

Parameter	Requirements
Technology of AC	Inverter AC(Variable Speed)
Refrigerant Type	R-32
Compressor type	Rotary Type
Coil material evaporator	Copper
Coil material condenser	Copper
Nominal marketing Capacity	1.5 Ton
Rated Cooling Capacity (in Watt)	5000 to 5300 Watts

BEE Star Rating	5 star or Latest (ISEER Value From ≥ 5 to ≤ 5.5)
Conformity to Relevant IS	As per IS 1391 (Part-2) or latest
Warranty of AC machine	Min. 02 Years from the date of commissioning
Warranty of compressor	Min. 10 Years from the date of commissioning
Warranty of PCB	Min. 05 Years from the date of commissioning
Availability of Test report	From Central Govt. Lab/NABL/ILAC should be provided with supply mentioning serial number.
Accessories	3M Refrigerant Copper pipe set , Connecting Cable(Installation Kit), 02 Meter PVC Insulated sheathed Cables as per IS: 694(2.5 Sqmm. 4 Core)

Make: Hitachi, Voltas, Daikin, LG, Blue Star.

Note:

1. Providing a 3-inch diameter hole in a stone/brick wall and fixing a PVC pipe during the installation of the Split Air Conditioner unit.
2. Supply and fixing of a PPR drain pipe (suitable for AC applications), concealed within the wall, complete with all accessories such as tees, elbows, and sockets.
3. Supply and installation of copper tubing along with an insulation sleeve suitable for AC applications.
4. Supply and installation of a 4-core, 2.5 sq. mm copper cable suitable for AC applications.

Item no.:22: Supply Installation Commissioning of Industrial RO Plant Capacity 500 LPH **Qty :04 Nos.**

Construction RO Frame	SS202 or better
Construction of Body/ Encloser	SS304 or better
Construction of Self-Contained Water Cooler	Yes
Filtration capacity (In LPH)	500 LPH and up to 750 LPH
Input Water Source Connection	Plumber-In
Additional Water Purification Stages over and above RO (Reverse Osmosis)	Ultrafiltration (UF), Ultraviolet disinfection (UV), Ultraviolet disinfection (UV)+Ultrafiltration (UF)
Additional Water Conditioning and Other Features	Sand Filter, Sediment Filter, Pre Carbon Filter, Post Carbon Filter, Mineral Filter, Micron Filter, Dual Media Filter, Anti-Sealant, Alkaline Filter, Absorption Filter, Flushing Mechanism, Reject Water Control Mechanism, Mineraliser/Taste Enhancer Media, Activated Carbon Media, Normal Water Dispensing
Feed Water TDS (ppm) at which the machine LPH and Guaranteed output water quality is ensured	up to 2000
Storage Water Tank (Inclusive in the scope of Supply) and Capacity (In Litre)	500 Litre
Storage Tank Material	Plastic Food Grade or Same as Body Material
Guaranteed output water quality	As per IS 10500 or better
Power supply	230 V \pm 10% Single Phase
Type of control panel	Fully Automatic
Controller and Features	Auto cut-off
Minimum Free Services during Comprehensive warranty for complete unit	4 nos. per year including consumable filters.
Installation and commissioning inclusive in the scope of supply	Yes
Scope of civil work, if any required during installation	All civil work shall be responsibility of buyer
Training and Demonstration	The installation and demonstration of the machine at the consignee place shall be carried out as part of installation and commissioning
Type of lab which carried out Test of Complete Product to prove the conformity of product as per Governing Specification	Govt. Lab, NABL Accredited Lab
Agree to provide all relevant documents	Yes

Test Report/supporting document /reports etc if applicable to the buyer at the time of bidding or on demand	
Agreed to the STC of the category	Yes
Comprehensive warranty for complete unit	2 years from the date of satisfactory commissioning of the machine

Item no.:23: Supply Installation and Commissioning of water cooler Capacity 150 LPH **Qty :04 Nos.**

Parameter	Requirement
Type of water Cooler	Storage Type
Cooling Capacity Rating of Water Cooler (In LPH)	Min. 150
Type of Pressure Water Cooler	Faucet Type
Type of Storage Water Cooler	Cooler which store or cool water in the same container
Storage Capacity for Storage Type Water Coolers (In Liters)	150
Power supply	Single Phase,230 Volt, 50Hz
Power consumption	1550 Watt
Storage unit material as per clause no 6.8 of IS 1475 (Part 1) / Storage type unit as per clause no. 5.9 of IS 1475 : 2024	Stainless Steel 304
Outer Body Material	Stainless Steel 304
Refrigerant properties	As per Clause No. 6.5 of IS1475 (Part 1)
Number of Faucets	2
Type of Compressor	Rotary
Three-core cable conforming to IS 9968 (Part 1) or IS 694 of at least 1.5 meters	As per Clause 6.16 of IS 1475 (Part 1)
Governing specifications	As per IS 1475 (Part 1)
Whether ISI Marked	Yes
Warranty for complete unit	Min. 1 Year
Warranty for Compressor	Min. 1 Year
Availability of Test Report from Central Govt/NABL/ILAC Accredited Lab to Prove Conformity to Specification	Yes
Copies of reports and certifications to be furnished to buyer on demand at time of supplies	Yes

Item no.:24: Porta Cabin with Amenities **Qty :04 Nos.**

Component	Material
Side walls & roof	Corten (Weathering) Steel
Corner posts	High-tensile structural steel
Corner castings	Cast steel
Floor cross members	Structural steel
Size	40 ft x 10 ft
Flooring	Marine plywood or bamboo plywpod
Door frame	Corten steel
Surface Finish	Color Coated
Steel Grades	ASTM A58B / A242
Roof sheet:	1.6-2.0 mm
End wall sheet:	2.0 mm
Floor cross members:	2-4 mm
Corner posts and rails:	4-6 mm

Excellent corrosion resistance	Should be withstand at open weather
Structural steel	IS 2062 E250/E350
Warranty	Min 2 years
Amenities	Two(02) nos. of Table, Four (04) Nos. of chair, one 1.5 ton split ac

Special conditions for General Mechanical Work:

- **INSPECTION OF MACHINES:** All machines as has been mentioned should be inspected by RITES/ TPI as per prevalent railway rules for M&P/ Material procurement. Other machines and accessories will be inspected by SSE/C&W/SRC on production of TC/ GC/ Warranty certificate as applicable. All costs for inspection of machines will be borne by the bidder. In no case, any machine will be accepted without inspection.

- **OTHERS TERMS AND CONDITIONS**

1. Tenderers can contact Sr. CDO/Santragachi or his nominated representative in order to see the proposed site of the laundry and also to seek clarifications regarding this work.
2. All machines shall be capable to run at least 16 hours continuous per day.
3. Spares of machines shall be readily available in Indian Market. If spares of offered machines are not available in Indian market, machines will not be accepted.
4. The offered machines must be running in India in any laundry. Performance report shall be submitted by bidder, if asked. Failure to submission may lead to rejection of machine.
5. The work is to be commissioned on turnkey basis within a period of 01 year from the date mentioned in work order.
6. After successful commissioning of the laundry contractor shall impart 30 days training to Railway staff and supervisors on this plant during this period, operation shall be done by Contactor.
7. The equipment/machines supplied by the tenderer should be technologically superior, maintenance and operation friendly, state of the art of robust design and comparable to best available worldwide. The machines should operate on normal voltage and type of electric power supply available at proposed laundry location/site.
8. The tenderer (s) are required to supply and install machines of proven technology having these or even superior specifications capable of tackling the designed workload up to the desired quality. For the guidance of the tenderer(s), the basic specifications of the machines/equipments are as indicated above.
9. The equipment/machines should have minimum requirement of labour, water, power and other raw materials for operational efficiency.
10. The equipment/machine should incorporate all required safety features.

11. The Tenderer shall furnish detailed specifications of the various machines/equipment which he is proposing to supply and install as part of the turn key contract. Also, the requirement of power/compressed air/steam/chemicals/labour/other raw materials for the mechanized laundry while delivering the designed output up to the desired quality is to be furnished along with the technical bid. These details shall be used by Railway for guidance while evaluating the various bids received. Wherever applicable said requirement of raw material is to be supported by certificates from OEMs, reputed supplier of chemicals, or other documentary proof, etc.

12. INSTALLATION, TESTING COMMISSIONING

- i. Execution of complete work for commissioning of Mechanized Laundry and other allied system as per schedule of requirement.
- ii. Plumbing work, Ducting lines, Steam lines with insulation and compressed air lines required for installation & commissioning of machines including material and manpower.
- iii. All civil works related to installation of machines (foundation, grouting, materials etc) is to be executed by the contractor.
- iv. Freight cost and all related taxes during transit is to be borne by the contractor of the machines. Unloading of machines at site is to be done by the contractor at his own cost.
- v. The tenderer along-with the technical bid shall be required to submit comprehensive project report including detailed specification of various machines, their operating procedures, requirement of labour, electricity, steam, compressed air and other raw materials, detailed layout plan of the mechanized laundry, foundation drawings, drawing of power supply arrangement, steam lines, compressed air piping, etc. The authorized service engineer of the tenderer shall have to physically present at the time of execution of work.
- vi. The design/specifications of the mechanized laundry equipment to be supplied and installed by the tenderer(s) should be such that it is consistently possible to achieve a minimum level of whiteness of bed sheets and similar quality for hand towels and pillow covers. There should not be any wrinkles or wetness after calendaring. Hand towels should retain their soft feel and water absorbing capacity. No loss or damage to linen should occur due to inadequate design/specification of the various mechanized equipments. The linen washed in mechanized laundry should be stain free and odorless. Broadly the deployment of labour, chemicals and other raw materials as suggested by the tenderer shall be adopted for establishing the adequateness of the design/specifications of the mechanized laundry equipment. Railway's decision with regard to the methodology to be adopted for establishing said adequateness of the mechanized laundry for delivering the designed output at the desired quality shall be final and binding on the contractor.
- vii. The contractor shall give the warranty of 02 (two) years or the warranty period prescribed by the OEMs for individual machines/equipment whichever may be later for the various machines/equipments supplied and commissioned by the tenderer and should render reasonably trouble free service with no major breakdown during the warranty period. In the event of any major break down in any of the machines/equipments supplied by the tenderer which is attributable to inadequate machine/equipment design/ specifications for tackling the work load up to the desired capacity/quality, the tenderer shall be required to immediately replace the same with machine/equipment of suitable design and specifications at his own cost within a maximum period of 4 weeks. The contract agreement shall be liable for termination in the event of

contractor's failure to do so. Railways decision in this regard shall be final and binding on the contractor.

- viii. As part of turnkey scope of work, the tenderer shall be responsible for ensuring satisfactory operation of the mechanized laundry for currency of contract or the warranty period prescribed by the OEMs for individual machines/equipment whichever may belater.
- ix. The tenderer should be able to import the equipment/machines, if so required, and deliver the same at Santragachi. Railways shall have no liability in this regard.
- x. The tenderer shall furnish complete guidelines with respect to operating procedures of the individual machines/equipment and of the mechanized laundry a whole, list of chemicals required along with suggested manufacturers and any other relevant details. The tenderer shall be required to furnish clarification, as required by Railways at any stage, as to these and related issues.
- xi. The list of chemicals and suggested manufacturers as furnished by the tenderer shall not be binding with particular supplier/manufacturer and the chemicals could be sourced from any other manufacturer. This shall however not be taken as an excuse for non-working of the mechanized laundry up to the desired capacity/quality, etc.
- xii. The tenderer shall depute one service engineer at Mechanized Laundry site continuously for the first month of operation of the plant. Subsequently, during the warranty period, the service engineer shall be expected to be available at the earliest for attending to any problem being encountered in operation of the mechanized laundry or for any other reason what so ever. In any case, within the warranty period, the service engineer shall visit the mechanized laundry at least once a month or earlier, for ensuring that the machines are functioning properly..
- xiii. List of spares and their cost of all machines should be made available to Railway before commissioning.
- xiv. Sufficient tools, equipment/machines and man power should be deployed by the contractor to carry out the work.
- xv. Scope of work shall consist of providing all labour, materials, equipment and appliances necessary & required for the work.
- xvi. The Tenderer(s) are requested to visit the sight, acquaint themselves with the type of work required to be carried out at Santragachi coaching depot under the contract before bidding.
- xvii. Modification work if required should be carried out, having prior approval of the modification from competent authority.
- xviii. The contractor shall collect the relevant drawings/sketches for the works given in tender document.
- xix. All staff working at site should wear uniform and safety gears and identity card issued by the contractor.
- xx. Proper counselling to staff is to be imparted to the staff to avoid accident during working. For any accident at site during execution of the work, Railway will not be responsible.
- xxi. Contractor must comply with the provision of the Contract Labour (R&A) Act, 1970 and Minimum Wages Act, 1948 strictly and arrange minimum wages to the contract labours and in the event of failure to comply minimum wage, the offer will be rejected. Payment to the contract labours should

be made through Bank/Cheque.

- xxii. Contractor is required to upload details of their LOAs, engaged workman, wage payment details, PF/ESI details, bonus details etc., on monthly basis in the portal 'www.shramikkalyan.indianrailways.gov.in'. The details so uploaded shall be available in public domain.
- xxiii. The tenderer shall have to give training to at least 15 Railway or non Railway staff in operation/maintenance of the various machines/equipment for a minimum duration of 6 hours per day for a minimum period of 30 working days as per the training program/schedule mutually decided well in advance by the tenderer and authorized Railway representative. The training could comprise of on the job training, visit to premises of reputed mechanized laundries/manufacturers of laundry equipment class room training, power point presentations, etc. After completion of training, the nominated staff should become conversant with operating procedures of the individual machines and the mechanized laundry. They should be in a position to understand the machine details and be able to operate the same and also carry out minor maintenance related works failing which the duration of the training may be extended, as per requirement, solely at the discretion of Railways. No additional cost shall be payable by Railways for said training. At least, 5 hard and 5 soft copies of the complete specifications, and maintenance/operating manuals of each machine/equipment shall be supplied by the tenderer.

13. RAILWAY's SCOPE :.

- (i) water supply shall be provided at single point by Railway free of cost for operation of laundry but necessary infrastructure/equipment's/tools/tackle etc. requirements at site shall be the responsibility of tenderer.
- (ii) Power shall be provided at single point by Railway as per railway cost for operation of laundry but necessary infrastructure/equipment's/tools/tackle etc. requirements at site shall be the responsibility of tenderer.
- (iii) Storage space for storage of machines/equipment prior to their installation.
- (iv) The tenderer shall have to be present himself or through his technical expert to ensure that progress of works both in his and in Railway scope is as per plan/design. The tenderer shall have to submit the detailed layout plan of the mechanized laundry, foundation drawings power supply arrangement, steam lines, compressed air lines and other relevant details etc before commencement of work for approval by Railway.
- (v) Railway representative may visit tenderer's site of manufacturing if required.

Inspection and certification of the mechanized equipment:

Mechanized equipment supplied shall be as per specifications/features as were quoted by the tenderer and accepted by Railways. In case of imported machines the tenderer shall have to certify the country of origin with documentary proof acceptable to Railways.

- i. **INSPECTION AND TESTING BY RITES/THIRD PARTY :** An inspection to verify conformance to specification shall be carried out at the manufacture's works to the satisfaction of the appointed inspector or Agency. RITES/Third party will be the inspecting agency for the material, bidder to arrange RITES inspection with all inspection formalities for the material on her cost. However, inspection at the manufacturer's premises shall not include demonstration of working of the complete plant, which shall be demonstrated during commissioning at the consignee's premises. Real-time testing is to be provided by the contractor at Railway's premises. Manufacturers must

have adequate facilities at their works for carrying out the inspection. The bidder shall clearly confirm that all facilities exist and shall be made available to the inspecting authority. The bidder shall submit along with the bid a copy of the Quality Assurance Plan being followed at the manufacturer's works for ensuring quality of the product offered. In case, the firm is ISO certified, a copy of valid certificate may also be enclosed with the offer. All inspections charges are to be borne by the contractor.

ii. THIRD PARTY INSPECTION(MODALITIES)

Modalities may be as per latest guidelines / requirement of TPI . Contractors to follow the guidelines of the concerned the third party . all inspection charges for TPI has to be borne by the contractor.

i. Payment Terms:

The payment shall be made to the contractor for the supplied machines on the following terms

- ii. 60% of the Total cost (cost of the machines & equipments) on receipt of all the mechanized equipment at mechanized laundry/Santragachi site and after inspection and acceptance of the same by the authorized Railway representative duly deducting penalties if any.
- iii. 25 % of cost of Work of supply, installation & commissioning of Laundry Machines/ Equipment's with ETP Payment shall be made on successful commissioning of plant and issue of Proven Test Certificate after completion and satisfactory inspection report of the nominated representative of Sr.CDO/SRC. Illustration Annexures for Joint Commissioning & Proven Test Certificate is enclosed as reference.

Note for illustration: The payment of 25% value of total cost of material received along with 100% payment of all other items will be done after successful installation & commissioning of the plant in 2nd Running Bill at location individually or jointly as per work executed by contractor. The cost of supply, installation, testing and commissioning of Machines & Equipment's. Payment shall be made on receipt of material after completion and satisfactory inspection report by SSE/C&W/SRC OR SSE/C&W/SHM or the nominated representative of Sr. CDO/SRC on successful commissioning of plant and issue of Proven Test Certificate, jointly signed by contractor representative and Railway nominated official.

- iv. The net balance payment of 15% value of the total contract awarded cost (SCHEDULE-C) shall be released on submission of a separate bill by the bidder after 03 months of successful operation/running along with the following documents:
 - a) Final Acceptance Certificate issued by the Railway.
 - b) Bank Guarantee of 5% of the contract value with validity of 24 months (i.e. Warranty Bank Guarantee (WBG) from date of issue of Proven Test Certificate.
 - c) No objection certificate (NOC) issued by the Railway.
 - d) No claim certificate (NCC) submitted by the firm.

VI. Penalty:

Railway administration may at its discretion impose the following penalties on the Contractor

- i. The mechanized laundry is to be commissioned within a period of 01 year from the date mentioned in work order, failing which a penalty will be calculated as per GCC clause no 17B in case delay in commissioning of the plant is on account of tenderer. The decision of the Railway Administration as to whether such delay on account of tenderer shall be final and binding and the contractor would have no claim in this regard.
- ii. Rs 500/- (Rupees Five hundred only) per day or part thereof for each day (after two calendar days. excluding the day on which the complaint is communicated to the contractor) that any of the

mechanized equipment supplied and installed by the tenderer are not functioning at their full efficiency resulting in sub optimal output from the mechanized laundry. Service engineer shall be expected to be available at the earliest for attending to any problem being encountered in operation of the mechanized laundry or for any other reason what soever.

- iii. Rs.500/- (Rupees Five hundred only) per day when the Service engineer does not report at Santragachi coaching depot or any other nominated place for a minimum duration of 6 hours every day for a minimum period of 15 working days for imparting training to Railway or non- Railway staff as per the training program/schedule mutually decided well in advance by the tenderer and authorized Railway representative.
- iv. If machines remain under breakdown for more than 48 hrs during warranty period, Rs. 1000 penalty per day shall be imposed for next two days. After two days, Rs. 5000 per day penalty will be imposed.
- v. Rs.500/- (Rupees Five hundred only) per day or part thereof for each day that the contractor does not visit at mechanized laundry site for carrying out the necessary preventive maintenance schedules and checks as specified by OEM s during the warranty period as per the dates decided mutually well in advance by the tenderer and authorized Railway representative The normal machine consumables required for preventive maintenance are included in the scope of work and no additional payment shall be made by Railways for the same.

Note.: list of preventive maintenance consumables to railway representative before commissioning of the machines.

- vi. Arguments/misbehaviour with Railway officials is strictly prohibited. A penalty of Rs 1000/- per occasion will be imposed and the staff should be removed from site.
- vii. No smoking or taking alcohol is allowed in the premises. If any staff is found in smoking/drinking/drunken at site, a penalty of Rs 2000/- per occasion will be imposed and the person is to be removed from site.

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