

Tender Document for Works

(Two-Envelope Tendering Process Without Prequalification)

Procurement of:

C-2: Composite Contract Package in connection with laying of New BG Double Railway Line of HORC project for:

(i) Design and Construction of Civil Works (Earthwork, Bridges, Station Buildings, Retaining Walls and other miscellaneous Works) from Km 55.60 to Km 61.50 and its connectivities to IR network from New Patli to Patli & New Patli to Sultanpur including modifications in Sultanpur station yard,

(ii) Design, Supply, Installation, Testing & Commissioning of OHE (1x25 kV) and General Electrical services from Km 49.70 to Km 61.50 and its connectivities to IR network from New Patli to Patli & New Patli to Sultanpur including modifications in Sultanpur station yard and

(iii) Design, Supply, Installation, Testing & Commissioning of Signalling & Telecommunication from Km 49.70 to Km 61.50 and its connectivities to IR network from Manesar to Patli and New Patli to Patli & New Patli to Sultanpur including modifications in Patli and Sultanpur station yards.

Tender No: HORC/HRIDC/C-2/2022

Contract title: Composite Works Contract (Civil, OHE and General Electrical Services and S&T) on EPC basis (C-2)

Project: Haryana Orbital Rail Corridor Project

Loan No.: 000370

Employer: Haryana Rail Infrastructure Development Corporation Limited

Country: INDIA

Issued on: 25.06.2022

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Specific Procurement Notice (SPN)

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PART 1 – Tendering Procedures

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Section I - Instructions to Tenderers (ITT)

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Section I - Instructions to Tenderers (ITT)

A. General

- 1. Scope of Tender**
- 1.1 In connection with the Specific Procurement Notice (SPN) indicated in the **Tender Data Sheet (TDS)**, the Employer, as specified in the **TDS**, issues this Tender Document for the provision of Works on EPC basis as specified in Section VII, Employer's Requirements. The name, identification, and number of lots (contracts) of this tender are specified in the **TDS**.
- 1.2 Throughout this Tender Document:
- (a) the term "in writing" means communicated in written form (e.g., by mail, e-mail, fax, including, if specified in the **TDS**, distributed or received through electronic-procurement system used by the Employer) with proof of receipt;
 - (b) if the context so requires, "singular" means "plural" and vice versa;
 - (c) "Day" means calendar day, unless otherwise specified as a "Business Day." A Business Day is any day that is a working day of the Recipient. It excludes the Recipient's official public holidays;
 - (d) "ESHS" means environmental, social, health and safety; and
 - (e) the word "tender" is synonymous with "bid" and "tenderer" with "bidder", and the words "tender documents" with "bidding documents".
- 2. Source of Funds**
- 2.1 The Recipient specified in the **TDS** has received or has applied for financing (hereinafter called "funds") from the Asian Infrastructure Investment Bank (hereinafter called ("AIIB" or "the Bank") in an amount specified in the **TDS**, toward the project named in the **TDS**. The Recipient intends to apply a portion of the funds to eligible payments under the contract(s) for which this Tender Document is issued.
- 2.2 Payment by the Bank will be made only at the request of the Recipient and upon approval by the Bank, and will be subject, in all respects, to the terms and conditions of the Loan (or other financing) Agreement. The Loan (or other financing) Agreement prohibits a withdrawal from the loan account for the purpose of any payment to persons or entities, or for any import of goods, equipment, plant, or materials, if such payment or import is prohibited by a decision of the United Nations Security Council taken under Chapter VII of the

Charter of the United Nations. No party other than the Recipient shall derive any rights from the Loan (or other financing) Agreement or have any claim to the proceeds of the Loan (or other financing).

3. Prohibited Practices

- 3.1 The Bank requires compliance with the Bank's Policy on Prohibited Practices as set forth in Section VI.
- 3.2 In further pursuance of this policy, Tenderers shall permit and shall cause their agents (whether declared or not), subcontractors, sub-consultants, service providers, suppliers, and their personnel, to permit the Bank to inspect all accounts, records and other documents relating to any prequalification process, tender submission, proposal submission, and contract performance (in the case of award), and to have them audited by auditors appointed by the Bank.

4. Eligible Tenderers

- 4.1 A Tenderer may be a firm that is a private entity, a state-owned enterprise or institution subject to ITT 4.6 or any combination of such entities in the form of a joint venture (JV) under an existing agreement or with the intent to enter into such an agreement supported by a letter of intent. In the case of a joint venture, all members shall be jointly and severally liable for the execution of the entire Contract in accordance with the Contract terms. The JV shall nominate a Representative who shall have the authority to conduct all business for and on behalf of any and all the members of the JV during the Tendering process and, in the event the JV is awarded the Contract, during contract execution. Unless specified in the **TDS**, there is no limit on the number of members in a JV.
- 4.2 A Tenderer shall not have a conflict of interest. Any Tenderer found to have a conflict of interest shall be disqualified. A Tenderer may be considered to have a conflict of interest for the purpose of this Tendering process, if the Tenderer:
 - a) directly or indirectly controls, is controlled by or is under common control with another Tenderer; or
 - b) receives or has received any direct or indirect subsidy from another Tenderer; or
 - c) has the same legal representative as another Tenderer; or
 - d) has a relationship with another Tenderer, directly or through common third parties, that puts it in a position to influence the Tender of another Tenderer, or influence the decisions of the Employer regarding this Tendering process; or
 - e) or any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the Works that are the subject of the Tender; or
 - f) or any of its affiliates has been hired (or is proposed to be hired) by the Employer or Recipient as Engineer for the Contract implementation; or

- g) would be providing goods, works, or non-consulting services resulting from or directly related to consulting services for the preparation or implementation of the project specified in the TDS ITT 2.1 that it provided or were provided by any affiliate that directly or indirectly controls, is controlled by, or is under common control with that firm; or
- h) has a close business or family relationship with a professional staff of the Recipient (or of the project implementing agency, or of any other beneficiary of the Bank's financing, or of any other party representing or acting on behalf of the Recipient) who: (i) are directly or indirectly involved in the preparation of the Tender Document or specification of the Contract, and/or the Tender evaluation process of such Contract; or (ii) would be involved in the implementation or supervision of such Contract unless the conflict stemming from such relationship has been resolved in a manner acceptable to the Bank throughout the Tendering process and execution of the Contract; or
- i) is an affiliate of the Recipient, or of a procurement agent engaged by the Recipient, unless the Recipient demonstrates to the satisfaction of the Bank that there is no significant degree of common ownership, influence or control between the Recipient on the one hand, and the Recipient's agent and the affiliate on the other.

4.3 A firm that is a Tenderer (either individually or as a JV member) shall not participate in more than one Tender, except for permitted alternative Tenders. Such participation shall result in the disqualification of all Tenders in which the firm is involved. However, this does not limit: (a) the inclusion of the same Subcontractor in more than one Tender for the same contract; or (b) the ability of one Tenderer to be a Subcontractor in another Tender for the same contract.

4.4 A Tenderer may have the nationality of any country, subject to the restrictions pursuant to ITT 4.8. A Tenderer shall be deemed to have the nationality of a country if the Tenderer is constituted, incorporated or registered in and operates in conformity with the provisions of the laws of that country, as evidenced by its articles of incorporation (or equivalent documents of constitution or association) and its registration documents, as the case may be. This criterion also shall apply to the determination of the nationality of proposed subcontractors or sub-consultants for any part of the Contract including related Services.

4.5 A Tenderer that has been declared, and remains, as at the relevant date, ineligible pursuant to the Bank's Policy on Prohibited Practices as described in Section VI, shall be ineligible to be prequalified for,

tender for, propose for, or be awarded a Bank-financed contract or benefit from a Bank-financed contract, financially or otherwise, during such period of time as the Bank shall have determined. The list of debarred firms and individuals is available at the electronic address specified in the **TDS**.

- 4.6 Tenderers that are state-owned enterprises or institutions in the Employer's Country may be eligible to compete and be awarded a Contract(s) only if they can establish, in a manner acceptable to the Bank, that they (i) are carrying-out or are established for a business purpose, and are operating on a commercial basis; (ii) are financially and managerially autonomous; (iii) are not controlled by the government on day-to-day management; and (iv) are not under the supervision of the Employer or its procuring agency.
- 4.7 A Tenderer shall not be under suspension from Tendering by the Employer as the result of the operation of a Tender-Securing or Proposal-Securing Declaration.
- 4.8 Firms and individuals may be ineligible if so indicated in Section V and (a) as a matter of law or official regulations, the Recipient's country prohibits commercial relations with the firm or individual's country, provided that the Bank is satisfied that such exclusion does not preclude effective competition for the supply of goods or the contracting of works or services required; or (b) by an act of compliance with a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations, the Recipient's country prohibits any import of goods or contracting of works or services from the firm or individual's country, or any payments to any country, person, or entity in that country. When the Works are implemented across jurisdictional boundaries (and more than one country is a Recipient, and is involved in the procurement), then exclusion of a firm or individual on the basis of ITT 4.8 (a) above by any country may be applied to that procurement across other countries involved, if the Bank and the Recipients involved in the procurement agree.
- 4.9 A Tenderer shall provide such documentary evidence of eligibility satisfactory to the Employer, as the Employer shall reasonably request.
- 4.10 A firm that is under a sanction of debarment by the Recipient from being awarded a contract is eligible to participate in this procurement, unless the Bank, at the Recipient's request, is satisfied that the debarment; (a) relates to fraud or corruption or other prohibited practices, and (b) followed a judicial or administrative proceeding that afforded the firm adequate due process.

5. Eligible Materials, Equipment, and Services

5.1 The materials, equipment and services to be supplied under the Contract and financed by the Bank may have their origin in any country subject to the restrictions specified in Section V, Eligible Countries, and all expenditures under the Contract will not contravene such restrictions. At the Employer's request, Tenderers may be required to provide evidence of the origin of materials, equipment and services.

B. Contents of Tender Document

6. Sections of Tender Document

6.1 The Tender Document consists of Parts 1, 2 and 3, includes all the sections specified below, and should be read in conjunction with any Addenda issued in accordance with ITT 8.

PART 1 Tendering Procedures

- Section I - Instructions to Tenderers (ITT)
- Section II - Tender Data Sheet (TDS)
- Section III - Evaluation and Qualification Criteria
- Section IV - Tender Forms
- Section V - Eligible Countries
- Section VI - Prohibited Practices

PART 2 Employer's Requirements

Section VII - Employer's Requirements

PART 3 Conditions of Contract and Contract Forms

- Section VIII - General Conditions of Contract (GCC)
- Section IX - Particular Conditions of Contract (PCC)
- Section X - Contract Forms

6.2 The Specific Procurement Notice issued by the Employer is not part of the Tender Document.

6.3 Unless obtained directly from the Employer, the Employer is not responsible for the completeness of the Tender Document, responses to requests for clarification, the minutes of the pre-Tender meeting (if any), or Addenda to the Tender Document in accordance with ITT 8. In case of any contradiction, documents obtained directly from the Employer shall prevail.

6.4 The Tenderer is expected to examine all instructions, forms, terms, and specifications in the Tender Document and to furnish with its

Tender all information and documentation as is required by the Tender Document.

7. Clarification of Tender Document, Site Visit, Pre-Tender Meeting

- 7.1 A Tenderer requiring any clarification of the Tender Document shall contact the Employer in writing at the Employer's address specified in the **TDS** or raise its enquiries during the pre-Tender meeting if provided for in accordance with ITT 7.4. The Employer will respond in writing to any request for clarification, provided that such request is received no later than fourteen (14) days prior to the deadline for submission of Tenders. The Employer shall forward copies of its response to all Tenderers who have acquired the Tender Document in accordance with ITT 6.3, including a description of the inquiry but without identifying its source. If so, specified in the **TDS**, the Employer shall also promptly publish its response at the web page identified in the **TDS**. Should the clarification result in changes to the essential elements of the Tender Document, the Employer shall amend the Tender Document following the procedure under ITT 8 and ITT 22.2.
- 7.2 The Tenderer is advised to visit and examine the Site of Works and its surroundings and obtain for itself on its own responsibility all information that may be necessary for preparing the Tender and entering into a contract for construction of the Works. The costs of visiting the Site shall be at the Tenderer's own expense.
- 7.3 The Tenderer and any of its personnel or agents will be granted permission by the Employer to enter upon its premises and lands for the purpose of such visit, but only upon the express condition that the Tenderer, its personnel, and agents will release and indemnify the Employer and its personnel and agents from and against all liability in respect thereof, and will be responsible for death or personal injury, loss of or damage to property, and any other loss, damage, costs, and expenses incurred as a result of the inspection.
- 7.4 If so specified in the **TDS**, the Tenderer's designated representative is invited to attend a pre-Tender meeting and/or a Site of Works visit. The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.
- 7.5 The Tenderer is requested to submit any questions in writing, to reach the Employer not later than one week before the meeting.

7.6 Minutes of the pre-Tender meeting, if applicable, including the text of the questions asked by Tenderers, without identifying the source, and the responses given, together with any responses prepared after the meeting, will be transmitted promptly to all Tenderers who have acquired the Tender Document in accordance with ITT 6.3. If so, specified in the **TDS**, the Employer shall also promptly publish the Minutes of the pre-Tender meeting at the web page identified in the **TDS**. Any modification to the Tender Document that may become necessary as a result of the pre-Tender meeting shall be made by the Employer exclusively through the issue of an Addendum pursuant to ITT 8 and not through the minutes of the pre-Tender meeting. Nonattendance at the pre-Tender meeting will not be a cause for disqualification of a Tenderer.

8. Amendment of Tender Document

8.1 At any time prior to the deadline for submission of Tenders, the Employer may amend the Tender Document by issuing addenda.

8.2 Any addendum issued shall be part of the Tender Document and shall be communicated in writing to all who have obtained the Tender Document from the Employer in accordance with ITT 6.3. The Employer shall also promptly publish the addendum on the Employer's web page in accordance with ITT 7.1.

8.3 To give Tenderers reasonable time in which to take an addendum into account in preparing their Tenders, the Employer may, at its discretion, extend the deadline for the submission of Tenders, pursuant to ITT 22.2.

C. Preparation of Tenders

9. Cost of Tendering

9.1 The Tenderer shall bear all costs associated with the preparation and submission of its Tender, and the Employer shall not be responsible or liable for those costs, regardless of the conduct or outcome of the Tendering process.

10. Language of Tender

10.1 The Tender, as well as all correspondence and documents relating to the Tender exchanged by the Tenderer and the Employer, shall be written in the language specified in the **TDS**. Supporting documents and printed literature that are part of the Tender may be in another language provided they are accompanied by an accurate translation of the relevant passages in the language specified in the **TDS**, in which case, for purposes of interpretation of the Tender, such translation shall govern.

11. Documents Comprising the Tender

11.1 The Tender shall comprise two Parts, namely the Technical Part and the Financial Part. These two Parts shall be submitted simultaneously in two separate sealed envelopes (two-envelope tendering process). One envelope shall contain only information relating to the

Technical Part and the other, only information relating to the Financial Part. These two envelopes shall be enclosed in a separate sealed outer envelope marked “ORIGINAL TENDER”.

11.2 The Technical Part shall contain the following:

- (a) Letter of Tender – Technical Part: prepared in accordance with ITT 12;
- (b) Tender Security or Tender-Securing Declaration: in accordance with ITT 19.1;
- (c) Alternative Tender – Technical Part: if permissible, in accordance with ITT 13;
- (d) Authorization: written confirmation authorizing the signatory of the Tender to commit the Tenderer, in accordance with ITT 20.3;
- (e) Eligibility: documentary evidence in accordance with ITT 17.1 establishing the Tenderer’s eligibility to tender;
- (f) Qualifications: documentary evidence in accordance with ITT 17.2 establishing the Tenderer’s qualifications to perform the Contract if its Tender is accepted;
- (g) Conformity: a technical proposal in accordance with ITT 16;
- (h) Any other document required in the **TDS**.

11.3 The Financial Part shall contain the following:

- (a) Letter of Tender – Financial Part: prepared in accordance with ITT 12 and ITT 14;
- (b) Price Schedule: completed in accordance with ITT 12 and ITT 14;
- (c) Alternative Tender - Financial Part: if permissible in accordance with ITT 13; and
- (d) Any other document required in the **TDS**.

11.4 The Technical Part shall not include any information related to the Tender price. Where material financial information related to the Tender price is contained in the Technical Part, the Tender shall be declared non-responsive.

11.5 In addition to the requirements under ITT 11.2, Tenders submitted by a JV shall include a copy of the Joint Venture Agreement entered into by all members. Alternatively, a letter of intent to execute a Joint Venture Agreement in the event of a successful Tender shall be

signed by all members and submitted with the Tender, together with a copy of the proposed Agreement.

11.6 The Tenderer shall furnish in the Letter of Tender – Financial Part information on commissions and gratuities, if any, paid or to be paid to agents or any other party relating to this Tender.

12. Letter of Tender and Schedules

12.1 The Letter of Tender – Technical Part, the Letter of Tender – Financial Part, Schedules and all documents listed under ITT 11 including the Price Schedule, shall be prepared using the relevant forms furnished in Section IV, Tender Forms. The forms must be completed without any alterations to the text, and no substitutes shall be accepted except as provided under ITT 20.3. All blank spaces shall be filled in with the information requested.

13. Alternative Tenders

13.1 Unless otherwise specified in the **TDS**, alternative Tenders shall not be considered.

13.2 When alternative times for completion are explicitly invited, a statement to that effect will be included in the **TDS**, and the method of evaluating different alternative times for completion will be described in Section III, Evaluation and Qualification Criteria.

13.3 Except as provided under ITT 13.4 below, Tenderers wishing to offer technical alternatives to the requirements of the Tender Document must first price the Employer’s design as described in the Tender Document and shall further provide all information necessary for a complete evaluation of the alternative by the Employer, including drawings, design calculations, technical specifications, breakdown of prices, and proposed construction methodology and other relevant details. Only the technical alternatives, if any, of the Tenderer with the Most Advantageous Tender conforming to the basic technical requirements shall be considered by the Employer.

13.4 When specified in the **TDS**, Tenderers are permitted to submit alternative technical solutions for specified parts of the Works. Such parts will be identified in the **TDS** and described in Section VII, Employer’s Requirements. The method for their evaluation will be stipulated in Section III, Evaluation and Qualification Criteria.

14. Tender Prices and Discounts

14.1 The prices and discounts (including any price reduction) quoted by the Tenderer in the Letter of Tender – Financial Part and in the Price Schedule shall conform to the requirements specified below.

14.2 Unless otherwise specified in the **TDS**, Tenderers shall quote for the entire Works on a “single responsibility” basis such that the total lump sum Tender price, subject to any adjustments, in accordance with the Contract, covers all the Contractor’s obligations mentioned in or to be reasonably inferred from the Tendering document for complete execution of the Works on EPC basis. This includes all

requirements under the Contractor's responsibilities for design, construction, procurement, erection, installation, subcontracting (if any), testing, pre-commissioning and commissioning (as applicable) of the Works and, where so required by the Tendering document, the acquisition of all permits, approvals and licenses, etc.; the operation, maintenance and training services and such other items and services as may be specified in the Tendering document, all in accordance with the requirements of the General Conditions.

Tenderers shall give a breakdown of the prices in the manner and detail called for in the Schedule of Rates and prices (if any) included in Section IV, Tender Forms. These will not in any way limit the Tenderers' single point total responsibility for the complete Scope of Work and for all contractual responsibilities/ obligations as stated in the Tendering Document.

- 14.3 The price to be quoted in the Letter of Tender – Financial Part, in accordance with ITT 12.1, shall be the total price of the Tender, excluding any discounts offered.
- 14.4 The Tenderer shall quote any discounts and the methodology for their application in the Letter of Tender – Financial Part, in accordance with ITT 12.1.
- 14.5 Unless otherwise specified in the **TDS** and the Conditions of Contract, the rates and prices quoted by the Tenderer are subject to adjustment during the performance of the Contract in accordance with the provisions of the Conditions of Contract. In such a case, the Tenderer shall furnish the indices and weightings for the price adjustment formulae in the Table of Adjustment Data in Section IV, Tender Forms, and the Employer may require the Tenderer to justify its proposed indices and weightings.
- 14.6 If so specified in ITT 1.1, Tenders are being invited for individual lots (contracts) or for any combination of lots (packages). Tenderers wishing to offer discounts for the award of more than one Contract shall specify in their Tender the price reductions applicable to each package, or alternatively, to individual Contracts within the package. Discounts shall be submitted in accordance with ITT 14.4, provided the Tenders for all lots (contracts) are opened at the same time. If, however, rated criteria are used in accordance with ITT 30.2, discounts on condition of award of more than one Contract shall not be used for Tender evaluation purpose.
- 14.7 All duties, taxes, and other levies payable by the Contractor under the Contract, or for any other cause, as of the date 28 days prior to the deadline for submission of Tenders, shall be included in the rates and prices and the total Tender Price submitted by the Tenderer.

- 15. Currencies of Tender and Payment**
- 15.1 The currency (ies) of the Tender and the currency (ies) of payments shall be the same and shall be as specified in the **TDS**.
- 15.2 Tenderers may be required by the Employer to justify, to the Employer's satisfaction, their local and foreign currency requirements, and to substantiate that the amounts included in the unit rates and prices and shown in the Table of Adjustment Data in the Appendix to Tender in Section IV, Tender Forms, are reasonable, in which case a detailed breakdown of the foreign currency requirements shall be provided by Tenderers.
- 16. Documents Comprising the Technical Proposal**
- 16.1 The Tenderer shall furnish a technical proposal in the Technical Part of the Tender including a statement of work methods, equipment, personnel, schedules and any other information as stipulated in Section IV, Tender Forms, in sufficient detail to demonstrate the adequacy of the Tenderer's proposal to meet the Employer's requirements and the completion time.
- 17. Documents Establishing the Eligibility and Qualifications of the Tenderer**
- 17.1 To establish Tenderer's eligibility in accordance with ITT 4, Tenderers shall complete the Letter of Tender – Technical Part, included in Section IV, Tender Forms.
- 17.2 In accordance with Section III, Evaluation and Qualification Criteria, to establish its qualifications to perform the Contract, the Tenderer shall provide the information requested in the corresponding information sheets included in Section IV, Tender Forms.
- 17.3 If provisions for development of domestic industry (such as a margin of domestic preference) apply as specified in accordance with ITT 38.1, domestic Tenderers, individually or in joint ventures, applying for eligibility for domestic preference shall supply all information required to satisfy the criteria for eligibility specified in accordance with ITT 38.1.
- 18. Period of Validity of Tenders**
- 18.1. Tenders shall remain valid for the Tender Validity period specified in the **TDS**. The Tender Validity period starts from the date fixed for the Tender submission deadline (as prescribed by the Employer in accordance with ITT 22). A Tender valid for a shorter period shall be rejected by the Employer as nonresponsive.
- 18.2. In exceptional circumstances, prior to the expiration of the Tender validity period, the Employer may request Tenderers to extend the period of validity of their Tenders. The request and the responses shall be made in writing. If a Tender Security is requested in accordance with ITT 19, it shall also be extended for a corresponding period. A Tenderer may refuse the request without forfeiting its Tender security. A Tenderer granting the request shall not be required or permitted to modify its Tender, except as provided in ITT 18.3.

18.3. If the award is delayed by a period exceeding fifty-six (56) days beyond the expiry of the initial Tender validity period, the Contract price shall be determined as follows:

- (a) in the case of fixed price contracts, the Contract price shall be the Tender price adjusted by the factor specified in the **TDS**;
- (b) in the case of adjustable price contracts, no adjustment shall be made; or
- (c) in any case, Tender evaluation shall be based on the Tender price without taking into consideration the applicable correction from those indicated above.

19. Tender Security

19.1 The Tenderer shall furnish as part of the Technical Part of its Tender, either a Tender Security or a Tender-Securing Declaration, as specified in the **TDS**, in original form and, in the case of a Tender Security, in the amount and currency, or in the case of a Tender-Securing Declaration, for the period of ineligibility, as specified in the **TDS**.

19.2 A Tender-Securing Declaration shall use the form included in Section IV, Tender Forms.

19.3 If a Tender Security is specified pursuant to ITT 19.1, the Tender Security shall be a demand guarantee in any of the following forms at the Tenderer's option:

- (a) an unconditional guarantee issued by a bank;
- (b) an irrevocable letter of credit;
- (c) a cashier's or certified check; or
- (d) another security specified in the **TDS**,

from a reputable source from an eligible country. In the case of a bank guarantee, the Tender Security shall be submitted either using the Tender Security Form included in Section IV, Tender Forms, or in another substantially similar format approved by the Employer prior to Tender submission. The Tender Security shall be valid for twenty-eight (28) days beyond the original validity period of the Tender, or beyond any period of extension if requested under ITT 18.2.

19.4 If a Tender Security or Tender-Securing Declaration is specified pursuant to ITT 19.1, any Tender not accompanied by a substantially responsive Tender Security or Tender-Securing Declaration shall be rejected by the Employer as non-responsive.

19.5 If a Tender Security is specified pursuant to ITT 19.1, the Tender Security of unsuccessful Tenderers shall be returned as promptly as

possible upon the successful Tenderer's signing the Contract and furnishing the Performance Security pursuant to ITT 50.

19.6 The Tender Security of the successful Tenderer shall be returned as promptly as possible once the successful Tenderer has signed the Contract and furnished the required Performance Security.

19.7 The Tender Security may be forfeited, or the Tender-Securing Declaration executed:

(a) if a Tenderer withdraws its Tender during the period of Tender validity specified by the Tenderer on the Letter of Tender, or any extension thereto provided by the Tenderer; or

(b) if the successful Tenderer fails to:

(i) sign the Contract in accordance with ITT 49; or

(ii) furnish a Performance Security in accordance with ITT 50.

19.8 The Tender Security or the Tender-Securing Declaration of a JV shall be in the name of the JV that submits the Tender. If the JV has not been legally constituted into a legally enforceable JV at the time of Tendering, the Tender Security or the Tender-Securing Declaration shall be in the names of all future members as named in the letter of intent referred to in ITT 4.1 and ITT 11.5.

20. Format and Signing of Tender

20.1 The Tenderer shall prepare one original set of the Technical Part of the Tender and one original set of the Financial Part of the Tender as described in ITT 11 and ITT 21, and clearly mark them "ORIGINAL". Alternative Tenders, if permitted in accordance with ITT 13, shall be clearly marked "ALTERNATIVE." In addition, the Tenderer shall submit copies of the Tender, in the number specified in the **TDS** and clearly mark them "COPY". In the event of any discrepancy between the original and the copies, the original shall prevail.

20.2 Tenderers shall mark as "CONFIDENTIAL" all information in their Tenders which is confidential to their business. This may include proprietary information, trade secrets, or commercial or financially sensitive information.

20.3 The original and all copies of the Tender shall be typed or written in indelible ink and shall be signed by a person duly authorized to sign on behalf of the Tenderer. This authorization shall consist of a written confirmation as specified in the **TDS** and shall be attached to the Tender. The name and position held by each person signing the authorization must be typed or printed below the signature. All pages of the Tender where entries or amendments have been made shall be signed or initialed by the person signing the Tender.

- 20.4 In case the Tenderer is a JV, the Tender shall be signed by an authorized representative of the JV on behalf of the JV, and so as to be legally binding on all the members as evidenced by a power of attorney signed by their legally authorized representatives.
- 20.5 Any amendments such as inter-lineation, erasures, or overwriting shall be valid only if they are signed or initialed by the person signing the Tender.

D. Submission of Tenders

21. Sealing and Marking of Tenders

- 21.1 Tenderers may submit their Tenders by mail or by hand. If so specified in the TDS, Tenderers shall have the option of submitting their Tenders electronically. Procedures for submission, sealing, and marking are as follows:
- (a) Tenderers submitting Tenders by mail or by hand shall enclose the original Technical Part of the Tender, the original Financial Part of the Tender, and the respective copies of the Tender, including Alternative Tenders if permitted in accordance with ITT 13, in separate sealed envelopes. The envelopes shall be duly marked as "ORIGINAL TECHNICAL PART", "ORIGINAL-FINANCIAL PART", "COPY-TECHNICAL PART", "COPY-FINANCIAL PART", "ALTERNATIVE-ORIGINAL-TECHNICAL PART", "ALTERNATIVE-ORIGINAL-FINANCIAL PART", "ALTERNATIVE-COPY-TECHNICAL PART", and "ALTERNATIVE-COPY-FINANCIAL PART". These envelopes shall then be enclosed in one single package. The rest of the procedure shall be in accordance with ITT 21.2 through ITT 21.5.
 - (b) Tenderers submitting Tenders electronically shall follow the electronic tender submission procedures specified in the **TDS**.
- 21.2 The inner and outer envelopes shall:
- (a) bear the name and address of the Tenderer;
 - (b) be addressed to the Employer in accordance with ITT 22.1; and
 - (c) bear the specific identification of this Tendering process specified in accordance with TDS ITT 1.1.
- 21.3 The outer envelopes and the inner envelopes containing the Technical Part of Tender shall bear a warning not to open before the time and date for the opening of Technical Part of Tender, in accordance with ITT 25.1.

- 21.4 The inner envelopes containing the Financial Part of Tender shall bear a warning not to open until advised by the Employer in accordance with ITT34.
- 21.5 If all envelopes are not sealed and marked as required, the Employer will assume no responsibility for the misplacement or premature opening of the Tender.
- 22. Deadline for Submission of Tenders**
- 22.1 Tenders must be received by the Employer at the address and no later than the date and time specified in the **TDS**.
- 22.2 The Employer may, at its discretion, extend the deadline for the submission of Tenders by amending the Tender Document in accordance with ITT 8, in which case all rights and obligations of the Employer and Tenderers previously subject to the deadline shall thereafter be subject to the deadline as extended.
- 23. Late Tenders**
- 23.1 The Employer shall not consider any Tender that arrives after the deadline for submission of Tenders, in accordance with ITT 22. Any Tender received by the Employer after the deadline for submission of Tenders shall be declared late, rejected, and returned unopened to the Tenderer.
- 24. Withdrawal, Substitution, and Modification of Tenders**
- 24.1 A Tenderer may withdraw, substitute, or modify its Tender after it has been submitted by sending a written notice, duly signed by an authorized representative, and shall include a copy of the authorization in accordance with ITT 20.3 (except that withdrawal notices do not require copies). The corresponding substitution or modification of the Tender must accompany the respective written notice. All notices must be:
- (a) prepared and submitted in accordance with ITT 20 and ITT 21 (except that withdrawals notices do not require copies), and in addition, the respective envelopes shall be clearly marked “WITHDRAWAL”, “SUBSTITUTION”, “MODIFICATION”; and
 - (b) received by the Employer prior to the deadline prescribed for submission of Tenders, in accordance with ITT 22.
- 24.2 Tenders requested to be withdrawn in accordance with ITT 24.1 shall be returned unopened to the Tenderers.
- 24.3 No Tender may be withdrawn, substituted, or modified in the interval between the deadline for submission of Tenders and the expiration of the period of Tender validity specified by the Tenderer on the Letter of Tender or any extension thereof.

E. Public Opening of Technical Parts of Tenders

25. Technical Part Opening

- 25.1 Except in the cases specified in ITT 23 and ITT 24.2, the Employer shall publicly open and read out in accordance with this ITT all Tenders received by the deadline, at the date, time and place specified in the **TDS**, in the presence of Tenderers' designated representatives and anyone who chooses to attend. Any specific electronic Tender opening procedures required if electronic Tendering is permitted in accordance with ITT 21.1, shall be as specified in the **TDS**.
- 25.2 First, envelopes marked "Withdrawal" shall be opened and read out and the envelope with the corresponding Tender shall not be opened, but returned to the Tenderer. No Tender withdrawal shall be permitted unless the corresponding withdrawal notice contains a valid authorization to request the withdrawal and is read out at Tender opening.
- 25.3 Next, envelopes marked "Substitution" shall be opened and read out and exchanged with the corresponding Tender being substituted, and the substituted Tender shall not be opened, but returned to the Tenderer. No Tender substitution shall be permitted unless the corresponding substitution notice contains a valid authorization to request the substitution and is read out at Tender opening.
- 25.4 Next, envelopes marked "Modification" shall be opened and read out with the corresponding Tender. No Tender modification shall be permitted unless the corresponding modification notice contains a valid authorization to request the modification and is read out at Tender opening.
- 25.5 Next, all remaining envelopes marked "TECHNICAL PART" shall be opened one at a time. All envelopes marked "FINANCIAL PART" shall remain sealed, and kept by the Employer in safe custody until they are opened, at a later public opening, following the evaluation of the Technical Part of the Tenders. On opening the envelopes marked "TECHNICAL PART" the Employer shall read out: the name of the Tender, the presence or the absence of a Tender Security, or Tender-Securing Declaration, if required, and whether there is a modification; and Alternative Tender - Technical Part; and any other details as the Employer may consider appropriate.
- 25.6 Only Technical Parts of Tenders and Technical Parts of Alternative Tenders that are opened and read out at Tender opening shall be considered further for evaluation. The Letter of Tender – Technical Part and the separate sealed envelopes marked "FINANCIAL PART" are to be initialed by representatives of the Employer attending Tender opening in the manner specified in the **TDS**.

- 25.7 At the tender opening the Employer shall neither discuss the merits of any Tender nor reject any Tender (except for late Tenders, in accordance with ITT 23.1).
- 25.8 The Employer shall prepare a record of the Technical Part of Tender opening that shall include, as a minimum:
- (a) the name of the Tenderer and whether there is a withdrawal, substitution, or modification;
 - (b) the receipt of envelopes marked “FINANCIAL PART”;
 - (c) the presence or absence of a Tender Security or Tender-Securing Declaration, if one was required any alternative Tenders; and
 - (d) if applicable, any Alternative Tender – Technical Part.
- 25.9 The Tenderers’ representatives who are present shall be requested to sign the record. The omission of a Tenderer’s signature on the record shall not invalidate the contents and effect of the record. A copy of the record shall be distributed to all Tenderers who submitted Tenders in time and posted online when electronic Tendering is permitted.

F. Evaluation of Tenders – General Provisions

- 26. Confidentiality**
- 26.1 Information relating to the evaluation of Tenders and recommendation of contract award shall not be disclosed to Tenderers or any other persons not officially concerned with the Tendering process until information on Intention to Award the Contract is transmitted to all Tenderers in accordance with ITT 45.
- 26.2 Any attempt by a Tenderer to influence the Employer in the evaluation of the Tenders or Contract award decisions may result in the rejection of its Tender.
- 26.3 Notwithstanding ITT 26.2, from the time of Tender opening to the time of Contract award, if a Tenderer wishes to contact the Employer on any matter related to the Tendering process, it shall do so in writing.
- 27. Clarification of Tenders**
- 27.1 To assist in the examination, evaluation, and comparison of the Tenders, and qualification of the Tenderers, the Employer may, at its discretion, ask any Tenderer for a clarification of its Tender, allowing a reasonable time for response. Any clarification submitted by a Tenderer that is not in response to a request by the Employer shall not be considered. The Employer’s request for clarification and the

response shall be in writing. No change, including any voluntary increase or decrease, in the prices or substance of the Tender shall be sought, offered, or permitted, except to confirm the correction of arithmetic errors discovered by the Employer in the evaluation of the Tenders, in accordance with ITT 36.

27.2 If a Tenderer does not provide clarifications of its Tender by the date and time set in the Employer’s request for clarification, its Tender may be rejected.

**28. Deviations,
Reservations,
and Omissions**

28.1 During the evaluation of Tenders, the following definitions apply:

- (a) “Deviation” is a departure from the requirements specified in the Tender Document;
- (b) “Reservation” is the setting of limiting conditions or withholding from complete acceptance of the requirements specified in the Tender Document; and
- (c) “Omission” is the failure to submit part or all of the information or documentation required in the Tender Document.

**29. Nonmaterial
Nonconformities**

29.1 Provided that a Tender is substantially responsive, the Employer may waive any nonconformities in the Tender.

29.2 Provided that a Tender is substantially responsive, the Employer may request that the Tenderer submit the necessary information or documentation, within a reasonable period of time, to rectify nonmaterial nonconformities or omissions in the Tender related to documentation requirements. Requesting information or documentation on such nonconformities or omissions shall not be related to any aspect of the price of the Tender. Failure of the Tenderer to comply with the request may result in the rejection of its Tender.

29.3 Provided that a Tender is substantially responsive, the Employer shall rectify quantifiable nonmaterial nonconformities related to the Tender Price. To this effect, the Tender Price shall be adjusted, for comparison purposes only, to reflect the price of a missing or non-conforming item or component in the manner specified in the TDS.

G. Evaluation of Technical Parts of Tenders

**30. Evaluation of
Technical Parts**

30.1 In evaluating the Technical Parts of each Tender, the Employer shall use the criteria and methodologies listed in this ITT and Section III, Evaluation and Qualification Criteria. No other evaluation criteria or methodologies shall be permitted.

30.2 If specified in the **TDS**, the Employer’s evaluation will be carried out by applying rated criteria that take into account technical factors, in addition to cost factors. An Evaluated Tender Score will be calculated for each responsive Tender using the formula specified in Section III, Evaluation and Qualification Criteria. The scores to be given to technical factors and sub-factors are specified in the **TDS**. The weights to be given to the cost and the total technical score are specified in the **TDS**.

31. Determination of Responsiveness

31.1 The Employer’s determination of a Tender’s responsiveness is to be based on the contents of the Tender itself, as defined in ITT 11.

31.2 A substantially responsive Tender is one that meets the requirements of the Tender Document without material deviation, reservation, or omission. A material deviation, reservation, or omission is one that:

(a) if accepted, would:

(i) affect in any substantial way the scope, quality, or performance of the Works specified in the Contract; or

(ii) limit in any substantial way, inconsistent with the Tender Document, the Employer’s rights or the Tenderer’s obligations under the proposed Contract; or

(b) if rectified, would unfairly affect the competitive position of other Tenderers presenting substantially responsive Tenders.

31.3 The Employer shall examine the technical aspects of the Tender submitted in accordance with ITT 16, in particular, to confirm that all requirements of Section VII, Employer’s Requirements have been met without any material deviation, reservation or omission.

31.4 If a Tender is not substantially responsive to the requirements of the Tender Document, it shall be rejected by the Employer and may not subsequently be made responsive by correction of the material deviation, reservation, or omission.

32. Qualification of the Tenderers

32.1 The Employer shall determine to its satisfaction whether the eligible Tenderers that have submitted substantially responsive Tender - Technical Parts meet the qualifying criteria specified in Section III, Evaluation and Qualification Criteria.

32.2 The determination shall be based upon an examination of the documentary evidence of the Tenderer’s qualifications submitted by the Tenderer, pursuant to ITT 17. The determination shall not take into consideration the qualifications of other firms such as the Tenderer’s subsidiaries, parent entities, affiliates, subcontractors

(other than Specialized Subcontractors if permitted in ITT 33.3), or any other firm(s) different from the Tenderer.

32.3 If a Tenderer does not meet the qualifying criteria specified in Section III, Evaluation and Qualification Criteria, its Tender shall be rejected by the Employer and may not subsequently be made responsive by correction of the material deviation, reservation, or omission.

32.4 Only Tenders that are both substantially responsive to the Tender Document, and meet all Qualification Criteria shall have their envelopes marked “FINANCIAL PART” opened at the second public opening.

33. Subcontractors

33.1 Unless otherwise stated in the **TDS**, the Employer does not intend to execute any specific elements of the Works by subcontractors selected in advance by the Employer.

33.2 Tenderers may propose subcontracting up to the percentage of total value of contracts or the volume of works as specified in the **TDS**. Subcontractors proposed by the Tenderer shall be fully qualified for their parts of the Works.

33.3 The subcontractor’s qualifications shall not be used by the Tenderer to qualify for the Works unless their specialized parts of the Works were previously designated by the Employer in the **TDS** as can be met by subcontractors referred to hereafter as ‘Specialized Subcontractors’, in which case, the qualifications of the Specialized Subcontractors proposed by the Tenderer may be added to the qualifications of the Tenderer.

H. Public Opening of Financial Parts of Tenders

34. Public Opening of Financial Parts

34.1 Following the completion of the evaluation of the Technical Parts of the Tenders, and the Bank has issued its no objection (if applicable), the Employer shall notify in writing those Tenderers whose Tenders were considered non-responsive to the Tender Document or failed to meet the Qualification Criteria, advising them of the following information:

- (a) the grounds on which their Technical Part of Tender failed to meet the requirements of the Tender Document;
- (b) their envelopes marked “FINANCIAL PART” will be returned to them unopened after the completion of the selection process and the signing of the Contract; and

- (c) notify them of the date, time and location of the public opening of the envelopes marked “FINANCIAL PART”.
- 34.2 The Employer shall, simultaneously, notify in writing those Tenderers whose Tenders - Technical Parts have been evaluated as substantially responsive to the Tender Document and met all Qualifying Criteria, advising them of the following information:
- (a) their Tender has been evaluated as substantially responsive to the Tender Document and met the Qualification Criteria;
 - (b) When rated criteria are used, the evaluated technical scores;
 - (c) their envelope marked “FINANCIAL PART” will be opened at the public opening of the Financial Parts; and
 - (d) notify them of the date, time and location of the second public opening of the envelopes marked “FINANCIAL PART” as specified in the **TDS**.
- 34.3 The opening date should allow Tenderers sufficient time to make arrangements for attending the opening. The Financial Part of the Tender shall be opened publicly in the presence of Tenderers’ designated representatives and anyone who chooses to attend.
- 34.4 At this public opening the Financial Parts will be opened by the Employer in the presence of Tenderers, or their designated representatives and anyone else who chooses to attend. Tenderers who met the Qualification Criteria and whose Tenders were evaluated as substantially responsive will have their envelopes marked “FINANCIAL PART” opened at the second public opening. Each of these envelopes marked “FINANCIAL PART” shall be inspected to confirm that they have remained sealed and unopened. These envelopes shall then be opened by the Employer. The Employer shall read out the names of each Tenderer, and the total Tender prices, per lot (contract) if applicable, including any discounts and Alternative Tender - Financial Part, and any other details as the Employer may consider appropriate.
- 34.5 Only envelopes of Financial Part of Tenders, Financial Parts of Alternative Tenders and discounts that are opened and read out at tender opening shall be considered further for evaluation. The Letter of Tender – Financial Part and the Priced Bill of Quantities are to be initialed by representatives of the Employer attending the tender opening in the manner specified in the **TDS**.
- 34.6 The Employer shall neither discuss the merits of any Tender nor reject any envelopes marked “FINANCIAL PART”.

34.7 The Employer shall prepare a record of the Financial Part of the Tender opening that shall include, as a minimum:

- (a) the name of the Tenderer whose Financial Part was opened;
- (b) the Tender price, per lot (contract) if applicable, including any discounts; and
- (c) if applicable, any Alternative Tender – Financial Part.

34.8 The Tenderers whose envelopes marked “FINANCIAL PART” have been opened or their representatives who are present shall be requested to sign the record. The omission of a Tenderer’s signature on the record shall not invalidate the contents and effect of the record. A copy of the record shall be distributed to all Tenderers.

I. Evaluation of Financial Parts of Tenders

35. Evaluation of Financial Parts

35.1 To evaluate the Financial Part, the Employer shall consider the following:

- (a) the Tender price, excluding Provisional Sums and the provision, if any, for contingencies in the Price Schedule, but including Daywork items, where priced competitively;
- (b) price adjustment for correction of arithmetic errors in accordance with ITT 36.1;
- (c) price adjustment due to discounts offered in accordance with ITT 14.4;
- (d) converting the amount resulting from applying (a) to (c) above, if relevant, to a single currency in accordance with ITT 37;
- (e) price adjustment due to quantifiable nonmaterial nonconformities in accordance with ITT 29.3; and
- (f) the additional evaluation factors are specified in the **TDS** and Section III, Evaluation and Qualification Criteria.

35.2 The estimated effect of the price adjustment provisions of the Conditions of Contract, applied over the period of execution of the Contract, shall not be taken into account in Tender evaluation.

35.3 If this Tender Document allows Tenderers to quote separate prices for different lots (contracts), the methodology to determine the lowest evaluated cost of the contract combinations, including any discounts offered in the Letter of Tender – Financial Part, is specified in Section III, Evaluation and Qualification Criteria. If, however, rated criteria are used in accordance with ITT 30.2, discounts on

condition of award of more than one contract shall not be used for Tender evaluation purpose.

**36. Correction of
Arithmetical
Errors**

36.1 If Tenders have been invited on single responsibility basis in terms of ITT 14, the Tenderer is deemed to have included all prices in the quoted lump sum Tender Price. Arithmetical corrections shall therefore not be made, except that where there is a discrepancy between the amount in words and the amount in figures, the amount in words shall prevail.

36.2 If Tenders have been invited to include any part of the Works to be paid according to quantity supplied or work done in terms of ITT 14, the Employer shall correct arithmetical errors only for the price for such part of the Works on the following basis:

- (a) where there are errors between the total of the amounts given under the column for the price breakdown and the amount given under the Total Price, the former shall prevail and the latter will be corrected accordingly; and
- (b) if there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to (a) above.

36.3 Tenderers shall be requested to accept correction of arithmetical errors. Failure to accept the correction in accordance with ITT 36.1, shall result in the rejection of the Tender.

**37. Conversion to
Single Currency**

37.1 For evaluation and comparison purposes, the currency(ies) of the Tender shall be converted into a single currency as specified in the TDS.

**38. Provision for
Development of
Domestic
Industry**

38.1 Unless otherwise specified in the TDS, provision for development of domestic industry (such as a margin of preference for domestic Tenderers¹) shall not apply.

**39. Comparison of
Tenders**

39.1 The Employer shall compare the evaluated costs of all substantially responsive Tenders established in accordance with ITT 35.1 to determine the Tender that has the lowest evaluated cost.

39.2 If ITT 30.2 is applicable, the Employer shall evaluate the technical score and financial score of each tender and determine the Tender

¹An individual firm is considered a domestic Tenderer for purposes of the margin of preference if it is registered in the country of the Employer, has more than 50 percent ownership by nationals of the country of the Employer, and if it does not subcontract more than 10 percent of the contract price, excluding provisional sums, to foreign contractors. JVs are considered as domestic Tenderers and eligible for domestic preference only if the individual member firms are registered in the country of the Employer or have more than 50 percent ownership by nationals of the country of the Employer, and the JV shall be registered in the country of the Employer. The JV shall not subcontract more than 10 percent of the contract price, excluding provisional sums, to foreign firms. JVs between foreign and national firms will not be eligible for domestic preference.

with the highest combined technical and financial score in accordance with TDS ITT 30.2.

40. Abnormally Low-Priced Tenders

- 40.1 An Abnormally Low-Priced Tender is one where the Tender price, in combination with other elements of the Tender, appears so low that it raises material concerns as to the capability of the Tenderer in regard to the Tenderer's ability to perform the Contract for the offered Tender Price.
- 40.2 In the event of identification of a potentially Abnormally Low-Priced Tender, the Employer shall seek written clarifications from the Tenderer, including detailed price analyses of its Tender price in relation to the subject matter of the contract, scope, proposed methodology, schedule, allocation of risks and responsibilities and any other requirements of the Tender Document.
- 40.3 After examining the clarifications given and the detailed price analyses presented by the Tenderer, the Employer may as appropriate:
- (a) accept the Tender, if the evidence provided satisfactorily accounts for the low tender price, in which case the Tender is not considered abnormally low; or
 - (b) accept the Tender, but require that the amount of the Performance Security be increased at the expense of the Tenderer to a level sufficient to protect the Employer against financial loss. The amount of the Performance Security shall generally be not more than 20% of the Contract Price; or
 - (c) reject the Tender, if the evidence provided does not satisfactorily account for the low tender price and make a similar determination for the next ranked Tender, if required.

41. Unbalanced or Front-Loaded Tenders

- 41.1 If the Tender that is evaluated as the Most Advantageous Tender is, in the Employer's opinion, seriously unbalanced or front loaded, the Employer may require the Tenderer to provide written clarifications. Clarifications may include detailed price analyses to demonstrate the consistency of the Tender prices with the scope of works, proposed methodology, schedule and any other requirements of the Tender Document.
- 41.2 After the evaluation of the information and detailed price analyses presented by the Tenderer, the Employer may as appropriate:
- (a) accept the Tender; or
 - (b) accept the Tender, but require that the total amount of the Performance Security be increased at the expense of the Tenderer to a level not exceeding 20% of the Contract Price; or

- (c) reject the Tender and make a similar determination for the next ranked Tender.
- 42. Most Advantageous Tender**
- 42.1 The Employer shall determine the Most Advantageous Tender. The Most Advantageous Tender is the Tender of the Tenderer that meets the Qualification Criteria and whose Tender has been determined to be substantially responsive to the Tender Documents and:
- (a) when rated criteria are used, is the tender with the highest combined technical and financial score; or
- (b) when rated criteria are not used, is the tender with the lowest evaluated cost.
- 43. Employer’s Right to Accept Any Tender, and to Reject Any or All Tenders**
- 43.1 The Employer reserves the right to accept or reject any Tender and to annul the Tendering process and reject all Tenders at any time prior to Contract Award, without thereby incurring any liability to Tenderers. In case of annulment, all Tenders submitted and specifically, Tender securities, shall be promptly returned to the Tenderers.
- 44. Standstill Period**
- 44.1 The Contract shall not be awarded earlier than the expiry of the Standstill Period. The Standstill Period shall be ten (10) Business Days unless extended in accordance with ITT 48. The Standstill Period commences the day after the date the Employer has transmitted to each Tenderer the Notification of Intention to Award the Contract. Where only one Tender is submitted, or if this contract is in response to an emergency situation recognized by the Bank, the Standstill Period shall not apply.
- 45. Notification of Intention to Award**
- 45.1 The Employer shall send to each Tenderer the Notification of Intention to Award the Contract to the successful Tenderer. The Notification of Intention to Award shall contain, at a minimum, the following information:
- (a) the name and address of the Tenderer submitting the successful Tender;
- (b) the Contract price of the successful Tender;
- (c) the names of all Tenderers who submitted Tenders, and their Tender prices as readout, and as evaluated, and when rated criteria are used, the evaluated technical and financial scores, and the combined total scores;
- (d) a statement of the reason(s) the Tender (of the unsuccessful Tenderer to whom the notification is addressed) was unsuccessful, unless the price or score information in (c) above already reveals the reason;

- (e) the expiry date of the Standstill Period; and
- (f) instructions on how to request a debriefing and/or submit a complaint during the standstill period.

J. Award of Contract

- 46. Award Criteria** 46.1 Subject to ITT 43, the Employer shall award the Contract to the successful Tenderer. This is the Tenderer whose Tender has been determined to be the Most Advantageous Tender.
- 47. Notification of Award** 47.1 Prior to the expiry of the Tender Validity Period and upon expiry of the Standstill Period specified in ITT 43.1 or any extension thereof, and, upon satisfactorily addressing any complaint that has been filed within the Standstill Period, the Employer shall notify the successful Tenderer, in writing, that its Tender has been accepted. The notification of award (hereinafter and in the Conditions of Contract and Contract Forms called the “Letter of Acceptance”) shall specify the sum that the Employer will pay the Contractor in consideration of the execution of the Contract (hereinafter and in the Conditions of Contract and Contract Forms called “the Contract Price”).
- 47.2 Within ten (10) Business Days after the date of transmission of the Letter of Acceptance, the Employer shall publish the Contract Award Notice which shall contain, at a minimum, the following information:
- (a) name and address of the Employer;
 - (b) name and reference number of the contract being awarded, and the procurement method used;
 - (c) names of all Tenderers that submitted Tenders, and their Tender prices as read out at Tender opening, and as evaluated, and when rated criteria are used, the evaluated tender scores;
 - (d) names of all Tenderers whose Tenders were rejected either as nonresponsive or as not meeting qualification criteria, or were not evaluated, with the reasons therefor;
 - (e) the name of the successful Tenderer, the final total contract price, the contract duration and a summary of its scope; and
 - (f) successful Tenderer’s Beneficial Ownership Disclosure Form, if specified in TDS ITT 49.1.
- 47.3 The Contract Award Notice shall be published on the Employer’s website with free access if available, or in at least one newspaper of national circulation in the Employer’s Country, or in the official

gazette. The Employer shall also publish the contract award notice in UNDB online and AIIB website.

47.4 Until a formal Contract is prepared and executed, the Letter of Acceptance shall constitute a binding Contract.

48. Debriefing by the Employer

48.1 On receipt of the Employer's Notification of Intention to Award referred to in ITT 44.1, an unsuccessful Tenderer has three (3) Business Days to make a written request to the Employer for a debriefing. The Employer shall provide a debriefing to all unsuccessful Tenderers whose request is received within this deadline.

48.2 Where a request for debriefing is received within the deadline, the Employer shall provide a debriefing within five (5) Business Days, unless the Employer decides, for justifiable reasons, to provide the debriefing outside this timeframe. In that case, the standstill period shall automatically be extended until five (5) Business Days after such debriefing is provided. If more than one debriefing is so delayed, the standstill period shall not end earlier than five (5) Business Days after the last debriefing takes place. The Employer shall promptly inform, by the quickest means available, all Tenderers of the extended standstill period.

48.3 Where a request for debriefing is received by the Employer later than the three (3)-Business Day deadline, the Employer should provide the debriefing as soon as practicable, and normally no later than fifteen (15) Business Days from the date of publication of Contract Award Notice. Requests for debriefing received outside the three (3)-day deadline shall not lead to extension of the standstill period.

48.4 Debriefings of unsuccessful Tenderers may be done in writing or verbally. The Tenderer shall bear its own costs of attending such a debriefing meeting.

49. Signing of Contract

49.1 The Employer shall send to the successful Tenderer the Letter of Acceptance including the Contract Agreement, and, if specified in the TDS, a request to submit the Beneficial Ownership Disclosure Form providing additional information on its beneficial ownership. The Beneficial Ownership Disclosure Form, if so requested, shall be submitted within eight (8) Business Days of receiving this request.

49.2 The successful Tenderer shall sign, date and return to the Employer, the Contract Agreement within twenty-eight (28) days of its receipt.

50. Performance Security

50.1 Within twenty-eight (28) days of the receipt of the Letter of Acceptance from the Employer, the successful Tenderer shall furnish the Performance Security in accordance with the General Conditions of Contract, subject to ITT 40.3 (b) and ITT 41.2 (b), using for that

purpose the Performance Security Form included in Section X, Contract Forms, or another form acceptable to the Employer.

50.2 Failure of the successful Tenderer to submit the above-mentioned Performance Security or sign the Contract shall constitute sufficient grounds for the annulment of the award and forfeiture of the Tender Security. In that event the Employer may award the Contract to the Tenderer offering the next Most Advantageous Tender.

**51. Procurement
Related
Complaint**

51.1 The procedures for making a Procurement-related Complaint are as specified in the **TDS**.

Section II - Tender Data Sheet (TDS)

The following specific data for the Works to be procured shall complement, supplement, or amend the provisions in the Instructions to Tenderers (ITT). Whenever there is a conflict, the provisions herein shall prevail over those in ITT.

A. General	
ITT 1.1	<p>The reference number of the SPN/Tender is: HORC/HRIDC/C-2/2022</p> <p>The Employer is: Haryana Rail Infrastructure Development Corporation (HRIDC) Limited</p> <p>The name of the Tender is: C-2: Composite Contract Package in connection with laying of New BG Double Railway Line of HORC project for:</p> <p>(i) Design and Construction of Civil Works (Earthwork, Bridges, Station Buildings, Retaining Walls and other miscellaneous Works) from Km 55.60 to Km 61.50 and its connectivities to IR network from New Patli to Patli & New Patli to Sultanpur including modifications in Sultanpur station yard,</p> <p>(ii) Design, Supply, Installation, Testing & Commissioning of OHE (1x25 kV) and General Electrical services from Km 49.70 to Km 61.50 and its connectivities to IR network from New Patli to Patli & New Patli to Sultanpur including modifications in Sultanpur station yard and</p> <p>(iii) Design, Supply, Installation, Testing & Commissioning of Signalling & Telecommunication from Km 49.70 to Km 61.50 and its connectivities to IR network from Manesar to Patli and New Patli to Patli & New Patli to Sultanpur including modifications in Patli and Sultanpur station yards.</p> <p>The number and identification of lots (contracts) comprising this Tender is: Contract Package (C-2)</p>
ITT 1.2	<p>Add new sub-paragraphs (f) and (g) after sub-paragraph (e) as follows:</p> <p>(f) “Joint Venture” shall be replaced with “Joint Venture or Consortium”</p> <p>(g) “JV” shall be replaced with “JV or Consortium”</p>
ITT 1.2(a)	<p>Electronic – Procurement System</p> <p>The Employer shall use the following electronic-procurement system to manage this Tendering process:</p> <p>E-procurement portal of Govt. of Haryana (https://etenders.hry.nic.in)</p>

ITT 1.3	<p>Add new sub-clause ITT 1.3</p> <p>Instructions for Online Tender Submission:</p> <p>The Tenderers are required to submit soft copies of their Tenders electronically on the e-procurement portal of Government of Haryana i.e. https://etenders.hry.nic.in, using valid Digital Signature Certificates. The instructions given below are meant to assist the Tenderers in registering on the e-procurement Portal, prepare their Tenders in accordance with the requirements and submitting their Tenders online on the e-procurement Portal.</p> <p>Registration:</p> <ol style="list-style-type: none">i) Tenderers are required to enroll on the above-mentioned e-Procurement portal by clicking on the link “Online Bidder Enrollment” on the Portal which is free of charge.ii) As part of the enrolment process, the Tenderers will be required to choose a unique username and assign a password for their accounts.iii) Tenderers are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication from the e-procurement Portal. <p>A. Obtaining a Digital Certificate:</p> <ol style="list-style-type: none">i. The Tenders submitted online should be encrypted and signed electronically with a Digital Certificate to establish the identity of the Tenderer online. These Digital Certificates are issued by an Approved Certifying Authority, by the Controller of Certifying Authorities, Government of India.ii. A Digital Certificate is issued upon receipt of mandatory identity (i.e. Applicant’s PAN Card) and Address proofs and verification form duly attested by the Bank Manager / Postmaster / Gazetted Officer. Only upon the receipt of the required documents, a digital certificate can be issued. For more details please visit the website – https://etenders.hry.nic.iniii. The Tenderers may obtain Class-II or III digital signature certificate from any Certifying Authority or Sub-certifying Authority authorized by the Controller of Certifying Authorities or may obtain information, application format and documents required for the issue of digital certificate.iv. The Tenderer must ensure that he/she comply by the online available important guidelines at the portal https://etenders.hry.nic.in for Digital Signature Certificate (DSC) including the e-Token carrying DSCs.
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	<p>For any queries related to e-tendering process (registration, online e-bid submission/withdrawal, uploading of documents), Tenderer may contact the below representative of NIC:</p> <p>Ms. Manju Aggarwal Technical Director, Scientist-E, NIC. Panchkula. E - mail: a.manju@nic.in Help Desk: 0172 – 584257, 94170-69017.</p> <p>v. Tender for a particular tender must be submitted online using the digital certificate (Encryption & Signing), which is used to encrypt and sign the data during the stage of Tender preparation. In case, during the process of a particular tender, the user loses his digital certificate (due to virus attack, hardware problem, operating system or any other problem) he will not be able to submit the Tender online. Hence, the users are advised to keep a backup of the certificate and also keep the copies at safe place under proper security (for its use in case of emergencies).</p> <p>vi. In case of online tendering, if the digital certificate issued to the authorized user of a firm is used for signing and submitting a Tender, it will be considered equivalent to a no-objection certificate/power of attorney/lawful authorization to that User. The firm has to authorize a specific individual through an authorization certificate signed by all partners to use the digital certificate as per Indian Information Technology Act 2000. Unless the certificates are revoked, it will be assumed to represent adequate authority of the user to Tender on behalf of the firm in the department tenders as per Information Technology Act 2000. The digital signature of this authorized user will be binding on the firm.</p> <p>vii. In case of any change in the authorization, it shall be the responsibility of management/ partners of the firm to inform the certifying authority about the change and to obtain the digital signatures of the new person/ user on behalf of the firm/ company. The procedure for application of a digital certificate however will remain the same for the new user.</p> <p>viii. The same procedure holds true for the authorized users in a private/Public limited company. In this case, the authorization certificate will have to be signed by the directors of the company.</p> <p>B. Opening of an Electronic Payment Account:</p>
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	<p>For purchasing the tender documents online, Tenderers are required to pay the tender documents fee online using the electronic payment gateway service through their Debit Cards & Internet Banking accounts. For online payments guidelines, please refer to the Home page under tab “Guidelines for hassle free Bid Submission” of the e-procurement Portal of Government of Haryana, https://etenders.hry.nic.in</p> <p>C. Pre-requisites for online Tendering:</p> <p>In order to operate on the electronic tender management system, a user’s machine is required to be set up. A help file on system setup/Pre-requisite can be obtained from National Informatics Center or downloaded from the home page of the website - https://etenders.hry.nic.in the link for downloading required java applet & DC setup are also available on the Home page of the e-procurement Portal.</p> <p>D. Online Viewing of Specific Procurement Notice (SPN):</p> <p>The Tenderers can view the SPN and the time schedule (Key Dates) through the single portal e-procurement system on the Home Page at https://etenders.hry.nic.in</p> <p>E. Downloading of Tender Documents:</p> <p>The tender documents can be downloaded free of cost from the e-procurement portal https://etenders.hry.nic.in</p> <p>F. Key Dates:</p> <p>The Tenderers are strictly advised to follow dates and times as indicated in the online Specific Procurement Notice. The date and time shall be binding on all Tenderers. All online activities are time tracked and the system enforces time locks that ensure that no activity or transaction can take place outside the start and end dates and the time of the stage as defined in the online Specific Procurement Notice.</p> <p>G. Online Payment of Tender Document Fee and e-Service Fee:</p> <p>The online payment for Tender document fee and e-Service Fee shall be made using the secure electronic payment gateway by Tenderers online directly through Debit Cards & Internet Banking accounts.</p> <p>The secure electronic payments gateway is an online interface between Contractors and Debit card/online payment authorization networks.</p>
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	<p>H. Preparation & Submission of online Applications/Tenders:</p> <p>i. Detailed Tender documents may be downloaded from e-procurement website (https://etenders.hry.nic.in) from 25.06.2022 (17:00 Hrs. IST) to 06.08.2022 (15:00 Hrs IST.) and tender mandatorily be submitted online following the instruction appearing on the screen.</p> <p>ii. Scan copy of Documents to be submitted/uploaded for Technical Part under online PQQ/ Technical Envelope: All documents shall be prepared and scanned in file formats PDF /JPEG/MS WORD format such that file size is not exceed more than 10 MB) and uploaded during the on-line submission of PQQ or Technical Envelope.</p> <p><u>Only Electronic Form (Refer Tender document):</u></p> <p>FINANCIAL PART shall be submitted mandatorily online under Commercial Envelope and original not to be submitted manually</p> <p>NOTE:</p> <p>(A) Tenderers participating in online tenders shall check the validity of his/her Digital Signature Certificate before participating in the online Tenders at the portal https://etenders.hry.nic.in.</p> <p>(B) For help manual, please refer to the ‘Home Page’ of the e-procurement website at https://etenders.hry.nic.in</p>
<p>ITT 2.1</p>	<p>The Recipient is: Haryana Orbital Rail Corporation Limited (HORCL) through Government of Haryana</p> <p>The Bank Loan amount: USD 400 million</p> <p>The name of the Project is: Haryana Orbital Rail Corridor (HORC)</p>
<p>ITT 4.1</p>	<p>JV/Consortium is not applicable in this Tender.</p> <p>Maximum number of members in the JV shall be: NIL</p>
<p>ITT 4.1</p>	<p>Add the following after the last sentence of Clause 4.1</p> <p>If JV/Consortium is permitted to participate in the Tender, Lead Member must have majority share participation in the JV. No change in constitution or percentage share shall be permitted at any stage after the Tender submission, failing which the Tenderer shall be treated as non-responsive.</p> <p>Authorized Representative of JV/Consortium shall be from Lead Member of JV/Consortium.</p>

ITT 4.4	<p>Add the following after the last sentence of Clause 4.4</p> <p>In the event that the Contract is awarded to a foreign Tenderer or to a JV/Consortium having foreign lead Member, such foreign Tenderer/foreign lead Member shall be required to set up a project office in India in accordance with Applicable Laws in India, and shall be required to submit a proof of having opened a project office in India along with statutory approvals, if any, prior to submitting any interim payment certificate in accordance with the Contract, failing which no payment shall be made to the Contractor by the Employer (in accordance with the Contract) until such requirement has been complied with by the foreign Contractor. The aforesaid condition of establishing a project office in India shall not be applicable in case the selected Tenderer is a joint venture between an Indian entity and a foreign entity where Indian Member is lead Member.</p>
ITT 4.5	<p>A list of debarred firms and individuals is available on the Bank's external website: https://www.aiib.org/debarment/</p>
ITT 6.3	<p>Replace ITT 6.3 with the following:</p> <p>The complete tender document can be viewed/ downloaded by the Tenderer from e-procurement portal of Govt. of Haryana https://etenders.hry.nic.in. The Employer is not responsible for the completeness of the Tender Document and their addenda, if they were not obtained directly from e-procurement portal of Govt. of Haryana https://etenders.hry.nic.in .</p>
<p>B. Contents of Tender Document</p>	
ITT 7.1	<p>For <u>Clarification of Tender purposes</u> only, the Employer's address is:</p> <p>Attention: Chief Project Manager</p> <p>Street address: Haryana Rail Infrastructure Development Corporation Limited (HRIDC), Plot no.143, Railtel Tower, Sector-44</p> <p>Floor: 5th floor</p> <p>City: Gurugram</p> <p>ZIP code: 122003</p> <p>Country: India</p> <p>Telephone: +91 9311478893</p> <p>E-mail: horc.etendering@gmail.com</p>
ITT 7.2	<p>Add the following at the end of Para 7.2:</p> <p>No Site visit will be arranged by the Employer.</p>
ITT 7.4	<p>Replace the entire Sub-Clause 7.4 with the following:</p>

	<p>A Pre-Tender meeting will take place through online Video conferencing (VC) as well as offline in the Conference room of HRIDC office, Plot No 143, 3rd Floor, Railtel Tower, Sector-44, Gurugram, Haryana-122003 at the following date and time. The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.</p> <p>Date: 11.07.2022</p> <p>Time: 11.00 hrs IST</p> <p>The prospective Tenderers who have purchased Tender Documents and who wish to join the Pre-Tender meeting through VC shall send a request (giving details of the Company, its address, and the name, designation and email of the person attending the VC) through email along with an editable soft copy (MS Word) of the queries raised by them on the email id (i.e.horc.etendering@gmail.com) so that a link for Video Conferencing can be sent by HRIDC. The Tenderers should use the following format for any Pre-Tender queries:</p> <table border="1"> <thead> <tr> <th>Query No.</th> <th>Reference to Tender Document (Clause/ Para No. & Page No.)</th> <th>Brief Description of Clause/ Para No.</th> <th>Query Raised</th> </tr> </thead> <tbody> <tr> <td>1.</td> <td></td> <td></td> <td></td> </tr> <tr> <td>2.</td> <td></td> <td></td> <td></td> </tr> <tr> <td>3.</td> <td></td> <td></td> <td></td> </tr> <tr> <td>4.</td> <td></td> <td></td> <td></td> </tr> <tr> <td>5.</td> <td></td> <td></td> <td></td> </tr> <tr> <td>etc.</td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>HRIDC will allow maximum of one email Id for one company to participate in the VC. Any request for VC received after the given date and time for sending the link for VC may not be entertained by HRIDC. Prospective Tenderers will be able to join the VC through the link provided to them on their Email ID.</p>	Query No.	Reference to Tender Document (Clause/ Para No. & Page No.)	Brief Description of Clause/ Para No.	Query Raised	1.				2.				3.				4.				5.				etc.			
Query No.	Reference to Tender Document (Clause/ Para No. & Page No.)	Brief Description of Clause/ Para No.	Query Raised																										
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<p>ITT 7.5</p>	<p>Replace ITT 7.5 with the following:</p> <p>The Tenderer is requested to submit any questions in writing, to reach the Employer not later than 2 days before the Pre-Tender Meeting.</p>																												

ITT 7.6	<p>Replace ITT 7.6 with the following:</p> <p>Minutes of the Pre-Tender Meeting, including the text of the questions raised, without identifying the source, and the responses given, together with any responses prepared after the meeting will be uploaded on e-Procurement portal, https://etenders.hry.nic.in. Any modification to the Tender Document that may in the sole discretion of the Employer become necessary as a result of the pre-Tender meeting shall be made by the Employer exclusively through the use of an Addendum pursuant to ITT 8.</p>
ITT 8.2	<p>Replace ITT 8.2 with the following:</p> <p>Any addendum issued shall be part of the Tender Documents and shall be uploaded on e-Procurement portal, https://etenders.hry.nic.in.</p> <p>The onus is on the Tenderers to visit the e-Tendering portal to see the addenda published by the Employer.</p>
<p>C. Preparation of Tenders</p>	
ITT 10.1	<p>The language of the Tender is: English</p> <p>All correspondence exchange shall be in English language.</p> <p>Add the following at the end of Sub-Clause ITT 10.1</p> <p>In case the supporting documents are in foreign language, the translation of the same shall be either stamped by Embassy/High Commission or Partner Countries of Hague convention may submit these documents with “Apostille” stamp.</p>
ITT 11.1	<p>Replace ITT 11.1 with the following:</p> <p>The Tenderer shall submit their tender online on e-procurement portal https://etenders.hry.nic.in as mentioned in para ITT 21.</p> <p>The Tender shall comprise two parts submitted simultaneously, one called the Technical Part containing the documents listed in ITT 11.2 and the other the Financial Part containing the documents listed in ITT 11.3.</p> <p>The Tenderer shall upload only the above mentioned documents in its submission on e-procurement portal and is not required to upload Part 1, Part 2 and Part 3 of the Tender document issued by the Employer. The master copy of Tender Document published on e-Procurement portal shall be available with HRIDC which shall be final and binding.</p>
ITT 11.2	<p>Replace the entire Sub-Clause 11.2 with the following:</p> <p>The Tenderer shall submit all the documents in its Technical Part as per the Checklist CL (A. Technical Part) given in Section III: Evaluation and Qualification Criteria.</p>

ITT 11.3	Replace the entire Sub-Clause 11.3 with the following The Tenderer shall submit all the documents in its Financial Part as per the Checklist CL (B. Financial Part) given in Section III: Evaluation and Qualification Criteria
ITT 13.1	Alternative Tenders shall not be considered.
ITT 13.2	Alternative times for completion shall not be permitted.
ITT 13.4	Alternative technical solutions shall not be permitted.
ITT 14.2	Replace ITT 14.2 with the following: - The Tenderer shall quote the total lump sum price “single responsibility basis” for Schedule ‘A’ in the prescribed place of Price Schedule in MS-Excel file. The Tenderer shall quote single percentage (%) Excess (+) or Less (-) on the estimated amount for Schedule ‘B’ and Schedule ‘C’ in the prescribed place of Price Schedule in MS-Excel file.
ITT 14.4	Replace ITT 14.4 with the following: - As there is no lot in this Contract Package, no discounts shall be quoted by the Tenderers.
ITT 15.1	The currency(ies) of the Tender and the payment currency(ies) shall be as described below: The prices shall be quoted by the Tenderer in the Price Schedule in Indian Rupees (INR) only. A Tenderer expecting to incur expenditures in other currencies for inputs to the Works supplied from outside the Employer’s Country (referred to as “the foreign currency requirements”) shall indicate in the Appendix A to Financial Part - Table C, Section IV-Tender Forms the percentage(s) of the Tender Price (excluding Provisional Sums), needed by the Tenderer for the payment of such foreign currency requirements, limited to United States Dollar (USD), European Euro (EUR) and Japanese Yen (JPY).
ITT 18.1	The Tender validity period shall be 180 days after the Tender submission deadline date.
ITT 19.1	The Tenderer shall furnish a Tender Security for an amount of INR 10,000,000.00 (INR Ten Million only).
ITT 19.2	Not Applicable
ITT 19.3	Replace the ITT 19.3 with the following: The amount for Tender Security will only be paid online by eligible Tenderers on e-procurement Portal in favour of Haryana Rail Infrastructure

	Development Corporation Limited using the electronic payment gateway service.
ITT 20.1	Replace ITT 20.1 with the following: The Technical Part (comprising of documents specified in ITT 11.2) and Financial Part (comprising of documents specified in ITT 11.3) shall be submitted online on e-procurement portal of Government of Haryana (https://etenders.hry.nic.in) only in accordance with the requirements of the Tender Documents.
ITT 20.3	The written confirmation of authorization to sign on behalf of the Tenderer shall consist of: (a) In case of Private/Public Companies, a Power of Attorney from the Director of the Company who has been authorized by the Board of Directors through resolution to sign on behalf of the Company. Copy of Board Resolution shall also be submitted. (b) In case of Proprietary Tenderers, Power of Attorney by the Proprietor. (c) In case of Partnership firms, Power of Attorney duly signed by all the Partners. (d) In case of Limited Liability Partnership (LLP) firms, a Power of Attorney issued by the LLP in favour of the individual to sign the tender on behalf of the LLP and create liability against the LLP. (e) In case of Joint Venture/Consortium, Power of Attorney duly signed by authorized representative of individual Member in favour of the Lead Member and Authorized representative of JV/Consortium.
D. Submission of Tenders	
ITT 21	Replace ITT 21 with the following: 21.1 Tenderers shall upload their tender submission online on e-procurement portal (i.e. https://etenders.hry.nic.in) within the stipulated date and time as mentioned in ITT 22.1. The Tenderer shall ensure that they retain a copy of the receipt/ acknowledgement of their Tender submission which is generated by the system upon successful submission of Tender online.

	<p>21.2 Tenders sent telegraphically or through any other means of transmission except as mentioned above shall be treated as invalid and shall stand rejected.</p> <p>21.3 No details about Financial Part shall be submitted/ disclosed directly or indirectly in the Technical Part failing which the employer has the right to reject the Tender.</p>
ITT 22.1	<p>Replace ITT 22.1 with the following:</p> <p>The Tender submission is through the e-procurement portal only (i.e. https://etenders.hry.nic.in) as specified in ITT 21.1</p> <p>The Tenderer shall submit its Tender before expiry of the date and time for tender submission as specified herein.</p> <p>The deadline for Tender submission is:</p> <p>Date: 06.08.2022</p> <p>Time: 15.00 hrs IST</p>
ITT 23.1	<p>Replace ITT 23.1 with the following:</p> <p>Submission of Tenders shall be closed on e-procurement portal on the date & time of submission as prescribed in ITT 22.1 after which no tender can be uploaded.</p>
ITT 24	<p>Replace ITT 24 with the following:</p> <p>24.1 The Tenderer may modify, substitute or withdraw its e-Tender after submission prior to the deadline for submission of Tenders. For modification of e-Tender, Tenderer has to detach its old Tender from e-procurement portal (https://etenders.hry.nic.in) and upload/ resubmit digitally signed modified tender. For withdrawal of tender, Tenderer has to click on withdrawal icon at e- procurement portal and can withdraw its e-tender. Before withdrawal of a tender, it may specifically be noted that after withdrawal of a tender for any reason, Tenderer cannot re-submit e-tender again.</p> <p>24.2 No Tender may be withdrawn, substituted, or modified in the interval between the deadline for submission of Tenders and the expiration of the period of Tender validity specified by the Tenderer on the Letter of Tender or any extension thereof.</p>

E. Public Opening of Technical Parts of Tenders	
ITT 25	<p>Replace ITT 25 with the following:</p> <p>25.1 The Employer shall conduct the electronic opening of Technical Part on e-procurement portal on the date, time and place as specified below: Street Address: Haryana Rail Infrastructure Development Corporation Limited (HRIDC), Plot no.143, Railtel Tower, Sector-44 Floor/ Room number: 5th floor City: Gurugram Zip code: 122003 Country: INDIA Date: 06.08.2022</p> <p>Time: 1530 hrs IST</p> <p>The opening of the Technical Part and subsequent details can be viewed by the tenderers by logging on the e-procurement portal. Alternatively, any Tenderer who wish to attend the Technical Part opening can be present during the opening. The Tenderer's representatives who are present shall be requested to mark their attendance on the format available with the Employer.</p> <p>25.2 The Financial Part submitted online on e-procurement portal will remain unopened in the e-procurement portal until the date and time of opening of Financial Part. The date and time of the opening of the Financial Part will be notified to all the Tenderers on e-procurement portal whose tender is found to be substantially responsive and qualified in technical evaluation as specified in ITT 34.2.</p> <p>25.3 At the time of opening of Technical Part, the following shall be read out and recorded:</p> <ul style="list-style-type: none">(a) the name of the Tenderer;(b) the presence of a Tender Security; and(c) any other details as the Employer may consider appropriate.

	<p>Only Technical Part read out and recorded at Tender opening shall be considered for evaluation.</p> <p>25.4 The Employer shall prepare a record of the opening of Technical Part that shall include, as a minimum, the name of the Tenderer and the presence or absence of Tender Security. The Tenderers' representatives who are present shall be requested to sign the record available with the HRIDC. The omission of a Tenderer's signature on the record shall not invalidate the contents and effect of the record.</p> <p>25.5 At the tender opening the Employer shall neither discuss the merits of any Tender nor reject any Tender.</p>
F. Evaluation of Tenders – General Provisions	
ITT 27	<p>Replace ITT 27 with the following:</p> <p>27.1 To assist in the examination, evaluation and comparison of the Tenders, the Employer may, at its discretion, ask any Tenderer for a clarification of its Tender. Any clarification submitted by a Tenderer that is not in response to a request by the Employer shall not be considered. The Employer's request for clarification and the response shall be in writing and delivered to concerned Tenderers (by courier or e-mail through PDF attachment). The due date and time to respond to these queries will also be communicated. No change in the prices or substance of the tender shall be sought, offered, or permitted, except to confirm the correction of errors discovered by the Employer in the evaluation of the Financial Part, in accordance with ITT Clause 35.</p> <p>27.2 If a Tenderer does not provide clarifications of its Tender by the date and time set in the Employer's request for clarification, their Tender shall be evaluated as per the available information in the submitted Tender.</p>
ITT 29.3	Not Applicable
G. Evaluation of Technical Parts of Tenders	
ITT 30.2	Not Applicable

ITT 32.4	<p>Replace ITT 32.4 with the following:</p> <p>Only Tenders that are both substantially responsive to the Tender Document, and meet all Qualification Criteria, shall be notified on e-procurement portal for the public opening of “FINANCIAL PART”.</p>
ITT 33.1	Only Specialist subcontractors are permitted for the activities specified in ITT 33.3.
ITT 33.2	Only Specialist subcontractors are permitted for the activities specified in ITT 33.3 irrespective of their values.
ITT 33.3	<p>Specialist Subcontractors are permitted for the following specialised parts of the Works: :</p> <ul style="list-style-type: none"> (i) Fabrication, assembly & launching of Open Web Girders (OWG) (ii) Electrification Works (OHE)Signalling (iii) Telecom OFC works (iv) Detailed Design
H. Public Opening of Financial Parts of Tenders	
ITT 34	<p>Replace ITT 34 with the following:</p> <p>34.1 Following the completion of the evaluation of the Technical Parts of the Tenders, and the Bank has issued its no objection (if applicable), the Employer shall notify in writing those Tenderers whose Tenders were considered non-responsive to the Tender Document or failed to meet the Qualification Criteria, advising them of the following information:</p> <ul style="list-style-type: none"> (a) the grounds on which their Technical Part of Tender failed to meet the requirements of the Tender Document; (b) their “FINANCIAL PART” shall remain unopened on the e-procurement portal; (c) notify them of the date, time and location of the public opening of “FINANCIAL PART” on the e-procurement portal; <p>34.2 The Employer shall, simultaneously, notify in writing those Tenderers whose Tenders - Technical Parts have been evaluated as substantially responsive to the Tender Document and met all Qualifying Criteria, advising them of the following information:</p> <ul style="list-style-type: none"> (a) their Tender has been evaluated as substantially responsive to the Tender Document and met the Qualification Criteria;

	<p>(b) their “FINANCIAL PART” on e-procurement portal will be opened at the public opening of the Financial Parts; and</p> <p>(c) notify them of the date, time and location of the public opening of the “FINANCIAL PART” as specified below:</p> <ol style="list-style-type: none"> i. The Employer shall publish a notice of the public opening of the Financial Parts on e-procurement portal. ii. Any interested party who wishes to attend this public opening may contact: <ul style="list-style-type: none"> For the attention: Chief Project Manager Employer: Haryana Rail Infrastructure Development Corporation Limited Email address: horc.etendering@gmail.com <p>34.3 The “FINANCIAL PART” of Tenderers who met the Qualification Criteria and whose Tenders were evaluated as substantially responsive, will be opened on e-procurement portal. The Employer shall read out the names of each Tenderer, and the total Tender prices, per lot (contract) if applicable, including any discounts and any other details as the Employer may consider appropriate.</p> <p>34.4 The Employer shall neither discuss with Tenderer’s representative present, if any, the merits of any Tender nor reject any “FINANCIAL PART”.</p> <p>34.5 The Employer shall prepare a record of the Financial Part of the Tender opening that shall include, as a minimum:</p> <ol style="list-style-type: none"> (a) the name of the Tenderer whose Financial Part was opened; (b) the Tender price, per lot (contract) if applicable, including any discounts; and (c) if applicable, any Alternative Tender – Financial Part. <p>34.6 The Tenderer’s representatives who are present at the time of opening of Financial Part shall be requested to sign the record. The omission of a Tenderer’s signature on the record shall not invalidate the contents and effect of the record. A copy of the record (i.e. summary of rates quoted) can be viewed by all eligible Tenderers after opening of the Financial Part.</p>
I. Evaluation of Financial Parts of Tenders	
ITT 37.1	The currency that shall be used for tender evaluation and comparison purposes is Indian Rupees (INR) only.

ITT 38.1	Provisions for development of domestic industry (such as a margin of domestic preference shall not apply.
J. Award of Contract	
ITT 47.1	Add the following to ITT 47.1 The Accepted Contract Amount shall be in INR only. However, the payments will be made in currencies as quoted by the Tenderer in Appendix A, Table C, Section IV-Tender Forms.
ITT 49.1	The successful Tenderer shall submit the Beneficial Ownership Disclosure Form.
ITT 50.2	Add the following to ITT 50.2 The Tenderer will be declared ineligible for a period of Two (2) years for participation in any Tender invited by the Employer.
ITT 51.1	The procedures for making a Procurement-related Complaint are detailed in the Bank's Procurement Instructions for Recipients (Annex IV). A Tenderer may make a Complaint in writing, to: For the attention: Chief Project Manager Employer: Haryana Rail Infrastructure Development Corporation Limited Email address: horc.etendering@gmail.com

Section III. Evaluation and Qualification Criteria

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1. General Provisions

1.1 Evaluation Sequence

- (a) Tenders will be evaluated through the following four stages:
 - (i) Stage 1: Evaluation of Administrative Requirements
 - (ii) Stage 2: Evaluation of Compliance with the Qualification Requirements
 - (iii) Stage 3: Technical Evaluation
 - (iv) Stage 4: Financial Evaluation

1.2 Clarification from Tenderers

- (a) The Engineer may request clarification of any Tender in accordance with the provisions of the Tender Documents (Part 1, Section-I: Instructions to Tenderers, Clause 27).
- (b) If clarification is required, the Engineer will send written (Courier/email with PDF attachment) requests to the Authorized Representative for clarification, specifying the deadline for receipt of reply.
- (c) Replies to the above requests shall be sent by Tenderer through Courier/e-mail with PDF attachments and the same shall be solely to clarify and/or elaborate the items already included in the submitted Tenders for the purpose of evaluation in accordance with ITT 27.1.

1.3 Tender Forms

- (a) Tenderers should note that the information required to be inserted into the Tender Forms shall be comprehensive and detailed. The technical information shall be furnished in line with the requirements of Part 1, Part 2 and Part 3 of the Tender Documents.
- (b) All Forms contained in the Tender Documents must be fully and properly completed and all the forms must be returned duly signed by Authorised Representative of the Tenderer, as they will be reviewed exactly as submitted and errors or omissions may count against the Tenderer.
- (c) Any Tenderer who is found to have intentionally submitted false or inaccurate statements/information shall be disqualified from the Tendering process.

2. Stages of Evaluation

2.1 Stage 1: Evaluation of Administrative Requirements

A. General

- (a) The Stage 1 Evaluation will consist of checking the Tenders to confirm whether they are substantially responsive to the administrative requirements of the Tender Documents.
- (b) The following administrative items will be checked:
 - (i) Whether the Tender submission is in accordance with ITT 11.2;
 - (ii) Whether the Power of Attorney for the Tender signatory is in the correct form [Ref. ITT 20.3 and ITT 20.4];

2.2 Stage 2: Evaluation of Compliance with the Qualification Requirements

A. General

Tenders will be reviewed to ascertain whether the Tender complies with all of the minimum requirements as stipulated in the Sub-Clause C. Qualification Criteria.

B. Check Items

The following requirements of the Instruction to Tenderers, Clauses 4, 11 & 17 will be checked to ensure compliance to the requirements of criteria given below:

(a) Eligibility

- (i) Nationality: Form ELI-1.1(a)
- (ii) Conflict Interest: Letter of Tender-Technical Part
- (iii) Bank Eligibility: Letter of Tender -Technical Part
- (iv) State-owned Enterprise or Institution of the Recipient country: Form ELI-1.1(a),
- (v) United Nations resolution or Recipient's country law: Letter of Tender-Technical Part

(b) Historical Contract Non-Performance and Litigation

- (i) History of Non-Performing Contracts: Form CON-1
- (ii) Suspension Based on Execution of Tender- Securing Declaration by the Employer: Letter of Tender-Technical Part
- (iii) Pending Litigation: Form CON-1
- (iv) Declaration: Environmental, Social, Health, and Safety (ESHS) past performance: Form CON-2

(c) Financial Situation

- (i) Financial Situation and Performance: Form FIN-3.3.1
- (ii) Average Annual Construction Turnover: Form FIN-3.3.2

(d) Financial Resources

- (i) Financial Resources: Form FIN-3.3.3
- (ii) Current Contract Commitments / Works in Progress and Bid Capacity: Form FIN-3.3.4

(e) Experience

- (i) General Construction Experience: Form EXP-3.4.1
- (ii) Specific Construction and Contract Management Experience: Form EXP-3.4.2(a)
- (iii) Specialised Activities: Form UT-1

3. Qualification Criteria

If the Tenderer fails to comply with any item of Qualification Criteria given below, the Tenderer shall be disqualified.

Eligibility and Qualification Criteria			Compliance Requirements			Documentation	
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended)			Submission Requirements
				All Members Combined	Each Member	Lead Member	
3.1 Eligibility							
3.1.1	Nationality	Nationality in accordance with ITT 4.4	Must meet requirement	N/A	N/A	N/A	Forms ELI – 1.1 (a), with attachments
3.1.2	Conflict of Interest	No conflicts of interest in accordance with ITT 4.2	Must meet requirement	N/A	N/A	N/A	Letter of Tender-Technical Part
3.1.3	Bank Eligibility	Not having been declared ineligible by the Bank, as described in ITT 4.5.	Must meet requirement	N/A	N/A	N/A	Letter of Tender-Technical Part
3.1.4	State-owned Enterprise or Institution of the Recipient country	Meets conditions of ITT 4.6	Must meet requirement	N/A	N/A	N/A	Letter of Tender-Technical Part and Form ELI – 1.1 (a), with attachments
3.1.5	United Nations resolution or Recipient's country law	Not having been excluded as a result of prohibition in the Recipient's country laws or official regulations against commercial	Must meet requirement	N/A	N/A	N/A	Letter of Tender-Technical Part

Eligibility and Qualification Criteria			Compliance Requirements			Documentation	
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended)			Submission Requirements
				All Members Combined	Each Member	Lead Member	
		relations with the Tenderer's country, or by an act of compliance with UN Security Council resolution, both in accordance with ITT 4.8 and Section V.					
3.2 Historical Contract Non-Performance							
3.2.1	History of Non-Performing Contracts	Non-performance of a contract ² did not occur as a result of contractor default since 1 st April 2017 till 28 days prior to deadline of Tender submission.	Must meet requirement	N/A	N/A	N/A	Form CON-1
3.2.2	Suspension Based on Execution of Tender-Securing Declaration by the Employer	Not under suspension based on-execution of a Tender/Proposal Securing Declaration pursuant to ITT 4.7 and ITT 19.9	Must meet requirement	N/A	N/A	N/A	Letter of Tender – Technical Part

² Nonperformance, as decided by the Employer, shall include all contracts where (a) nonperformance was not challenged by the contractor, including through referral to the dispute resolution mechanism under the respective contract, and (b) contracts that were so challenged but fully settled against the contractor. Nonperformance shall not include contracts where Employer's decision was overruled by the dispute resolution mechanism. Nonperformance must be based on all information on fully settled disputes or litigation, i.e., dispute or litigation that has been resolved in accordance with the dispute resolution mechanism under the respective contract and where all appeal instances available to the Tenderer have been exhausted.

Eligibility and Qualification Criteria			Compliance Requirements			Documentation	
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended)			Submission Requirements
				All Members Combined	Each Member	Lead Member	
3.2.3	Pending Litigation	Tenderer's financial position and prospective long-term profitability still sound according to criteria established in 3.3.1 (iii) below and assuming that all pending litigation will be resolved against the Tenderer	Must meet requirement	N/A	N/A	N/A	Form CON-1
3.2.4	Litigation History	Not Applicable					
3.2.5	Declaration: Environmental, Social, Health, and Safety (ESHS) past performance	Declare any civil work contracts that have been suspended or terminated and/or performance security called by an employer for reasons related to the non-compliance of any environmental, or social, or health, or safety requirements or safeguard in the past five years ³ preceding 28 days prior to deadline of Tender	Must make the declaration	N/A	N/A	N/A	Form CON-2 ESHS Performance Declaration

³ The Employer may use this information to seek further information or clarifications in carrying out its due diligence.

Eligibility and Qualification Criteria			Compliance Requirements			Documentation	
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended)			Submission Requirements
				All Members Combined	Each Member	Lead Member	
		submission					
3.3 Financial Situation and Performance							
3.3.1	Financial Capabilities	(i) The Tenderer shall demonstrate that it has access to, or has available, liquid assets, unencumbered real assets, lines of credit, and other financial means (independent of any contractual advance payment) sufficient to meet the construction cash flow requirements estimated as INR 506 million (USD 6.48 million) for the subject contract (i.e. C-2).	Must meet requirement	N/A	N/A	N/A	Form FIN-3.3.3 (Sources of Finance for the subject Contract)
		(ii) The Tenderer shall also demonstrate, to the satisfaction of the Employer, that it has adequate Bid capacity for the works currently in progress and future contract commitments.	Must meet requirement	N/A	N/A	N/A	Form FIN – 3.3.2 & Form FIN-3.3.4

Eligibility and Qualification Criteria			Compliance Requirements			Documentation	
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended)			Submission Requirements
				All Members Combined	Each Member	Lead Member	
		The available Bid capacity should be equal to or more than INR 4560 million (USD 58.40 million) . The available Bid capacity will be calculated as per item no. 1 of Form FIN- 3.3.4.					
		(iii) The Tenderer must demonstrate the current soundness of its financial position and indicate its prospective long-term profitability- Average Net-Worth (Total Assets – Total Liabilities)* should not be less than INR 912 million (USD 11.68 million) during the last three (03) financial years. *Note: Amount corresponding to all pending litigations, considering that these will be resolved against the Tenderer (as per Form	Must meet requirement	N/A	N/A	N/A	Form FIN-3.3.1

Eligibility and Qualification Criteria			Compliance Requirements			Documentation	
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended)			Submission Requirements
				All Members Combined	Each Member	Lead Member	
		CON-1 item 2), will be subtracted from the average Net Worth calculated above.					
3.3.2	Average Annual Construction Turnover	Minimum average annual construction turnover of INR 6080 million (USD 77.86 million) , calculated as total certified payments received for contracts in progress and/or completed within the last three financial years divided by three.	Must meet requirement	N/A	N/A	N/A	Form FIN-3.3.2
3.4 Experience							
3.4.1	General Construction Experience	Experience under construction contracts in the role of Prime contractor, JV member or a sub-contractor starting 1 st April 2015 till 28 days prior to deadline of Tender submission.	Must meet requirement	N/A	N/A	N/A	Form EXP-3.4.1
3.4.2 (a)	Specific Construction & Contract	Participation, as a Prime contractor, Joint	Must meet requirement	N/A	N/A	N/A	Form EXP-3.4.2(a)

Eligibility and Qualification Criteria			Compliance Requirements			Documentation	
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended)			Submission Requirements
				All Members Combined	Each Member	Lead Member	
	Management Experience	<p>venture⁴ member or Sub-Contractor⁵ in</p> <p>(I) One contract with a value of at least INR 3648 million (USD 46.71 million) that has been successfully or is substantially completed⁶ since 1st April 2015 till 28 days prior to deadline of Tender submission. The similar work here shall be that Rail/Road Project which meets the following requirements:</p> <p>(i) the above contract must involve execution of minimum quantity of 1.5 million cum of Earthwork.</p> <p>Note: Earthwork in formation/cutting,</p>	of either (I) or (II)				

⁴ Value of 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 purpose of satisfying his/her experience criteria mentioned in 3.4.2(a).

⁵ If a tenderer has successfully completed a work as subcontractor, the work experience certificate issued for such work to subcontractor by the Employer (owner of the work) shall only be considered for the purpose of fulfillment of credentials.

⁶ Substantial completion shall be based on 80% or more of the original value of works completed under the contract.

Eligibility and Qualification Criteria			Compliance Requirements			Documentation	
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended)			Submission Requirements
				All Members Combined	Each Member	Lead Member	
		<p>Blanketing, GSW/WMM in Rail/Road projects will be considered as part of Earthwork.</p> <p>(ii) the above contract must involve *execution of minimum 100m clear /effective length of bridges.</p> <p style="text-align: center;">OR</p> <p>(II) Two contracts, each with a value of at least INR 2736 million (USD 35.04 million) that have been successfully or are substantially completed⁷ since 1st April 2015 till 28 days prior to deadline of Tender submission and that are similar to the proposed work. Each similar work here shall be that Rail/Road Project which meets following requirements:</p>					

Eligibility and Qualification Criteria			Compliance Requirements			Documentation	
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended)			Submission Requirements
				All Members Combined	Each Member	Lead Member	
		<p>(i) Both the above contracts combined together must involve minimum 1.5 million Cum earthwork. .</p> <p>Note: Earthwork in formation/cutting, Blanketing, GSW/WMM in Rail/Road projects will be considered as part of Earthwork.</p> <p>(ii) Both the above contracts combined together must involve *Execution of minimum 100m clear/effective length of bridges.</p>					

*Evaluation of length of spans for multitrack/ multi lane bridges shall be done as under:

- (a) In case of Railway bridges/Metro viaduct, accommodating multiple tracks, the length of span for each track shall be taken into consideration. In case of Road bridges accommodating multilanes, the credit for length of one span shall be given for every two lanes.
- (b) The credit for multiple tracks/multilane shall be given only if the number of tracks or number of lanes is specifically mentioned in the certificate of the employer, otherwise credit shall be given for single track/lane

Notes:**1. Exchange Rate for Qualification Criteria**

Wherever a Form in Section IV, Tender Forms, requires a Tenderer to state a monetary amount, Tenderers shall indicate the INR equivalent as indicated in the respective form using the rate of exchange determined as follows:

- (i) For construction turnover or financial data required for each year – Exchange rate prevailing on the last day of the respective financial year.
 - (ii) Value of single contract - Exchange rate prevailing on the date of the Contract Award i.e. the date of issue of Letter of Acceptance.
 - (iii) Exchange rates shall be taken from reference rate published by the Reserve Bank of India (RBI) on its website <https://www.rbi.org.in>. In case the exchange rate of particular currency on given date is not available on RBI web site, it will be as per the web site <https://www.fbil.org.in> of Financial Benchmark India Private Limited (FBIL). Any error in determining the exchange rates may be corrected by the Employer. In the case, where a Tenderer is required to convert a monetary amount from a currency other than those currencies for which the RBI/FBIL reference rate is not published, the INR equivalent shall be worked out using the rate of exchange as published by the central bank of the country issuing the said currency. In case the exchange rate of that currency is not directly available in INR on the website of the central bank of the country issuing the said currency then the currency will be first converted to USD as per that web site and then converted from USD to INR as Per RBI or FBIL reference rates.
2. For past experience in Sub-Clause 3.4.2(a), credit shall be given for execution of the quantity of that specific activity executed by the Tenderer as part of a JV, duly certified by the Employer. If the Employer's Certificate does not indicate the specific quantity of key activity/activities executed by each partner, in such a case credit for quantity of each key activity shall be given as per following provisions in order of priority:
- (i) As per details given in JV agreement forming part of the relevant Contract Agreement.
 - (ii) If JV agreement does not provide such details, then credit shall be given in proportion of the percentage share of the firm in that JV mentioned in the Employer's Certificate/Agreement.
3. In case a JV quoting for the Tender has executed similar work specified in 3.4.2(a) with the same constitution of JV, the requirement specified to be met under Sub-Clause 3.4.2(a) shall be considered to have been met treating the JV as a single entity for this purpose.

3.5 Specialist subcontractor

- 3.5.1** The Tenderer must confirm, in the FORM UT-1 given in Section IV, Tender Forms, that either he himself meets the minimum experience requirement mentioned in Table-1 given below or he will be deploying specialist subcontractor not exceeding one for each specialised activity mentioned in the Table-1 given below.
- 3.5.2** In case a Tenderer confirms to meet the minimum experience requirement for the specialised activities himself, the Tenderer shall submit copy of certificates issued by the Employer as documentary evidence for meeting the minimum experience requirement for each specialised activity mentioned in Table-1 given below.
- 3.5.3** If a Tenderer does not have minimum experience requirement himself for any of the specialised activities, he must submit the name of the subcontractor in the FORM UT-1 given in Section IV, Tender Forms which he is going to deploy for that particular specialised activity(ies) mentioned in Table-1 given below. For each proposed specialist Sub-Contractor, Tenderer shall submit copy of certificates issued by the Employer as documentary evidence for meeting the minimum experience requirement mentioned in Table-1 given below.
- 3.5.4** If a Tenderer does not fulfil the minimum experience requirement by himself or fails to submit the details of the specialist subcontractor, his Tender shall be summarily rejected.
- 3.5.5** If a Tender does not submit the copy of certificates issued by the Employer as documentary evidence in favour of himself /specialist subcontractor for meeting the minimum experience requirement for each specialised activity mentioned in Table-1 given below, his Tender shall be summarily rejected.

Table-1: Experience Requirement for Specialised Activities

S. No.	Specialised Activity	Minimum Experience Requirement for the Tenderer or the Specialist Sub-Contractor for execution of following Specialised activities:
1.	Fabrication, assembly & launching of Open Web Girders (OWG)	i. Execution of bridge work consisting of fabrication, assembly and launching of at least one span of Open Web Girders (OWG) of 45.7m or longer spans in Railway/Metro/RRTS or Road Over Bridge (ROB) in single contract during last seven years. ii. The Tenderer/Specialist Subcontractor must own RDSO approved workshop or must have a MOU with RDSO approved vendor workshop in Part-A for fabrication of Open Web Girders.
2.	Electrification Works (OHE)	Installation, testing and charging of 25 kV OHE system on railway track of minimum length of 23 TKms in a single contract during the last seven years.
3.	Signalling	Installation, testing and commissioning of EI works of at least One (01) station in railway in a single contract during last seven years.
4.	Telecom OFC works	Execution of Telecom works of 14km in a single contract during last seven years with Railway/Govt. Organization/PSUs/Authorities.
5.	Detailed Design	Shall have carried out following detailed designs during last seven years- a) At least one work of Detailed Design of bridges/viaduct involving use of pile foundations and Open Web Girder of clear span of 45.7 m or more for Railway or Metro Rail or Regional Rapid Transit System (RRTS) (excluding LRT/TRAM/Monorail Systems) ; and

		b) At least one work of Detailed Design of embankment having height of 10m or more for Railway/Highway/Irrigation projects.
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Note:-

- (1) Tenderer /specialist subcontractor must have executed the specialised activity mentioned in Table-1 above as a Prime contractor, Joint Venture member or Subcontractor.
- (2) If a tenderer/specialist subcontractor has successfully completed a work as subcontractor, the work experience certificate issued for such work to subcontractor by the Employer (owner of the work) shall only be considered for the purpose of fulfilment of credentials.
- (3) Value of 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 purpose of satisfying his/her experience criteria mentioned in Table-1 given above.
 - a) For past experience of specialised activities given in the Table-1 above, credit shall be given for execution of the quantity of that specific activity executed by the firm as part of a JV, duly certified by the Employer. If the Employer's Certificate does not indicate the specific quantity of specialised activity/activities executed by each member, in such a case credit for quantity of each specialised activity shall be given as per following provisions in order of priority:
 - (i) As per details given in JV agreement forming part of the relevant Contract Agreement.
 - (ii) If JV agreement does not provide such details, then credit shall be given in proportion of the percentage share of the firm in that JV.
- (4) **For specialised activity Electrification Works at S. No. 2 in the Table-1 above** Overhead Equipment works that shall be considered under this qualifying criterion must include erection, testing and charging of 25 kV and above OHE system charged at 2.2 kV/25 kV or above as certified by the employer for electrification of un-electrified track. Works pertaining to construction of switching stations, commissioning of capacitor banks for Railway Electrification projects, rehabilitation of OHE/Structures, shall not qualify as similar works.
- (5) Upon award of Contract, the Contractor is required to enter into legally enforceable agreement with the specialist subcontractor at least two month prior to scheduled start of specialised activity as per Contractual Works Programme. The agreement must specify the specific role and responsibility of the subcontractor. The Contractor shall submit a copy of agreement to the Employer and the Engineer prior to the intended date of commencement of works by such Subcontractor.

4. Stage 3: Technical Evaluation

A. Procedure for Technical Evaluation

- (a) The Stage 3 Evaluation will consist of checking the technical aspects of the Tenders to confirm whether they substantially conform to the requirements of the Tender Documents.
- (b) In order to determine whether the Tender substantially conforms to the technical requirements of the Tender Documents, the technical proposal shall broadly cover the following items:

S. No.	Technical Evaluation Items	Relevant Forms
1	Site Organization	Technical Proposal
2	Outline Method Statement	Technical Proposal
3	Works Execution Programme	Technical Proposal

- (c) The Technical Part will be evaluated to examine the responsiveness and to assess the capability of the Tenderer in executing the proposed work.

B. Evaluation of Technical Part

Evaluation of the Tenderer's Technical Part will include an assessment of the Tenderer's technical capacity for the contract consistent with its proposal. It is expected that the Tenderer visits the site and is fully aware of all the work requirements under this Tender, and then prepares the Technical Part. The Technical Proposal shall cover the following.

i. Site Organisation:

Evaluation of Site organisation will be carried out based on the information furnished in Section IV- Tender Forms.

ii. Outline Method Statement:

Evaluation of Outline Method Statement will be carried out based on the information furnished in Section IV- Tender Forms.

iii. Work Execution Programme:

Evaluation of the Work Execution Programme will be carried out based on the information furnished in Section IV- Tender Forms.

All Tenders which are found substantially responsive after Stage 3 evaluation will proceed to the next stage.

5. STAGE 4: Financial Evaluation

The activities in this Stage 4 will be in two (2) parts.

A. Evaluation of Compliance and Responsiveness

- (a) Under this Stage the following items will be checked:
 - (i) Whether the Letter of Tender-Financial Part is compliant (i.e. does not include any alteration to the basic terms and does not constitute an alternative offer).
 - (ii) Whether all Forms and Price Schedules have not been altered and are correctly completed and signed.

B. Detailed Financial Evaluation

- (a) After passing the above requirements, the Tender will then proceed for Financial Part evaluation in accordance with ITT 35.
- (b) In principle, the lowest evaluated Tender resulting from ‘A’ above will move to next stage as per ITT “J. Award of Contract”, described in ITT Clauses 46 to 50.

Checklist-CL**Checklist of submission of Documents/Forms online, duly filled**

(Reference to TDS-ITT 11.2 & 11.3, Section II, Part 1)

A. TECHNICAL PART

S. No.	Requirement of Tender Document	Ref. Clause of Tender documents	Tenderer's Name:	
			Whether information submitted (Yes/No/N.A.)	Ref. Pg No. in the Technical Submittal
1.	Letter of Tender-Technical Part	ITT 11.2 (a) and Section IV		
2.	Technical Part signed by authorized representative of Single Entity/Joint Venture/Consortium	ITT 20.3		
3.	Tender Security	ITT 19.1		
4.	Form ELI – 1.1: (a) Tenderer Information Form (Single Entity)	ITT 17.1 and Appendix D of Section IV		
5.	Form ELI-1.4: Power of Attorney (POA) for Submitting Tender	ITT 20.3 and Appendix D of Section IV		
6.	Board Resolution in case of a Public/Private limited company/LLP	TDS ITT 20.3		
7.	Incorporation Certificate and Memorandum and Articles of Association (MOA & AOA) (in case of Private/Public Limited Company)	Note (iii) (d) of Form ELI 1.4		
8.	Incorporation Certificate and Limited Liability Membership Agreement in case of Limited Liability Membership firms.	Note (iii) (e) of Form ELI 1.4		
9.	Proprietorship Affidavit (in case the Tenderer is Proprietorship Tenderer)	Note (iii) (a) of Form ELI 1.4		
10.	Partnership Deed (in case the Tenderer is Partnership Firm)	Note (iii) (b) of Form ELI 1.4		
11.	In case of foreign tenderer, the Notarised POA/MOU/JV Agreement is notarised in the country of origin and stamped by India Embassy/ High Commission or Member Countries of Hague convention submitted these documents with "Apostille" stamp	Note (i) of Form ELI 1.4		

S. No.	Requirement of Tender Document	Ref. Clause of Tender documents	Tenderer's Name:	
			Whether information submitted (Yes/No/N.A.)	Ref. Pg No. in the Technical Submittal
12.	Form CON - 1: Historical Contract Non-Performance, Pending Litigation and Litigation History	ITT 17.2 and Appendix D of Section IV		
13.	Form CON - 2: Environmental, Social, Health, and Safety Performance Declaration	ITT 17.2 and Appendix D of Section IV		
14.	Form FIN – 3.3.1: Financial Situation and Performance	ITT 17.2 and Appendix D of Section IV		
15.	Form FIN – 3.3.2: Average Annual Construction Turnover	ITT 17.2 and Appendix D of Section IV		
16.	Form FIN – 3.3.3: Financial Resources	ITT 17.2 and Appendix D of Section IV		
17.	Form FIN - 3.3.4: Current Contract Commitments / Works in Progress	ITT 17.2 and Appendix D of Section IV		
18.	Form EXP – 3.4.1: General Construction Experience	ITT 17.2 and Appendix D of Section IV		
19.	Form EXP – 3.4.2(a): Specific Construction and Contract Management Experience	ITT 17.2 and Appendix D of Section IV		
20.	Site Organization	ITT 16.1 and Appendix A of Section IV		
21.	Outline Method Statement	ITT 16.1 and Appendix A of Section IV		
22.	Work Execution Programme	ITT 16.1 and Appendix A of Section IV		
23.	Undertaking for each Specialised Activity along with copy of experience certificate issued by the Employer	FORM UT-1 of Section IV		
24.	Undertaking for compliance to Employer's Requirement & Specification by Tenderer	FORM UT-2 of Section IV		
25.	Undertaking for Downloaded Tender Document	Form UT-3 of Section IV		
<p>Note:</p> <p>(i) The check list is indicative and not exhaustive. The Tenderer must go through the complete tender documents and submit the required documents accordingly.</p> <p>(ii) If any of the above form or criteria is not applicable to the Tenderer, then they can simply indicate N.A. against the relevant column</p>				

S. No.	Requirement of Tender Document	Ref. Clause of Tender documents	Tenderer's Name:	
			Whether information submitted (Yes/No/N.A.)	Ref. Pg No. in the Technical Submittal
(iii) All Tender Forms contained in the Tender Documents must be fully and properly completed and all the forms must be returned signed by Authorized Representative of the Tenderer.				

B. FINANCIAL PART

The Financial Part is provided in the Tender Documents in the form of MS-EXCEL file and PDF file. The Contract Price for the Works shall be quoted in the MS-EXCEL file provided in the e-procurement portal. The Tenderer shall download the MS-EXCEL file and after quoting their Contract Price, upload the same along with other PDF documents of Financial Part mentioned in (a) below as a ZIP file on e-procurement portal. The quoted Contract Price shall not be offered/quoted elsewhere in the Technical Part submission/ Tender submission. These prices shall include all costs associated with the contract including GST. The Tenderer shall complete the Financial Part in accordance with the instructions given in the Financial Part.

Following information are required to be submitted by Tenderers in their Financial Part:

(a) In PDF File

1. Letter of Tender – Financial Part
2. Appendix A to Financial part
Schedule of Adjustment Data
Table A: Local Currency
Table B: Foreign Currency (FC)
Table C: Summary of Payment Currencies
Appendix B to Financial Part: Price Schedule- Preamble
3. Price Schedule
 - 3.1 Contract Price comprises of the following Price Schedules:

Schedule	Description
A	Lump Sum component of Works
B	Retaining Wall
C	Miscellaneous items (Civil, S&T and Unchartered Utility shifting works)

(b) In MS-Excel File

1. Appendix B to Financial Part: Price Schedule
Price Schedule for quoting Price for the Works against each Schedule.

I hereby confirm that:

(i) I have checked the above list with our submittal. I am also aware that if our tender is not containing the above documents, the Employer has the right to reject our tender.

a. All the pages of tender submission are properly indexed and numbered.

Seal:

Date:

(Signature of Authorized representative of Tenderer)

Section IV - Tender Forms

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Letter of Tender – Technical Part

INSTRUCTIONS TO TENDERERS: DELETE THIS BOX ONCE YOU HAVE COMPLETED THE DOCUMENT

The Tenderer must prepare this Letter of Tender on stationery with its letterhead clearly showing the Tenderer's complete name and business address.

Note: All italicized text is to help Tenderers in preparing this form.

Date of this Tender submission: *[insert date (as day, month and year) of Tender submission]*

Tender No.: HORC/HRIDC/C-2/2022

To:

Chief Project Manager,
Haryana Rail Infrastructure Development Corporation Limited (HRIDC),
Plot no.143, 5th floor,
Railtel Tower, Sector-44
Gurugram – 122003
Tel: +91 9311478893

We, the undersigned, hereby submit our Tender, in two parts sealed separately, namely: (a) the Technical Part; and (b) the Financial Part.

In submitting our Tender, we declare that:

- (a) **No Reservations:** We have examined and have no reservations to the Tender Document, including Addenda issued in accordance with ITT 8;
- (b) **Eligibility:** We meet the eligibility requirements and have no conflict of interest in accordance with ITT 4;
- (c) **Tender-Securing Declaration:** We have not been suspended nor declared ineligible by the Employer based on execution of a Tender-Securing or Proposal-Securing Declaration in the Employer's Country in accordance with ITT 4.7;
- (d) **Conformity:** We offer to execute in conformity with the Tender Document and in accordance with the implementation and completion specified in the construction schedule, the following Works: *[insert a brief description of the Works]*;

_____;

- (e) **Tender Validity Period:** Our Tender shall be valid for the period specified in TDS 18.1 (as amended, if applicable) from the date fixed for the Tender submission deadline specified in TDS 22.1 (as amended, if applicable), and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
- (f) **Performance Security** If our Tender is accepted, we commit to obtain a Performance Security in accordance with the Tender Document;
- (g) **One Tender Per Tenderer:** We are not participating, as a Tenderer, either individually or as a Joint Venture member, in more than one Tender in this tendering process, and meet the requirements of ITT 4.3;
- (h) **Suspension and Debarment:** We, along with any of our subcontractors, suppliers, consultants, manufacturers, or service providers for any part of the contract, are not subject to, and not controlled by any entity or individual that is subject to, a temporary suspension or a debarment or any ineligibility imposed or recognized by the Bank. Further, we are not ineligible under the Employer's Country laws or official regulations or pursuant to a decision of the United Nations Security Council;
- (i) **State-Owned Enterprise or Institution:** *[select the appropriate option and delete the other] [We are not a state-owned enterprise or institution] / [We are a state-owned enterprise or institution but meet the requirements of ITT 4.6];*
- (j) **Binding Contract:** We understand that this Tender, together with your written acceptance thereof included in your Letter of Acceptance, shall constitute a binding contract between us, until a formal contract is prepared and executed;
- (k) **Employer Not Bound to Accept:** We understand that you are not bound to accept the lowest evaluated cost Tender, the Most Advantageous Tender or any other Tender that you may receive;
- (l) **Prohibited Practice:** We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf engages in any type of Prohibited Practice; and
- (m) **Inspection and Audit:** We agree to permit the Bank or its representative to inspect our accounts and records and other documents relating to the tender submission and to have them audited by auditors appointed by the Bank.
- (n) We declare and certify that we have not made any misleading or false representation in the forms, statements and attachments in proof of the qualification requirements.
- (o) We declare that the information and documents submitted along with the tender by us are correct and we are fully responsible for the correctness of the information and documents, submitted by us.
- (p) *[select the appropriate option and delete whichever is not applicable] [We declare and certify that financial data as per the balance sheets for last three financial years including that for the latest concluded financial year are being submitted] OR [We declare and*

certify that balance sheet for the latest concluded financial year has not been finalized till date and that is why we are furnishing financial data for last three financial years ignoring the latest concluded financial year.]

Name of the Tenderer: * [*insert complete name of the Tenderer*]

Name of the person duly authorized to sign the Tender on behalf of the Tenderer: **[*insert complete name of person duly authorized to sign the Tender*]

Title of the person signing the Tender: [*insert complete title of the person signing the Tender*]

Signature of the person named above: [*insert signature of person whose name and capacity are shown above*]

Date signed [*insert date of signing*] **day of** [*insert month*], [*insert year*]

*: In the case of the Tender submitted by joint venture specify the name of the Joint Venture as Tenderer

** : Person signing the Tender shall have the power of attorney given by the Tenderer. The power of attorney shall be attached with the Letter of Tender.

Appendix A to Technical Part: Technical Proposal

- 1. Site Organization**
- 2. Outline Method Statement**
- 3. Work Execution Programme**

Site Organization

(To be submitted by the Tenderer)

Outline Method Statement

(To be submitted by the Tenderer)

Work Execution Programme

(To be submitted by the Tenderer)

Appendix B to Technical Part: Equipment

Form EQU: Equipment

DELETED

Appendix C to Technical Part: Key Personnel

Form PER-1

DELETED

Form PER-2:

DELETED

Appendix D to Technical Part: Tenderer’s Qualification

To establish its qualifications to perform the contract in accordance with Section III, Evaluation and Qualification Criteria the Tenderer shall provide the information requested in the corresponding Information Sheets included hereunder.

Form ELI-1.1 (a)
Tenderer Information Form (Single Entity)

Date: _____
Tender No. and title: _____
Page _____ of _____ pages

Tenderer's name
Tenderer's actual or intended country of registration: <i>[indicate country of Constitution]</i>
Tenderer's actual or intended year of incorporation:
Tenderer's legal address [in country of registration]:
Tenderer's authorized representative information Name: _____ Address: _____ Telephone/Fax numbers: _____ E-mail address: _____
Attached are copies of original documents of <input type="checkbox"/> Articles of Incorporation (or equivalent documents of constitution or association), and/or documents of registration of the legal entity named above, in accordance with ITT 4.4 <input type="checkbox"/> In case of state-owned enterprise or institution, in accordance with ITT 4.6, documents establishing: <ul style="list-style-type: none"> • Operation on a commercial basis; • Financial and managerial autonomy; • Day-to-day management not controlled by the government; and • Not under the supervision of the Employer or its procuring agency.

Tenderer's Authorized Representative

Signature:
Date:
Company stamp:

Form ELI-1.1 (b)
DELETED

Form ELI-1.2
DELETED

**Form ELI-1.3
DELETED**

Form ELI-1.4
 [Ref. ITT Sub-Clause 20.3]
Power of Attorney (POA) for Submitting Tender
(For Single Entity/Sole Tenderer only)

(To be executed on non-judicial stamp paper of the appropriate value in accordance with relevant stamp Act. The stamp paper to be in the name of the company who is issuing the Power of Attorney)

Know all men by these presents, we..... (name and address of the registered office) do hereby constitute, appoint and authorise Mr/Ms..... (name and residential address) who is presently employed with us and holding the position ofas our attorney, to do in our name and on our behalf, all such acts, deeds and things necessary in connection with or incidental to our tender for the work of **C-2: Composite Contract Package** in connection with laying of New BG Double Railway Line of HORC project for:

(i) Design and Construction of Civil Works (Earthwork, Bridges, Station Buildings, Retaining Walls and other miscellaneous Works) from Km 55.60 to Km 61.50 and its connectivities to IR network from New Patli to Patli & New Patli to Sultanpur including modifications in Sultanpur station yard,

(ii) Design, Supply, Installation, Testing & Commissioning of OHE (1x25 kV) and General Electrical services from Km 49.70 to Km 61.50 and its connectivities to IR network from New Patli to Patli & New Patli to Sultanpur including modifications in Sultanpur station yard and

(iii) Design, Supply, Installation, Testing & Commissioning of Signalling & Telecommunication from Km 49.70 to Km 61.50 and its connectivities to IR network from Manesar to Patli and New Patli to Patli & New Patli to Sultanpur including modifications in Patli and Sultanpur station yards, including signing and submission of all documents and providing information/ responses to Haryana Rail Infrastructure Development Corporation Ltd (HRIDC), representing us in all matters before HRIDC, and generally dealing with HRIDC in all matters in connection with our tender for the said project.

We hereby agree to ratify all acts, deeds and things lawfully done by our said attorney pursuant to this Power of Attorney and that all acts, deeds and things done by our aforesaid attorney shall and shall always be deemed to have been done by us.

..... (Signature)
 (Name, Title and address) of the **Person Accepting the POA.**

..... (Signature)
 (Name, Title and address) of the **Person issuing the POA**

Notes:

- i. The tenderer should submit the notarised Power of Attorney. In case of Foreign Members, Power of Attorney(s) and Board Resolution confirming authority on the persons issuing the Power of Attorney for such actions shall be submitted duly notarized by the notary public of country of origin and should be either stamped by Embassy/High Commission or Member Countries of Hague convention may submit these document with “Apostille” stamp. Also, in case the documents are in foreign language the translation of the same shall be authenticated by Embassy/High Commission.
- ii. The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and when it is so required the same should be under common seal affixed in accordance with the required procedure.
- iii. The tenderer should submit following additional document in support of the POA as case to case basis:
 - a) Proprietorship Affidavit in case of Proprietary Tenderer.
 - b) Partnership Deed in case of Partnership Firms.
 - c) Board Resolution in case of a Public/Private limited company/LLP.
 - d) Incorporation Certificate and Memorandum & Article of Association in case of a Public/Private limited company.
 - e) Incorporation Certificate and Limited Liability Membership Agreement in case of Limited Liability Membership firms.

**Form ELI-1.5
DELETED**

**Form ELI-1.6
DELETED**

Form CON-1

Historical Contract Non-Performance, Pending Litigation and Litigation History

[Ref. ITT Sub-Clause 17.2 and Section III, Evaluation and Qualification Criteria, Sub-Clause 3.2.1 and Sub-Clause 3.2.3]

Tender No.: HARC/HRIDC/C-2 /2022

Tenderer's Name: _____

Page _____ of _____ pages

1. Non-Performed Contracts in accordance with Section III, Evaluation and Qualification Criteria			
Description			YES/NO
(i) Whether Contract(s) Non-Performance occurred as a result of Contractor's default since 1st April 2017 specified in Section III, Evaluation and Qualification Criteria, requirement 3.2.1			
(ii) If answer to (i) above is YES, then following details to be submitted:			
Year	Non-performed portion of contract	Contract Identification	Total Contract Amount (current value, currency, exchange rate and INR equivalent)
<i>[insert year]</i>	<i>[insert amount and percentage]</i>	Contract Identification: <i>[indicate complete contract name/ number, and any other identification]</i> Name of Employer: <i>[insert full name]</i> Address of Employer: <i>[insert street/city/country]</i> Reason(s) for nonperformance: <i>[indicate main reason(s)]</i>	<i>[insert amount]</i>

2. Pending Litigation, in accordance with Section III, Evaluation and Qualification Criteria	
Description	YES/NO
(i) Whether any litigation is still pending against the Contractor in accordance with Section III, Evaluation and Qualification Criteria, Sub-Clause 3.2.3.	

(ii) If answer to (i) above is YES, then following details to be submitted:

Year of dispute	Amount in dispute (currency)	Contract Identification	Total Contract Amount (currency), INR Equivalent (exchange rate)
		Contract Identification: _____ Name of Employer: _____ Address of Employer: _____ Matter in dispute: _____ Party who initiated the dispute: _____ Status of dispute: _____	
		Contract Identification: Name of Employer: Address of Employer: Matter in dispute: Party who initiated the dispute: Status of dispute:	

3. Litigation History in accordance with Section III, Evaluation and Qualification Criteria (Not Applicable)

Tenderer’s Authorized Representative

Signature:
 Date:
 Company stamp:

Chartered Accountant/Company Auditor/Statutory Auditor

Certified that the information furnished above is correct as per the audited balance sheets of the entity.

Signature:
 Name:
 Position:
 Date:

Form CON-2

Environmental, Social, Health, and Safety Performance Declaration

[Ref. ITT Sub-Clause 17.2 and Section III, Evaluation and Qualification Criteria, Sub-Clause 3.2.5]

Tender No.: HORC/HRIDC/C-2 /2022

Tenderer's Name: _____

Page _____ of _____ pages

Environmental, Social, Health, and Safety Performance Declaration in accordance with Sub-Clause 3.2.5, Section III, Qualification Criteria and Requirements			
Description			YES/NO
<p>(i) Declaration of suspension or termination of contract: Whether contract(s) has/have been suspended or terminated and/or Performance Security called by an employer(s) for reasons related to Environmental, Social, Health, or Safety (ESHS) performance since the date specified in Section III, Qualification Criteria, and Requirements, Sub-Clause 3.2.5.</p>			
<p>(ii) If answer to (i) above is YES, then following details to be submitted:</p>			
<p>a. Details of Contract(s) suspended/terminated by an employer(s) for reasons related to ESHS performance</p>			
Year	Suspended or terminated portion of contract	Contract Identification	Total Contract Amount (current value, currency, exchange rate and INR equivalent)
[insert year]	[insert amount and percentage]	Contract Identification: [indicate complete contract name/ number, and any other identification] Name of Employer: [insert full name] Address of Employer: [insert street/city/country] Reason(s) for suspension or termination: [indicate main reason(s)]	[insert amount]
[insert year]	[insert amount and percentage]	Contract Identification: [indicate complete contract name/ number, and any other identification]	[insert amount]

	Name of Employer: <i>[insert full name]</i> Address of Employer: <i>[insert street/city/country]</i> Reason(s) for suspension or termination: <i>[indicate main reason(s)]</i>	
...	<i>[list all applicable contracts]</i>	...
b. Details of Contract(s) in which Performance Security called by an employer(s) for reasons related to ESHS performance		
Year	Contract Identification	Total Contract Amount (current value, currency, exchange rate and INR equivalent)
<i>[insert year]</i>	Contract Identification: <i>[indicate complete contract name/ number, and any other identification]</i> Name of Employer: <i>[insert full name]</i> Address of Employer: <i>[insert street/city/country]</i> Reason(s) for calling of performance security: <i>[indicate main reason(s)]</i>	<i>[insert amount]</i>

Tenderer's Authorized Representative

Signature:

Date:

Company stamp:

Form FIN-3.3.1:**Financial Situation and Performance**

[Ref. ITT Sub-Clause 17.2 and Section III, Evaluation and Qualification Criteria, Sub-Clause 3.3.1 (iii)]

Tender No.: HORC/HRIDC/C-2 /2022

Tenderer's Name: _____
Page _____ of _____ pages

Financial data

(All amounts in Millions)

Type of Financial information in (currency)	Historic information for last three Financial Years, (amount in currency, currency, exchange rate*, INR equivalent)		
	Year 1: 2019-20	Year 2:2020-21	Year 3:2021-22
	Statement of Financial Position (Information from Balance Sheet)		
Total Assets (TA)			
Total Liabilities (TL)			
Total Equity/Net Worth (NW) = TA-TL			
Current Assets (CA)			
Current Liabilities (CL)			
Working Capital (WC)			
Total Revenue (TR)			
Profits Before Taxes (PBT)			

*Refer to Notes: Exchange Rate for Qualification Criteria, Section III, EQC.

Notes:

- (i) *In case, the Financial Year is the same as the Calendar Year, the financial data for the year 2019, 2020 and 2021 shall be furnished.*
- (ii) *The Tenderer is not required to submit any document as documentary evidence along with the Tender Documents. All information furnished in this Form shall be certified by a Chartered Accountant/Company Auditor/Statutory Auditor.*

- (iii) *The Form duly certified by a Chartered Accountant/Company Auditor/Statutory Auditor shall also be signed by Tenderer’s Authorized representative.*
- (iv) *The above documents shall reflect the financial situation of the legal entity or entities comprising the Tenderer and not the Tenderer’s parent companies, subsidiaries, or affiliates.*
- (v) *In the event that the audited accounts for the latest concluded Financial Year are not available, the Bidder shall furnish information pertaining to the last three financial years after ignoring the latest concluded financial year. In case, the bidder submits audited financial information for the last four or more years, only the figures for the latest three years shall be considered for evaluation.*
- (vi) *In case audited balance sheet of the last financial year is not available with the tenderer, he will declare the same vide item (p) prescribed in the Letter of Tender-Technical Part.*
- (vii) ***If the value of Net Worth is not submitted for any of the last three years, the Tender shall be considered non-responsive and shall be summarily rejected.***

Tenderer’s Authorized Representative

Signature:

Date:

Company stamp:

Chartered Accountant/Company Auditor/Statutory Auditor

Certified that the information furnished above is correct as per the audited balance sheets of the entity.

Signature:

Name:

Position:

Date:

Company:

Company stamp:

Membership No:

Address:

Contact No:

Email ID:

Form FIN-3.3.2:**Average Annual Construction Turnover**

[Ref. ITT Sub-Clause 17.2, Section III, Evaluation and Qualification Criteria, Sub-Clause 3.3.1 (ii) and Sub-Clause 3.3.2]

Tender No.: HORC/HRIDC/C-2 /2022

Tenderer's Name: _____

Page _____ of _____ pages

(All amounts in Millions)

Annual Turnover Data for the Last Three (03) Financial Years (Construction Only)			
Year	Amount Currency	*Exchange Rate	INR Equivalent
2019-20	<i>[insert amount and indicate currency]</i>		
2020-21			
2021-22			
Average Annual Construction Turnover for last 3 financial years			

* See Section III, Evaluation and Qualification Criteria, Sub-Clause 3.3.2.

Notes:

- (i) *In case, the Financial Year is the same as the Calendar Year, the turnover for the year 2019, 2020 and 2021 shall be furnished.*
- (ii) *The Average Annual Construction Turnover shall be calculated by adding the turnover amount of last three financial years divided by three.*
- (iii) *The Tenderer is not required to submit any document as documentary evidence along with the Tender Documents. All information furnished in this Form shall be certified by a Chartered Accountant/Company Auditor/Statutory Auditor.*
- (iv) *The Form duly certified by a Chartered Accountant/Company Auditor/Statutory Auditor shall also be signed by Tenderer's Authorized representative.*
- (v) *The above documents shall reflect the financial situation of the legal entity or entities comprising the Tenderer and not the Tenderer's parent companies, subsidiaries, or affiliates.*
- (vi) *In the event that the audited accounts for the latest concluded Financial Year are not available, the Tenderer shall furnish information pertaining to the last three financial years after ignoring the*

- latest concluded financial year. In case, the bidder submits audited financial information for the last four or more years, only the figures for the latest three years shall be considered for evaluation.*
- (vii) In case audited balance sheet of the last financial year is not available with the tenderer, he will declare the same vide item (p) prescribed in the Letter of Tender-Technical Part..*
 - (viii) If the value of Annual construction Turnover is not submitted for any of the last three years prescribed in Financial Data, the Tender shall be evaluated by considering “NIL” Turnover for that year(s).*

Tenderer’s Authorized Representative

Signature:

Date:

Company stamp:

Chartered Accountant/Company Auditor/Statutory Auditor

Certified that the information furnished above is correct as per the audited balance sheets of the entity.

Signature:

Name:

Position:

Date:

Company:

Company stamp:

Membership No:

Address:

Contact No:

Email ID:

Form FIN-3.3.3:**Sources of Finance for the Subject Contract**

[Ref. ITT Sub-Clause 17.2 and Section III, Evaluation and Qualification Criteria, Sub-Clause 3.3.1 (i)]

Tender No.: HARC/HRIDC/C-2 /2022

Tenderer's Name: _____

Page _____ of _____ pages

- A. Tenderer should specify proposed sources of financing, such as liquid assets, unencumbered real assets, lines of credit, and other financial means, net of current contract commitments, available to meet the total construction cash flow demands of the subject contract **i.e. Package C-2.**

(All amounts in Millions)

Financial Resources for Subject Contract i.e. Package C-2		
No.	Source of financing	Amount (INR equivalent)
1		
2		
3		
	Total Sources of Finance for the subject Contract	

- (i) *The Tenderer is not required to submit any document as documentary evidence along with the Tender Documents. All information furnished in this Form shall be certified by a Chartered Accountant/Company Auditor/Statutory Auditor.*
- (ii) *The Form duly certified by a Chartered Accountant/Company Auditor/Statutory Auditor shall also be signed by Tenderer's Authorized representative.*
- (iii) *The above documents shall reflect the financial situation of the legal entity or entities comprising the Tenderer and not the Tenderer's parent companies, subsidiaries, or affiliates.*

Tenderer's Authorized Representative

Signature:

Date:

Company stamp:

Chartered Accountant/Company Auditor/Statutory Auditor

Certified that the information furnished above is correct.

Signature:

Name:

Position:

Date:

Company:

Company stamp:

Membership No:

Address:

Contact No:

Email ID:

Form FIN-3.3.4:

Current Contract Commitments / Works in Progress and Bid Capacity

[Ref. ITT Sub-Clause 17.2, Section III, Evaluation and Qualification Criteria, Sub-Clause 3.3.1 (ii)]

Tender No.: HARC/HRIDC/C-2 /2022

Tenderer's Name: _____

Page _____ of _____ pages

1.0 Bid Capacity:

The available bid capacity shall be calculated as under:

$$\text{Available Bid Capacity} = [A \times N \times 2] - 0.33 \times N \times B$$

Where,

A = Maximum value of construction works executed and payment received in any one of the previous three financial years, taking into account the completed as well as works in progress.

N = Number of years prescribed for completion of work for which Tender has been invited (**i.e 1.5 years**).

B = Value of existing commitments and balance amount of ongoing works with the tenderer as on 28 days prior to deadline of Tender submission to be completed in next 'N' years.

Note:

- (a) The Tenderer(s) shall furnish the details of :
- (i) Maximum value of construction works executed and payment received in any one of the previous three financial years for calculating 'A', and
 - (ii) Existing commitments and balance amount of ongoing works with tenderer as per the prescribed proforma given under **2.0** below for statement of all works in progress and also the works which are awarded to tenderer but yet not started upto but yet not started upto 28 days days prior to deadline of Tender submission 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) Value of a completed work/work in progress/work awarded but yet not started for a Member in an earlier JV/Consortium shall be reckoned only to the extent of the concerned member's share in that JV/Consortium for the purpose of satisfying his/her compliance to the above mentioned bid capacity in the tender under consideration.

- (c) 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.
- (d) **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 **INR 4560 million**, his offer shall not be considered even if he has been found eligible in other eligibility criteria/tender requirement.

2.0 Tenderer should provide information on their current commitments on all contract that have been awarded, or for which a letter of intent or acceptance has been received, or for contracts approaching completion, but for which an unqualified, full completion certificate has yet to be issued.

Current Contract Commitments /Works in Progress

(All amounts in Millions)

Name and Brief particulars of contract (Clearly indicate the part of the work assigned to the applicant (s))	Name of client with telephone number and fax number	Contract Value in INR million Equivalent (Give only the value of work assigned to the applicant(s))	Value of balance work yet to be done in INR million equivalent as on the last day of the previous month of tender submission (X)	Date of Completion as per Contract Agreement/ Extended Completion Date	Remaining Contract Period in months from last day of the previous month of Tender submission (Y)	Monthly Financial Resources Requirement Z= (X/Y) (INR million /month equivalent)	U in INR million = Balance amount of ongoing work as on last day of the previous month of Tender submission to be completed in next 'N' years. <ul style="list-style-type: none"> • $U = Z \times N \times 12$, if Y greater than $N \times 12$ or • $U = X$ if Y less than $N \times 12$
							$N \times B = \Sigma U$

Example considering date of Tender submission deadline as 31.07.2022 and N as 1.5 years							
ABC	abcd	250	150	31.12.24	30	05	90 ($5 \times 1.5 \times 12 = 90$, since Y is greater than $N \times 12$)
PQR	pqrs	100	24	31.12.22	06	04	24 ($=X$, since Y is less than $N \times 12$)

Notes:

- (i) Where a work is undertaken by a JV/Consortium, only that portion of the contract which is undertaken by the concerned applicant/member should be indicated and the remaining done by the other members of the JV/Consortium be excluded.
- (ii) The Tenderer is not required to submit any document as documentary evidence along with the Tender Documents. All information furnished in this Form shall be certified by a Chartered Accountant/Company Auditor/Statutory Auditor.
- (iii) The above documents shall reflect the financial situation of the legal entity or entities comprising the Tenderer and not the Tenderer's parent companies, subsidiaries, or affiliates.

"Certified that current commitments on all the contracts that have been awarded or for which a letter of intent or acceptance has been received or for the works in progress or the works approaching completion, value of outstanding work has been indicated in the above table correctly. It is further certified that if later on the Employer discovers that information provided in the table is incorrect then the Employer will treat our Tender invalid and it will be liable for rejection"

Tenderer's Authorized Representative

Signature:

Date:

Company stamp:

Chartered Accountant/Company Auditor/Statutory Auditor

Certified that the information furnished above is correct.

Signature:

Name:

Position:

Date:

Company:

Company stamp:

Membership No:

Address:

Contact No:

Email ID:

Form EXP-3.4.1**General Construction Experience**

[Ref. ITT Sub-Clause 17.2 and Section III, Evaluation and Qualification Criteria, Sub-Clause 3.4.1]

Tender No.: HRC/HRIDC/C-2 /2022

Tenderer's Name: _____
Page _____ of _____ pages

Details of Works executed under construction contracts in the role of Prime Contractor or a JV member or a sub-contractor, starting 1st April 2015 till 28 days prior to deadline of Tender submission.

Starting Year	Ending Year	Contract Identification	Role of Tenderer [insert "Prime Contractor (single entity or JV member)" or "Subcontractor"]
		Contract name: _____ Brief Description of the Works performed by the Tenderer: _____ Amount of contract: _____ Name of Employer: _____ Address: _____	
		Contract name: _____ Brief Description of the Works performed by the Tenderer: _____ Amount of contract: _____ Name of Employer: _____ Address: _____	
		Contract name: _____ Brief Description of the Works performed by the Tenderer: _____ Amount of contract: _____	

	Name of Employer: _____ Address: _____	
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Tenderer’s Authorized Representative

Signature:

Date:

Company stamp:

Form EXP-3.4.2(a)**Specific Construction and Contract Management Experience**

[Ref. ITT Sub-Clause 17.2 and Section III, Evaluation and Qualification Criteria, Sub-Clause 3.4.2 (a)]

Tender No.: HORC/HRIDC/C-2 /2022

Tenderer's Name: _____

Page _____ of _____ pages

Similar Contract No.	Information		
Contract Identification			
Award date			
Completion date			
Role in Contract as Prime Contractor or Member in JV or Sub-Contractor	<i>[insert the role in Contract]</i>		
Total Contract Amount	<i>[insert Contract amount(s) and currency(ies)]</i>	INR <i>[insert *exchange rate and total Contract amount in INR equivalent]</i>	
If member in a JV or sub-contractor, specify participation in total Contract amount	<i>[insert Percentage participation]</i>	<i>[insert amount(s) and currency) of participation]</i>	<i>INR [insert exchange rate(i) and amount of participation in INR equivalent]</i>
Employer's Name:			
Address: Telephone/fax number E-mail:			
Description of the similarity in accordance with Sub-Clause 3.4.2(a) of Section III:			
1. Amount			
2. (i) Quantity of Earthwork in Rail/Road projects formation. (in Cum)			

(ii) Total length of clear/effective spans in bridge works (in m)	
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**Refer to Notes: Exchange Rate for Qualification Criteria, Section III, EQC.*

Tenderer's Authorized Representative

Signature:

Date:

Company stamp:

Notes:

- (i) Value of 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 purpose of satisfying his/her experience criteria mentioned in 3.4.2(a).*
- (ii) The Tenderer shall submit copy of certificates issued by the Employer as documentary proof clearly indicating the similarity of the work as per Sub-Clause 3.4.2 (a), actual completion cost, actual completion date. Tenders submitted without this documentary proof shall not be evaluated.*
- (iii) In case Tenderer submits work experience certificate issued by other than Govt. / Public Sector undertakings, 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.*
- (iv) If a tenderer has successfully completed a work as subcontractor, the work experience certificate issued for such work to subcontractor by the Employer (owner of the work) shall only be considered for the purpose of fulfillment of credentials.*

Form UT-1

**UNDERTAKING FOR SPECIALISED ACTIVITY
(Refer Sub-Clause 3.5 of Section III, EQC)**

(On the Letterhead of Tenderer/Specialist Sub-Contractor)

[Separate undertaking for each specialised activity shall be submitted]

I. UNDERTAKING BY THE TENDERER

(On the Letterhead of Tenderer)

[Delete (i) or (ii) whichever is not applicable]

(i) We hereby confirm that we..... *(Insert name of the Tenderer)* fulfil the minimum experience requirement for the specialised activity *(Insert the specialised activity)* stated in the Table-1 of Sub-Clause 3.5 of Section III of EQC. The copy of the certificate issued by the Employer in support of fulfilment of minimum experience requirement is submitted with the Technical Part.

OR

(ii) We hereby confirm that we..... *(Insert name of the Tenderer)* are going to deploy *(Insert name of Specialist Sub-Contractor)* for the specialised activity *(Insert the specialised activity)* stated in the Table-1 of Sub-Clause 3.5 of Section III of EQC. The copy of the certificate issued by the Employer in support of fulfilment of minimum experience requirement is submitted with the Technical Part.

II. UNDERTAKING BY THE SPECIALIST SUB-CONTRACTOR

[To be submitted only when I (ii) is applicable]

(On the Letterhead of Specialist Sub-Contractor)

We, *(Insert Name of Specialist Subcontractor)* hereby confirm that we are associating with *(Insert name of the Tenderer)* for the work of “C-2: Composite Contract Package in connection with laying of New BG Double Railway Line of HORC project for:

(i) Design and Construction of Civil Works (Earthwork, Bridges, Station Buildings, Retaining Walls and other miscellaneous Works) from Km 55.60 to Km 61.50 and its connectivities to IR network from New Patli to Patli & New Patli to Sultanpur including modifications in Sultanpur station yard,

(ii) Design, Supply, Installation, Testing & Commissioning of OHE (1x25 kV) and General Electrical services from Km 49.70 to Km 61.50 and its connectivities to IR network from New Patli to Patli & New Patli to Sultanpur including modifications in Sultanpur station yard and

(iii) Design, Supply, Installation, Testing & Commissioning of Signalling & Telecommunication from Km 49.70 to Km 61.50 and its connectivities to IR network from Manesar to Patli and New

Patli to Patli & New Patli to Sultanpur including modifications in Patli and Sultanpur station yards”, for the specialised activity (*Insert the specialised activity*) stated in the Table-1 of Sub-Clause 3.5 of Section III of EQC.

We, (*Insert Name of Specialist Sub-Contractor*) hereby confirm that we fulfil the minimum experience requirement for the specialised activity (*Insert the specialised activity*) stated in the Table-1 of Sub-Clause 3.5 of Section III of EQC. The copy of the certificate issued by the Employer in support of fulfilment of minimum experience requirement is submitted with the Technical Part.

Signature of authorized signatory of Specialist Sub-Contractor with Seal

Signature of authorized signatory of Tenderer with Seal

Note:

1. If a Tender does not submit the copy of certificates issued by the Employer as documentary evidence in favour of himself /specialist subcontractor for meeting the minimum experience requirement for each specialised activity mentioned in Table-1 of Sub-Clause 3.5 of Section III, EQC his Tender shall be summarily rejected.

FORM UT-2**Undertaking for compliance to Employer's Requirements & Specification by Tenderer**

1. We understand that our Technical Proposal are for assessment of eligibility requirements and the same have no bearing on our Financial Part. We undertake that the work will be executed as per provision of tender specifications/ drawings/ design basis report despite contrary provisions, if any, in our submission and nothing extra will be claimed on this account.
2. We hereby confirm that we will comply all the design requirement and codal provisions as specified in Tender documents and also confirm that due to any change in design/construction /methodology during the execution of work, nothing extra shall be claimed by us.
3. We understand that some of the parameters have been assumed or taken from Geo-Technical report for design purpose. The Geo-Technical report is for general information only. We hereby confirm that all the design/ methodologies shall be based on the detailed soil investigation to be carried out by us after award of work for which nothing extra shall be claimed by us.

We hereby undertake that in case of any deviation in Technical Proposal with respect to the Tender documents & Tender drawings, the conditions as mentioned in the Tender documents shall prevail.

Signature of authorized signatory of Tenderer with Seal

Form UT-3**Undertaking for Downloaded Tender Document**

I/We hereby declare that, I/we have downloaded the tender documents/addendum/corrigendum/clarifications along with the set of enclosures hosted on e-procurement portal as mentioned in tender document. I/We 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 HRIDC shall be final and binding upon me/us.

Signature of Authorized Signatory of Tenderer with Seal

Appendix E to Technical Part: Tender Security

The amount for Tender Security will only be paid online by eligible Tenderers on e-procurement Portal of Government of Haryana.

Form of Tender-Securing Declaration
DELETED

Letter of Tender – Financial Part

INSTRUCTIONS TO TENDERERS: DELETE THIS BOX ONCE YOU HAVE COMPLETED THE DOCUMENT

The Tenderer must prepare this Letter of Tender on stationery with its letterhead clearly showing the Tenderer's complete name and business address.

Note: All italicized text is to help Tenderers in preparing this form.

Date of this Tender submission: *[insert date (as day, month and year) of Tender submission]*

Tender No.: *[insert tender reference number]*

Alternative No.: *[insert reference number if this is a Tender for an alternative]*

To: *[insert complete name of Employer]*

We, the undersigned, hereby submit the second part of our Tender, the Tender Price and Price Schedule. This accompanies the Letter of Tender – Technical Part.

In submitting our Tender, we declare that:

- (a) **Tender Validity Period:** Our Tender shall be valid for the period specified in TDS 18.1 (as amended, if applicable) from the date fixed for the Tender submission deadline specified in TDS 22.1 (as amended, if applicable), and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
- (b) **Tender Price:** The total price of our Tender is: *[insert the total price of the Tender in words and figures in INR];*
- (c) **Commissions, Gratuities, Fees:** We have paid, or will pay the following commissions, gratuities, or fees with respect to the Tendering process or execution of the Contract: *[insert complete name of each Recipient, its full address, the reason for which each commission or gratuity was paid and the amount and currency of each such commission or gratuity]*

Name of Recipient	Address	Reason	Amount

(If none has been paid or is to be paid, indicate "none.")

Name of the Tenderer: * *[insert complete name of the Tenderer]*

Name of the person duly authorized to sign the Tender on behalf of the Tenderer: ***[insert complete name of person duly authorized to sign the Tender]*

Title of the person signing the Tender: *[insert complete title of the person signing the Tender]*

Signature of the person named above: *[insert signature of person whose name and capacity are shown above]*

Date signed *[insert date of signing]* **day of** *[insert month]*, *[insert year]*

*: In the case of the Tender submitted by joint venture specify the name of the Joint Venture as Tenderer

** : Person signing the Tender shall have the power of attorney given by the Tenderer. The power of attorney shall be attached with the Letter of Tender.

Appendix A to Financial Part

1. Price adjustment

1.1 The amounts payable to the Contractor for Works shall be adjusted in accordance with the provisions of Sub-Clause 13.7 of GCC/PCC.

1.2 The Contract Price shall be adjusted for increase or decrease in rates and prices of labour, materials, fuel and lubricants, equipment, Machinery, Plant and other Materials or inputs in accordance with the principles, procedures and formulae specified below:

- a) Price adjustment shall be applied on completion of the specified stage of the respective item of work in accordance with Schedule-A. The 1st Quarter will start on the Tender Due date month;
- b) Adjustment for each item of work/stage shall be made separately;
- c) The following expressions and meanings are assigned to the value of the work done for civil and track work:

EW = Value of work done for the completion of a stage under the Cost Centre ‘CE’ of Price Schedule ‘A’ and Price Schedule ‘B’;

BR = Value of work done for the completion of a stage under the Cost Centre ‘CB’ of Price Schedule ‘A’;

OEW = Value of work done for the completion of a stage under Cost Centre CS of Price Schedule ‘A’;

- d) Price adjustment for change in costs of civil works shall be paid in accordance with the following formula:
 - i) $VEW = 0.85 EW \times [PLB \times (LB_i - LB_o)/LB_o + PC \times (C_i - C_o)/C_o + PF \times (F_i - F_o)/F_o + PMACH \times (MACH_i - MACH_o)/MACH_o + POTH \times (OTH_i - OTH_o)/OTH_o]$;
 - ii) $VBR = 0.85 BR \times [PLB \times (LB_i - LB_o)/LB_o + PC \times (C_i - C_o)/C_o + PS \times (S_i - S_o)/S_o + PF \times (F_i - F_o)/F_o + PMACH \times (MACH_i - MACH_o)/MACH_o + POTH \times (OTH_i - OTH_o)/OTH_o]$;
 - iii) $VOEW = 0.85 OEW \times [PLB \times (LB_i - LB_o)/LB_o + PC \times (C_i - C_o)/C_o + PS \times (S_i - S_o)/S_o + PF \times (F_i - F_o)/F_o + PMACH \times ((MACH_i - MACH_o)/MACH_o + POTH \times (OTH_i - OTH_o)/OTH_o)]$;

Where

VEW = Increase or decrease in the cost under the Cost Centre ‘CE’ of Price Schedule ‘A’ and Price Schedule ‘B’ during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (e);

VBR = Increase or decrease in the cost of Cost Centre ‘CB’ of Price Schedule ‘A’ during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (e);

VOEW = Increase or decrease in the cost of Cost Centre ‘CS’ of Price Schedule ‘A’ during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (e);

PC, PF, PLB, PMACH, POTH and PS are the percentages of cement, fuel and lubricants, labour, Plant Machinery and tools, other materials, and steel/ components (including strands and steel cables), respectively for the relevant item as specified in sub-paragraph (e);

Co = The wholesale price index as published by the Ministry of Commerce and Industry, Government of India (hereinafter called “WPI”) for sub-group Cement, Lime & Plaster for the month of the Base Month;

Ci = The WPI for sub-group Cement, Lime & Plaster for the average price index of the 3 months of the quarter under consideration;

Fo = The wholesale price index as published by the Ministry of Commerce and Industry, Government of India (hereinafter called “WPI”) for group Fuel & Power for the month of the Base Month;

Fi = The WPI for group Fuel & Power for the average price index of the 3 months of the quarter under consideration

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;

MACHo = The wholesale price index as published by the Ministry of Commerce and Industry, Government of India (hereinafter called “WPI”) for category- k “Manufacturing of Machinery for Mining, quarrying and construction’ under (R) Manufacturing of Machinery and Equipment for the month of the Base Month;

MACHi = The WPI for category- k “Manufacturing of Machinery for Mining, quarrying and construction’ under (R) Manufacturing of Machinery and Equipment for the average price index of the 3 months of the quarter under consideration;

OTHo = The wholesale price index as published by the Ministry of Commerce and Industry, Government of India (hereinafter called “WPI”) for all commodities for the month of the Base Month;

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

So = Rate of RINL for Rebar 8 mm (coil) as published on their website for the month of the Base Month;

Si = Average rate of RINL for Rebar 8 mm (coil) as published on their website for the 3 months of the quarter under consideration;

- e) The following percentages shall govern the price adjustment of the Contract Price for costs of civil works:

Component	EW	BR	OEW
(1)	(2)	(3)	(4)
Cement (PC)	-	20%	15%
Fuel and lubricants (PF)	25%	10%	10%
Labour (PLB)	20%	10%	25%
Machinery and Plants (PMACH)	35%	20%	20%
Other Materials (POTH)	20%	15%	20%
Steel(PS)	-	25%	10%
Total	100%	100%	100%

f) 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 HORC 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 HORC Project.

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

$$\mathbf{VSIGWK} = 0.85 \text{ SIGWK} \times [\text{PELEX} \times (\text{ELEX}_i - \text{ELEX}_o) / \text{ELEX}_o + \text{POFC} \times (\text{OFC}_i - \text{OFC}_o) / \text{OFC}_o + \text{PLB} \times (\text{LBI} - \text{LBO}) / \text{LBO} + \text{POTH} \times (\text{OTHi} - \text{OTHo}) / \text{OTHo} + \text{S30C} \times (\text{P30Ci} - \text{P30Co}) / \text{P30Co} + \text{S24C} \times (\text{P24Ci} - \text{P24Co}) / \text{P24Co} + \text{S19C} \times (\text{P19Ci} - \text{P19Co}) / \text{P19Co} + \text{S12C} \times (\text{P12Ci} - \text{P12Co}) / \text{P12Co} + \text{S9C} \times (\text{P9Ci} - \text{P9Co}) / \text{P9Co} + \text{S6C} \times (\text{P6Ci} - \text{P6Co}) / \text{P6Co} + \text{S4C} \times (\text{P4Ci} - \text{P4Co}) / \text{P4Co} + \text{S2C} \times (\text{P2Ci} - \text{P2Co}) / \text{P2Co} + \text{S12C2.5} \times (\text{P12C2.5i} - \text{P12C2.5o}) / \text{P12C2.5o} + \text{S2C2.5} \times (\text{P2C2.5i} - \text{P2C2.5o}) / \text{P2C2.5o} + \text{S2C25} \times (\text{P2C25i} - \text{P2C25o}) / \text{P2C25o} + \text{QC} \times (\text{PQCi} - \text{PQCo}) / \text{PQCo} ;$$

$$\mathbf{VINVSIG} = 0.85 \text{ SIGWK} \times [\text{PELEX} \times (\text{ELEX}_i - \text{ELEX}_o) / \text{ELEX}_o + \text{POTH} \times (\text{OTHi} - \text{OTHo}) / \text{OTHo}];$$

$$\mathbf{VINTGTESTSIG} = 0.85 \text{ INTGTESTSIG} \times [\text{PLB} \times (\text{LBI} - \text{LBO}) / \text{LBO} + \text{POTH} \times (\text{OTHi} - \text{OTHo}) / \text{OTHo}];$$

$$\mathbf{VCOMWK} = 0.85 \text{ COMWK} \times [\text{PELEX} \times (\text{ELEX}_i - \text{ELEX}_o) / \text{ELEX}_o + \text{POFC} \times (\text{OFC}_i - \text{OFC}_o) / \text{OFC}_o + \text{PLB} \times (\text{LBI} - \text{LBO}) / \text{LBO} + \text{POTH} \times (\text{OTHi} - \text{OTHo}) / \text{OTHo} + \text{S30C} \times (\text{P30Ci} - \text{P30Co}) / \text{P30Co} + \text{S24C} \times (\text{P24Ci} - \text{P24Co}) / \text{P24Co} + \text{S19C} \times (\text{P19Ci} - \text{P19Co}) / \text{P19Co} + \text{S12C} \times (\text{P12Ci} - \text{P12Co}) / \text{P12Co} + \text{S9C} \times (\text{P9Ci} - \text{P9Co}) / \text{P9Co} + \text{S6C} \times (\text{P6Ci} - \text{P6Co}) / \text{P6Co} + \text{S4C} \times (\text{P4Ci} - \text{P4Co}) / \text{P4Co} + \text{S2C} \times (\text{P2Ci} - \text{P2Co}) / \text{P2Co} + \text{S12C2.5} \times (\text{P12C2.5i} - \text{P12C2.5o}) / \text{P12C2.5o} + \text{S2C2.5} \times (\text{P2C2.5i} - \text{P2C2.5o}) / \text{P2C2.5o} + \text{S2C25} \times (\text{P2C25i} - \text{P2C25o}) / \text{P2C25o} + \text{QC} \times (\text{PQCi} - \text{PQCo}) / \text{PQCo} + \text{PCEQP} \times (\text{CEQP}_i - \text{CEQP}_o) / \text{CEQP}_o];$$

$$\mathbf{VINVCOM} = 0.85 \text{ SIGWK} \times [\text{PELEX} \times (\text{ELEX}_i - \text{ELEX}_o) / \text{ELEX}_o + \text{PCEQP} \times (\text{CEQP}_i - \text{CEQP}_o) / \text{CEQP}_o + \text{POTH} \times (\text{OTHi} - \text{OTHo}) / \text{OTHo}]; \text{ and}$$

$$\mathbf{VINTGTESTCOM} = 0.85 \text{ INTGTESTCOM} \times [\text{PLB} \times (\text{LBi} - \text{LBo})/\text{LBo} + \text{POTH} \times (\text{OTHi} - \text{OTHo})/\text{OTHo}].$$

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 (e);

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 (e);

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

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 (e);

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

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

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;

CEQP_o = 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 ;

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

ELEX_o = The WPI for electronics for the month of the Base Month; 76

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

P30C_i = 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.

P4Ci = Price payable per Km as adjusted in accordance with price variation Clause for size 4C x 1.5 sq mm signalling cable

P4Co = 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.

P2Ci = Price payable per Km as adjusted in accordance with price variation Clause for size 2C x 1.5 sq mm signalling cable

P2Co = 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.

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

P12C2.5o = 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.

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

P2C2.5o = 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.

P2C25i = Price payable per Km as adjusted in accordance with price variation Clause for size 2C x 25 sq mm signalling cable

P2C25o = 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.

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

PQCo = 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;

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

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

OTHo = The WPI for all commodities for the month of the Base Month; and OTHi = The WPI for all commodities for the average price index of the 3 months of the quarter under consideration.

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

Component	Signalling			Telecommunication		
	Signalling Work	Signalling Inventory	Integrated Testing & Commissioning	Telecommunication Work	Telecommunication Inventory	Integrated Testing & Commissioning
Electronics (PELEX)	42%	60%	-	10%	70%	-
Communication Equipment (PCEQP)	-	-	-	15%	-	-
Optical Fibre Cable (POFC)	-	-	-	7%	-	-
30C x 1.5 sq mm signalling cable(S30C)	-	-	-	-	-	-
24C x 1.5 sq mm signalling cable (S24C)	10%	-	-	-	-	-
19Cx 1.5 sq mm signalling cable (S19C)	3%	-	-	-	-	-
12C x 1.5 sq mm signalling cable (S12C)	8%	-	-	-	-	-
9C x 1.5 sq mm signalling cable (S9C)	-	-	-	-	-	-
6C x 1.5 sq mm signalling cable (S6C)	2%	-	-	-	-	-
4C x 1.5 sq mm signalling cable (S4C)	-	-	-	-	-	-
2C x 1.5 sq mm signalling cable (S2C)	-	-	-	-	-	-
12C x 2.5 sq mm signalling cable (S12C2.5)	-	-	-	-	-	-
2C x 2.5 sq mm signalling cable (S2C2.5)	-	-	-	-	-	-
0.9 mm dia, 6 Quad cable (QC)	2%	-	-	10%	-	-
Labour (PLB)	15%	-	95%	12%	-	95%
Other materials	18%	40%	5%	46%	30%	5%
Total	100%	100%	100%	100%	100%	100%

(a) PRICE VARIATION FORMULA FOR SIGNALING & TELECOM CABLE

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

For Signalling Copper Cables:

$$P_i = P_o + C_u F (C_u - C_{u0}) + C_{Cf} F_{cu} (C_C - C_{C0}) + F_e F (F_e - F_{e0})$$

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

$$P_i = P_o + CuF (Cu - C_{uo}) + AlF_{cu}(Al - A_o) + CCF_{cu} (CC - C_{co}) + FeF (Fe - Fe_o)$$

For Aluminium Power Cables:

$$P_i = P_o + AlF (Al - A_o) + CCF_{Al}(CC - C_{Co}) + FeF (Fe - Fe_o)$$

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

CCF_{Cu} = 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_o = Price of EC grade LME Aluminium rods (Properzi rods) in Rs. Per MT.

CCF_{Al} = 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_o as applicable on the 1st working day of the month, one month prior to the deadline for submission of Tenders. 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 Tenders.)

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

CC = 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.
 $P_{30Ci} = P_{30Co} + 0.391(Cu - Cu_o) + 0.557(CC - CC_o) + 0.425(Fe - Fe_o)$
 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
 $P_{24Ci} = P_{24Co} + 0.313(Cu - Cu_o) + 0.481(CC - CC_o) + 0.398(Fe - Fe_o)$
 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
 $P_{19Ci} = P_{19Co} + 0.248(Cu - Cu_o) + 0.395(CC - CC_o) + 0.343(Fe - Fe_o)$
 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
 $P_{12Ci} = P_{12Co} + 0.157(Cu - Cu_o) + 0.277(CC - CC_o) + 0.289(Fe - Fe_o)$
 For armouring, value of steel wire size 1.4mm dia is to be taken into consideration.
- v) Size 9C x 1.5 sq.mm
 $P_{9Ci} = P_{9Co} + 0.117(Cu - Cu_o) + 0.241(CC - CC_o) + 0.383(Fe - Fe_o)$
 For armouring, value of steel wire size 1.4mm dia is to be taken into consideration.
- vi) Size 6Cx 1.5 sq.mm
 $P_{6Ci} = P_{6Co} + 0.078(Cu - Cu_o) + 0.199(CC - CC_o) + 0.329(Fe - Fe_o)$
 For armouring, value of steel wire size 1.4mm dia is to be taken into consideration.
- vii) Size 4Cx1.5 sq.mm
 $P_{4Ci} = P_{4Co} + 0.052(Cu - Cu_o) + 0.152(CC - CC_o) + 0.277(Fe - Fe_o)$
 For armouring, value of steel wire size 1.4mm dia is to be taken into consideration.
- viii) Size 2C x 4 sq.mm(multistrand) 81
 $P_{2Ci} = P_{2Co} + 0.073(Cu - Cu_o) + 0.156(CC - CC_o) + 0.3(Fe - Fe_o)$
 For armouring, value of steel wire size 1.4mm dia is to be taken into consideration.
- ix) Size 12C x 2.5 sq.mm
 $P_{12C2.5i} = P_{12C2.5o} + 0.282(Cu - Cu_o) + 0.371(CC - CC_o) + 0.342(Fe - Fe_o)$
 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

$$P2C2.5i = P2C2.5o + 0.047 (Cu-Cuo) + 0.139 (CC-CCo) + 0.277 (Fe-Feo)$$

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

$$P2C25i = P2C25o + 0.146 (Al-Alo) + 0.303 (CC-CCo) + 0.306 (Fe-Feo)$$
 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

$$PQCi = PQCo + 0.135 (Al-Alo) + 0.139 (Cu-Cuo) + 0.515 (CC-Cco) + 0.693 (Fe-Feo).$$
 For PVC Compound Grade CW-22, is to be taken into consideration.

i) The following expressions and meanings are assigned to the value of the work done for electrification works:

OHE = Value of work done for the completion of a stage under the item Overhead Equipment Work;

SP = Value of work done for the completion of a stage under the item Switching Posts;

TRANSAUX = Value of work done for the completion of a stage under the item Auxiliary Transformer;

TSS = Value of work done for the completion of a stage under the item Traction Sub Station;

SCADA = Value of work done for the completion of a stage under the item SCADA;

ELEGWK = Value of work done for the completion of a stage under the item various electrical general services works;

EXTNLTPWRSPLY = Value of work done for the completion of a stage under the item extension/augmentation of power supply for CLS work;

EXTNPWRSUPLY = Value of work done for the completion of a stage under the item extension/augmentation of general power supply;

MODELETRICAL = Value of work done for the completion of a stage under the item modification to existing electrical works;

INVELECTRICAL = Value of work done for the completion of a stage under the item inventory electrical;

j) Price adjustment for changes in cost for electrification works shall be paid in accordance with the following formula:

- i)
$$VOHE = 0.85 OHE \times [PLB \times (LBi - LBo)/LBo + PC \times (Ci - Co)/Co + PSST \times (SSTi - SSTo)/SSTo + PCU \times (CUi - CUo)/CUo + PINS \times (INSi - INSo)/INSo];$$
- ii)
$$VSP = 0.85 SP \times [PLB \times (LBi - LBo)/LBo + PC \times (Ci - Co)/Co + PSWGR \times (SWGRi - SWGRo)/SWGRo]$$

- iii) **VTRANSAUX** = 0.85 TRANSAUX x [PLB x (L_{Bi} – L_{Bo})/L_{Bo} + PTR x (TR_i – TR_o)/TR_o];
- iv) **VTSS** = 0.85 TSS x [PLB x (L_{Bi} – L_{Bo})/L_{Bo} + PTR (TR_i – TR_o)/TR_o + PC x (C_i – C_o)/C_o + PSST x (SST_i – SST_o)/SST_o + PSWGR x (SWGR_i – SWGR_o)/SWGR_o + POTH x (OTH_i – OTH_o)/OTH_o];
- v) **VSCADA** = 0.85 SCADA x [PLB x (L_{Bi} – L_{Bo})/L_{Bo} + PELEX x (ELEX_i – ELEX_o)/ELEX_o];
- vi) **VELEGWK** = 0.85 ELEGW x [PLB x (L_{Bi} – L_{Bo})/L_{Bo} + POTH x (OTH_i – OTH_o)/OTH_o];
- vii) **VEXTNLTPWRSPLY** = 0.85 EXTNLTPWRSPLY x [PLB x (L_{Bi} – L_{Bo})/L_{Bo} + POTH x (OTH_i – OTH_o)/OTH_o + PIC x (IC_i – IC_o)/IC_o];
- viii) **VEXTNPWRSUPLY** = 0.85 EXTNPWRUPLY x [PLB x (L_{Bi} – L_{Bo})/L_{Bo} + POTH x (OTH_i – OTH_o)/OTH_o];
- ix) **VMODELETRICAL** = 0.85 MODELETRICAL x [PLB x (L_{Bi} – L_{Bo})/L_{Bo} + POTH x (OTH_i – OTH_o)/OTH_o];
- x) **INVELECTRICAL** = 0.85 INVELECTRICAL x [POTH x (OTH_i – OTH_o)/OTH_o];

Where:-

VOHE = Increase or decrease in the cost of Over Head Equipment and other related works during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (k);

VSP = Increase or decrease in the cost of Switch Post and other related works during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (k);

VTRANSAUX = Increase or decrease in the cost of auxiliary transformer and other related works during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (k);

VTSS = Increase or decrease in the cost of Traction Sub-Station and other related works during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (k);

VSCADA = Increase or decrease in the cost of SCADA and related works during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (k);

VELEGWK = Increase or decrease in the cost of various electrical general services works and related works during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (k);

VEXTNLTWPWSPLY = Increase or decrease in the cost of extension/augmentation of power supply for CLS work and related works during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (k);

VEXTNPWRSUPPLY = Increase or decrease in the cost of extension/augmentation of general power supply and related works during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (k);

VMODELETRICAL = Increase or decrease in the cost of modification to existing electrical works and related works during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (k);

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

PC, PCOND, PCU, PELEX, PINS, PLB, POFC, PSWGR, , PPC, and PSST are the percentages of cement, conductor, copper wire, electronic items, insulators, labour, fibre optic cables, electrical switch gears, PVC insulated cable and structural steel respectively for the relevant item as specified in sub-paragraph (k);

Co = The wholesale price index as published by the Ministry of Commerce & Industry, Government of India (hereinafter called “WPI”) for cement, lime, plaster for the month of the Base Month;

Ci = The WPI for cement, lime, plaster for the average price index of the 3 months of the quarter under consideration;

COND_o = the WPI conductors for the month of the Base Month;

COND_i = The WPI for conductors for the average price index of the 3 months of the quarter under consideration;

CU_o = The WPI for copper wire for the month of the Base Month;

CU_i = The WPI for copper wire for the average price index of the 3 months of the quarter under consideration;

ELEX_o = The WPI for electronic items for the month of the Base Month;

ELEX_i = The WPI for electronic items for the average price index of the 3 months of the quarter under consideration;

INS_o = The WPI for insulators for the month of the Base Month;

INS_i = The WPI for insulators for the average price index of the 3 months of the quarter under consideration;

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

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

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

PCo = The WPI for PVC insulated cable for the month of the Base Month;

PCi = The WPI for PVC insulated cable for the average price index of the 3 months of the quarter under consideration;

So = The WPI for steel (rods) for the month of the Base Month;

Si = The WPI for steel (rods) for the average price index of the 3 months of the quarter under consideration;

SSTo = The WPI for structural steel for the month of the Base Month;

SSTi = The WPI for structural steel for the average price index of the 3 months of the quarter under consideration;

SWGRo = The WPI for electric switch gears for the month of the Base Month;

SWGRi = The WPI for electric switch gears for the average price index of the 3 months of the quarter under consideration;

TRo = The WPI for transformers for the month of the Base Month; and

TRi = The WPI for transformers for the average price index of the 3 months of the quarter under consideration.

k) The following percentages shall govern the price adjustment of the Contract Price for electrification works:

(i) For OHE, TSS, SP, Booster Transformer stations, Auxiliary transformer stations:

Component	Over Head Equipment except other work						Switch Posts except commissioning and charging,	Traction sub stations except Commissioning and charging			Auxiliary transformer stations	OHE other works, commissioning and charging of TSS, SP, Booster Transformer stations, auxiliary transformer stations
	Foundation, mast erection, bracket, erection, insulators			Stringing of catenary and contact wire				Transformers	All works except trans-formers			
	1.1 Completion of Design & drawing and Foundation work for block sections including stations and yards	1.2 Supply of steel (Mast and Portals components only)	1.3 Completion of Steel erection (Mast & Portal) & grouting with painting of location Numbers	1.4 Completion of erection of Bracket, Guy Rod, anticreep (Complete pre wiring activity), Height gauge & protection screen	1.5 Supply of Contact & Catenary wire only	1.6 Completion of wiring along with erection of balance weight, dropping & clipping including antitheft charging		5.3 Supply and erection of transformers	5.1 Completion of all civil works for the TSS (works like earth filling, retaining wall, approach road, control building, fencing	5.2 Completion of all supply and erection works of TSS except supply and erection of Transformers		
Labour (PLB)	22.07%		27.64%	7.32%		15.85%	24.45%	1.34%	30.00%	4.90%	12.90%	100.00%
Cement (PC)	77.90%		35.05%				21.72%		14.00%	9.67%		
Structural steel (PSST)	0.03%	100.00%	37.31%	60.17%		27.66%	10.80%		8%	42.91%		
Insulators (PINS)				32.51%		8.62%						
Copper wire (PCU)					100%	47.87%						
Transformer (PTR)								98.66%				

Component	Over Head Equipment except other work						Switch Posts except commissioning and charging,	Traction sub stations except Commissioning and charging			Auxiliary transformer stations	OHE other works, commissioning and charging of TSS, SP, Booster Transformer stations, auxiliary transformer stations
	Foundation, mast erection, bracket, erection, insulators			Stringing of catenary and contact wire				Transformers	All works except trans-formers			
	1.1 Completion of Design & drawing and Foundation work for block sections including stations and yards	1.2 Supply of steel (Mast and Portals components only)	1.3 Completion of Steel erection (Mast & Portal) & grouting with painting of location Numbers	1.4 Completion of erection of Bracket, Guy Rod, anticreep (Complete pre wiring activity), Height gauge & protection screen	1.5 Supply of Contact & Catenary wire only	1.6 Completion of wiring along with erection of balance weight, dropping & clipping including antitheft charging		5.3 Supply and erection of transformers	5.1 Completion of all civil works for the TSS (works like earth filling, retaining wall, approach road, control building, fencing	5.2 Completion of all supply and erection works of TSS except supply and erection of Transformers		
Electrical Switch Gear (PSWGR)							43.03%			42.52%	87.10 %	
All other commodities(POTH)									48%			
Total	100.00%	100.00 %	100.00%	100.00%	100.00 %	100.00%	100.00 %	100.00%	100.00%	100.00%	100.00%	100.00%

(ii) For various electrical general services works

Component	Various electrical general services work
Labour (PLB)	15%
Structural steel	-
Cement (PC)	-
Conductor (PCOND)	-
PVC Insulated Cable (PIC)	45%
Copper wire (PCU)	24%
Insulators (PINS)	-
Other items (POTH)	16 %
Total	100.00%

(iii) For SCADA, Extension/ augmentation of power supply for CLS work, extension/augmentation of general power supply, modification to existing electrical works:

Component	SCADA except commissioning for the Division	Extension/ augmentation of power supply for CLS work except commissioning	Extension/ augmentation of general power supply	Modification to existing electrical works	Commissioning of SCADA, Extension/ augmentation of power supply for CLS work and Various Electrical General Services work.
Labour (PLB)	6.69%	20.00%	15%	20.00%	100
Electronics (PELEX)	87.25%	-	-	-	-
PVC Insulated Cable (PIC)	-	64.00%	45%	-	-
Fibre Cable (POFC)	-	-	-	-	-
All other commodities (POTH)	6.06%	16.00%	40%	80.00%	-
Total	100.00%	100.00%	100.00%	100.00%	100.00 %

(iv) For inventory for electrification:

Component	Inventory for electrification works
Labour (PLB)	-
Electronics (PELEX)	-
PVC Insulated Cable (PIC)	-
Fibre Cable (POFC)	-
All other commodities (POTH)	100.00%
Total	100.00%

2. Schedule of Adjustment Data

Refer Clause 1 Price Adjustment of Appendix A to Financial Part

Table B. Foreign Currency (FC)

Not applicable as Tenderer's are required to quote rates and prices only in INR.

Table C. Summary of Payment Currencies

For [insert name of Works]

Name of Payment Currency	A	B	C	D
	Amount of Currency	Rate of Exchange (local currency per unit of foreign)	Local Currency Equivalent $C = A \times B$	Percentage of Net Tender Price (NTP) $\frac{100 \times C}{NTP}$
For Schedule 'A'				
Local currency (INR)		1.00		
USD (\$)				
EUR (€)				
JPY (¥)				
Schedule 'B'		1.00		
Schedule 'C'		1.00		
Net Tender Price				100.00
Provisional Sums Expressed in Local Currency (INR) in million	100,000,000.00	1.00	100,000,000.00	Not Applicable
TOTAL TENDER PRICE (including provisional sum)				

Note: The Tenderer is required to propose and submit the schedules given in tables above as part of the Tender. The rates of exchange shall be the reference rate twenty-eight (28) days prior to the deadline for submission of Tenders published by the Reserve Bank of India (RBI) on its website <https://www.rbi.org.in>. In case the exchange rate of particular currency on given date is not available on RBI web site, it will be as per the web site <https://www.fbil.org.in> of Financial Benchmark India Private Limited (FBIL).

Appendix B to Financial Part: Price Schedules

1 Preamble

- 1.1. The Price Schedules shall be read in conjunction with the Instructions to Tenderers, the General Conditions, the Particular Conditions and the Employer's Requirements (General Specifications, Design Requirements Criteria, Technical Specifications, Drawings) and the Addenda (if any).
- 1.2. **Schedule 'A'** comprises scope of work to be executed under lump sum contract as detailed in Part 2- Employers' Requirements of Tender Document. The Tenderer has to quote a single lump sum amount against Schedule 'A'. Payment to the Contractor will be made in accordance with payment stages/Milestones defined for each Cost Centre detailed below unless otherwise specified in the Contract.
- 1.3. **Schedule 'B'** comprise of percentage rate for Retaining Wall. The work has to be carried out as per the description of items given in Schedule 'B' and directions of the Engineer. The Tenderer has to quote the percentage Excess (+) or Less (-) over the basic amount given in the Schedule 'B'. The payment against this head will be made on the basis of quantities executed, measured and certified. Under this Schedule, the contractor has to do all works which are not covered in Schedule 'A', or any other work as per site requirements and as per the direction of the Engineer.
- 1.4. **Schedule 'C'** comprises miscellaneous items for Civil, Signalling & Telecommunications and Unchartered Utility Shifting works. The work has to be carried out as per Schedule of items given in this Schedule 'C'. This Schedule contains only Rate and Unit of items of the works. The basis of payment will be the actual quantities of work ordered and carried out, as measured by the Contractor and verified by the Engineer and valued at the rates and prices quoted in the Price Schedules. The Tender has to quote the percentage quote percentage (%) Excess (+) or Less (-) over the basic amount given in Schedule 'C' for items to be executed against this head. Under this Schedule, the Contractor has to undertake items or works not covered in Schedules 'A' and 'B' as per the requirements and directions of the Engineer.
- 1.5. The Schedules may not generally give a full description of the works to be performed and the plant or equipment to be supplied under each item. Tenderers shall be deemed to have read the Employer's Requirements and the other sections of the Tender Documents and reviewed the Drawings to ascertain the full scope of the requirements included in each item prior to filling the rates and prices.
- 1.6. The price quoted in the Price Schedules for Schedule 'A', Schedule 'B' and Schedule 'C' are for complete and finished items of the work in all respects. The Price quoted in the Price Schedules shall, except in so far as it is otherwise provided under the Contract, shall include all design, include all necessary survey work, plants, tools, machinery, Contractor's equipment, labour, compliance of labour laws, supervision, materials, transportation, handling, loading & unloading, storage, sampling, testing, fuel, oil, consumables, electric power, water,

all leads & lifts, dewatering, all temporary works including temporary accesses, staging, form works and false works, stacking, provision and maintenance of all temporary works area, construction of temporary store and buildings, fencing, barricading, lighting, drainage arrangements, erection & maintenance of inspection facilities above and below ground such as brick, concrete and steel etc.), reinstatement, remedy of any defects during the Defects Notification Period, safety measures for workmen and road users, preparation of design and drawings pertaining to permanent and temporary works, & traffic diversion works, mobilisation and demobilisation, establishment and overhead charges, labour camps, insurance cost for labour and works, contractor's profit, all taxes including Goods and Service Tax (GST), insurance, royalties, duties, cess, octroi, other levies and other charges together with all general risks, liabilities and obligations set out or implied in the Contract.

- 1.7. The whole cost of complying with the provisions of the Contract shall be included in the items provided in the Price Schedules, and where no items are provided, the cost shall be deemed to be distributed among the rates and prices entered for the related items of the Work.
- 1.8. To the extent acceptable to the Employer for the purpose of making payments or partial payments, valuing variations or evaluating claims, or for such other purposes as the Engineer may reasonably require, the Contractor may provide the Engineer with a breakdown of any composite or lump sum items included in the Schedules.
- 1.9. The Provisional Sums included and so designated in the Price Schedules shall be expended in whole or in part at the direction and discretion of the Engineer. The Provisional Sum shall be used to cover the Employer's share of the DAAB members' fees and expenses, in accordance with Clause 21. No prior instruction of the Engineer shall be required with respect to the work of the DAAB in accordance with Sub-Clause 13.4 of Part B-Specific Provisions - Particular Conditions of Contract. The Contractor shall submit the DAAB members' invoices and satisfactory evidence of having paid 100% of such invoices as part of the substantiation of those statements submitted under Sub-Clause 14.3. in accordance with Sub-Clauses 13.4 of the General Conditions.
- 1.10. The prices shall be quoted against Schedule 'A', Schedule 'B' and Schedule 'C' in the Price Schedule (Excel Workbook) uploaded on the e-Procurement portal.
- 1.11. The prices quoted shall be comprehensive and must include for complying in all respects with the Price Schedules, Instruction to Tenderers, the General Conditions, the Particular Conditions, Employer's Requirements, Specifications and Drawings and for all matters and things necessary for the proper construction, completion, and making good of any defect in part or of the whole of the Works.
- 1.12. No claims for additional payment shall be allowed for any error or misunderstanding by the Contractor of the work involved.

2 Measurement and Payment

- 2.1 The measurement shall be made as per Price Schedules i.e. Schedule 'A'. Schedule 'B' and Schedule 'C' and other relevant provisions of the Contract such as Employer's Requirements

and the Drawings.

- 2.2 If during execution of the Contract, it is decided by the Employer/Engineer that one or more items of Work/Milestone of a Cost Centre in a particular Price Schedule is not required to be executed, the proportionate amount against that particular Item of Work/Milestones shall not be paid. The Engineer's decision in this regard shall be final.
- 2.3 The Payment shall be made as per Clause 14 [Contract Price and Payment] of the General Conditions and Particular Conditions.

3 Procedures for Payment

- 3.1 The Employer shall make interim payments to the Contractor in accordance with the provisions of Sub-Clause 14.6 [Issue of Interim Payment Certificates] of the General Conditions and Particular Conditions, as certified by the Engineer on the basis of the progress achieved for the items of works/stages/Milestones of the works.
- 3.2 The Contractor shall base its claim for interim payment in accordance with Sub-Clause 14.3 [Application for Interim Payment] of the General Conditions and Particular Conditions for each stage for various items of work on the basis of actual progress of work executed (i.e. Milestones achieved) till the end of the month for which the payment is claimed in relation to the Contractor's total executed quantity, supported with documents and updated programme in accordance with the Employer's Requirements.
- 3.3 The Employer may carry out necessary tests, either directly or through an independent agency, of the Works done by the Contractor for which payment has been accepted and certified by the Engineer. The payment shall depend upon the outcome of such tests.
- 3.4 Format for the Contractor's application for payment shall be agreed between the Engineer and the Contractor.
- 3.5 All necessary supplementary details to support progress claims, including all certified Request for Inspection in hard bound copy, shall be included with application for payment. Sketches, drawings, approvals, calculations, test reports etc. shall accompany an application for payment to be substantiated and certified by the Engineer and submitted to the Employer.
- 3.6 Even if no work is executed during the month, or the Contractor does not choose to issue an application for payment, a 'NIL' application shall be submitted.
- 3.7 For the purposes of payment, the Contractor shall submit to the Engineer a detailed Price Schedule indicating a further breakdown for each stage of payment contained in the Price Schedules within forty-two (42) days after the receipt of the Letter of Acceptance. Such cost breakdowns shall be subject to approval of the Engineer who shall review and evaluate with comments and/or issue approval within twenty-eight (28) days of receipt of same. The Contractor shall resubmit the cost breakdown structure corresponding to the Engineer's comments for review, if required.
- 3.8 The Engineer is not obliged to issue an Interim Payment Certificate until such breakdown structure of payment schedule has been submitted and accepted by the Engineer.

4 Methodology for Claiming Payment

- 4.1 The Contractor shall prepare his monthly application for payment in the agreed format in two hard copies and one soft copy. This shall be accompanied by supplementary details in accordance with Sub-Clause 14.3 [Application for Interim Payment Certificates] of the General Conditions. All hard copies shall bear the original signatures of the Contractor's Representative and be submitted to the Engineer.
- 4.2 If these are found in order, in accordance with Sub-Clause 14.6 [Issue of Interim Payment Certificates] of the General Conditions, then the Engineer shall forward two certified copies of the application along with certified supplementary details to the Employer, with his recommendation for payment; otherwise, all documents shall be returned to the Contractor for rectification and resubmission.

5 Price Schedule

- 5.1 Schedule "A"- Breakup of Lump Sum cost of Works under various Sub-Heads shall be as follows:

Sub-Head	Description	Percentage of the quoted lump sum cost of Schedule 'A'	No. of Cost Centres	Total Cost of each Sub-Head
1	2	3	4	5
C	Civil works	76.73	4	$C = 0.7673 \times LS^*$
E	OHE and General Electrical Services	12.51	11	$E = 0.1251 \times LS$
S	Signalling works	08.51	10	$S = 0.0851 \times LS$
T	Telecom works	02.25	15	$T = 0.0225 \times LS$

*LS = Total lump sum cost of Works for Schedule 'A'

- 5.2 Apportionment of Contract Price for payments under various Cost Centre for Sub-Head 'C'- Civil Works

Cost Centre	Description of Cost Centre	Percentage of Cost Centre 'C'	Total Cost of Cost Centre	Total Cost of Sub-Head 'C'
1	2	3	4	5
CD	Design and As Built Drawing & Documents	05.00%	$CD = 0.05 \times 'C'$	76.73% of SCH 'A'
CE	Earthwork and blanketing	38.50%	$CE = 0.385 \times 'C'$	
CB	Bridges	49.50%	$CB = 0.495 \times 'C'$	
CS	Station	07.00%	$CS = 0.07 \times 'C'$	
Total		100%		

Note: Value of 'C' shall be as defined in Sub-Clause 5.1 above.

The percentage figures as filled in column (3) by the Employer for the apportionment of the Contract Price for completion of the Works corresponding to the various Sub-Heads and Cost Centres are fixed and payment will be released for different Cost centre as per above percentage break-up of Contract Price.

5.2.1 Stages of Payment i.e. Milestones of Cost Centre ‘CD’- Design and As Built Drawing & Documents

Cost Centre	Sub Cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Cost Centre ‘CD’ (Y)
		No.	Description			
1	2	3	4	5	6	7
CD- Design and As Built Drawing & Documents	CD1- Design	CD1.1	Inception report	Inception report	10%	5%
		CD1.2	Formation	Definitive design & Good for Construction drawings (GFC)	10%	
		CD1.3	Minor			
		CD1.3.1		GAD	10%	
		CD1.3.2		Definitive design	10%	
		CD1.3.3		Good For Construction (GFC) drawings	8%	
		CD1.4	Major Bridge (substructure)			
		CD1.4.1		GAD	4%	
		CD1.4.2		Definitive design	4%	
		CD1.4.3		Good For Construction (GFC) drawings	4%	
		CD1.5	Retaining Wall			
		CD1.5.1	Station	Definitive Design	5%	
		CD1.5.2		Good For Construction (GFC) drawings	5%	
		CD1.6				

Cost Centre	Sub Cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'CD' (Y)
		No.	Description			
1	2	3	4	5	6	7
		CD1.6.1		Architectural/GAD drawings	4%	
		CD1.6.2		Definitive Design	3%	
		CD1.6.3		Combined Services Drawings & MEP drawings	4%	
		CD1.6.4		Design and drawings for circulating area, passenger amenities, water supply, drainage, rainwater harvesting systems and landscaping	4%	
	CD2- As Built Drawings & Documents	CD 2.1	As Built Drawings	On submission of As Built Drawings	10%	
		CD 2.2	As Built Documents	On submission of As Built Documents	5	
				Total	100%	

Note:

1. The value of each Milestones will be 76.73% of total Lumpsum cost of Works under Schedule 'A' multiplied by X * Y. For example, for CD 1.3.2, Value will be = 0.7673 of Lump sum quoted price of Sch A * X * Y = 0.7673 * 0.1 * 0.05 of lump sum quoted price of Schedule 'A'.
2. Adjustment to Contract Price pursuant to GCC 13.7 shall **NOT** be applicable to the payments of Works executed under this Cost Centre.
3. All minor bridge shall have equal weightage. Payment of each stage/Milestones shall be made on pro rata basis on completion of a stage for a bridge.
4. All major bridge shall have equal weightage. Payment of each stage/Milestones shall be made on pro rata basis on completion of a stage for a bridge.
5. All stations shall have equal weightage. Payment of each stage/Milestones shall be made on pro rata basis on completion of a stage for a station.
6. Payment will be made on Completion of each Milestones as per weightage given in this Cost Centre

5.2.2 Stages of Payment i.e. Milestones of Cost Centre ‘CE’- Earthwork and Blanketing

Cost Centre	Sub-Cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Cost Centre ‘CE’ (Y)
		No.	Description			
1	2	3	4	5	6	7
CE-Earthwork and Blanketing	CE.1-Earthwork	CE.1.1	Earthwork in formation from Ch 55.600 to 56.000 for double main line track.			38.5%
		CE.1.1.1		Earthwork in embankment / cutting including compaction.	6.2%	
		CE.1.1.2		On cutting of extra 0.5 m earthwork on slopes, compaction with vibratory roller, turfing & drainage arrangement complete in all respects.	0.4%	
		CE.1.1.3		On completion of maintenance period of 4 months for turfing, if the turfing is properly rooted.	0.2%	
		CE.1.2	Earthwork in formation from Ch 56.000 to 56.500 for double main line track.			
		CE.1.2.1		Earthwork in embankment/ cutting including compaction.	8.2%	

Cost Centre	Sub-Cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'CE' (Y)
		No.	Description			
1	2	3	4	5	6	7
		CE.1.2.2		On cutting of extra 0.5 m earthwork on slopes, compaction with vibratory roller, turfing & drainage arrangement complete in all respects.	0.6%	
		CE.1.2.3		On completion of maintenance period of 4 months for turfing, if the turfing is properly rooted	0.2%	
		CE.1.3	Earthwork in formation from Ch 56.500 to 57.000 for double main line track.			
		CE.1.3.1		Earthwork in embankment / cutting including compaction.	6.3%	
		CE.1.3.2		On cutting of extra 0.5 m earthwork on slopes, compaction with vibratory roller, turfing & drainage arrangement complete in all respects.	0.4%	
		CE.1.3.3		On completion of maintenance period of 4 months for turfing, if the turfing is properly rooted.	0.2%	
		CE.1.4	Earthwork in			

Cost Centre	Sub-Cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'CE' (Y)
		No.	Description			
1	2	3	4	5	6	7
			formation from Ch 57.000 to 57.300 for double main line track.			
		CE.1.4.1		Earthwork in embankment / cutting including compaction.	3.3%	
		CE.1.4.2		On cutting of extra 0.5 m earthwork on slopes, compaction with vibratory roller, turfing & drainage arrangement complete in all respects.	0.2%	
		CE.1.4.3		On completion of maintenance period of 4 months for turfing, if the turfing is properly rooted.	0.1%	
		CE.1.5	Earthwork in formation from Ch 57.300 to 57.500 in New Patli yard for main, loop & connecting lines and platform area.			
		CE.1.5.1		Earthwork in embankment / cutting including compaction.	3.1%	

Cost Centre	Sub-Cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'CE' (Y)
		No.	Description			
1	2	3	4	5	6	7
		CE.1.5.2		On cutting of extra 0.5 m earthwork on slopes, compaction with vibratory roller, turfing & drainage arrangement complete in all respects.	0.2%	
		CE.1.5.3		On completion of maintenance period of 4 months for turfing, if the turfing is properly rooted.	0.1%	
		CE.1.6	Earthwork in formation from Ch 57.500 to 58.000 in New Patli yard for main, loop & connecting lines and platform area.			
		CE.1.6.1		Earthwork in embankment / cutting including compaction.	8.2%	
		CE.1.6.2		On cutting of extra 0.5 m earthwork on slopes, compaction with vibratory roller, turfing & drainage arrangement complete in all respects.	0.6%	

Cost Centre	Sub-Cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'CE' (Y)
		No.	Description			
1	2	3	4	5	6	7
		CE.1.6.3		On completion of maintenance period of 4 months for turfing, if the turfing is properly rooted.	0.2%	
		CE.1.7	Earthwork in formation from Ch 58.000 to 58.500 in New patli yard for main, loop & connecting lines and platform area.			
		CE.1.7.1		Earthwork in embankment / cutting including compaction.	8.3%	
		CE.1.7.2		On cutting of extra 0.5 m earthwork on slopes, compaction with vibratory roller, turfing & drainage arrangement complete in all respects.	0.6%	
		CE.1.7.3		On completion of maintenance period of 4 months for turfing, if the turfing is properly rooted.	0.2%	

Cost Centre	Sub-Cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'CE' (Y)
		No.	Description			
1	2	3	4	5	6	7
		CE.1.8	Earthwork in formation from Ch 58.500 to 58.700 in New Patli yard for main, loop & connecting lines and platform area.			
		CE.1.8.1		Earthwork in embankment / cutting including compaction.	2.7%	
		CE.1.8.2		On cutting of extra 0.5 m earthwork on slopes, compaction with vibratory roller, turfing & drainage arrangement complete in all respects.	0.2%	
		CE.1.8.3		On completion of maintenance period of 4 months for turfing, if the turfing is properly rooted.	0.1%	
		CE.1.9	Earthwork in formation from Ch 58.700 to 59.200 for main line and Sultanpur			

Cost Centre	Sub-Cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'CE' (Y)
		No.	Description			
1	2	3	4	5	6	7
			connecting line.			
		CE.1.9.1		Earthwork in embankment / cutting including compaction.	3.5%	
		CE.1.9.2		On cutting of extra 0.5 m earthwork on slopes, compaction with vibratory roller, turfing & drainage arrangement complete in all respects.	0.3%	
		CE.1.9.3		On completion of maintenance period of 4 months for turfing, if the turfing is properly rooted.	0.2%	
		CE.1.10	Earthwork in formation from Ch 59.200 to 59.500 for double main line track.			
		CE.1.10.1		Earthwork in embankment / cutting including compaction.	2%	
		CE1.10.2		On cutting of extra 0.5 m earthwork on slopes, compaction with vibratory roller, turfing & drainage arrangement	0.1%	

Cost Centre	Sub-Cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'CE' (Y)
		No.	Description			
1	2	3	4	5	6	7
				complete in all respects.		
		CE1.10.3		On completion of maintenance period of 4 months for turfing, if the turfing is properly rooted.	0.1%	
		CE.1.11	Earthwork in formation from Ch 59.500 to 60.000 for double main line track.			
		CE1.11.1		Earthwork in embankment / cutting including compaction.	2.9%	
		CE.1.11.2		On cutting of extra 0.5 m earthwork on slopes, compaction with vibratory roller, turfing & drainage arrangement complete in all respects.	0.2%	
		CE.1.11.3		On completion of maintenance period of 4 months for turfing, if the turfing is properly rooted.	0.1%	
		CE.1.12	Earthwork in formation from Ch 60.000 to			

Cost Centre	Sub-Cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'CE' (Y)
		No.	Description			
1	2	3	4	5	6	7
			60.500 for double main line track.			
		CE.1.12.1		Earthwork in embankment / cutting including compaction.	3.6%	
		CE.1.12.2		On cutting of extra 0.5 m earthwork on slopes, compaction with vibratory roller, turfing & drainage arrangement complete in all respects.	0.3%	
		CE.1.12.3		On completion of maintenance period of 4 months for turfing, if the turfing is properly rooted.	0.1%	
		CE.1.13	Earthwork in formation from Ch 60.500 to 61.000 for double main line track.			
		CE.1.13.1		Earthwork in embankment / cutting including compaction.	3.0%	
		CE.1.13.2		On cutting of extra 0.5 m earthwork on slopes, compaction with vibratory roller, turfing & drainage arrangement	0.2%	

Cost Centre	Sub-Cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'CE' (Y)
		No.	Description			
1	2	3	4	5	6	7
				complete in all respects.		
		CE.1.13.3		On completion of maintenance period of 4 months for turfing, if the turfing is properly rooted.	0.1%	
		CE.1.14	Earthwork in formation from Ch 61.000 to 61.500 for double main line track.			
		CE.1.14.1		Earthwork in embankment / cutting including compaction.	3.8%	
		CE.1.14.2		On cutting of extra 0.5 m earthwork on slopes, compaction with vibratory roller, turfing & drainage arrangement complete in all respects.	0.2%	
		CE.1.14.3		On completion of maintenance period of 4 months for turfing, if the turfing is properly rooted.	0.1%	
		CE.1.15	Earthwork in formation from Ch 0.720 to			

Cost Centre	Sub-Cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'CE' (Y)
		No.	Description			
1	2	3	4	5	6	7
			1.000 for New Patli - Patli connecting line			
		CE.1.15.1		Earthwork in embankment / cutting including compaction.	1.5%	
		CE.1.15.2		On cutting of extra 0.5 m earthwork on slopes, compaction with vibratory roller, turfing & drainage arrangement complete in all respects.	0.1%	
		CE.1.15.3		On completion of maintenance period of 4 months for turfing, if the turfing is properly rooted.	0.1%	
		CE.1.16	Earthwork in formation from Ch 1.000 to 1.500 for New Patli - Patli connecting line.			
		CE.1.16.1		Earthwork in embankment / cutting including compaction.	1.5%	

Cost Centre	Sub-Cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'CE' (Y)
		No.	Description			
1	2	3	4	5	6	7
		CE.1.16.2		On cutting of extra 0.5 m earthwork on slopes, compaction with vibratory roller, turfing & drainage arrangement complete in all respects.	0.1%	
		CE.1.16.3		On completion of maintenance period of 4 months for turfing, if the turfing is properly rooted.	0.1%	
		CE.1.17	Earthwork in formation from Ch 1.500 to Ch 2.000 for New Patli-Patli connecting line			
		CE.1.17.1		Earthwork in embankment / cutting including compaction.	0.6%	
		CE.1.17.2		On cutting of extra 0.5 m earthwork on slopes, compaction with vibratory roller, turfing & drainage arrangement complete in all respects.	0.1%	
		CE.1.17.3		On completion of maintenance period of 4 months for turfing, if the	0.05%	

Cost Centre	Sub-Cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'CE' (Y)
		No.	Description			
1	2	3	4	5	6	7
				turfing is properly rooted.		
		CE.1.18	Earthwork in formation from Ch 2.000 to Ch 2.500 for New Patli-Patli connecting line			
		CE.1.18.1		Earthwork in embankment / cutting including compaction.	0.2%	
		CE.1.18.2		On cutting of extra 0.5 m earthwork on slopes, compaction with vibratory roller, turfing & drainage arrangement complete in all respects.	0.05%	
		CE.1.18.3		On completion of maintenance period of 4 months for turfing, if the turfing is properly rooted.	0.05%	
		CE1.19	Earthwork in formation from Ch 2.500 to Ch 3.000 for New Patli-Patli connecting line	Earthwork in embankment / cutting including compaction. Cutting of extra earthwork on slopes, compaction with vibratory roller, turfing & drainage	0.05%	

Cost Centre	Sub-Cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'CE' (Y)
		No.	Description			
1	2	3	4	5	6	7
				arrangement complete in all respects and on completion of maintenance period of 4 months for turfing, if the turfing is properly rooted.		
		CE.1.20	Earthwork in formation from Ch 3.000 to Ch 3.500 for New Patli-Patli connecting line	Earthwork in embankment / cutting including compaction. Cutting of extra earthwork on slopes, compaction with vibratory roller, turfing & drainage arrangement complete in all respects and on completion of maintenance period of 4 months for turfing, if the turfing is properly rooted.	0.05%	
		CE.1.21	Earthwork in formation from Ch 3.500 to Ch 4.000 for New Patli-Patli connecting line	Earthwork in embankment / cutting including compaction. Cutting of extra earthwork on slopes, compaction with vibratory roller, turfing & drainage arrangement complete in all respects and on	0.05%	

Cost Centre	Sub-Cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'CE' (Y)
		No.	Description			
1	2	3	4	5	6	7
				completion of maintenance period of 4 months for turfing, if the turfing is properly rooted.		
		CE.1.22	Earthwork in formation from Ch 0.960 to 1.500 for New Patli-Sultanpur connecting line			
		CE.1.22.1		Earthwork in embankment / cutting including compaction.	2.3%	
		CE.1.22.2		On cutting of extra 0.5 m earthwork on slopes, compaction with vibratory roller, turfing & drainage arrangement complete in all respects.	0.1%	
		CE.1.22.3		On completion of maintenance period of 4 months for turfing, if the turfing is properly rooted.	0.1%	
		CE.1.23	Earthwork in formation from Ch 1.500 to 2.000 for New Patli-Sultanpur			

Cost Centre	Sub-Cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'CE' (Y)
		No.	Description			
1	2	3	4	5	6	7
			connecting line			
		CE.1.23.1		Earthwork in embankment / cutting including compaction.	1.9%	
		CE.1.23.2		On cutting of extra 0.5 m earthwork on slopes, compaction with vibratory roller, turfing & drainage arrangement complete in all respects.	0.1%	
		CE.1.23.3		On completion of maintenance period of 4 months for turfing, if the turfing is properly rooted.	0.1%	
		CE.1.24	Earthwork in formation from Ch 2.000 to 2.500 for New Patli-Sultanpur connecting line			
		CE.1.24.1		Earthwork in embankment / cutting including compaction.	1.3%	
		CE.1.24.2		On cutting of extra 0.5 m earthwork on slopes, compaction with vibratory roller, turfing &	0.05%	

Cost Centre	Sub-Cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'CE' (Y)
		No.	Description			
1	2	3	4	5	6	7
				drainage arrangement complete in all respects.		
		CE.1.24.3		On completion of maintenance period of 4 months for turfing, if the turfing is properly rooted.	0.05%	
		CE.1.25	Earthwork in formation from Ch 2.500 to 3.000 for New Patli-Sultanpur connecting line			
		CE.1.25.1		Earthwork in embankment / cutting including compaction.	1.3%	
		CE.1.25.2		On cutting of extra 0.5 m earthwork on slopes, compaction with vibratory roller, turfing & drainage arrangement complete in all respects.	0.05%	
		CE.1.25.3		On completion of maintenance period of 4 months for turfing, if the turfing is properly rooted.	0.05%	

Cost Centre	Sub-Cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'CE' (Y)
		No.	Description			
1	2	3	4	5	6	7
		CE.1.26	Earthwork in formation from Ch 3.000 to 3.500 for New Patli-Sultanpur connecting line	Earthwork in embankment / cutting including compaction. Cutting of extra earthwork on slopes, compaction with vibratory roller, turving & drainage arrangement complete in all respects and on completion of maintenance period of 4 months for turving, if the turving is properly rooted.	0.3%	
		CE.1.27	Earthwork in formation from Ch 3.500 to 4.000 for New Patli-Sultanpur connecting line	Earthwork in embankment / cutting including compaction. Cutting of extra earthwork on slopes, compaction with vibratory roller, turving & drainage arrangement complete in all respects and on completion of maintenance period of 4 months for turving, if the turving is properly rooted.	0.05%	
		CE.1.28	Earthwork in formation from Ch	Earthwork in embankment / cutting including	0.05%	

Cost Centre	Sub-Cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'CE' (Y)
		No.	Description			
1	2	3	4	5	6	7
			4.000 to 4.120 for New Patli-Sultanpur connecting line	compaction. Cutting of extra earthwork on slopes, compaction with vibratory roller, turfing & drainage arrangement complete in all respects and on completion of maintenance period of 4 months for turfing, if the turfing is properly rooted.		
	CE.2-Blanketing	CE.2.1	Blanketing from Ch 55.600 to 56.000 for double main line track.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.5%	
		CE.2.2	Blanketing from Ch 56.000 to 56.500 for double main line track.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.7%	
		CE.2.3	Blanketing from Ch 56.500 to 57.000 for double main line track.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.7%	

Cost Centre	Sub-Cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'CE' (Y)
		No.	Description			
1	2	3	4	5	6	7
		CE.2.4	Blanketing from Ch 57.000 to 57.300 for double main line track.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.5%	
		CE.2.5	Blanketing from Ch 57.300 to 57.500 in New Patli yard for main, loop & connecting lines.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.7%	
		CE.2.6	Blanketing from Ch 57.500 to 58.000 in New Patli yard for main, loop & connecting lines.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	1.8%	
		CE.2.7	Blanketing from Ch 58.000 to 58.500 in New patli yard for main, loop & connecting lines.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	1.5%	
		CE.2.8	Blanketing from Ch 58.500 to	Blanketing on subgrade/ prepared subgrade as per	0.8%	

Cost Centre	Sub-Cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'CE' (Y)
		No.	Description			
1	2	3	4	5	6	7
			58.700 in New Patli yard for main, loop & connecting lines.	design profile including compaction complete in all respects.		
		CE.2.9	Blanketing from Ch 58.700 to 59.200 for main line and Sultanpur connecting line.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	1.2%	
		CE.2.10	Blanketing from Ch 59.200 to 59.500 for double main line track.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.5%	
		CE.2.11	Blanketing from Ch 59.500 to 60.000 for double main line track.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.6%	
		CE.2.12	Blanketing from Ch 60.000 to 60.500 for double main line track.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.6%	

Cost Centre	Sub-Cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'CE' (Y)
		No.	Description			
1	2	3	4	5	6	7
		CE.2.13	Blanketing from Ch 60.500 to 61.000 for double main line track.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.6%	
		CE.2.14	Blanketing from Ch 61.000 to 61.500 for double main line track.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.6%	
		CE.2.15	Blanketing from Ch 0.720 to 1.000 for New Patli - Patli connecting line	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.2%	
		CE.2.16	Blanketing from Ch 1.000 to 1.500 for New Patli - Patli connecting line.	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.4%	
		CE.2.17	Blanketing from Ch 1.500 to Ch 2.000 for New Patli - Patli connecting line	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.4%	

Cost Centre	Sub-Cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'CE' (Y)
		No.	Description			
1	2	3	4	5	6	7
		CE.2.18	Blanketing from Ch 2.000 to Ch 2.500 for New Patli-Patli connecting line	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.4%	
		CE.2.19	Blanketing from Ch 2.500 to Ch 3.000 for New Patli - Patli connecting line	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.4%	
		CE.2.20	Blanketing from Ch 3.000 to Ch 3.500 for New Patli - Patli connecting line	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.4%	
		CE.2.21	Blanketing from Ch 3.500 to Ch 4.000 for New Patli - Patli connecting line	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.1%	
		CE.2.22	Blanketing from Ch 0.960 to 1.500 for New Patli-Sultanpur connecting line	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.4%	

Cost Centre	Sub-Cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'CE' (Y)
		No.	Description			
1	2	3	4	5	6	7
		CE.2.23	Blanketing from Ch 1.500 to 2.000 for New Patli-Sultanpur connecting line	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.4%	
		CE.2.24	Blanketing from Ch 2.000 to 2.500 for New Patli-Sultanpur connecting line	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.4%	
		CE.2.25	Blanketing from Ch 2.500 to 3.000 for New Patli-Sultanpur connecting line	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.4%	
		CE.2.26	Blanketing from Ch 3.000 to 3.500 for New Patli-Sultanpur connecting line	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.4%	
		CE.2.27	Blanketing from Ch 3.500 to 4.000 for New Patli-Sultanpur connecting line	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.4%	

Cost Centre	Sub-Cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'CE' (Y)
		No.	Description			
1	2	3	4	5	6	7
		CE.2.28	Blanketing from Ch 4.000 to 4.120 for New Patli-Sultanpur connecting line	Blanketing on subgrade/ prepared subgrade as per design profile including compaction complete in all respects.	0.1%	
				Total	100%	

Note:

1. Adjustment to Contract Price pursuant to GCC 13.7 shall be applicable to the payments of Works executed under this Sub Heads / Price Schedule.
2. Payment will be made on Completion of each Milestones as per weightage given in this schedule.

Milestones of Cost Centre ‘CB’- for Bridges

Cost Centre	Sub-cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Sub-Cost Centre ‘CB’ (Y)	
		No.	Description				
1	2	3	4	5	6	7	
CB-Bridges	CB1-Minor Bridges	CB1.1	Construction of minor bridge No. Nil between ch 55.600 to 56.000 for main line track.	On completion of RCC box bridge including *	0%	49.5%	
		*wing wall, return wall, drop wall, curtain wall, flooring, backfill, protection works, inspection steps, bridge number plaque, painting of HFL, height gauge, drainage arrangement, road works in RUBs and other balance works complete as per approved drawings & TS.					
		CB1.2	Construction of minor bridge Nos. 137,138 & 139 between ch 56.000 to 56.500 for main line track.	On completion of RCC box bridge including *	4.76%		
		CB1.3	Construction of minor bridge No. 140 between ch 56.500 to 57.000 for main line track.	On completion of RCC box bridge including *	0.74%		
		CB1.4	Construction of minor bridge No. 141 between ch 57.000 to 57.300 for main line track.	On completion of RCC box bridge including *	2.86%		
		CB1.5	Construction of minor bridge No. Nil between ch 57.300 to 57.500 for main & New patli - Patli connecting lines.	On completion of RCC box bridge including *	0%		
		CB1.6	Construction of minor bridge No. 142, 143 & 144 between ch 57.500 to 58.000 in New Patli yard.	On completion of RCC box bridge including *	10.52 %		

Cost Centre	Sub-cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Sub-Cost Centre 'CB' (Y)
		No.	Description			
		CB1.7	Construction of minor bridge No.145 between ch 58.000 to 58.500 in New Patli yard.	On completion of RCC box bridge including *	3.45%	
		CB1.8	Construction of minor bridge No.146 between ch 58.500 to 58.700 in New Patli yard.	On completion of RCC box bridge including *	0.81%	
		CB.1.9	Construction of minor bridge No.Nil between ch 58.700 to 59.200 for main & New Patli-Sultanpur connecting lines.	On completion of RCC box bridge including *	0%	
		CB.1.10	Construction of minor bridge No. Nil between ch 59.200 to 59.500 for main line.	On completion of RCC box bridge including *	0%	
		CB1.11	Construction of minor bridge No.149 between ch 59.500 to 60.000 for main line track.	On completion of RCC box bridge including *	1.72%	
		CB1.12	Construction of minor bridge No.150 between ch 60.000 to 60.500 for main line track.	On completion of RCC box bridge including *	2.12%	
		CB1.13	Construction of minor bridge No.151A, 151B, 151C & 151D between ch 60.500 to 61.000 for main line track	On completion of RCC box bridge including *	23%	
		CB1.14	Construction of minor bridge No. 152 between ch	On completion of RCC box bridge including *	0.61%	

Cost Centre	Sub-cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Sub-Cost Centre 'CB' (Y)
		No.	Description			
			61.000 to 61.500 for main line track.			
		CB1.15	Construction of minor bridge No. 3 between ch 0.720 to 1.000 for New Patli to Patli connecting line.	On completion of RCC box bridge including *	1.16%	
		CB1.16	Construction of minor bridge No. 4 between ch 1.000 to 1.500 for New Patli to Patli connecting line.	On completion of RCC box bridge including *	0.37%	
		CB1.17	Construction of minor bridge no. 5 between ch 1.500 to 2.000 for New Patli to Patli connecting line.	On completion of RCC box bridge including *	0.38%	
		CB1.18	Construction of minor bridge No. 6 between ch 2.000 to 2.500 for New Patli to Patli connecting line	On completion of RCC box bridge including *	2.5%	
		CB1.19	Construction of minor bridge No. 7 between ch 2.500 to 3.000 for New Patli to Patli connecting line	On completion of RCC box bridge including *	0.24%	
		CB1.20	Construction of minor bridge No.Nil between ch 3.000 to 3.500 for New Patli to Patli connecting line	On completion of RCC box bridge including *	0%	
		CB1.21	Construction of minor bridge No.Nil between ch 3.500 to	On completion of RCC box bridge including *	0%	

Cost Centre	Sub-cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Sub-Cost Centre 'CB' (Y)
		No.	Description			
			4.000 for New Patli to Patli connecting line			
		CB1.22	Construction of minor bridge No. Nil between ch 0.960 to 1.500 for New Patli to Sultanpur connecting line	On completion of RCC box bridge including *	0%	
		CB1.23	Construction of minor bridge Nos. 1 & 2 between ch 1.500 to 2.000 for New Patli to Sultanpur connecting line	On completion of RCC box bridge including *	1.32%	
		CB1.24	Construction of minor bridge No. Nil between ch 2.000 to 2.500 for New Patli to Sultanpur connecting line	On completion of RCC box bridge including *	0%	
		CB1.25	Construction of minor bridge Nos. 3 & 4 Between ch 2.500 to 3.000 for New Patli to Sultanpur connecting line	On completion of RCC box bridge including *	1.43%	
		CB1.26	Construction of minor bridge No. Nil between ch 3.000 to 3.500 for New Patli to Sultanpur connecting line	On completion of RCC box bridge including *	0%	
		CB1.27	Construction of minor bridge No. Nil between ch 3.500 to 4.000 for New Patli to Sultanpur connecting line	On completion of RCC box bridge including *	0%	

Cost Centre	Sub-cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Sub-Cost Centre 'CB' (Y)
		No.	Description			
		CB1.28	Construction of minor bridge No. Nil between ch 4.000 to 4.120 for New Patli to Sultanpur connecting line	On completion of RCC box bridge including *	0%	
	CB.2-Major Bridges	CB.2.1	Foundation	On completion of the foundation work including pile caps/ well caps and foundations for wing and return walls, and testing.	7.5%	
		CB.2.2	Substructure	On Completion of Abutment/Piers including Abutment/Pier Cap without bearings.		
		CB.2.2.1		Pier/Abutment	3%	
		CB.2.2.2		Pier/Abutment cap	0.5%	
		CB.2.2.3		Completion of the wing walls, return walls in all respects	1%	
		CB.2.3	Superstructure			
		CB.2.3.1		On completion superstructure including launching in position.	21%	
		CB.2.3.2		On fixing of bearings in position true to line & level and placement of superstructure on bearings including	2%	

Cost Centre	Sub-cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Sub-Cost Centre 'CB' (Y)
		No.	Description			
				grouting of holding down bolts complete.		
		CB.2.4	Track works			
		CB.2.4.1		Transportation/shifting of rails	0.5%	
		CB.2.4.2		On completion of installation of track on H-beam sleepers including fixing of guard rails, gang pathway.	2.48%	
		CB.2.5	Miscellaneous works			
		CB.2.5.1		On completion of Trolley refuse, Pathway on the sides, Inspection arrangement including access ladder etc.as per approved drawings and Employers requirement,	1%	
		CB.2.5.2		On completion of balance works as per drawing like-Protection works including Toe wall, Pitching, inspection steps, Bridge plaque, Bridge board, painting of HFL, Height Gauge, drainage arrangement in RUBs, and Testing on completion, if any, complete in	3%	

Cost Centre	Sub-cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Sub-Cost Centre 'CB' (Y)
		No.	Description			
				all respect and fit for use.		
				Total	100%	

Note:

1. Adjustment to Contract Price pursuant to GCC 13.7 shall be applicable to the payments of Works executed under this Sub Head / Price Schedule.
2. Payment will be made on Completion of each Milestones as per weightage given in this schedule.
3. CB2.2-Major Bridges:
 - (i) For the purpose of stage payment/Milestones, cost of a bridge shall be taken in proportion to its linear length measured along the alignment to the total linear length of all major bridges.
 - (ii) Payment of each stage/Milestones for a bridge will be made on completion of the relevant stage as per the weightage given in this schedule in proportion to the cost of the bridge.
4. Stages CB.2.1 to CB.2.2 will further be subdivided into the number of piers + 2 abutments, as applicable as per approved drawing by the Engineer, and Milestones for completed work for each pier and abutment shall be made as per the requirement of the stages stated above.
5. For steel Open Web Girder (OWG) and Composite girders payment against Cost centre CB.2.3.1 shall be released as per following schedule-
 - (i) Receipt of material at approved location: 40%
 - (ii) Fabrication of girder and transportation to site: 25%
 - (iii)Erection/launching and completion of all other balance works: 35%,

and for PSC girder/slabs payment against sub cost centre 2.3.1 shall be released as per following schedule-

- (i) On casting of PSC girder/slabs: 50%
- (ii) On first stage prestressing: 20%
- (iii) On completion in all respect: 30%

5.2.3 Stages of Payment i.e. Milestones of Cost Centre ‘CS’- Stations

Cost Centre	Sub-Cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Cost Centre ‘CS’ (Y)
		No.	Description			
1	2	3	4	5	6	7
CS-Station	CS.1-Sultanpur Station	CS.1.1	Station building	Construction of railway station buildings and service buildings complete in all respects including fixing doors, windows, sanitary, water supply works, electrification and all other specified and incidental works.	4.9%	7%
		CS.1.2	Platform			
		CS.1.2.1		Construction of platforms including earthwork in filling above formation level, platform fencing /Wall but excluding items mentioned in item no 1.2.2 and 1.2.3 as per yard diagram.	10.5%	
		CS.1.2.2		Surfacing of platforms.	2.5%	
		CS.1.2.3		Provision of passenger amenities including shelters.	2.3%	
		CS.1.3	Drainage works of station	On completion of drainage works of station yard & platform as shown in tender drawings & TS	0.8	
		CS.1.4	Misc. works	On completion of water supply works including bore well, pump house, storage tank, sanitary works, pathway for passengers across tracks, station name board, signages, rain water harvesting, approach	2.48%	

Cost Centre	Sub-Cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'CS' (Y)
		No.	Description			
1	2	3	4	5	6	7
				road to station and other incidental works in railway station area.		
	CS.2 New Patli Station	CS.2.1	Station building			
		CS.2.1.1		On completion of earthwork in filling below station building, ramp, staircase and between station building & adjacent track	1.0%	
		CS.2.1.2		Construction of railway station buildings and service buildings complete in all respects including fixing doors, windows, sanitary, water supply works, electrification and all other specified and incidental works.	8.35%	
		CS.2.1.3		On completion of stairs & ramp connected to station building.	2.65%	
		CS.2.2	Platform			
		CS.2.2.1		Construction of platforms including earthwork in filling above formation level platform fencing /Wall but excluding items mentioned in item no 2(b) and (c) as per yard diagram.	7.4%	
		CS.2.2.2		Surfacing of platform in the full length.	6.0%	

Cost Centre	Sub-Cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'CS' (Y)
		No.	Description			
1	2	3	4	5	6	7
		CS.2.2.3		Provision of passenger amenities including shelters.	7.0%	
		CS2.3	Subway	On completion of barrel of RCC box.	10%	
		CS2.3.1		On completion stairs to platform including shed, lift well & provision for escalator.	2.5%	
		CS2.3.3		On completion of subway in all respect including surfacing, drainage, railing etc. complete.	3.5%	
		CS2.4	Retaining Wall	On completion of retaining wall at entrance near the subway including filter layer & backfill complete in all respects.	19%	
		CS.2.5	Drainage works of station	On completion of drainage works of station yard & platform as shown in tender drawings & TS	5.25	
		CS.2.6	Misc. works	On completion of water supply works including bore well, pump house, storage tank, sanitary and plumbing works, pathway for passengers across tracks, station name board, signages, rain water harvesting, station approach road and other incidental works in railway station area.	3.87%	
				Total	100%	

Note:

1. Adjustment to Contract Price pursuant to GCC 13.7 shall be applicable to the payments of Works executed under this Sub Head / Price Schedule.
2. CS1.1 and CS1.2 Station Building- Unit of measurement is plinth area in square meters. For the buildings having more than one storey, the total area shall be found out by adding the area of each storey. Unit cost shall be determined on pro rata basis with respect to the total area of all stations and service buildings.
 - 50% Payment shall be paid after completion of structural works i.e beam, columns & slab in case of framed structure or walls & slabs in case of other buildings and
 - 30% Payment shall be paid after completion of finishing and
 - 20% Payment on final completion of works in all respects ready for use.
3. CS 2.2.1 and CS 2.2.1 Platform- Unit of measurement is plinth area in square meters. For the buildings having more than one storey, the total area shall be found out by adding the area of each storey. Unit cost shall be determined on pro rata basis with respect to the total area of all stations and service buildings.
4. CS 2.5 Retaining Wall- Unit of measurement is linear length. Payment shall be made on pro rata completion of a stage which is part of lump sum Schedule “A” and will not be paid under Schedule “B”.
5. Payment will be made on Completion of each Milestones as per weightage given in this schedule.
6. Variation in ‘Station’:
In case of variation in the floor area of any station on either side i.e. increase or decrease with respect to the area shown in the Tender Drawings, the total value of station as mentioned in Sub-Cost Centre CS1.1 and CS1.2 as applicable will get modified accordingly on prorata basis of floor area.

For example: Floor Area of CS1 as per Tender= At

Floor Area of CS1.1 as per actual execution= Ae

If Value of Sub-Cost Centre CS1.1= $0.7673 \times 0.105 \times 0.07$

Modified value of CS1.1= $CS1.1 = 0.7673 \times 0.105 \times 0.07 \times Ae / At$

6.0 APPORTIONMENT OF THE CONTRACT PRICE FOR SCHEDULE A UNDER VARIOUS COST CENTRE FOR SUB-HEAD OHE AND GENERAL ELECTRICAL SERVICES

Cost Centre	Description of Cost Centre	Percentage of Cost Centre	Total Cost of Cost Centre	Total Cost of Sub-Head “E”
1	2	3	4	
E1	Overhead Equipment work	67.52%	$E1=0.6752 \times "E"$	12.51% of Schedule ‘A’
E2	Switching Post	8.91%	$E2=0.0891 \times "E"$	
E3	Auxiliary Transformer Station	0.34%	$E3=0.0034 \times "E"$	
E4	Traction Sub-Station	NIL	NIL	
E5	SCADA	0.44%	$E5=0.0044 \times "E"$	
E6	Various Electrical General Services Work	12.30%	$E6=0.1230 \times "E"$	
E7	Extension of LT power supply for CLS work	0.67%	$E7=0.0067 \times "E"$	
E8	Extension/Augmentation of general power supply	0.38%	$E8=0.0038 \times "E"$	
E9	Modification to existing electrical work	0.005%	$E9=0.0005 \times "E"$	
E10	Inventory/Spare item	4.78%	$E10=0.0478 \times "E"$	
E11	Solar Plants with complete accessories	2.72%	$E11=0.0272 \times "E"$	
E12	Maintenance and Manning	1.95%	$E12=0.0195 \times "E"$	
Total		100%		

6.1 Stages of Payment i.e. Milestones of cost centre E1 – Design & drawing and foundation work for block sections including stations & yards.

Cost Centre	Sub Cost Centre	Item Of Work		Milestone	Weightage (X)	Weightage of Cost Centre "E1" (Y)
		No	Description			
(1)	(2)	(3)	(4)	(5)	(6)	(7)
E1 Overhead equipment work	E1	E1.1	Drawings & Design and Foundation work for block sections	Completion of Design & drawing and Foundation work for block sections including stations and	13.50%	67.52%
		E1.2	Supply of Mast & Portal	Supply of steel (Mast and Portal components only)	24.57%	
		E1.3	Mast & Portal erection	Completion of steel erection (Mast & Portal) & grouting with painting of location numbers	7.75%	
		E1.4	Erection of other OHE items	Completion of erection of Bracket, Guy Rod, and creep (Complete pre wiring activity), Height gauge & protection screen, Provision of wire and rod insulators on LCs	8.67%	
		E1.5	Supply of Contact & catenary wire	Supply of Contact & Catenary wire only	25.78%	

		E1.6	Wiring & other items	Completion of wiring along with erection of balance weight, dropping & clipping including antitheft charging	14.70%	
		E1.7	Commissioning	Commissioning	5.03%	
				Total	100%	

Note:

- 1 The value of each Milestone will be 12.51% of total Lumpsum cost of Works under Schedule 'A' multiplied by X * Y. For example, for E1.1, Value will be 0.1251 of Lumpsum quoted price of Sch A * X * Y = 0.1251 x 0.1350 x 0.6752 of lumpsum quoted price of Schedule 'A'.
- 2 Adjustment to Contract Price shall be applicable to the payments of Works executed under Cost Centre 'E1'.
- 3 Payment will be made on completion of each Milestones as per weightage given in this Cost Centre.
- 4 Payment for each Milestone shall be made on TKM basis measured on pro rata basis with reference to total TKM.
- 5 Payment against the Sub Cost Centre E1.2 and E1.5 shall be made for quantities as per the Approved Layout, on receipt of Material at contractor's depot, production of inspection certificates & other documents and against BG of equivalent amount.
- 6 Payment against the Sub Cost Centre E1.7 shall be made only on completion of work under Sub Cost Centre E2.2.

6.2 Stages of Payment i.e., Milestones of Cost Centre E2 – Switching posts

Cost Centre	Sub Cost Centre	Item Of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'E3' (Y)
		No	Description			
(1)	(2)	(3)	(4)	(5)	(6)	(7)
E2- Swiching Posts	E2	E2.1	Supply of all Electrical Item (Section VII-X)	Supply of all electrical item	70%	8.91%
		E2.2	Completion of Switching Posts as per PS (Section VII-X)	Completion of all works	20%	
		E2.3	Commissioning of Switching Posts	Commissioning and charging at 25 KV.	10%	
				Total	100%	

Note:

1. The value of each Milestone will be 12.51% of total Lumpsum cost of Works under Schedule 'A' multiplied by X * Y. For example, for E2.1, Value will be 0.1251 of Lump sum quoted price of Sch A * X * Y= 0.1251 x 0.7 x 0.0891 of lumpsum quoted price of Schedule 'A'.
2. Adjustment to Contract Price shall be applicable to the payments of Works executed under Cost Centre 'E2'.
3. Payment will be made on completion of each Milestones as per weightage given in this Cost Centre.
4. Payment shall be made for each Milestone after completion of all the switching posts work for a section and its yards, measured in number of switching posts on pro rata basis with reference to the total switching posts covered in this Package.

6.3 Stages of Payment i.e., Milestones of cost center E3 – Auxiliary Transformer Stations

Cost Centre	Sub Cost Centre	Item Of Work		Milestone	Weightage (X)	Weightage of Cost Centre (Y)
		No	Description			
(1)	(2)	(3)	(4)	(5)	(6)	(7)
E3-Auxiliary Transformers Stations	E3	E3.1	Auxiliary Transformer Stations	Completion of all works with testing	90%	0.34%
		E3.2		Commissioning	10%	
				Total	100%	

Note:

1. The value of each Milestone will be 12.51% of total Lumpsum cost of Works under Schedule 'A' multiplied by X * Y. For example, for E3.1, Value will be 0.1251 of Lump sum quoted price of Sch A * X * Y= 0.1251 x 0.9 x 0.0034 of lumpsum quoted price of Schedule 'A'.
2. Adjustment to Contract Price shall be applicable to the payments of Works executed under Cost Centre 'E3'.
3. Payment will be made on completion of each Milestones as per weightage given in this Cost Centre.
4. Payment shall be made for each Milestone after completion of all the Auxiliary Transformer Station work and related work, measured in number of Auxillary Transformes on pro rata basis with reference to the total Auxillary Transformes covered in this Package.

6.4 Stages of Payment i.e., Milestones of cost center E4 – Traction Sub-Station

Cost Centre	Sub Cost Centre	Item Of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'E4' (Y)
		No	Description			
(1)	(2)	(3)	(4)	(5)	(6)	(7)
E4-Traction Sub station	E4	E4.1	Traction Sub-stations	Completion of all civil works for the TSS (works like earth filling, retaining wall, approach road, control building, fencing	NIL	NIL
		E4.2	Completion of all supply and erection works of TSS except supply and erection of Transformers	NIL	NIL	NIL
		E4.3	Supply and erection of transformers	NIL	NIL	NIL
		E4.4	Completion and commissioning of TSS and charging at 25 KV.	NIL	NIL	NIL
				Total	NIL	

6.5 Stages of Payment i.e., Milestones of Cost Centre E5 – SCADA related work

Cost Centre	Sub Cost Centre	Item Of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'E5' (Y)
		No	Description			
(1)	(2)	(3)	(4)	(5)	(6)	(7)
E5-SCADA related work	E5	E5.1	SCADA related work	Supply and erection of SCADA at remote control center at division	22.08%	0.44%
		E5.2		Supply and erection of remote terminal units at switching post/TSS.	59.58%	
		E5.3		Commissioning of SCADA per switching post/TSS	4.25%	
		E5.4		Final commissioning of SCADA system for the division	14.09%	
				Total	100%	

Note:

1. The value of each Milestone will be 12.51% of total Lumpsum cost of Works under Schedule 'A' multiplied by X * Y. For example, for E5.1, Value will be 0.1251 of Lump sum quoted price of Sch A * X * Y = 0.1251 x 0.2208 x 0.0044 of lumpsum quoted price of Schedule 'A'.
2. Adjustment to Contract Price shall be applicable to the payments of Works executed under Cost Centre 'E5'.
3. Payment will be made on completion of each Milestones as per weightage given in this Cost Centre.

6.6 Stages of Payment i.e., Milestones of cost center E6 – Electrical General services works

Cost Centre	Sub Cost Centre	Item Of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'E6' (Y)
		No	Description			
(1)	(2)	(3)	(4)	(5)	(6)	(7)
E6- Electrical General services works	E6	E6.1	Various Electrical General services works	Supply of Major Electrical Item(like- CSS, DG, all type of Panels, cables, octagonal poles and LED light fittings)	65%	12.30%
		E6.2		Erection	20%	
		E6.3		Commissioning of various electrical general services items	15%	
				Total	100%	

Note:

1. The value of each Milestone will be 12.51% of total Lumpsum cost of Works under Schedule 'A' multiplied by X * Y. For example, for E6.1, Value will be 0.1251 of Lump sum quoted price of Sch A * X * Y = 0.1251 x 0.65 x 0.1230 of lumpsum quoted price of Schedule 'A'.
2. Adjustment to Contract Price shall be applicable to the payments of Works executed under Cost Centre 'E6'.
3. Payment will be made on completion of each Milestones as per weightage given in this Cost Centre.
4. Payment shall be made for each Milestone after completion of related work on pro rata basis for individual station wise on basis of percentages given as (Manesar - 6.59%, New Patli-4.59% and Sultanpur-1.12%).

6.7 Stages of Payment i.e., Milestones of cost center E7 – Extension of LT power supply for CLS works

Cost Centre	Sub Cost Centre	Item Of Work		Milestone	Weightage (X)	Weightage of Cost Centre '7' (Y)
		No	Description			
(1)	(2)	(3)	(4)	(5)	(6)	(7)
E7— Extension of LT power supply for CLS works	E7	E7.1	Extension of LT power supply for CLS Work	Completion of work including testing.	90%	0.67%
		E7.2		Commissioning	10%	
				Total	100%	

Note:

1. The value of each Milestone will be 12.51% of total Lumpsum cost of Works under Schedule 'A' multiplied by X * Y. For example, for E7.1, Value will be 0.1251 of Lumpsum quoted price of Sch A * X * Y= 0.1251 x 0.90 x 0.0067 of lumpsum quoted price of Schedule 'A'.
2. Adjustment to Contract Price shall be applicable to the payments of Works executed under Cost Centre 'E7'.
3. Payment will be made on completion of each Milestones as per weightage given in this Cost Centre.
4. Payment shall be made for each Milestone after completion of related work on pro rata basis for individual station wise on basis of percentages given as (Manesar-0.26%, New Patli-0.26%, Sultanpur-0.15%)

6.8 Stages of Payment i.e., Milestones of cost center E8 – Extension/Augmentation of General power supply

Cost Centre	Sub Cost Centre	Item Of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'E8' (Y)
		No	Description			
(1)	(2)	(3)	(4)	(5)	(6)	(7)
E8-Extension/Augmentation of General power supply	E8	E8.1	Extension/Augmentation of General power supply	Completion including commissioning	100%	0.38%
				Total	100%	

Note:

1. The value of each Milestone will be 12.51% of total Lumpsum cost of Works under Schedule 'A' multiplied by X * Y. For example, for E8.1, Value will be 0.1251 of Lump sum quoted price of Sch A * X * Y= 0.1251 x 1 x 0.0038 of lumpsum quoted price of Schedule 'A'.
2. Adjustment to Contract Price shall be applicable to the payments of Works executed under Cost Centre 'E8'.
3. Payment will be made on completion of each Milestones as per weightage given in this Cost Centre.
4. Payment shall be made for each Milestone after completion of related work on pro rata basis for individual station wise on basis of percentages given as (Manesar-0.26%, New Patli-0.11% and Sultanpur-0.01%)

6.9 Stages of Payment i.e., Milestones of cost center E9 – Modification to existing OHE works

Cost Centre	Sub Cost Centre	Item Of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'E9' (Y)
		No	Description			
(1)	(2)	(3)	(4)	(5)	(6)	(7)
E9-Modification to existing OHE works	E9	E9.1	Modification to existing OHE works	Modification Dismantling, Transportation of existing electrical structure/material including all associated work and testing at existing Sultanpur Station	100%	0.005%
				Total	100%	

Note:

1. The value of each Milestone will be 12.51% of total Lumpsum cost of Works under Schedule 'A' multiplied by X * Y. For example, for E9.1, Value will be 0.1251 of Lump sum quoted price of Sch A * X * Y= 0.1251 x 1.0 x .00005 of lumpsum quoted price of Schedule 'A'.
2. Adjustment to Contract Price shall be applicable to the payments of Works executed under Cost Centre 'E9'.
3. Payment will be made on completion of each Milestones as per weightage given in this Cost Centre.

6.10 Stages of Payment i.e., Milestones of cost center E10 – Inventory Electrical

Cost Centre	Sub Cost Centre	Item Of Work		Milestone	Weightage (X)	Weightage of Cost Centre 'E10' (Y)
		No	Description			
(1)	(2)	(3)	(4)	(5)	(6)	(7)
E10	E10	E10.1	Inventory electrical	Supply of tools equipment, Materials for supply to stores	100%	4.78
				Total	100%	

Note:

1 .The value of each Milestone will be 12.51% of total Lumpsum cost of Works under Schedule 'A' multiplied by X * Y. For example, for E10.1, Value will be 0.1251 of Lump sum quoted price of Sch A * X * Y= 0.1251 x 1.0 x 0.0478 of lumpsum quoted price of Schedule 'A'.

2.Adjustment to Contract Price shall be applicable to the payments of Works executed under Cost Centre 'E10'.

6.11 Stages of Payment i.e., Milestones of cost center E11 – SITC of Solar plants in all respect

Cost Centre	Sub Cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Cost Centre (Y)
		No	Description			
(1)	(2)	(3)	(4)	(5)	(6)	(7)
E11-SITC of Solar plants in all respect	E11	E11.1	Supply, Installation, Testing & Commissioning of SITC of solar plants complete in all respect	Supply of electrical item(like – solar panels and inverter)	70%	2.72%
		E11.2		Completion of all work as per PS (Section VII X)	20%	
		E11.3		Commissioning of solar plants in all respect	10%	
				Total	100%	

Note:

1. The value of each Milestone will be 12.51% of total Lumpsum cost of Works under Schedule 'A' multiplied by X * Y. For example, for E11.1, Value will be 0.1251 of Lump sum quoted price of Sch A * X * Y= 0.1251 x 0.70 x 0.0272 of lumpsum quoted price of Schedule 'A'.
2. Adjustment to Contract Price shall be applicable to the payments of Works executed under Cost Centre 'E11'.
3. Payment will be made on completion of each Milestones as per weightage given in this Cost Centre.
4. Payment shall be made for each Milestone after completion of related work on pro rata basis for individual station wise on basis of percentages given as (Manesar-1.74%, New Patli-0.87% and Sultanpur-0.11%).

6.12 Stages of Payment i.e., Milestones of cost center E12 – Maintenance and Manning of Electrical system

Cost Centre	Sub Cost Centre	Item of Work		Milestone	Weightage (X)	Weightage of Cost Centre (Y)
		No	Description			
(1)	(2)	(3)	(4)	(5)	(6)	(7)
E12 Maintenance and Manning of Electrical system	E12	E12.1	Maintenance and Manning of Electrical system	Maintenance and Manning of Electrical system	100%	1.95
				Total	100%	

Note:-

1. The value of each Milestone will be 12.51% of total Lumpsum cost of Works under Schedule 'A' multiplied by X * Y. For example, for E12.1, Value will be 0.1251 of Lump sum quoted price of Sch A * X * Y= 0.1251 x 1.0 x 0.0195 of lumpsum quoted price of Schedule 'A'.
2. Adjustment to Contract Price shall be applicable to the payments of Works executed under Cost Centre 'E12'.
3. Payment will be made on completion of each Milestones as per weightage given in this Cost Centre.
4. Payment shall be made after completion of related work on monthly pro rata basis

7. Apportionment of Contract Price for Schedule ‘A’ under various Cost Centres for Sub-Head-Signalling Works:

Cost Centre	Description of Cost Centre	Percentage of Cost Centre ‘S’	Total Cost of Cost Centre	Total Cost of Sub-Head ‘S’
(1)	(2)	(3)	(4)	(5)
S1	Design and Documentation for Signalling works	4%	S1=0.04x ‘S’	8.51% of SCH ‘A’
S2	Signalling Works at Manesar Jn.	26%	S2=0.26x ‘S’	
S3	Signalling Works at New Patli Jn.	24%	S3=0.24x ‘S’	
S4	Signalling Works at Sultanpur station of IR	18%	S4=0.18x ‘S’	
S5	Modification in existing IR Patli Yard for commissioning of Signalling works of Phase-I	8%	S5=0.08x ‘S’	
S6	Modification in existing IR Patli Yard for commissioning of Signalling works of Phase-II	6%	S6=0.06x ‘S’	
S7	Supply of Contract Spares and Special Tools & Test Equipment for Signalling works	8%	S7=0.08x ‘S’	
S8	Integrated Testing & Commissioning and Final Taking – Over of Signalling works	4%	S8=0.04x ‘S’	
S9	Training for Signalling system	1%	S9=0.01x ‘S’	
S10	Maintenance of Signalling system for 01 year	1%	S10=0.01x ‘S’	
Total		100%		

7.1 Stages of payment i.e. Milestone of Cost Centre ‘S1’- Design And Documentation For Signalling Works

Cost Centre	Sub Cost Centre	Item of work		Milestone	Weightage (X)	Weightage of Cost Centre ‘S’ (Y)
		No.	Description			
(1)	(2)	(3)	(4)	(5)	(6)	(7)
S1[Design and Documentation for Signaling works]	S1- Design and Documentation for Signaling works	S1.1	Preliminary Designs & Documents including	Submission of Preliminary Designs & Documents	15%	4%
		S1.2	Detailed Designs & Documents	Submission of All Detailed Designs & Documents and Interface specification	45%	
		S1.3	Construction/Installation Designs & Documents	Submission of Construction /Installation Designs & Documents	10%	
		S1.4	As-Built Drawings & Documents	Submission of As-Built Drawings & Documents	20%	
		S1.5	Operation & Maintenance Manuals, Station working rules, Documents for NI etc. for Signalling system	Submission of Operation & Maintenance Manuals, Station working rules, Documents for NI etc. for Signalling system	10%	
Total					100%	

Note:

1. The value of each Milestone will be 8.51% of total Lumpsum cost of Works under Schedule ‘A’ multiplied by X * Y. For example, for S1.1, Value will be 0.0851 of Lump sum quoted price of Sch A * X * Y= 0.0851 x 0.15 x 0.04 of lumpsum quoted price of Schedule ‘A’.
2. Adjustment to Contract Price shall NOT be applicable to the payments of Works executed under Cost Centre ‘S1’.

3. Payment will be made on completion of each Milestones as per weightage given in this Cost Centre.

7.2 Stages of payment i.e. Milestones of Cost Centre ‘S2’- signalling works at Manesar Jn.

Cost Centre	Sub Cost Centre	Items of work		Milestone	Weight age (X)	Weightage of Cost Centre ‘S’ (Y)
		No.	Description			
(1)	(2)	(3)	(4)	(5)	(6)	(7)
S2 [Signalling Works at Manesar Jn.]	S2.1- Supply of material	S2.1.1	Supply of cables	Supply of Signalling Cable, Power Cable and Quad Cable	22%	26%
		S2.1.2	Supply of EI system	Supply of EI hardware equipment along with associated software and accessories	16%	
		S2.1.3	Supply of Power supply system	Supply of power supply equipment and batteries along with associated accessories	2%	
		S2.1.4	Supply of track vacancy detection system	Supply of Track Vacancy Detection Hardware equipment along with associated software and accessories	19%	
		S2.1.5	Supply of Signals, Point machines etc.	Supply of signals and point machines along with associated accessories	5%	
		S2.1.6	Supply of balance indoor equipment.	Supply of balance indoor equipment	9%	
		S2.1.7	Supply of balance outdoor equipment.	Supply of balance outdoor equipment	1%	
		S2.1.8	Supply of BPAC equipment.	Supply of BPAC equipment	7%	

S2.2- Instal- lation	S2.2.1	Laying of outdoor Signalling cables	Laying, Termination & Testing of outdoor cables	4%
	S2.2.2	Installation of indoor Signalling equipment	Installation of all indoor equipment	1%
	S2.2.3	Installation of outdoor Signalling equipment	Installation of all outdoor equipment	4%
	S.2.2.4	Installation of earthing and surge protection equipment for Signalling work.	Installation of Earthing and Surge Protection equipment for complete works	3%
S2.3- Any other item	S2.3.1	Any other item required for Signalling work.	Any other item required to be supplied, installed and tested for complete works	1%
S2.4- Syste- m Accep- tance Test	S2.4.1	System acceptance test of Signalling system	Supply and installation of software and system acceptance test	6%
Total				100%

Note:

1. The value of each Milestone will be 8.51% of total Lumpsum cost of Works under Schedule 'A' multiplied by X * Y. For example, for S2.1.1, Value will be 0.0851 of Lump sum quoted price of Sch A * X * Y= 0.0851 x 0.22 x 0.26 of lumpsum quoted price of Schedule 'A'.
2. The boundary of Signalling Works at Crossing Station shall be from First Stop signal to Last Stop Signal including controlling track sections and distant signals in both directions.
3. Adjustment to Contract Price shall be applicable to the payments of Works executed under Cost Centre 'S2'.
4. Payment will be made on completion of each Milestones as per weightage given in this Cost Centre.
5. Payment against the Cost Centre S2.1 shall be made for quantities as per the Approved final Design, on receipt of Material at contractor's depot, production of inspection certificates & other documents and against BG of equivalent amount.

7.3 Stages of payment i.e. Milestone of Cost Centre ‘S3’- Signalling works at New Patli Jn.

Cost Centre	Sub Cost Centre	Items of work		Milestone	Weightage (X)	Weight age of Cost Centre ‘S’ (Y)
		No.	Description			
(1)	(2)	(3)	(4)	(5)	(6)	(7)
S3 [Signalling Works at New Patli Jn.]	S3.1-Supply of material	S3.1.1	Supply of cables	Supply of Signalling Cable, Power Cable and Quad Cable	24%	24%
		S3.1.2	Supply of EI system	Supply of EI hardware equipment along with associated software and accessories	17%	
		S3.1.3	Supply of Power supply system	Supply of power supply equipment and batteries along with associated accessories	2%	
		S3.1.4	Supply of track vacancy detection system	Supply of Track Vacancy Detection Hardware equipment along with associated software and accessories	19%	
		S3.1.5	Supply of Signals, Point machines etc.	Supply of signals and point machines along with associated accessories	5%	
		S3.1.6	Supply of balance indoor equipment.	Supply of balance indoor equipment	3%	
		S3.1.7	Supply of balance outdoor equipment.	Supply of balance outdoor equipment	2%	
		S3.1.8	Supply of BPAC equipment.	Supply of BPAC equipment	9%	
	S3.2-Installation	S3.2.1	Laying of outdoor Signalling cables	Laying, Termination & Testing of outdoor cables	5%	

		S3.2.2	Installation of indoor Signalling equipment	Installation of all indoor equipment	1%	
		S3.2.3	Installation of outdoor Signalling equipment	Installation of all outdoor equipment	4%	
		S.3.2.4	Installation of earthing and surge protection equipment for	Installation of Earthing and Surge Protection equipment for complete works	3%	
	S3.3-Any other item	S3.3	Any other item required for Signalling work.	Any other item required to be supplied, installed and tested for complete works	1%	
	S3.4-System Acceptance Test	S3.4	System acceptance test of Signalling system	Supply and installation of software and system acceptance test	5%	
				Total	100%	

Note:

1. The value of each Milestone will be 8.51% of total Lumpsum cost of Works under Schedule 'A' multiplied by X * Y. For example, for S3.1.1, Value will be 0.0851 of Lump sum quoted price of Sch A * X * Y= 0.0851 x 0.24 x 0.24 of lumpsum quoted price of Schedule 'A'.
2. The boundary of Signalling Works at Crossing Station shall be from First Stop signal to Last Stop Signal including controlling track sections and distant signals in both directions.
3. Adjustment to Contract Price shall be applicable to the payments of Works executed under Cost Centre 'S3'.
4. Payment will be made on completion of each Milestones as per weightage given in this Cost Centre.
5. Payment against the Cost Centre S3.1 shall be made for quantities as per the Approved final Design, on receipt of Material at contractor's depot, production of inspection certificates & other documents and against BG of equivalent amount.

7.4 Stages of payment i.e. Milestones of Cost Centre ‘S4’- Signalling works at Sultanpur station of IR

Cost Centre	Sub Cost Centre	Items of work		Milestone	Weightage (X)	Weightage of Cost Centre ‘S’ (Y)
		No.	Description			
(1)	(2)	(3)	(4)	(5)	(6)	(7)
S4 [Signalling Works at Sultanpur station of IR]	S4.1-Supply of material	S4.1.1	Supply of cables	Supply of Signalling Cable, Power Cable and Quad Cable	16%	18%
		S4.1.2	Supply of EI system	Supply of EI hardware equipment along with associated software and accessories	23%	
		S4.1.3	Supply of Power supply system	Supply of power supply equipment and batteries along with associated accessories	2%	
		S4.1.4	Supply of track vacancy detection system	Supply of Track Vacancy Detection Hardware equipment along with associated software and accessories	13%	
		S4.1.5	Supply of Signals, Point machines etc.	Supply of signals and point machines along with associated accessories	3%	
		S4.1.6	Supply of balance indoor equipment.	Supply of balance indoor equipment	4%	
		S4.1.7	Supply of balance outdoor equipment.	Supply of balance outdoor equipment	2%	
		S4.1.8	Supply of BPAC equipment.	Supply of BPAC equipment	16%	
	S4.2-Installation	S4.2.1	Laying of outdoor Signalling cables	Laying, Termination & Testing of outdoor cables	5%	
		S4.2.2	Installation of indoor Signalling equipment	Installation of all indoor equipment	1%	

		S4.2.3	Installation of outdoor Signalling equipment	Installation of all outdoor equipment	4%	
		S4.2.4	Installation of earthing and surge protection equipment for Signalling work.	Installation of Earthing and Surge Protection equipment for complete works	4%	
	S4.3-Any other item	S4.3.1	Any other item required for Signalling work.	Any other item required to be supplied, installed and tested for complete works	1%	
	S4.4-System Acceptance Test	S4.4.1	System acceptance test of Signalling system	Supply and installation of software and system acceptance test	6%	
				Total	100%	

Note:

1. The value of each Milestone will be 8.51% of total Lumpsum cost of Works under Schedule 'A' multiplied by X * Y. For example, for S4.1.1, Value will be 0.0851 of Lump sum quoted price of Sch A * X * Y= 0.0851 x 0.16 x 0.18 of lumpsum quoted price of Schedule 'A'.
2. The boundary of Signalling Works at Crossing Station shall be from First Stop signal to Last Stop Signal including controlling track sections and distant signals in both directions.
3. Adjustment to Contract Price shall be applicable to the payments of Works executed under Cost Centre 'S4'.
4. Payment will be made on completion of each Milestones as per weightage given in this Cost Centre.
5. Payment against the Cost Centre S4.1 shall be made for quantities as per the Approved final Design, on receipt of Material at contractor's depot, production of inspection certificates & other documents and against BG of equivalent amount.

7.5 Stages of payment i.e. Milestone of Cost Centre ‘S5’- Signalling works for Modification in existing IR Patli yard for commissioning Signalling work in Phase-I

Cost Centre	Sub Cost Centre	Items of work		Weightage (X)	Weightage of Cost Centre ‘S’ (Y)
		No.	Milestone		
(1)	(2)	(3)	(4)	(5)	(6)
S5 [Signalling Works for Modification in existing IR Patli yard for commissioning of Signalling work in Phase-I]	S5-Supply of materials, installation , Testing & commissioning	S5.1	Supply of Signalling Cable, Power Cable and Quad Cable, EI hardware equipment along with associated software and accessories, Power supply equipment and batteries along with associated accessories, Track Vacancy Detection Hardware equipment along with associated software and accessories, Signals and Point machines along with associated accessories, BPAC equipment, balance indoor equipment, balance outdoor equipment for Phase-I.	80%	8%
		S5.2	Laying, Termination & Testing of outdoor cables, Installation of all indoor equipment, Installation of all outdoor equipment, Installation of Earthing and Surge Protection equipment for complete works, Any other item required to be installed for complete works of Phase-I.	16%	
		S5.3	Supply and installation of software and system acceptance test for Phase-I.	4%	
			Total	100%	

Note:

1. The value of each Milestone will be 8.51% of total Lumpsum cost of Works under Schedule 'A' multiplied by $X * Y$. For example, for S5.1, Value will be 0.0851 of Lump sum quoted price of Sch A * $X * Y = 0.0851 \times 0.80 \times 0.08$ of lumpsum quoted price of Schedule 'A'.
2. The boundary of Signalling Works at Crossing Station shall be from First Stop signal to Last Stop Signal including controlling track sections and distant signals in both directions.
3. Adjustment to Contract Price shall be applicable to the payments of Works executed under Cost Centre 'S5'.
4. Payment will be made on completion of each Milestones as per weightage given in this Cost Centre.
5. Payment against the Cost Centre S5.1 shall be made for quantities as per the Approved final Design, on receipt of Material at contractor's depot, production of inspection certificates & other documents and against BG of equivalent amount.

7.6 Stages of payment i.e. Milestone of Cost Centre ‘S6’- Signalling works for Modification in existing IR Patli yard for commissioning Signalling work in Phase-II

Cost Centre	Sub Cost Centre	Items of work		Weightage (X)	Weightage of Cost Centre ‘S’ (Y)
		No.	Milestone		
(1)	(2)	(3)	(4)	(5)	(6)
S6 [Signalling Works for Modification in existing IR Patli yard for commissioning Signalling work in Phase-II]	S6-Supply of materials, installation , Testing & commissioning	S6.1	Supply of Signalling Cable, Power Cable and Quad Cable, EI hardware equipment along with associated software and accessories, Power supply equipment and batteries along with associated accessories, Track Vacancy Detection Hardware equipment along with associated software and accessories, Signals and Point machines along with associated accessories, Block instruments, balance indoor equipment, balance outdoor equipment for Phase-II.	80%	6%
		S6.2	Laying, Termination & Testing of outdoor cables, Installation of all indoor equipment, Installation of all outdoor equipment, Installation of Earthing and Surge Protection equipment for complete works, Any other item required to be installed for complete works of Phase-II.	16%	
		S6.3	Supply and installation of software and system acceptance test for Phase-II.	4%	
			Total	100%	

Note:

- The value of each Milestone will be 8.51% of total Lumpsum cost of Works under Schedule ‘A’ multiplied by X * Y. For example, for S6.1, Value will be 0.0851 of Lump sum quoted price of Sch A * X * Y= 0.0851 x 0.80 x 0.06 of lumpsum quoted price of Schedule ‘A’.

2. The boundary of Signalling Works at Crossing Station shall be from First Stop signal to Last Stop Signal including controlling track sections and distant signals in both directions.
3. Adjustment to Contract Price shall be applicable to the payments of Works executed under Cost Centre 'S6'.
4. Payment will be made on completion of each Milestones as per weightage given in this Cost Centre.
5. Payment against the Cost Centre S6.1 shall be made for quantities as per the Approved final Design, on receipt of Material at contractor's depot, production of inspection certificates & other documents and against BG of equivalent amount.

7.7 Stages of payment i.e. Milestone of Cost Centre ‘S7’- Supply of contract spares, special tools and test equipment for Signalling work

Cost Centre	Sub Cost Centre	Items of work		Weightage (X)	Weightage of Cost Centre ‘S7’ (Y)
		No.	Milestone		
(1)	(2)	(3)	(4)	(5)	(6)
S7 [Supply of Contract Spares, Special Tools and Test equipment for Signalling system]	S7.1- Supply of Contract Spares	S7.1	Supply of Contract Spares along with all other associated accessories for Signalling system	80	8%
	S7.2- Supply of Special Tools and Test equipment	S7.2	Supply of Special Tools & Test equipment for Signalling system	20	
			Total	100%	

Note:

1. The value of each Milestone will be 8.51% of total Lumpsum cost of Works under Schedule ‘A’ multiplied by $X * Y$. For example, for S7.1, Value will be 0.0851 of Lump sum quoted price of Sch A * $X * Y = 0.0851 \times 0.80 \times 0.08$ of lumpsum quoted price of Schedule ‘A’.
2. Adjustment to Contract Price shall be applicable to the payments of Works executed under Cost Centre ‘S7’.
3. Payment will be made on completion of each Milestone as per weightage given in this Cost Centre.
4. Payment against the Cost Centre S7 shall be made for quantities as per the Approved final Design, on receipt of Material at contractor’s depot, production of inspection certificates & other documents and against BG of equivalent amount.

7.8 Stages of payment i.e. Milestone of Cost Centre ‘S8’- Integrated Testing & Commissioning and Final Taking-Over of Signalling work

Cost Centre	Sub Cost Centre	Items of work		Weightage (X)	Weightage of Cost Centre ‘S8’ (Y)
		No.	Milestone		
(1)	(2)	(3)	(4)	(5)	(6)
S8 [Integrated Testing & Commissioning and Final Taking-Over of Signalling work]	S8- Integrated Testing & Commissioning and Final Taking-Over	S8.1	Successful Completion of Integrated Testing & Commissioning for Signalling work of Phase 1.	15%	4%
		S8.2	Successful Completion of Integrated Testing & Commissioning for Signalling work of Phase 2.	35%	
		S8.3	Final Taking-Over Certificate for the complete Signalling work	50%	
			Total	100%	

Note:

1. The value of each Milestone will be 8.51% of total Lumpsum cost of Works under Schedule ‘A’ multiplied by X * Y. For example, for S8.1, Value will be 0.0851 of Lump sum quoted price of Sch A * X * Y= 0.0851 x 0.15 x 0.04 of lumpsum quoted price of Schedule ‘A’.
2. Adjustment to Contract Price shall NOT be applicable to the payments of Works executed under Cost Centre ‘S8’.
3. Payment will be made on completion of each Payment Stage as per weightage given in this Cost Centre.

7.9 Stages of payment i.e. Milestone of Cost Centre ‘S9’- training for signalling system

Cost Centre	Sub Cost Centre	Items of work		Weightage (X)	Weightage of Cost Centre ‘S9’ (Y)
		No.	Milestone		
(1)	(2)	(3)	(4)	(5)	(6)
S9 [Training for Signalling system]	S9- Training	S9.1	Training	100%	1%
Total				100%	

Note:

1. The value of each Milestone will be 8.51% of total Lumpsum cost of Works under Schedule ‘A’ multiplied by X * Y. For example, for S9.1, Value will be 0.0851 of Lump sum quoted price of Sch A * X * Y= 0.0851 x 1.0 x 0.01 of lumpsum quoted price of Schedule ‘A’.
2. Adjustment to Contract Price shall NOT be applicable to the payments of Works executed under Cost Centre ‘S9’
3. Payment will be made on completion of each Milestones as per weightage given in this Cost Centre.

7.10 Stages of payment i.e. Milestone of Cost Centre ‘S10’- Maintenance of Signalling system for one year

Cost Centre	Sub Cost Centre	Items of work		Weightage (X)	Weightage of Cost Centre ‘S’ (Y)
		No.	Milestone		
(1)	(2)	(3)	(4)	(5)	(6)
S10 [Maintenance of Signalling system for one year]	S10- Maintenance	S10.1	Maintenance for one year	100%	1%
Total				100%	

Note:

1. The value of each Milestone will be 8.51% of total Lumpsum cost of Works under Schedule ‘A’ multiplied by X * Y. For example, for S10.1, Value will be 0.0851 of Lump sum quoted price of Sch A * X * Y= 0.0851 x 1.0 x 0.01 of lumpsum quoted price of Schedule ‘A’.

2. Adjustment to Contract Price shall NOT be applicable to the payments of Works executed under Cost Centre 'S10'.
3. Payment will be made on completion of each Milestone as per weightage given in this Cost Centre.

8.0 Apportionment of Contract Price for Schedule ‘A’ under various Cost Centres for Sub-Head- Telecommunication Works:

Cost Centre	Description of Cost Centre	Percentage of Cost Centre ‘T’ (%)	Total Cost of Cost Centre	Total Cost of ‘T’ Sub-Head
(1)	(2)	(3)	(4)	(5)
T1	Design and Documentation for Telecommunication works	5%	$T1=0.05x'T'$	2.25% of SCH ‘A’
T2	Telecommunication works at New Patli Jn.	15%	$T2=0.15x'T'$	
T3	Telecommunication works at existing IR station Sultanpur	11%	$T3=0.11x'T'$	
T4	Telecommunication works at existing IR station Patli (Phase-I)	2%	$T4=0.02x'T'$	
T5	Telecommunication works at existing IR station Patli (Phase-II)	2%	$T5=0.02x'T'$	
T6	Telecommunication works at Manesar junction	34%	$T6=0.34x'T'$	
T7	Telecommunication works in Mid -section between Manesr Jn. & New Patli Jn.	2%	$T7=0.02x'T'$	
T8	Telecommunication works in mid -section between Manesar Jn. & IR station Patli (Phase-I).	4%	$T8=0.04x'T'$	
T9	Telecommunication works in mid -section between New Patli Jn. & IR station Patlii (Phase-II).	3%	$T9=0.03x'T'$	
T10	Telecommunication works in mid -section between New Patli Jn. & IR station Sultanpur.	3%	$T10=0.03x'T'$	
T11	Integrated Testing and Commissioning and Final Taking-Over of Telecommunication works	5%	$T11=0.05x'T'$	
T12	Supply of Contract Spares for Telecommunication system	6%	$T12=0.06x'T'$	
T13	Supply of Special Tools & Test Equipment for Telecommunication system	4%	$T13=0.04x'T'$	
T14	Training for Telecommunication system	2%	$T14=0.02x'T'$	
T15	Maintenance of Telecommunication system for one year	2%	$T15=0.02x'T'$	
Total		100%		

8.1 Stages of payment i.e. Milestone of Cost Centre ‘T1’- Design And Documentation For Telecommunication Works

Cost Centre	Sub Cost Centre	Items of work		Weightage (X)	Weightage of Cost Centre ‘T1’ (Y)
		No.	Milestone		
(1)	(2)	(3)	(4)	(5)	(6)
T1 [DESIGN AND DOCUMENTATION FOR TELECOMMUNICATION WORKS]	T1- Design and Documents	T1.1	All Preliminary Design & documents	10	5%
		T1.2	All Detailed Design Documents & Interface Specification for complete works	40	
		T1.3	All Good for construction/ Installation Design Documents for complete works	10	
		T1.4	O&M Manual for Completed Works	15	
		T1.5	As-Built Drawings for Completed Works	20	
		T1.6	Balance documents required to be given as part of the Contract	5	
			Total	100%	

1. The value of each Milestone will be 2.25% of total Lumpsum cost of Works under Schedule ‘A’ multiplied by X * Y. For example, for T1.1, Value will be 0.0225 of Lumpsum quoted price of Sch A * X * Y= 0.0225 x 0.1 x .05 of lumpsum quoted price of Schedule ‘A’.
2. Adjustment to Contract Price shall NOT be applicable to the payments of Works executed under Cost Centre ‘T1’
3. Payment will be made on Completion of each Milestone as per weightage given in this Cost Centre.

8.2 Stages of payment i.e. Milestone of Cost Centre ‘T2’- Telecommunication Works at New Patli Junction

Cost Centre	Sub Cost Centre	Items of work		Weightage (X)	Weightage of Cost Centre ‘T2’ (Y)
		No.	Milestone		
(1)	(2)	(3)	(4)	(5)	(6)
T2 [Telecommunication works at New Patli Jn.]	T2.1 Supply of material	T2.1.1	Supply of OFC, 6-Quad, and PIJF Telephone Cables with associated accessories	32	15%
		T2.1.2	Supply of OFC System Hardware along with associated software & accessories	35	
		T2.1.3	Supply of Power Supply System Hardware along with associated software & accessories	01	
		T2.1.4	Supply of Telephone System Hardware along with associated software & accessories.	02	
		T2.1.5	Supply of Master Clock System Hardware along with associated software & accessories	01	
		T2.1.6	Supply of VHF communication System Hardware along with associated software & accessories	01	
		T2.1.7	Supply of balance indoor and outdoor equipment	01	
	T2.2 Installation	T2.2.1	Installation of all indoor equipment	04	
		T2.2.2	Installation of all outdoor equipment	01	
		T2.2.3	Laying, Termination & Testing of Outdoor Telecom cables	18	
		T2.2.4	Installation of Earthing and Surge Protection equipment	01	
	T2.3 System Acceptance Test	T2.3.1	Supply and installation of software and System Acceptance Test	03	
	Total				

Note:

- The value of each Milestone will be 2.25% of total Lumpsum cost of Works under Schedule ‘A’ multiplied by X * Y. For example, for T2.1.1, Value will be 0.0225 of Lumpsum quoted price of Sch A * X * Y = 0.0225 x 0.32 x 0.15 of lumpsum quoted price of Schedule ‘A’.

2. Adjustment to Contract Price shall be applicable to the payments of Works executed under Cost Centre 'T2'.
3. Payment will be made on Completion of each Milestone as per weightage given in this Cost Centre.
4. Payment against the Cost Centre T2.1 shall be made for quantities as per the Approved final Design, on receipt of Material at contractor's depot, production of inspection certificates & other documents and against BG of equivalent amount.

8.3 Stages of payment i.e. Milestone of Cost Centre ‘T3’- Telecommunication Works at existing IR station Sultanpur

Cost Centre	Sub Cost Centre	Items of work		Weightage (X)	Weightage of Cost Centre ‘T3’ (Y)
		No.	Milestone		
(1)	(2)	(3)	(4)	(5)	(6)
T3 [Telecommunication Works at existing IR station Sultanpur]	T3.1- Supply of material	T3.1.1	Supply of OFC, 6-Quad, and PIJF Telephone Cables with associated accessories	35	11%
		T3.1.2	Supply of OFC System Hardware along with associated software & accessories	33	
		T3.1.3	Supply of Power Supply System Hardware along with associated software & accessories	02	
		T3.1.4	Supply of Telephone System Hardware along with associated software & accessories.	01	
		T3.1.5	Supply of Master Clock System Hardware along with associated software & accessories	01	
		T3.1.6	Supply of VHF communication System Hardware along with associated software & accessories	01	
		T3.1.7	Supply of balance indoor and outdoor equipment	01	
	T3.2- Installation	T3.2.1	Installation of all indoor equipment	04	
		T3.2.2	Installation of all outdoor equipment	01	
		T3.2.3	Laying, Termination & Testing of Outdoor Telecom cables	16	
		T3.2.4	Installation of Earthing and Surge Protection equipment	01	

	T3.3- System Acceptance Test	T3.3.1	Supply and installation of software and System Acceptance Test	04	
			Total	100%	

Note:

1. The value of each Milestone will be 2.25% of total Lumpsum cost of Works under Schedule 'A' multiplied by X * Y. For example, for T3.1.1, Value will be 0.0225 of Lumpsum quoted price of Sch A * X * Y= 0.0225 x 0.35x 0.11 of lumpsum quoted price of Schedule 'A'.
2. Adjustment to Contract Price shall be applicable to the payments of Works executed under Sub Cost Centre 'T3'.
3. Payment will be made on Completion of each Milestone as per weightage given in this Cost Centre.
4. Payment against the Cost Centre T3.1 shall be made for quantities as per the Approved final Design, on receipt of Material at contractor's depot, production of inspection certificates & other documents and against BG of equivalent amount.

8.4 Stages of payment i.e. Milestone of Cost Centre 'T4'- Telecommunication Works at existing IR station Patli (Phase-I)

Cost Centre	Sub Cost Centre	Items of work		Weightage (X)	Weightage of Cost Centre 'T4' (Y)
		No.	Milestone		
(1)	(2)	(3)	(4)	(5)	(6)
T4 [Telecommunication Works at existing IR station Patli (Phase-I)]	T4.1-Supply of material	T4.1.1	Supply of OFC, 6-Quad, and PIJF Telephone Cables with associated accessories	17	2%
		T4.1.2	Supply of OFC System Hardware along with associated software & accessories	30	
		T4.1.3	Supply of Power Supply System Hardware along with associated software & accessories	03	
		T4.1.4	Supply of Telephone System Hardware along with associated software & accessories.	06	
		T4.1.5	Supply of Master Clock System Hardware along with associated software & accessories	00	
		T4.1.6	Supply of VHF communication System Hardware along with associated software & accessories	01	
		T4.1.7	Supply of balance indoor and outdoor equipment	16	
	T4.2-Installation	T4.2.1	Installation of all indoor equipment	04	
		T4.2.2	Installation of all outdoor equipment	02	
		T4.2.3	Laying, Termination & Testing of Outdoor Telecom cables	14	

		T4.2.4	Installation of Earthing and Surge Protection equipment	03	
	T4.3-System Acceptance Test	T4.3.1	Supply and installation of software and System Acceptance Test	04	
			Total	100%	

Note:

1. The value of each Milestone will be 2.25% of total Lumpsum cost of Works under Schedule 'A' multiplied by X * Y. For example, for T4.1.1, Value will be 0.0225 of Lumpsum quoted price of Sch A * X * Y = 0.0225 x 0.17 x 0.02 of lumpsum quoted price of Schedule 'A'.
2. Adjustment to Contract Price shall be applicable to the payments of Works executed under Cost Centre 'T4'.
3. Payment will be made on Completion of each Milestone as per weightage given in this Cost Centre.
4. Payment against the Cost Centre T4.1 shall be made for quantities as per the Approved final Design, on receipt of Material at contractor's depot, production of inspection certificates & other documents and against BG of equivalent amount.

8.5 Stages of payment i.e. Milestone of Cost Centre 'T5'- Telecommunication Works at existing IR station Patli (Phase-II)

Cost Centre	Sub Cost Centre	Items of work		Weightage (X)	Weightage of Sub-Cost Centre 'T5' (Y)
		No.	Milestone		
(1)	(2)	(3)	(4)	(5)	(6)
T5 [Telecommunication Works at existing IR station Patli (Phase-II)]	T5.1- Supply of material	T5.1.1	Supply of OFC, 6-Quad, and PIJF Telephone Cables with associated accessories	38	2%
		T5.1.2	Supply of OFC System Hardware along with associated software & accessories	45	
		T5.1.3	Supply of Power Supply System Hardware along with associated software & accessories	00	
		T5.1.4	Supply of Telephone System Hardware along with associated software & accessories.	01	
		T5.1.5	Supply of Master Clock System Hardware along with associated software & accessories	00	
		T5.1.6	Supply of VHF communication System Hardware along with associated software & accessories	01	
		T5.1.7	Supply of balance indoor and outdoor equipment	01	
	T5.2- Installation	T5.2.1	Installation of all indoor equipment	06	
		T5.2.2	Installation of all outdoor equipment	01	
		T5.2.3	Laying, Termination & Testing of Outdoor Telecom cables	02	
		T5.2.4	Installation of Earthing and Surge Protection equipment	00	

	T5.3- System Acceptan ce Test	T5.3.1	Supply and installation of software and System Acceptance Test	05	
			Total	100%	

Note:

1. The value of each Milestone will be 2.25% of total Lumpsum cost of Works under Schedule 'A' multiplied by $X * Y$. For example, for T5.1.1, Value will be 0.0225 of Lumpsum quoted price of Sch A * $X * Y = 0.0225 \times 0.38 \times 0.02$ of lumpsum quoted price of Schedule 'A'.
2. Adjustment to Contract Price shall be applicable to the payments of Works executed under Cost Centre 'T5'.
3. Payment will be made on Completion of each Milestone as per weightage given in this Cost Centre.
4. Payment against the Cost Centre T5.1 shall be made for quantities as per the Approved final Design, on receipt of Material at contractor's depot, production of inspection certificates & other documents and against BG of equivalent amount.

8.6 Stages of payment i.e. Milestone of Cost Centre 'T6'- Telecommunication Works at Manesar Jn.

Cost Centre	Sub Cost Centre	Items of work		Weightage (X)	Weightage of Cost Centre 'T6' (Y)
		No.	Milestone		
(1)	(2)	(3)	(4)	(5)	(6)
T6 [Telecommunication Works at Manesar Jn.]	T6.1- Supply of material	T6.1.1	Supply of OFC, 6-Quad, and PIJF Telephone Cables with associated accessories	16	34%
		T6.1.2	Supply of OFC System Hardware along with associated software & accessories	40	
		T6.1.3	Supply of Power Supply System Hardware along with associated software & accessories	01	
		T6.1.4	Supply of Telephone System Hardware along with associated software & accessories.	05	
		T6.1.5	Supply of Master Clock System Hardware along with associated software & accessories	01	
		T6.1.6	Supply of VHF communication System Hardware along with associated software & accessories	01	
		T6.1.7	Supply of balance indoor and outdoor equipment	14	
	T6.2- Installation	T6.2.1	Installation of all indoor equipment	08	

		T6.2.2	Installation of all outdoor equipment	01	
		T6.2.3	Laying, Termination & Testing of Outdoor Telecom cables	08	
		T6.2.4	Installation of Earthing and Surge Protection equipment	01	
	T6.3-System Acceptance Test	T6.3.1	Supply and installation of software and System Acceptance Test	04	
			Total	100%	

Note:

1. The value of each Milestone will be 2.25% of total Lumpsum cost of Works under Schedule 'A' multiplied by X * Y. For example, for T6.1.1, Value will be 0.0225 of Lumpsum quoted price of Sch A * X * Y = 0.0225 x 0.16 x 0.34 of lumpsum quoted price of Schedule 'A'.
2. Adjustment to Contract Price shall be applicable to the payments of Works executed under Cost Centre 'T6'.
3. Payment will be made on Completion of each Milestone as per weightage given in this Cost Centre.
4. Payment against the Cost Centre T6.1 shall be made for quantities as per the Approved final Design, on receipt of Material at contractor's depot, production of inspection certificates & other documents and against BG of equivalent amount.

8.7 Stages of payment i.e. Milestone of Cost Centre ‘T7’- Telecommunication Works in mid-section between Manesar Jn. & New Patli Jn.

Cost Centre	Sub Cost Centre	Items of work		Weightage (X)	Weightage of Cost Centre ‘T7’ (Y)
		No.	Milestone		
(1)	(2)	(3)	(4)	(5)	(6)
T7 [Telecommunication Works in MID-SECTION between Manesar Jn. & New Patli Jn.]	T7.1 Supply of material	T7.1.1	Supply of OFC, 6-Quad, and PIJF Telephone Cables with associated accessories	45	2%
		T7.1.2	Supply of OFC System Hardware along with associated software & accessories	14	
		T7.1.3	Supply of Power Supply System Hardware along with associated software & accessories	01	
		T7.1.4	Supply of Telephone System Hardware along with associated software & accessories.	03	
		T7.1.5	Supply of Master Clock System Hardware along with associated software & accessories	04	
		T7.1.6	Supply of VHF communication System Hardware along with associated software & accessories	00	
		T7.1.7	Supply of balance indoor and outdoor equipment	01	
	T7.2 Installation	T7.2.1	Installation of all indoor equipment	03	
		T7.2.2	Installation of all outdoor equipment	06	
		T7.2.3	Laying, Termination & Testing of Outdoor Telecom cables	22	
		T7.2.4	Installation of Earthing and Surge Protection equipment	00	

	T7.3 System Acceptance Test	T7.3.1	Supply and installation of software and System Acceptance Test	01	
			Total	100%	

Note:

1. The value of each Milestone will be 2.25% of total Lumpsum cost of Works under Schedule 'A' multiplied by X * Y. For example, for T7.1.1, Value will be 0.0225 of Lumpsum quoted price of Sch A * X * Y= 0.0225 x 0.45 x 0.02 of lumpsum quoted price of Schedule 'A'.
2. Telecom Works in Block sections shall cover all Telecom Works between two adjacent Crossing Stations/ Junction Stations and shall also include Telecom Works at TSS, SP, SSP and other Buildings/Structures.
3. 'Adjustment to Contract Price shall be applicable to the payments of Works executed under Sub Cost Centre 'T7'.
4. Payment will be made on Completion of each Milestone as per weightage given in this Cost Centre.
5. Payment against the Cost Centre T7.1 shall be made for quantities as per the Approved final Design, on receipt of Material at contractor's depot, production of inspection certificates & other documents and against BG of equivalent amount.

8.8 Stages of payment i.e. Milestone of Cost Centre ‘T8’- Telecommunication Works in mid-section between Manesar Jn. & IR station Patli (Phase-I)

Cost Centre	Sub Cost Centre	Items of work		Weightage (X)	Weightage of Cost Centre ‘T8’ (Y)
		No.	Milestone		
(1)	(2)	(3)	(4)	(5)	(6)
T8 [Telecommunication Works in MID-SECTION between Manesar Jn. & IR station Patli (Phase-I)]	T8.1 Supply of material	T8.1.1	Supply of OFC, 6-Quad, and PIJF Telephone Cables with associated accessories	64	4%
		T8.1.2	Supply of OFC System Hardware along with associated software & accessories	01	
		T8.1.3	Supply of Power Supply System Hardware along with associated software & accessories	01	
		T8.1.4	Supply of Telephone System Hardware along with associated software & accessories.	01	
		T8.1.5	Supply of Master Clock System Hardware along with associated software & accessories	01	
		T8.1.6	Supply of VHF communication System Hardware along with associated software & accessories	00	
		T8.1.7	Supply of balance indoor and outdoor equipment	00	
	T8.2 Installation	T8.2.1	Installation of all indoor equipment	01	
		T8.2.2	Installation of all outdoor equipment	01	
		T8.2.3	Laying, Termination & Testing of Outdoor Telecom cables	29	

		T8.2.4	Installation of Earthing and Surge Protection equipment	00	
	T8.3 System Acceptance Test	T8.3.1	Supply and installation of software and System Acceptance Test	01	
			Total	100%	

Note:

1. The value of each Milestone will be 2.25% of total Lumpsum cost of Works under Schedule 'A' multiplied by X * Y. For example, for T8.1.1, Value will be 0.0225 of Lumpsum quoted price of Sch A * X * Y = 0.0225 x 0.64 x 0.04 of lumpsum quoted price of Schedule 'A'.
2. Telecom Works in Block sections shall cover all Telecom Works between two adjacent Crossing Stations/ Junction Stations and shall also include Telecom Works at TSS, SP, SSP and other Buildings/Structures.
3. 'Adjustment to Contract Price shall be applicable to the payments of Works executed under Sub Cost Centre 'T8'.
4. Payment will be made on Completion of each Milestone as per weightage given in this Cost Centre.
5. Payment against the Cost Centre T8.1 shall be made for quantities as per the Approved final Design, on receipt of Material at contractor's depot, production of inspection certificates & other documents and against BG of equivalent amount.

8.9 Stages of payment i.e. Milestone of Cost Centre ‘T9’- Telecommunication Works in mid-section between New Patli Jn. & IR station Patli (Phase-II)

Cost Centre	Sub Cost Centre	Items of work		Weightage (X)	Weightage of Cost Centre ‘T’ (Y)		
		No.	Milestone				
(1)	(2)	(3)	(4)	(5)	(6)		
T9 [Telecommunication Works in MID-SECTION between New Patli Jn. & IR station Patli (Phase-II)]	T9.1 Supply of material	T9.1.1	Supply of OFC, 6-Quad, and PIJF Telephone Cables with associated accessories	55	3%		
		T9.1.2	Supply of OFC System Hardware along with associated software & accessories	00			
		T9.1.3	Supply of Power Supply System Hardware along with associated software & accessories	00			
		T9.1.4	Supply of Telephone System Hardware along with associated software & accessories.	01			
		T9.1.5	Supply of Master Clock System Hardware along with associated software & accessories	00			
		T9.1.6	Supply of VHF communication System Hardware along with associated software & accessories	00			
		T9.1.7	Supply of balance indoor and outdoor equipment	14			
	T9.2 Installation	T9.2.1	Installation of all indoor equipment	00			
		T9.2.2	Installation of all outdoor equipment	01			
		T9.2.3	Laying, Termination & Testing of Outdoor Telecom cables	28			
		T9.2.4	Installation of Earthing and Surge Protection equipment	00			
	T9.3 System Acceptance Test	T9.3.1	Supply and installation of software and System Acceptance Test	01			
				Total		100%	

Note:

- The value of each Milestone will be 2.25% of total Lumpsum cost of Works under Schedule ‘A’ multiplied by X * Y. For example, for T9.1.1, Value will be 0.0225 of

Lumpsum quoted price of Sch A * X * Y= 0.0225 x 0.55 x 0.03 of lumpsum quoted price of Schedule 'A'.

2. Telecom Works in Block sections shall cover all Telecom Works between two adjacent Crossing Stations/ Junction Stations and shall also include Telecom Works at TSS, SP, SSP and other Buildings/Structures.
3. Adjustment to Contract Price shall be applicable to the payments of Works executed under Sub Cost Centre 'T9.
4. Payment will be made on Completion of each Milestone as per weightage given in this Cost Centre.
5. Payment against the Cost Centre T9.1 shall be made for quantities as per the Approved final Design, on receipt of Material at contractor's depot, production of inspection certificates & other documents and against BG of equivalent amount.

8.10 Stages of payment i.e. Milestone of Sub-Cost Centre ‘T10’- Telecommunication Works in mid-section between New Patli Jn. & IR station Sultanpur

Cost Centre	Sub Cost Centre	Items of work		Weightage (X)	Weightage of Cost Centre ‘T10’ (Y)
		No.	Milestone		
(1)	(2)	(3)	(4)	(5)	(6)
T10 [Telecommunication Works in MID-SECTION between Manesar Jn. & IR station Sultanpur]	T10.1 Supply of material	T10.1.1	Supply of OFC, 6-Quad, and PIJF Telephone Cables with associated accessories	50	3%
		T10.1.2	Supply of OFC System Hardware along with associated software & accessories	00	
		T10.1.3	Supply of Power Supply System Hardware along with associated software & accessories	00	
		T10.1.4	Supply of Telephone System Hardware along with associated software & accessories.	01	
		T10.1.5	Supply of Master Clock System Hardware along with associated software & accessories	00	
		T10.1.6	Supply of VHF communication System Hardware along with associated software & accessories	00	
		T10.1.7	Supply of balance indoor and outdoor equipment	17	
	T10.2 Installation	T10.2.1	Installation of all indoor equipment	00	
		T10.2.2	Installation of all outdoor equipment	03	
		T10.2.3	Laying, Termination & Testing of Outdoor Telecom cables	27	
		T10.2.4	Installation of Earthing and Surge Protection equipment	01	

	T10.3 System Acceptance Test	T10.3.1	Supply and installation of software and System Acceptance Test	01	
			Total	100%	

Note:

1. The value of each Milestone will be 2.25% of total Lumpsum cost of Works under Schedule 'A' multiplied by X * Y. For example, for T10.1.1, Value will be 0.0225 of Lumpsum quoted price of Sch A * X * Y= 0.0225 x 0.50 x 0.03 of lumpsum quoted price of Schedule 'A'.
2. Telecom Works in Block sections shall cover all Telecom Works between two adjacent Crossing Stations/ Junction Stations and shall also include Telecom Works at TSS, SP, SSP and other Buildings/Structures.
3. Adjustment to Contract Price shall be applicable to the payments of Works executed under Sub Cost Centre 'T10.
4. Payment will be made on Completion of each Milestone as per weightage given in this Cost Centre.
5. Payment against the Cost Centre T10.1 shall be made for quantities as per the Approved final Design, on receipt of Material at contractor's depot, production of inspection certificates & other documents and against BG of equivalent amount.

8.11 Stages of payment i.e. Milestone of Cost Centre 'T11'- Integrated Testing & Commissioning and Final Taking-Over for Telecommunication works

Cost Centre	Sub Cost Centre	Items of work			Weightage (X)	Weightage of Sub-Cost Centre 'T11' (Y)
		No.	Milestone			
(1)	(2)	(3)	(4)		(5)	(6)
T11 [Integrated Testing & Commissioning and Final Taking-Over of Telecommunication works]	Integrated Testing & Commissioning and Final Taking-Over	T11.1	Successful Completion of Integrated Testing & Commissioning of Phase 1.	&	15%	5%
		T11.2	Successful Completion of Integrated Testing & Commissioning of Phase 2.	&	35%	
		T11.2	Final Taking-Over Certificate for the complete work		50%	
			Total		100%	

Note:

1. The value of each Milestone will be 2.25% of total Lumpsum cost of Works under Schedule 'A' multiplied by X * Y. For example, for T11.1, Value will be 0.0225 of Lumpsum quoted price of Sch A * X * Y= 0.0225 x 0.15 x 0.05 of lumpsum quoted price of Schedule 'A'.
2. Adjustment to Contract Price shall NOT be applicable to the payments of Works executed under Sub Cost Centre T11.

Payment will be made on Completion of each Milestone as per weightage given in this Cost Centre

8.12 Stages of payment i.e. Milestone of Cost Centre 'T12'- Supply of Contract spares for Telecommunication works

Cost Centre	Sub Cost Centre	Items of work		Weightage (X)	Weightage of Sub-Cost Centre 'T12' (Y)
		No.	Milestone		
(1)	(2)	(3)	(4)	(5)	(6)
T12 [Supply of Contract Spares for Telecommunication works]	Contract Spares	T12.1	Supply of Contract Spares along with all other associated accessories	100	6%
			Total	100%	

Note:

1. The value of each Milestone will be 2.25% of total Lumpsum cost of Works under Schedule 'A' multiplied by $X * Y$. For example, for T12.1, Value will be 0.0225 of Lumpsum quoted price of Sch A * $X * Y = 0.0225 \times 1.0 \times 0.06$ of lumpsum quoted price of Schedule 'A'.
2. Adjustment to Contract Price shall be applicable to the payments of Works executed under this Sub Cost Centre 'T12'.
3. Payment will be made on Completion of each Milestone as per weightage given in this Cost Centre.
4. Payment against this Cost Centre shall be made for quantities as per the Approved final Design, on receipt of Material at contractor's depot, production of inspection certificates & other documents and against BG of equivalent amount.

8.13 Stages of payment i.e. Milestone of Cost Centre 'T13'- Supply of Special Tools & Test Equipment for Telecommunication works

Cost Centre	Sub Cost Centre	Items of work		Weightage (X)	Weightage of Cost Centre 'T13' (Y)
		No.	Milestone		
(1)	(2)	(3)	(4)	(5)	(6)
T 13 [Supply of Special Tools & Test Equipment for Telecommunication works]	Special Tools and Test Equipment	T 13.1	Supply of Special Tools and Test Equipment along with other associated accessories, Operation and Maintenance Manual and Calibration Certificate	100	4%
			Total	100%	

Note:

1. The value of each Milestone will be 2.25% of total Lumpsum cost of Works under Schedule 'A' multiplied by X * Y. For example, for T13.1, Value will be 0.0225 of Lumpsum quoted price of Sch A * X * Y= 0.0225 x 1.0 x 0.04 of lumpsum quoted price of Schedule 'A'.
2. Adjustment to Contract Price shall be applicable to the payments of Works executed under this Sub Cost Centre 'T13'.
3. Payment will be made on Completion of each Milestone as per weightage given in this Cost Centre.
4. Payment against this Cost Centre shall be made for quantities as per the Approved final Design, on receipt of Material at contractor's depot, production of inspection certificates & other documents and against BG of equivalent amount.

8.14 Stages of payment i.e. Milestone of Cost Centre 'T14'- Training for Telecommunication works

Cost Centre	Sub Cost Centre	Items of work		Weightage (X)	Weightage of Cost Centre 'T14' (Y)
		No.	Milestone		
(1)	(2)	(3)	(4)	(5)	(6)
T14 [Training for Telecommunication system]	Training	T14.1	Training	100%	2%
			Total	100%	

Note:

1. The value of each Milestone will be 2.25% of total Lumpsum cost of Works under Schedule 'A' multiplied by $X * Y$. For example, for T14.1, Value will be 0.0225 of Lumpsum quoted price of Sch A * $X * Y = 0.0225 \times 1.0 \times 0.02$ of lumpsum quoted price of Schedule 'A'.
2. Adjustment to Contract Price shall NOT be applicable to the payments of Works executed under this Sub Cost Centre 'T14'.
3. Payment will be made on Completion of each Milestone as per weightage given in this Cost Centre.

8.15 Stages of payment i.e. Milestone of Cost Centre 'T15'- Maintenance of Telecommunication gears for one year

Cost Centre	Sub Cost Centre	Items of work		Weightage (X)	Weightage of Cost Centre 'T15' (Y)
		No.	Milestone		
(1)	(2)	(3)	(4)	(5)	(6)
T15 [Maintenance of Telecommunication gears for one year]	Maintenance for one year	T15.1	Maintenance for One year	100%	2%
Total				100%	

Note:

1. The value of each Milestone will be 2.25% of total Lumpsum cost of Works under Schedule 'A' multiplied by X * Y. For example, for T15.1, Value will be 0.0225 of Lumpsum quoted price of Sch A * X * Y= 0.0225 x 1.0 x 0.02 of lumpsum quoted price of Schedule 'A'.
2. Adjustment to Contract Price shall NOT be applicable to the payments of Works executed under this Sub Cost Centre 'T15'.
3. Payment will be made on Completion of each Milestone as per weightage given in this Cost Centre.

9. Schedule 'B': Retaining Wall

Schedule B: Retaining Wall					
S. No	Description of Item	Qty	Unit	Rate (INR)	Amount (INR)
1.	Excavation in all kinds of soil(excluding rocks) and roads in foundation & floor, wing walls, return walls, drop walls & curtain walls of bridges, retaining walls, etc. including site clearance, to a given profile including levelling and dressing to neat dimensions , up to the required depth in all conditions, backfilling and disposal of the surplus excavated earth/debris/muck outside ROW including all lead, lift, ascends, descends, loading, unloading handling, re-handling, crossing of stream, nallahs, railway track, level crossing etc, bailing/pumping out sub-soil water/seepage water/ rain water, sheet piling if required to ensure safety of running trains on adjacent tracks of IR, with all labour, material, tools, plants, machinery and equipment, taxes, cess etc. as a complete job in accordance with the Specification and the approved drawings	11100.28	Cum	275.42	30,57,239
2.	Providing and laying in position Plain cement concrete of specified Nominal Mix for miscellaneous works like side drains, foundation for OHE masts and other miscellaneous structures excluding the cost of Cement, centering and shuttering - All work up to plinth level :				
I	1:3:6 (1 Cement : 3 coarse sand (zone-III) : 6 graded stone aggregate 20 mm nominal size)	2143.8	Cum	3,143.14	67,38,264
3.	Providing and laying in position cement sand mortar for levelling coarse below prefabricated retaining wall. Cost of cement to be paid separately				
I	1:3 (1 Cement : 3 coarse sand (zone-III)) cement sand levelling mortar	428.76	Cum	7,767.79	33,30,518
4.	Supplying and laying in position M-35 RCC in Pile Caps, RCC Box/Sub way, Piers, Abutments, Pier Cap, Abutment Cap, Pedestals, Retaining wall, wing walls, Return walls, drop walls, curtain walls & toe walls of all heights as per approved design mix with admixtures and manufactured in fully automatic batching plant and transported to site of work in transit mixer for all lifts & leads, having continuous agitated mixer, pumping concrete from transit mixer to site of laying, compacting, finishing & curing, with all labour, material, tools, plants, machinery and equipment, taxes, cess etc., as a complete job including cement in accordance with the Specification and drawings, but excluding supplying & fixing form work (centering & shuttering) and	2125	Cum	7,888.74	1,67,63,573

Schedule B: Retaining Wall					
S. No	Description of Item	Qty	Unit	Rate (INR)	Amount (INR)
	excluding Reinforcement steel. Note: i. Cost of cement is included in the above item. ii. Cost of Reinforcement steel is not included in the above item and will be paid separately under item no. iii. Cost of supplying & fixing form work (centering & shuttering) is not included in the above item and will be paid separately under relevant item				
5.	Supplying and laying in position M-20 Grade of Concrete in drain, protection work & other miscellaneous work as per approved design mix with admixtures and manufactured in fully automatic batching plant and transported to site of work in transit mixer for all lifts & leads, having continuous agitated mixer, pumping concrete from transit mixer to site of laying, compacting, finishing & curing, with all labour, material, tools, plants, machinery and equipment, taxes, cess etc., as a complete job ,but excluding supplying & fixing form work (centring & shuttering),in accordance with the Specification and drawings.Note –(i) Cost of cement is included in the above item.(ii) Cost of Reinforcement steel is not included in the above item and will be paid separately under item no. 14.(iii) Cost of supplying & fixing form work (centring & shuttering) is not included in the above item (except open foundation) and will be paid separately under relevant item of 12.(iv) For concreting underwater 10% extra rate shall be paid.	3.15	Cum	6,061.37	19,093
6.	Centering and shuttering including strutting, propping etc. and removal of form for :				
I	All types of bridge sub-structures, e.g. pier, abutment, wing wall, retaining wall, RCC box type foundations, Abutment cap, Pier Cap, Inspection Platform & Pedestal over Pier cap, Fender wall, Diaphragm wall etc. upto 5m above ground level.	2143.8	Sqm	710.78	15,23,770
II	Extra for additional height over item no. 6(i) wherever required with adequate bracing, propping etc. over initial height of 5 metres for every additional height of 1 metre or part thereof	50	Sqm	116.54	5827
7.	Supply and using Cement at Worksite				
I	Ordinary Portland Cement 53 grade	10	MT	7,722.05	77,221
II	Pozzolana Portland Cement	10	MT	7,304.27	73,043
8.	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete				

Schedule B: Retaining Wall					
S. No	Description of Item	Qty	Unit	Rate (INR)	Amount (INR)
I	Thermo-Mechanically Treated bars of grade Fe-500D or more.	244375	Kg	95.85	2,34,23,344
9.	<p>Supplying and installation in position (including joining and grouting) high strength precast reinforced cement concrete (M50 or above grade) segmental retaining walls of specified height (height measured above ground level) as per the directions of the Engineer. Precast reinforced retaining walls shall be factory-made and steam cured in a controlled environment with weep holes and in-built inserts for handling/transportation. Dimensional tolerance shall be 0+/-2 mm.</p> <p>1. Cost of loading, transportation and unloading of precast segments at site is included in the item.</p> <p>2. Cost of coupler and grouting is included in the item.</p> <p>3. Boulder Backing and backfilling of filter media behind wall shall be paid separately under relevant item of this schedule.</p> <p>4. Excavation of soil for foundation shall be paid separately under relevant item</p> <p>5. Levelling course 20mm of 1:3 Cement sand mortar over 100 mm of 1:3:6 Concrete should be provided before placing the wall segments. Payment for which shall be made under relevant item.</p> <p>6. 60% of the rate shall be paid on procurement and providing the precast retaining wall segments at site and balance 40% will be paid on fixing the same in position in satisfactory condition.</p>		Runni ng meter		
I	1.0m height	1820	Metre	27583	50201060
II	1.75m height	1780	Metre	46858	83407240
III	2.75m height	1220	Metre	98518	120191960
IV	3.75m height	980	Metre	146764	143828720
V	4.50m height	10	Metre	240260	24,02,600
VI	6.0m height	20	Metre	323851	6477020
10.	Providing Boulder Backing behind wing wall, return wall, retaining wall with hand packed boulders & cobbles not less than 15cm in any direction & not less than 15kg (except smaller boulders required for filling voids) including all lead, lift, labour & other incidental charges as complete work in all respect. Cost of boulder/cobbles is included in this item.	10401.1	Cum	1,542.07	1,60,39,224
11.	Providing and laying of filter media consisting of granular materials of GW, GP, SW groups as per IS:1498 (latest) in required profile behind boulder filling of abutments, wing walls / return walls etc.	41779.3	Cum	2,436.76	10,18,05,918

Schedule B: Retaining Wall					
S. No	Description of Item	Qty	Unit	Rate (INR)	Amount (INR)
	above bed level with all labour and material complete job as per drawing and technical specification of RDSO Guidelines.				
12.	Providing and fixing Weep Holes in Abutments, Wing walls and Return walls etc., of new bridges, retaining walls with 100 mm dia UPVC pipe Type A conforming to IS:13592 with all contractor's men, material, transportation, all taxes as per specifications and as directed by Engineer.	1920	Metre	242.28	4,65,177.60
Total Estimated Cost for Schedule 'B'					57,98,31,019

9. Schedule C: Miscellaneous items (Civil, S&T and Unchartered Utility Shifting)

Schedule C: Miscellaneous items (Civil, S&T and Unchartered Utility Shifting)			
C1- Civil			
S.No	Description of Item	Unit	Rate (INR)
1	Earthwork in embankment/filling as per RDSO specification No. RDSO/2020/GE:004 September 2020 “Comprehensive Guidelines and Specification for Railway Formation” with contractor’s own earth from borrow areas including all lead, lift, ascent, descent, royalty, taxes, cess, compensation, crossing of nallahs /stream and other obstructions including mechanical compaction in layers with watering, handling, re-handling, dressing of banks to the final profile with all labour, material, tools, plant, machinery and equipment, taxes, cess etc. as a complete job in accordance with the Specification and the Drawings. Note: 10% of payment shall be withheld till the slopes are dressed to the required profile and compacted mechanically with vibratory rollers as per RDSO guidelines	Cum	309.73
2	Excavation in all kinds of soil(excluding rocks) and roads in foundation & floor, wing walls, return walls, drop walls & curtain walls of bridges, retaining walls, etc. including site clearance, to a given profile including levelling and dressing to neat dimensions , up to the required depth in all conditions, backfilling and disposal of the surplus excavated earth/debris/muck outside ROW including all lead, lift, ascends, descends, loading, unloading handling, re-handling, crossing of stream, nallahs, railway track, level crossing etc, bailing/pumping out sub-soil water/seepage water/ rain water, sheet piling if required to ensure safety of running trains on adjacent tracks of IR, with all labour, material, tools, plants, machinery and equipment, taxes, cess etc. as a complete job in accordance with the Specification and the approved drawings	Cum	275.42
3	Providing and laying in position Plain cement concrete of specified Nominal Mix for miscellaneous works like side drains, foundation for OHE masts and other miscellaneous structures excluding the cost of Cement, centering and shuttering - All work up to plinth level :		
I	1:3:6 (1 Cement : 3 coarse sand (zone-III) : 6 graded stone aggregate 20 mm nominal size)	Cum	3,143.14

Schedule C: Miscellaneous items (Civil, S&T and Unchartered Utility Shifting)			
C1- Civil			
S.No	Description of Item	Unit	Rate (INR)
4	<p>Supplying and laying in position M-35 RCC in Pile Caps, RCC Box/Sub way, Piers, Abutments, Pier Cap, Abutment Cap, Pedestals, Retaining wall, wing walls, Return walls, drop walls, curtain walls & toe walls of all heights as per approved design mix with admixtures and manufactured in fully automatic batching plant and transported to site of work in transit mixer for all lifts & leads, having continuous agitated mixer, pumping concrete from transit mixer to site of laying, compacting, finishing & curing, with all labour, material, tools, plants, machinery and equipment, taxes, cess etc., as a complete job including cement in accordance with the Specification and drawings, but excluding supplying & fixing form work (centering & shuttering) and excluding Reinforcement steel.</p> <p>Note:</p> <p>i. Cost of cement is included in the above item. ii. Cost of Reinforcement steel is not included in the above item and will be paid separately under item no. iii. Cost of supplying & fixing form work (centering & shuttering) is not included in the above item and will be paid separately under relevant item</p>	Cum	7,888.74
5	<p>Supplying and laying in position M-20 Grade of Concrete in drain, protection work & other miscellaneous work as per approved design mix with admixtures and manufactured in fully automatic batching plant and transported to site of work in transit mixer for all lifts & leads, having continuous agitated mixer, pumping concrete from transit mixer to site of laying, compacting, finishing & curing, with all labour, material, tools, plants, machinery and equipment, taxes, cess etc., as a complete job ,but excluding supplying & fixing form work (centring & shuttering),in accordance with the Specification and drawings.</p> <p>Note</p> <p>(i) Cost of cement is included in the above item. (ii) Cost of Reinforcement steel is not included in the above item and will be paid separately under item no. 14. (iii) Cost of supplying & fixing form work (centring & shuttering) is not included in the above item (except open foundation) and will be paid separately under relevant item of 12. (iv) For concreting underwater 10% extra rate shall be paid.</p>	Cum	6,061.37
6	Centering and shuttering including strutting, propping etc. and removal of form for :		
I	All types of bridge sub-structures, e.g. pier, abutment, wing wall, retaining wall, RCC box type foundations, Abutment cap, Pier Cap, Inspection Platform & Pedestal over Pier cap, Fender wall, Diaphragm wall etc. upto 5m above ground level.	Sqm	710.78
II	Extra for additional height over item no. 6(i) wherever required with adequate bracing, propping etc. over initial height of 5 metres for every additional height of 1 metre or part thereof	Sqm	116.54
7	Supply and using Cement at Worksite		

Schedule C: Miscellaneous items (Civil, S&T and Unchartered Utility Shifting)			
C1- Civil			
S.No	Description of Item	Unit	Rate (INR)
I	Ordinary Portland Cement 53 grade	MT	7,722.05
II	Pozzolana Portland Cement	MT	7,304.00
8	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete		
I	Thermo-Mechanically Treated bars of grade Fe-500D or more.	Kg	95.85
9	Providing Boulder Backing behind wing wall, return wall, retaining wall with hand packed boulders & cobbles not less than 15cm in any direction & not less than 15kg (except smaller boulders required for filling voids) including all lead, lift, labour & other incidental charges as complete work in all respect. Cost of boulder/cobbles is included in this item.	Cum	1,542.07
10	Providing and laying of filter media consisting of granular materials of GW, GP, SW groups as per IS:1498 (latest) in required profile behind boulder filling of abutments, wing walls / return walls etc. above bed level with all labour and material complete job as per drawing and technical specification of RDSO Guidelines.	Cum	2,436.76
11	Providing and fixing Weep Holes in Abutments, RCC Box, Wing walls and Return walls etc., of new bridges with 100 mm dia UPVC pipe Type A ISI marked with all contractor's men, material, transportation, all taxes as per specifications and as directed by Engineer-in-Charge.	Metre	266.91
12	Providing and laying Non Pressure NP-3 class (Medium duty) R.C.C. pipes including collars/spigot jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc. complete		
I	450mm dia. RCC pipes	Metre	2385.5
II	600 mm dia RCC pipes.	Metre	3127.63
13	Providing and laying non-pressure NP2 class (light duty) R.C.C. pipes with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc. complete :		
I	100 mm dia. R.C.C. pipe	Metre	458.4
II	150 mm dia. R.C.C. pipe	Metre	505.39
III	250 mm dia. R.C.C. pipe	Metre	831.37
14	Supplying and stacking at site.		
i	63 mm to 45 mm size stone aggregate	Cum	1665
ii	Stone screening 13.2 mm nominal size (Type A)	Cum	1911.5
15	Laying, spreading and compacting stone aggregate of specified sizes to WBM specifications in uniform thickness, hand picking, rolling with 3 wheeled road/vibratory roller 8-10 tonne capacity in stages to proper grade and camber, applying and brooming requisite type of screening / binding material to fill up interstices of coarse aggregate, watering and compacting to the required density .	Cum	887.39

Schedule C: Miscellaneous items (Civil, S&T and Unchartered Utility Shifting)			
C1- Civil			
S.No	Description of Item	Unit	Rate (INR)
16	Providing and applying tack coat using hot straight run bitumen of grade VG - 10, including heating the bitumen, spraying the bitumen with mechanically operated spray unit fitted on bitumen boiler, cleaning and preparing the existing road surface as per specifications :		
i	On W.B.M. @ 0.75 Kg / sqm	Sqm	46.33
17	2.5 cm premix carpet surfacing with 2.25 cum and 1.12 cum of stone chippings of 13.2 mm and 11.2 mm size respectively per 100 sqm and 52 kg and 56 kg of hot bitumen per cum of stone chippings of 13.2 mm and 11.2 mm size respectively, including a tack coat with hot straight run bitumen, including consolidation with road roller of 6 to 9 tonne capacity etc. complete (tack coat to be paid for separately).		
i	With paving Asphalt grade VG - 30 with no solvent	Sqm	260.74
18	Providing and laying C.C. pavement of mix M-25 with ready mixed concrete from batching plant. The ready mixed concrete shall be laid and finished with screed board vibrator , vacuum dewatering process and finally finished by floating, brooming with wire brush etc. complete as per specifications and directions of Engineer-in-charge. (The panel shuttering work shall be paid for separately). (Note:- Cement content considered in this item is @ 330 kg/cum. Excess/less cement used as per design mix is payable/ recoverable separately).	Cum	8483.92
19	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	Cum	8828.3
20	Providing and laying 60mm thick factory made cement concrete interlocking paver block of M -30 grade made by block making machine with strong vibratory compaction, of approved size, design & shape, laid in required colour and pattern over and including 50mm thick compacted bed of coarse sand, filling the joints with line sand etc. all complete as per the direction of Engineer-in-charge.	Sqm	974.71
21	Providing and laying tactile tile (for vision impaired persons as per standards) of size 300x300x9.8mm having with water absorption less than 0.5% and conforming to IS:15622 of approved make in all colours and shades in for outdoor floors such as footpath, court yard, multi modals location etc., laid on 20mm thick base of cement mortar 1:4 (1 cement : 4 coarse sand) in all shapes & patterns including grouting the joints with white cement mixed with matching pigments etc. complete as per direction of Engineer-in-Charge.	Sqm	1761.86

Schedule C: Miscellaneous items (Civil, S&T and Unchartered Utility Shifting)			
C1- Civil			
S.No	Description of Item	Unit	Rate (INR)
22	Chequered precast cement concrete tiles 22 mm thick in footpath & courtyard, jointed with neat cement slurry mixed with pigment to match the shade of tiles, including rubbing and cleaning etc. complete, on 20 mm thick bed of cement mortar 1:4 (1 cement: 4 coarse sand).		
I	Light shade pigment using white cement	Sqm	1263.79
23	Kota stone slab flooring over 20 mm (average) thick base laid over and jointed with grey cement slurry mixed with pigment to match the shade of the slab, including rubbing and polishing complete with base of cement mortar 1 : 4 (1 cement : 4 coarse sand) :		
I	25 mm thick	Sqm	1749.15
24	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.		
I	In stringers, treads, landings etc. of stair cases, including use of chequered plate wherever required, all complete	Kg	104.8
II	In gratings, frames, guard bar, ladder, railings, brackets, gates and similar works	Kg	145.85
25	Providing and fixing M.S. grills of required pattern in frames of windows etc. with M.S. flats, square or round bars etc. including priming coat with approved steel primer all complete.		
I	Fixed to steel windows by welding	Kg	185.51
II	Fixed to openings /wooden frames with rawl plugs screws etc.	Kg	202.61

Schedule C: Miscellaneous (Civil, S&T and Utility Shifting)			
C2- Unchartered Utility shifting for Signalling Works at Patli and Sultanpur Stations of IR			
S. NO.	Item Description	Unit	Rate (INR)
26.	Supply burrying of earth electrodes pipe of 3 metre length and 50 mm dia. pointed on lower end by tapering for a length of 150mm as per drg. No. NR / S&T/ Proj /16.1 /2015 and connecting with lightening arrester or signalling gears as per std. practices. The item includes digging of pit in earth 3 Mtrs. deep and fixing earth electrode pipe in it. Earth pipe shall be burried in the ground to the length of 2.7 Mtr after welding 6 SWG wire at the lower end and fixing through nut and bolt at the top. This includes casting of cement concrete enclosures as per drg. No. NR / S&T/ Proj /16.2 /2015 . The enclosure is to be plastered on all sides with cement & sand mixture of 1:4 ratio. The soil treatment shall be done as per standard practices. The item includes provision of earth lead wires 6 SWG and soldering of lead wires. The other end of the earth wire to be connected to block instruments/ cable sheath/ power equipment / apparatus case/ relay racks or any other equipment as per the instructions of site Engineer & as per IRSEM. (Inspection:Engg representative)	No	2,698
27.	Supply of PVC Insulated, Armoured, Unscreened Underground, Railway Signalling Cable Copper Conductor as per Spec. no. IRS-S-63/2014 (Rev.4.0) or Latest amendment, Size 24 Core x 1.5 Sq. MM.	Km	4,46,635
28.	Supply of PVC Insulated, Armoured, Unscreened Underground, Railway Signalling Cable Copper Conductor as per Spec. no. IRS-S-63/2014 (Rev.4.0) or Latest amendment, Size 12 Core x 1.5 Sq. MM.	Km	2,28,986
29.	Supply of PVC Insulated, Armoured, Unscreened Underground, Railway Signalling Cable Copper Conductor as per Spec. no. IRS-S-63/2014 (Rev.4.0) or Latest amendment, Size 6 Core x 1.5 Sq. MM.	Km	1,32,301
30.	Excavating and refilling of trench in Normal Soil to the level of ground with rammed earth so as not to form a drain, 0.3 Mtrs. Wide & 1 Mtr. depth on ide of the station alongside the track. It shall conform to the safe distance as per signalling and cable plan. It also Includes clearance of roots of trees & bushes. Lesser/Deeper depth of the trench is to be paid proportionately. Inspection : Site Engineer	Metre	84

Schedule C: Miscellaneous (Civil, S&T and Utility Shifting)			
C2- Unchartered Utility shifting for Signalling Works at Patli and Sultanpur Stations of IR			
S. NO.	Item Description	Unit	Rate (INR)
31.	Excavating and refilling of trench in Rocky soil to the level of ground with rammed earth so as not to form a drain 0.3 Mtrs. Wide & 0.5 Mtr. Deep on both side of the station alongside the track. This Includes 50mm thick concreting work throughout in 1:3: 6 ratio. All concreting material to be supplied by the contractor. It shall conform to the safe distance as per signalling and cable plan It also includes clearance of routes of trees & bushes. Inspection: Site Engineer	Metre	127
32.	Excavating and refilling of trench 0.3 Mtr. Wide & 1 Mtr. Deep from bottom of rail flange across the track or 0.5 Mtr. from ground level which ever is more. Earth should be rammed so as not form a drain. This Includes removal and refilling of ballast and restoration of surface under normal traffic conditions. Lesser/ deeper of the trench Is to be paid proportionately. Inspection : Site Engineer	Metre	116
33.	Excavation and refilling of trench 0.3m wide and 0.8m deep on pitch/stone/bricks paved surface, road crossing/platform etc. and restoring the surface to its original conditions. Lesser depth of trench to be paid proportionately.	Metre	131
34.	Supply of Double Walled Corrugated pipes (ISI mark) confirming to Spec no. IS-14930, part-II of length 6 meter and 120mm outer dia. 103.5mm inner dia. With one snap fit connector, one V end and one T coupler for underground power / signal/ telecom cable protection. One 6m pipe with all accessories shall be counted as unit for the purpose of payment. As per approved cable route plan. This included brick work and other arrangement to secure the cable at both ends. All the materials as cement, sand etc. shall be supplied by the contractor for the size DWC HDPE Outer dia 120 mm Inspection: RITES	Metre	502
35.	Supply of Half Split Double wall corrugated pipe of HDPE in 2 or 3 Mtr. Length produced out of full round DWC pipes with IS 14930 part- II mark on it. The pipe should have necessary fixing and coupling arrangements. Size : 200 mm outer dia. And 175 mm inner dia.	Meter	454

Schedule C: Miscellaneous (Civil, S&T and Utility Shifting)			
C2- Unchartered Utility shifting for Signalling Works at Patli and Sultanpur Stations of IR			
S. NO.	Item Description	Unit	Rate (INR)
36.	"Laying of HDPE duct/DWC Pipe in the trenches, including in HDD/Manual Boring portion and supply pulling of Nylon rope through it at different places as per directions of engineer in charge/site engineer. (Inspection by Site Engineer)"	Km	7,385
37.	Laying of signalling/Telecom/power cables of different sizes as per drg. No.(NR/S&T/CON/1.1/97-A) and as per cable route plan approved by Railways and meggering of cable before and after its laying of all type of outdoor cables. Meggering to be done for each drum separately Meggering sheets to be supplied and filled up by contractor and submitted to railways. (Inspection: Engg representative.)	Metre	8.7675
38.	Supply of route indicator junction type complete with hoods & offset bracket 5½ " without signal transformer as per RDSO Specn.No.IRS-S-66/84 Amd. 1 or latest as per latest drawing. 2/3/4/5-way route indicator junction type Drg. No. SA-23402-6 (Adv.) or latest (Inspection: RITES)	No	27,703
39.	Supply of Location Box made of 10 SWG (3.2mm) sheet complete with 'E' type lock & Keys, 1 Key for every five apparatus cases to be supplied. (Full Location Box) as per Drg with additional (i) Fixed Handle on the door (ii) Provision of external padlock arrangement and (iii) Suitable arrangement for holding the door at 90° in its open condition.	No	23,422
40.	Supply of Location Box made of 10 SWG (3.2mm) sheet complete with 'E' type lock & Keys, 1 Key for every five apparatus cases to be supplied. (Half Location Box) as per Drg with additional (i) Fixed Handel on the door (ii) Provision of external padlock arrangement and (iii) Suitable arrangement for holding the door at 90° in its open condition	No	18,109
41.	Supply of Hylum Sheet, rasin bonded, of different thickness grade P3, of ISI make (IS: 2036 of 1974 or latest and size 910x800x6 mm to suit to FTOT board.	No	6,636

Schedule C: Miscellaneous (Civil, S&T and Utility Shifting)			
C2- Unchartered Utility shifting for Signalling Works at Patli and Sultanpur Stations of IR			
S. NO.	Item Description	Unit	Rate (INR)
42.	Supply of Screw less mounted 2.5 Sq.mm - 4 wire front entry two input , two output disconnect cage clamp terminals block for test and measurement (wago or Phonix or Elmex) as per site requirement. As per RDSO/SPN/189/2004. The procurement should be done from RDSO recommended sources. The color will be decided by Engineer in charge (Preferably in Blue, Red and Grey color in the ratio of 1:2:3) /9 Inspection : RITES) 2.End and intermediate plate, 2mm/0.091 in thick as per site requirement (Inspection : RITES) 3.Supply of end stopper for above item 10mm/.0394 in wide as per site requirement. (Inspection: RITES)	No	85
43.	Casting, concreting and curing of foundation and erection of single app. case of size (1160mmx7) at surface and 650mm deep. A layer of 3 mm of bitumen compound be provided between foundation and location box prevent ingress of water in the base of location box. All materials such as cement, coarse, sand, aggregate and anchor bolt shall be supplied. Contractor is required to execute all type of repairing works of foundations if required during insertion of cable for termination. Inspection: Site Engineer	No.	7,153
44.	Supply of Colour Light Signal (2/3/4 Aspect) complete without transformer as per IRS:S-26/24 and Signal post with ladder & bases as per IRS-S-6-81	No	38,386
45.	Supply of Shunt Signal Position Light with lock, unit offset bracket 3.5' ' dia. without holders bulbs etc. to drg. no. 23840 adv. specs. no. IRS- S-23/88 Dependent post type., Inspection : RITES	No	8,896
46.	Supply of LED type Shunt signal aspect (in place of one bulb) complete with current regulator and health monitor alarm as per spec no. RDSO/SPN/153/2002 or latest.	No	6,512
47.	Supply of Electronic Route Marker as per TEC/GR/T ITIE-O71O2 MAR 2OL4 to be provided at distance of 100 mtrs	No.	1,752
48.	Supply of Hand Cuff Lock with key of approved type of signal units. (Inspection by Consignee	No	375

Schedule C: Miscellaneous (Civil, S&T and Utility Shifting)			
C2- Unchartered Utility shifting for Signalling Works at Patli and Sultanpur Stations of IR			
S. NO.	Item Description	Unit	Rate (INR)
49.	Casting, concreting and curing of foundation for main signal of size (1041mmx1041 mm) at bottom and (711mmx711mm) at top and 1750mm deep. All material such as anchor bolts, cement, coarse sand aggregate to be supplied by contractor. Inspection: Site Engineer.	No	13,313
50.	<p>Fixing of CLS surface base, bolting on the foundation. Erection of CLS post with signal unit on the top or on an offset bracket and fitting ladder and guard to the post at the top. Concreting ladder base and embedded into the ground with supporting bracket in the middle, blanking of the ladder for a distance of 1 feet between the height 6' 9" and 7' 9" from the rail level by MS angle and MS sheet 6mm thick wherever required.</p> <p>This includes provn. Of wooden (Sal) cross arm 1 mtr x 1 mtr. for CLS unit prior to the commissioning, fixing of LED aspect, current regulator and hoods of CLS unit, terminating cables, wiring the CLS unit and focusing the signal. Elevation & distance of foundation from track shall be in accordance with schedule of dimension for HORC published by Govt. of India and approved drawings.</p> <p>All items for above work shall be supplied by the contractor (except the items which are covered separately elsewhere in the schedule) including but not limited to the following items. (i) "U" bolt for offset brackets. (ii) Wooden cross arm 1 mtr. x 1 mtr. (iii) MS angle and MS sheet for blanking of ladder. (iv) Wire mesh guard, lock for unit if required, nuts and bolts (v) number plate etc. for the following: a) Installation, erection and wiring of 2/3/4 Aspect colour light signal</p>	No	3,512
51.	Installation of 2/3/4 aspect colour light signal including 1/2/3/4/5 way Jn. type/Stencil/Theatre type route indicator which also includes fixing of route indicator on the top of the signal post or on offset bracket including fixing of offset bracket, wiring the whole unit, focusing of signal & route indicators. All items for installation and erection including unit junction type route indicator and offset bracket to be supplied by Railway. Wiring & other fixing material, 'U' bolts will be supplied by the contractor. (Inspection: Engg representative.)	No	4,287

Schedule C: Miscellaneous (Civil, S&T and Utility Shifting)			
C2- Unchartered Utility shifting for Signalling Works at Patli and Sultanpur Stations of IR			
S. NO.	Item Description	Unit	Rate (INR)
52.	Installation, erection and wiring of Position Light Shunt Signal. This includes fixing of shunt signal, surf ace base signal post, LED signal unit/ lenses, lamp hood and wiring of shunt unit and focusing the signal. All material such as wire etc., number plate etc. will be supplied by the contractor. Inspection: Site Engineer	No	1,340
53.	Installation, erection and wiring of LED lit Calling - ON/ Shunt Signal on the same post below main signal on offset bracket. Which also includes fixing of stencil and hoods, wiring and focusing of the signal. Offset bracket s, U-bolt for offset bracket and wire, wiring material and number plate etc. will be supplied by contractor . Inspection: Site Engineer.	No	1,100
54.	Cleaning, Scrapping, Painting and lettering of all newly installed and existing gears such as signals, point equipment, MSDAC equipment with T.C. no on rail, app. Cases, JB, TL JBs, point rodding cranks, compensators etc. including gate equipment if existing in station section as per the provision of IRSEM. All painting material to be supplied by the contractor. All paints (ISI marked) shall be approved by Railway Engineer prior to painting and certificate to this effect submitted to Railway. This item also includes writing and painting requirement of all indoor and outdoor gears along with making of all circuit nos. near terminal and terminal boards/track in app. cases, junction boxes, relay room, SMs room, writing of relay nomenclature fuse nos. and equipment nomenclature as the approved plans and as per provision of IRSEM at Way side station. (Inspection: Engg representative)	Station	24,179
55.	Installation of Electronic Route Marker as per TEC/GR/T ITIE-07102 MAR 20L4 to be provided at distance of 100 mtrs	No.	195
56.	Testing & meggering of all types of outdoor cables before & after its laying and termination on both ends and providing identification ferrule on each core under supervision of Railway representative. This also includes preparation of test report for core to core & core to earth on prescribed proforma for each core of the cable separately after termination of cable. This also includes dressing & lacing of cable on both ends. Proforma for testing & material for lacing to be supplied by the contractor. (Inspection: Engg representative)	No	14

Schedule C: Miscellaneous (Civil, S&T and Utility Shifting)			
C2- Unchartered Utility shifting for Signalling Works at Patli and Sultanpur Stations of IR			
S. NO.	Item Description	Unit	Rate (INR)
57.	Installation of Hylum Sheet, rasin bonded, of different thickness grade P3, of ISI make (IS: 2036 of 1974 or latest and size 910x800x6 mm to suit to FTOT board.	No	737
58.	Conventional earth: Installation of earth electrodes as per std. practice. The item includes digging of pit in earth, 3 Mtrs. deep and fixing earth electrode pipe. Casting of cement concrete enclosures. The soil treatment shall be done as per std. practice. The item includes provn. of mild steel flat of size 35mm x 6mm (as per IRSEM) and nut bolted connection of MS flat with earth electrode . The other end of mild steel flat to be connected to block instrument, cable sheath of power equipment, signal base, apparatus case, CT rack / relay racks, other equipment as per the instruction of Engr. at site & IRSEM. Earthing connection location to location shall be done through cable which shall be provided. Complete materials such as earth electrodes, cement, wiring, material, nut bolt for connection & mild steel flat of size 35mm x 6mm or 210 sq mm as per SEM etc. to be supplied by the contractor. Inspection: Consignee.	No	397
59.	Installation of Location Box made of 10 SWG (3.2mm) sheet complete with 'E' type lock & Keys, 1 Key for every five apparatus cases to be supplied. (Full Location Box) as per Drg with additional (i) Fixed Handle on the door (ii) Provision of external padlock arrangement and (iii) Suitable arrangement for holding the door at 90° in its open condition.	No	2,602
60.	Installation of Location Box made of 10 SWG (3.2mm) sheet complete with 'E' type lock & Keys, 1 Key for every five apparatus cases to be supplied. (Half Location Box) as per Drg with additional (i) Fixed Handel on the door (ii) Provision of external padlock arrangement and (iii) Suitable arrangement for holding the door at 90° in its open condition	No	2,012

Schedule C: Miscellaneous (Civil, S&T and Utility Shifting)			
C2- Unchartered Utility shifting for Signalling Works at Patli and Sultanpur Stations of IR			
S. NO.	Item Description	Unit	Rate (INR)
61.	Installation of Screw less mounted 2.5 Sq.mm - 4 wire front entry two input , two output disconnect cage clamp terminals block for test and measurement (wago or Phonix or Elmex) as per site requirement. As per RDSO/SPN/189/2004. The procurement should be done from RDSO recommended sources. The color will be decided by Engineer in charge (Preferably in Blue, Red and Grey color in the ratio of 1:2:3) /9 Inspection : RITES) 2.End and intermediate plate, 2mm/0.091 in thick as per site requirement (Inspection : RITES) 3.Supply of end stopper for above item 10mm/.0394 in wide as per site requirement. (Inspection: RITES)	No	9
62.	"Supply of Power wire as per IRS specification No. S-76/89 (Amdt.2) or latest with latest amendments (1 x 25 sq. mm, Red & Black colour). (Inspection: RDSO)"	Km	2,01,927
63.	"Installation of Power wire as per IRS specification No. S-76/89 (Amdt.2) or latest with latest amendments (1 x 25 sq. mm, Red & Black colour). (Inspection: RDSO)"	Km	22,436
64.	Conventional earth: SAT of earth electrodes as per std. practice. The item includes digging of pit in earth, 3 Mtrs. deep and fixing earth electrode pipe. Casting of cement concrete enclosures. The soil treatment shall be done as per std. practice. The item includes provn. of mild steel flat of size 35mm x 6mm (as per IRSEM) and nut bolted connection of MS flat with earth electrode . The other end of mild steel flat to be connected to block instrument, cable sheath of power equipment, signal base, apparatus case, CT rack / relay racks, other equipment as per the instruction of Engr. at site & IRSEM. Earthing connection location to location shall be done through cable which shall be provided. Complete materials such as earth electrodes, cement, wiring, material, nut bolt for connection & mild steel flat of size 35mm x 6mm or 210 sq mm as per SEM etc. to be supplied by the contractor. Inspection: Consignee.	No	397
65.	SAT of Location Box made of 10 SWG (3.2mm) sheet complete with 'E' type lock & Keys, 1 Key for every five apparatus cases to be supplied. (Full Location Box) as per Drg with additional (i) Fixed Handle on the door (ii) Provision of external padlock arrangement and (iii) Suitable arrangement for holding the door at 90° in its open condition.	No	2,602

Schedule C: Miscellaneous (Civil, S&T and Utility Shifting)			
C2- Unchartered Utility shifting for Signalling Works at Patli and Sultanpur Stations of IR			
S. NO.	Item Description	Unit	Rate (INR)
66.	SAT of Location Box made of 10 SWG (3.2mm) sheet complete with 'E' type lock & Keys, 1 Key for every five apparatus cases to be supplied. (Half Location Box) as per Drg with additional (i) Fixed Handel on the door (ii) Provision of external padlock arrangement and (iii) Suitable arrangement for holding the door at 90° in its open condition	No	2,012
67.	SAT of Colour Light Signal (2 /3/4 Aspect) complete without transformer as per IRS:S-26/24 and Signal post with ladder & bases as per IRS-S-6-81	No	4,265
68.	SAT of Shunt Signal Position Light with lock, unit offset bracket 3.5' ' dia. without holders bulbs etc. to drg. no. 23840 adv. specs. no. IRS- S-23/88 Dependent post type., Inspection : RITES	No	988
69.	SAT of LED type Shunt signal aspect (in place of one bulb) complete with current regulator and health monitor alarm as per spec no. RDSO/SPN/153/2002 or latest.	No	724
70.	Supply, installation of maintenance free earth suitable kit as per RDSO specification RDSO/SPN/197/2008 and Drg No. SDO/RDSO/E&B/002 dated 19.9.2008 or latest with latest amendments. Earthing kit consist of earthing electrode of 17mm dia and 3 meter long-01 no. 2 MEEB (300mmX25mmX6MM) -01 no 3. SEEB (150mmX25mmX6mm) -01 no. 4 Earth enhancing compound -30 Kg (minimum). This includes provision of earth connection from MEEB to S&T equipment i.e. cable sheath, apparatus case, IPS, data logger, MSDAC, SSDAC etc. with PVC earth wire of size 16/25Sq.mm through copper lugs of suitable size. PVC wire shall be supplied by Railways. Note: At certain locations it may not be possible to achieve earth resistance of less than 1.0 ohm with one earth electrode/pit due to soil resistivity. In such case provision of loop earth consisting of more than one earth pit shall be done. For interconnection of two earth pits copper tape of size 25X2 sq. mm shall be provided by contractor. The number of pits required shall be decided based upon the resistance achieved for the earth pit already installed. The procedure mentioned above for one earth pit shall be repeated for other earth pits. The other earth so installed for the purpose of loop earthing arrangement shall be counted as separate earth. (Inspection by RITES)	No	21,562

Schedule C: Miscellaneous (Civil, S&T and Utility Shifting)			
C2- Unchartered Utility shifting for Signalling Works at Patli and Sultanpur Stations of IR			
S. NO.	Item Description	Unit	Rate (INR)
71.	Commissioning of maintenance free earth suitable kit as per RDSO specification RDSO/SPN/197/2008 and Drg No. SDO/RDSO/E&B/002 dated 19.9.2008 or latest with latest amendments. Earthing kit consist of earthing electrode of 17mm dia and 3 meter long-01 no. 2 MEEB (300mmX25mmX6MM) -01 no 3. SEEB (150mmX25mmX6mm) -01 no. 4 Earth enhancing compound -30 Kg (minimum). This include provision of earth connection from MEEB to S&T equipment i.e. cable sheath, apparatus case, IPS, data logger, MSDAC, SSDAC etc. with PVC earth wire of size 16/25Sq.mm through copper lugs of suitable size. PVC wire shall be supplied by Railways. Note: At certain locations it may not be possible to achieve earth resistance of less than 1.0 ohm with one earth electrode/pit due to soil resistivity. In such case provision of loop earth consisting of more than one earth pit shall be done. For interconnection of two earth pits copper tape of size 25X2 sq. mm shall be provided by contractor. The number of pits required shall be decided based upon the resistance achieved for the earth pit already installed. The procedure mentioned above for one earth pit shall be repeated for other earth pits. The other earth so installed for the purpose of loop earthing arrangement shall be counted as separate earth. (Inspection by RITES)	No	2,396
72.	Supply of QTA2 relays AC immunised plug in type DC 9 Ohm neutral track relay miniature tractive armature with 2F/1B contacts as per BRS: 939A or latest amendments if any, BRS :966-F2, IRS-S-34 & IRS-S-23 (as applicable) (Inspection: RDSO)	No	5,158
73.	Supply of track feed batt. charger 110VAC/2-4-6 VDC / 10 Amps as per RDSO spec. no. IRS S-89/2013 Ver. 1 with Amdt. 1. (Inspection: RDSO)	No	4,066
74.	Supply of track feed variable resistance (with phenolic moulded base) 30 ohms to suit RDSO Drg no. SA-20166 / Adv (latest)	No	363
75.	Supply of choke type 'B' to suit RDSO spec no IRS-S65/83(Amndt.3) or latest. (Inspection: RDSO)	No	3,747

Schedule C: Miscellaneous (Civil, S&T and Utility Shifting)			
C2- Unchartered Utility shifting for Signalling Works at Patli and Sultanpur Stations of IR			
S. NO.	Item Description	Unit	Rate (INR)
76.	Supply of Fiber type Track lead Jn. Box as per IRS(s) Drg. No.SA-20101/M made of FRP material (FRP material conforming to RDSO SPN 151/97 or latest) complete with 450 mm long 25 mm dia. pipe. (Inspection: Consignee)	No	1,262
77.	Supply of Lead acid secondary cell 2V/80 AH with tubular positive & pasted negative plates assembled in hard rubber case container as per spec no IRS-S88/2004 Ver. 1 or latest. (Inspection: RDSO)	No	2,828
78.	Dismantling and releasing of location boxes/Apparatus cases/Jn boxes including releasing of terminal boards, relays, terminals, fittings installed therein. complete with fittings. All dismantled material to be transported and stacked in the store of SSE/Sig/Store/JUC or any other store of Northern Railway. (Inspection: Engg. Rep)	No	718
79.	Dismantling and releasing of colour light signal/semaphore signal post which includes dismantling of signal fittings complete. All dismantled material to be transported and stacked in the store of SSE/Sig/Store/JUC or any other store of Northern Railway. (Inspection: Engg. Rep)	No	1,252
80.	Installation & wiring of Point zone track circuit having single point (excluding traps. Trap points & one main point to be counted as single point track circuit).	No	17,335
81.	Trenchless Trenching/ boring (by using HDD or manual pushing method) for laying of HDPE ducts (40/33mm dia) at congested area, culverts, track crossing and road Crossing, depth of trenchless trenching shall not be less than 1500mm from bottom of Rail Flange/Road Level. (Inspection by Site Engineer)	Km	6,48,092

Schedule C: Miscellaneous (Civil, S&T and Unchartered Utility Shifting)			
C.- Unchartered Utility shifting for Telecommunication works at Patli and Sultanpur Stations of IR			
S. NO.	Item Description	Unit	Rate (INR)
82.	Supply of Armoured Optical Fiber Cable (OFC) (24 Fiber) Mono Mode as per Spec. No. IRS-TC – 55/2000	Km	1,01,114
83.	Supply of HDPE duct outer dia 40mm & inner dia 33mm as per ROSO/ SPN/TC/ 45/ 2013 Rev.-2.0 Amdt. -1.0 & 2.0 with latest amendment with end cap to be provided along with the drum at both ends. Inspection: RITES	Km	66,663
84.	Laying of HDPE duct in the trenches, including in HOD/Manual Boring and supply pulling of Nylon rope through is at different places as per direction of engineer in charge/ site engineer. Inspection: Site Engineer	Km	8,170
85.	Excavation of cable trench (Kacha) of 300mm wide and 1200mm deep for all type of soil, back filling after laying of telecom cable/ OFC in GI/HDPE pipe ramming of soil in trenches and consolidation of soil. This also includes cleaning of roots of trees and bushes & temporary construction on the selected routes. Where digging of trench of 1200mm depth or 300mm width or both is not possible as per site condition and the same can be reduced if accepted by the site engineer, the payment shall be decreased proportionately according to the volume. It shall confirm to the safe distance as per signalling/ telecom (NR/S&T/Con/1.1/97A) and cable plan.	Metre	84
86.	Blowing/ Drawing of OFC cable in the HOPE duct by mechanical system. inspection: Site Engineer	Km	11,585
87.	Supply of 2nd class bricks in the trench and laying as per drg. No. NR/S&T/CON/1.1/97A as per instructions of site engineer. Inspection: Site engineer.	No	9
88.	Supply of Electronic Route Marker as per TEC/GR/T ITIE-O7IO2 MAR 2OL4 to be provided at distance of 100 mtrs	No.	1,752
89.	Supply of OFC joint closure as per specifications, drawings and stipulations of tender documents. This includes provision of pit & all needed materials for splicing of OFC & installation of joint closures.	No	8,717
90.	Supply of 6 Quad 0.9 mm Jelly filled underground, Screened, Armoured, Cable for Special Purpose in electrified area as per spec. no. IRS TC:30/2005 [Ver. 1]	Km	2,94,770

Schedule C: Miscellaneous (Civil, S&T and Unchartered Utility Shifting)			
C.- Unchartered Utility shifting for Telecommunication works at Patli and Sultanpur Stations of IR			
S. NO.	Item Description	Unit	Rate (INR)
	with amendment no. 5 or latest amendment as on the dated of opening of Tender.		
91.	Laying of 6 quad cable / derivation cable /PIJF cable in the trenches and in the protective works already provided at different places as per direction of engineer in charge or site engineer.	Km	6,454
92.	Supply of Thermoshrinkable straight through joint suitable for making straight through/deviation joint without transformer in underground 6 quad/jelly filled cables. RDSO Specification No. RDSO/SPN/TC/77/2010 Rev-2 or latest amendment) with all accessories. (Inspection by RDSO)	No	2,926
93.	Installation of Thermoshrinkable jointing kits for making (a) straight through joints without transformer for 6 quad jelly filled cable, (b) Derivation joint with/without transformer of 6-Quad jelly filled cable, and (c) Straight Through joint without transformer for 10 Pair/20 Pair PIJF cables and construction of Brick Chamber for protection of joints with contractor's all materials.	No	1,476
94.	Supply of V F Transformers (1 Quad/2T) as per Tech spcn.	No	1,330
95.	Supply of Emergency socket box	No	4,445
96.	Supply of 6 pin Emergency socket.	No	340
97.	Fabrication of Emergency Rail post complete with Emergency socket box made of FRP material as per Spec. No. RDSO/SPN/TC/44/2002 Ver.2 (With latest amendment) and its wiring alongside the Rly. Track at locations to be indicated by the engineer (Rail post shall be supplied by Railway and issued to the contractor for execution. Emergency Socket & Emergency socket box will be procured through separate schedule of this contract and issued to the contractor for execution). All other items shall be supplied/arranged by the contractor.	No	1,635

Schedule C: Miscellaneous (Civil, S&T and Unchartered Utility Shifting)			
C.- Unchartered Utility shifting for Telecommunication works at Patli and Sultanpur Stations of IR			
S. NO.	Item Description	Unit	Rate (INR)
98.	Supply of Double Walled Corrugated pipes (ISI mark) confirming to Spec no. IS-14930, part-II of length 6 meter and 120mm outer dia. 103.5mm inner dia. With one snap fit connector, one V end and one T coupler for underground power / signal/ telecom cable protection. One 6m pipe with all accessories shall be counted as unit for the purpose of payment. As per approved cable route plan. This included brick work and other arrangement to secure the cable at both ends. All the materials as cement, sand etc. shall be supplied by the contractor for the size DWC HDPE Outer dia 120 mm Inspection: RITES	Metre	452
99.	Supply of G.I. pipe 80 mm dia, 3mm thick, as per specn No. IS-1239, Medium grade, perforated at a distance of 20 CM or less of required length at culverts/ bridges/along the cuttings, suitably concreted at both ends as per drg. No. (NR/S&T/CON/1. 4/97). G.I. clamps of M.S. flats bolts & nuts to be supplied by the contractor. (Inspection: Engg representative)	Metre	806
100.	Erection of Emergency Rail post complete with Emergency socket box made of FRP material as per Spec. No. RDSO/SPN/TC/44/2002 Ver.2 (With latest amendment) and its wiring alongside the Rly. Track at locations to be indicated by the engineer (Rail post shall be supplied by Railway and issued to the contractor for execution. Emergency Socket & Emergency socket box will be procured through separate schedule of this contract and issued to the contractor for execution). All other items shall be supplied/arranged by the contractor.	No	182
101.	Installation of Double Walled Corrugated pipes (ISI mark) confirming to Spec no. IS-14930, part-II of length 6 meter and 120mm outer dia. 103.5mm inner dia. With one snap fit connector, one V end and one T coupler for underground power / signal/ telecom cable protection. One 6m pipe with all accessories shall be counted as unit for the purpose of payment. As per approved cable route plan. This included brick work and other arrangement to secure the cable at both ends. All the materials as cement, sand etc. shall be supplied by the contractor fr the size DWC HDPE Outer dia 120 mm Inspection: RITES	Metre	50

Schedule C: Miscellaneous (Civil, S&T and Unchartered Utility Shifting)			
C.- Unchartered Utility shifting for Telecommunication works at Patli and Sultanpur Stations of IR			
S. NO.	Item Description	Unit	Rate (INR)
102.	Fixing of G.I. pipe 80 mm dia, 3mm thick, as per specn No. IS-1239, Medium grade, perforated at a distance of 20 CM or less of required length at culverts/ bridges/along the cuttings, suitably concreted at both ends as per drg. No. (NR/S&T/CON/1. 4/97). G.I. clamps of M.S. flats bolts & nuts to be supplied by the contractor. (Inspection: Engg representative)	Metre	90
103.	Installation of OFC joint closure, splicing of OFC after testing of all fibres as per specifications, drawings and stipulations of tender documents. This includes provision of pit & all needed materials for splicing of OFC & installation of joint closures.	No	969
104.	Installation of Electronic Route Marker as per TEC/GR/T ITIE-O7IO2 MAR 2OL4 to be provided at distance of 100 mtrs	No.	195
105.	Laying of 2nd class bricks in the trench and laying as per drg. No. NR/S&T/CON/1.1/97A as per instructions of site engineer. Inspection: Site engineer.	No	1
106.	Installation of V F Transformers (1 Quad/2T)	No	133
107.	Testing & meggering of all types of outdoor cables before & after its laying and termination on both ends and providing identification ferrule on each core under supervision of HORC representative. This also includes preparation of test report for core to core & core to earth on prescribed proforma for each core of the cable separately after termination of cable. This also includes dressing & lacing of cable on both ends. Proforma for testing & material for lacing to be supplied by the contractor. (Inspection: Engg representative)	No	14
108.	SAT of Emergency socket box	No	445
109.	Trenchless Trenching/ boring (by using HDD or manual pushing method) for laying of HDPE ducts (40/33mm dia) at congested area, culverts, track crossing and road Crossing, depth of trenchless trenching shall not be less than	Km	6,48,092

Schedule C: Miscellaneous (Civil, S&T and Unchartered Utility Shifting)			
C.- Unchartered Utility shifting for Telecommunication works at Patli and Sultanpur Stations of IR			
S. NO.	Item Description	Unit	Rate (INR)
	1500mm from bottom of Rail Flange/Road Level. (Inspection by Site Engineer)		
110.	Supply of PIJF- Polythene insulated filled telephone cable with poly-AL moisture barrier with armoured of size 10 PAIRx0.63mm. As per spec IRS:TC-41/97 Amendment No.1 or Latest.	Km	83735
IP based Integrated Passanger Information System			
111.	Supply of CDC including CDS along with required software	No	700000
112.	Supply of RMS (Remote Monitoring Server) along with required software	No	310000
114.	Supply of Double Faced Coach Guidance Display Board	No	42000
115.	Supply of Platform Data Controller (PDC)	No	64000
116.	Supply of Single Line Single Face train Arrival/Departure display board	No	225000
117.	Supply of Single Line Double Face train Arrival/Departure display board	No	370000
118.	Supply of At-A Glance Single Face Train Formation display board	No	210000
119.	Supply of At-A Glance Double Face Train Formation display board	No	350000
120.	Supply of Three Line Single Face train Arrival/Departure display board	No	500000
121.	Supply of Five Line Single Face train Arrival/Departure display board	No	750000
122.	Supply of True color Indoor Video Display (IVD) of Pixel Resolution (WxH) 432x128 (6-line single face)	No	1850000
123.	Supply of True color Outdoor Video Display (OVD) of Pixel Resolution (WxH) 432x128 (6-line single face)	No	3200000

Schedule C: Miscellaneous (Civil, S&T and Unchartered Utility Shifting)			
C.- Unchartered Utility shifting for Telecommunication works at Patli and Sultanpur Stations of IR			
S. NO.	Item Description	Unit	Rate (INR)
124.	Installation, testing and Commissioning including all cables/fixtures and material for a station	Station	500000

Total Estimated cost of Schedule 'C'- INR 2.00 Crore (INR 20 million).

Price Schedule

(Please refer Price Schedule uploaded on e-procurement portal)

Contract No: HORC/HRIDC/C-2/2022

Name of the Bidder/ Bidding Firm / Company :					
PRICE SCHEDULE					
(This BOQ template must not be modified/replaced by the bidder and the same should be uploaded after filling the relevant columns, else the bid is liable to be rejected for this tender. Bidders are allowed to enter the Bidder Name and Values only)					
NUMBER #	TEXT #	TEXT #	NUMBER #	NUMBER #	TEXT #
Sl. No.	Item Description	Units	BASIC RATE In Figures To be entered by the Bidder in Rs. P	TOTAL AMOUNT With Taxes Rs. P	AMOUNT
1.01	Schedule-A: Composite Contract Package in connection with laying of New BG Double Railway Line of HORC project for: (i) Design and Construction of Civil Works (Earthwork, Bridges, Station Buildings, Retaining Walls and other miscellaneous Works) from Km 55.60 to Km 61.50 and its connectivities to IR network from New Patli to Patli & New Patli to Sultanpur including modifications in Sultanpur station yard, (ii) Design, Supply, Installation, Testing & Commissioning of OHE (1x25 kV) and General Electrical services from Km 48 to Km 61.5 and its connectivities to IR network from New Patli to Patli & New Patli to Sultanpur including modifications in Sultanpur station yard and (iii) Design, Supply, Installation, Testing & Commissioning of Signalling & Telecommunication from Km 48 to Km 61.5 and its connectivities to IR network from New Patli to Patli and New Patli to Patli & New Patli to Sultanpur including modifications in Patli and Sultanpur station yard.	Lump Sum		0.00	INR Zero Only
Total in Figure				0.00	INR Zero Only
Quantity				INR Zero Only	



**Tenderer is only required to fill the information in the boxes highlighted with cyan colour in Price Schedule (Excel sheet)*

Section V - Eligible Countries

Eligibility for the Provision of Goods, Works and Non-Consulting Services in Bank-Financed Procurement

In reference to ITT 4.8 and 5.1, for the information of the Tenderers, at the present time, firms, goods and services from the following countries are excluded from this Tendering process:

Under ITT 4.8 (a) and 5.1: *None*

Under ITT 4.8 (b) and 5.1: *None*

Section VI - Prohibited Practices

1. The Bank requires that the Recipient (and all other beneficiaries of the Bank financing), as well as tenderers, suppliers, contractors, concessionaires and consultants under Bank-financed contracts for the Project, observe the highest standard of transparency and integrity during the procurement, execution and implementation of such contracts.
2. Definitions. In pursuance of this policy, the Bank defines the terms set forth below as Prohibited Practices:
 - (a) “**coercive practice**” means impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of a party to influence improperly the actions of a party;
 - (b) “**collusive practice**” means an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party;
 - (c) “**corrupt practice**” means the offering, giving, receiving or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party;
 - (d) “**fraudulent practice**” means any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation.
 - (e) “**misuse of resources**” means improper use of the Bank’s resources, carried out either intentionally or through reckless disregard;
 - (f) “**obstructive practice**” means any of the following practices: (i) deliberately destroying, falsifying, altering or concealing of evidence material to a Bank investigation; (ii) making false statements to investigators in order to materially impede a Bank investigation into allegations of a Prohibited Practice; (iii) failing to comply with requests to provide information, documents or records in connection with a Bank investigation; (iv) threatening, harassing or intimidating any party to prevent it from disclosing its knowledge of matters relevant to a Bank investigation or from pursuing the investigation; or (v) materially impeding the exercise of the Bank’s contractual rights of audit or inspection or access to information; and
 - (g) “**theft**” means the misappropriation of property belonging to another party.
3. Any occurrence, or suspected occurrence, of a Prohibited Practice in the procurement, award, or implementation of a Bank-financed contract is dealt with in accordance with the provisions of the Bank’s Policy on Prohibited Practices. Suppliers, contractors, service providers and consultants selected pursuant to the provisions of Section II and concessionaires selected pursuant to paragraph 14.3 of the Bank’s Procurement Instructions for Recipients, as well as the Recipient shall fully cooperate with the Bank (or a cofinancier undertaking an investigation pursuant to paragraph 6.1 of the Bank’s Procurement Instructions for Recipients) in any investigation into an alleged Prohibited Practice to be carried out pursuant to the Policy on

Prohibited Practices, and permit the Bank or its representative (including such co-financier) to inspect such of their accounts and records as may be relevant for such investigation and to have such records and accounts audited by the auditors appointed by the Bank.

4. Provisions to this effect are included in the Legal Agreements and the procurement contracts with such entities.
5. If the Project is financed by a sovereign-backed loan, the Bank (or, where relevant, a co-financier having undertaken an investigation pursuant to paragraph 6.1 of the Bank's Procurement Instructions for Recipients):
 - (a) may take any of the following additional actions in connection with a Prohibited Practice under the Project:
 - (i) reject a proposal for award if it determines that the tenderer recommended for award, or any of its personnel, or its agents, or its sub-consultants, subcontractors, service providers, suppliers or their employees, has, directly or indirectly, engaged in a prohibited practice in competing for the contract in question; and
 - (ii) cancel the undisbursed portion of the loan allocated to a contract (and require reimbursement of the disbursed portion of the loan allocated to the contract) if it determines at any time that representatives of the Recipient or of a recipient of any part of the proceeds of the loan engaged in a prohibited practice during the procurement, administration or implementation of the contract in question; and
 - (b) requires that a clause be included in tender documents and in contracts financed by the Bank loan, requiring tenderers, suppliers and contractors, and their subcontractors, agents, personnel, consultants, service providers, or suppliers, to permit the Bank (and a co-financier undertaking an investigation pursuant to paragraph 6.1 of the Bank's Procurement Instructions for Recipients) to inspect all accounts, records, and other documents relating to the submission of tenders and contract performance, and to have them audited by auditors appointed by the Bank.