



GOVERNMENT OF INDIA



EAST CENTRAL RAILWAY

**SONPUR DIVISION
Signal & Telecom Department**

E-TENDER DOCUMENT

2026-27

FOR

E-OPEN TENDER

Name of the work: Danauli Phulwaria~ Yard remodeling work for extension of CSL of lines at DPL station.

**TENDER No. S&T/SEE/E-OT/26-27/14
(Not Transferable)**

- | | |
|---|-----------------------------------|
| i) Approx. value of the work: | ₹ 3,09,91,804.72 |
| ii) Cost of Tender Document: | ₹ 0.00 |
| iii) Earnest Money/Bid Security: | ₹ 6,19,900.00 |
| iv) Last Date of Receipt of Tender offer: | 09.07.2026 up to 12.00 Hrs |
| v) Date and Time of Opening of Tender: | 09.07.2026 at 12.30 Hrs |

**Sr.DSTE
E.C. Railway/Sonpur**

INDEX

Chapter No. / Clause No.	Description	Page No.
1	TOP Sheet, NIT Header & Tender From	3 - 20
2	Special Conditions & Similar Nature of Work	21 - 27
3	General Conditions of Contract	28 - 71
4	Formats & Annexure	72 - 87
5	Scope of Work, Technical Specifications & GENERAL GUIDELINES	88 – 107
6	Schedule of Works	108 - 124

**TOP SHEET**

1.	E-Tender No.	S&T/SEE/E-OT/26-27/14
2.	Bidding System	Open E-Tender (Single Packet System)
3.	Name of Work	Danauli Phulwaria~ Yard remodeling work for extension of CSL of lines at DPL station.
4.	Approximate Value of Tender	3,09,91,804.72
5.	Cost of Tender Document	NIL
6.	BID SECURITY	6,19,900.00
7.	Payment of BID SECURITY	Through NEFT
8.	Sr. Divisional Signal & Telecom Engineer	Sr. Divisional Signal & Telecom Engineer/ E.C. Railway/ Sonpur
9.	Eligibility Criteria & Similar Nature of work	Eligibility Criteria as per tender document
10.	Completion period	Nine (09) Months
11.	Estimate No.	S&T/SEE/DPL/Yard remodeling/2025-26 Dated: 24.03.2026
12.	Special Instructions, if any	As per tender document. In case of any difference/contradiction between tender document and GCC, GCC as amended/corrected up to latest correction slips will prevail.
13.	Applicability of Price Variation Clause (PVC) of GCC'2022	Applicable (Not applicable for items involving supply)
14.	Date and Time of closing	Minimum 21 days from the date of uploading of Tender Notice on IREPS website up to 12.00 PM
15.	Postal Address for correspondence	Office of Divl Railway Manager, Signal & Telecom branch, East Central Railway, Sonpur (Dist-Saran). Bihar-841101 <u>Fax No.</u> 06158-221637, email: srdstesee@gmail.com

**NIT HEADER**

**SONPUR DIVISION – SIGNAL & TELECOM/EAST CENTRAL RAILWAY
TENDER DOCUMENT**

E-Tender No. : S&T/SEE/E-OT/26-27/14

Name of Work	Danauli Phulwaria~ Yard remodeling work for extension of CSL of lines at DPL station.		
Tender Type	Open E-Tender	Bidding System	Single Packet System
Tender No.	S&T/SEE/E-OT/26-27/14	Bidding Unit:	Above/Below/Par
Tender Closing Date Time	09.07.2026 / 12.00	Date Time of Uploading Tender	13.06.2026 / 11.00 AM
Pre-Bid Required	<i>No</i>	Pre-Bid Query Date Time	Not Applicable
Advertised (Rs.)	3,09,91,804.72	Tendering Section	TENDER SEC
Bidding Style	<i>Single Rate for Each Schedule</i>	Bidding Unit	-----
Earnest Money (Rs.)	6,19,900.00	Validity of offer (Days)	60
Tender Doc. Cost (Rs.)	0.00	Period of Completion	Nine (09) Months



TENDER FORM (First Sheet)
E-Open Tender No.: S&T/SEE/E-OT/26-27/14

Name of work: : Danauli Phulwaria~ Yard remodeling work for extension of CSL of lines at DPL station.

To,
 The President of India
 Acting through the Divisional Railway Manager (Signal & Telecom),
 East Central Railway, Sonpur.

1. I/We _____ have read the various conditions to tender attached hereto and agree to abide by the said conditions. I/We also agree to keep this offer open for acceptance for a period of **60 days (Sixty days)** days from the date fixed for closing of the tender and in default thereof, I/We will be liable for forfeiture of my/our "Earnest Money/Bid Security". I/We offer to do the work for East Central Railway, at the rates quoted in the attached schedule and hereby bind myself/ ourselves to complete the work in all respects within **Nine (09) Month** from the date of issue of letter of acceptance of the tender.
2. I/We also hereby agree to abide by the Indian Railways Standard General Conditions of Contract, with all correction slips up-to-date and to carry out the work according to the Special Conditions of Contract and Specifications of materials and works as laid down by Railway in the annexed Special Conditions/Specifications, Standard Schedule of Rates (SSOR) with all correction slips up-to-date for the present contract.
3. A Bid Security of **₹ 6,19,900.00(₹ Six Lakh Ninteen Thousand Nine Hundred) Only** has already been deposited online / submitted as Bank Guarantee bond. Full value of the Bid Security shall stand forfeited without prejudice to any other right or remedies in case my/our Tender is accepted and if:
 - (a) I/We do not submit the Performance Guarantee within the time specified in the Tender document;
 - (b) I/We do not execute the contract documents within seven days after receipt of notice issued by the Railway that such documents are ready; and
 - (c) I/We do not commence the work within fifteen days after receipt of orders to that effect.
4. (a) I/We am/are a Startup firm registered by Department of Industrial Policy and Promotion (DIPP) and my registration number is valid upto (Copy enclosed) and hence exempted from submission of Bid Security.
5. We are a Labour Cooperative Society and our Registration No. is with..... and hence required to deposit only 50% of Bid Security.
6. Until a formal agreement is prepared and executed, acceptance of this tender shall constitute a binding contract between us subject to modifications, as may be mutually agreed to between us and indicated in the letter of acceptance of my/our offer for this work.

 Signature of Tenderer(s)

Date:

Address of the Tenderer(s)



TENDERER FORM (Second Sheet):

1. Instructions to Tenderers and Conditions of Tender: The following documents form part of Tender / Contract:

- (a) Tender Forms – First Sheet and Second Sheet
- (b) Special Conditions/Specifications (enclosed)
- (c) Bill(s) of quantities (enclosed)
- (d) Standard General Conditions of Contract and Standard Specifications (Works and Materials) of Indian Railways as amended/corrected up to latest correction slips, copies of which can be seen in the office of Sr.DSTE/ECR/Sonpur and/ or CSTE/ECR/Hajipur or obtained from the office of the Chief Signal & Telecom Engineer, East Central Railway on payment of prescribed charges.
- (e) Standard Schedule of Rates (SSOR) as amended / corrected upto latest correction slips, copies of which can be seen in the office of Sr.DSTE/ECR/Sonpur and/ or CSTE/ECR/Hajipur or obtained from the office of the Chief Signal & Telecom Engineer, East Central Railway on payment of prescribed charges.
- (f) All general and detailed drawings pertaining to this work which will be issued by the Engineer or his representatives (from time to time) with all changes and modifications.
- (g) Date of inviting tender shall be the date of publishing tender notice on IREPS website if tender is published on website or the date of publication in newspaper in case tender is not published on website.

2. Drawings for the Work: The Drawing for the work can be seen in the office of the Sr. DSTE/ECR/Sonpur and / or Chief Signal & Telecom Engineer / East Central Railway at any time during the office hours. The drawings are only for the guidance of Tenderer(s). Detailed working drawings (if required) based generally on the drawing mentioned above, will be given by the Engineer or his representative from time to time.

CONTRACTOR TO STUDY DRAWING & SPECIFICATIONS ETC. AND HIS LIABILITY

The tenderer shall be responsible for close scrutiny of the approved drawings supplied by the Railway. For any discrepancies, error or omissions in the drawings or in other particulars indicated therein, the contractor shall approach the Railway immediately for rectification of such discrepancies, errors and omissions. If any dimension/figure/ features etc. on approved drawings or plans differ from those drawings or plans issued to the tenderers at the time of calling of the tender, the dimensions as figured upon the approved drawings or plans shall be taken as correct. No claim shall be entertained on this account and decision of Railway shall be final, binding and conclusive on the contractor.

- 3. The Tenderer(s)** shall quote his / their rates as a percentage above or below the Schedule of Rates of **East Central Railway** as applicable to **Sonpur Division** except where he/they are required to quote item rates and must tender for all the items shown in the Schedule of approximate quantities attached. The quantities shown in the attached Schedule are given as a guide and are approximate only and are subject to variation according to the needs of the Railway. The Railway does not guarantee work under each item of the Schedule. The tenderer(s) shall quote rates / rebates only at specified place in Tender Form supplied by Railway. Any revision of rates / rebates submitted (quoted) through a separate letter whether enclosed with the bid (Tender Form) or submitted separately or mentioned elsewhere in the document other than specified place shall be summarily ignored and will not be considered.
- 4. Tenders** containing erasures and / or alterations of tender documents are liable to be rejected. Any correction made by tender(s) in his/their entries must be attested by him / them.



5. The works are required to be completed within a period of **Nine (09) Month** months from the date of issue of acceptance letter.
6. **Earnest Money/Bid Security:**
- (a) The tender must be accompanied by a sum of **₹ 6,19,900.00 (₹ Six Lakh Nineteen Thousand Nine Hundred) Only** as Earnest Money/Bid Security deposited in cash through e-payment gateway or as mentioned, In tender documents, failing which the tender shall not be considered. Any firm recognized by Department of Industrial Policy and Promotion (DIPP) as 'Startups' shall be exempted from payment of Earnest Money/Bid Security on submission of Registration Certificate issued by appropriate authority.
 - (b) The Tenderer(s) shall keep the offer open for **a minimum period of 60 days (in case of two packet system of tendering 90 days) from the date of opening of the Tender**. It is understood that the tender documents have been issued to the Tenderer(s) and the Tenderer(s), is / are permitted to tender in consideration of the stipulation on his / their part that after submitting his / their tender subject to the period being extended further, if required by mutual agreement from time to time, he will not resile from his offer or modify the terms and conditions thereof in a manner not acceptable to the Principal Chief Signal & Telecom Engineer/Dy. Chief Signal & Telecom Engineer /Sr. Divisional Signal & Telecom Engineer of East Central Railway, Should the tenderer fail to observe or comply with the foregoing stipulation, the amount deposited as Earnest Money/Bid Security for the due performance of the above stipulation, shall be forfeited to the Railway.
 - (c) If his tender is accepted,
 - (i) the Earnest Money/Bid Security mentioned in sub clause (a) above will be retained as part security for the due and faithful fulfilment of the contract in terms of Clause 16 of the Standard General Conditions of Contract.
 - (ii) the Bid Security mentioned in sub para(a) above submitted as Bank guarantee bond, will be encashed as part security for the due and faithful fulfillment of the contract in terms of Clause 16 of the Standard General Conditions of Contract.

The Earnest Money/Bid Security of other Tenderers shall, save as herein before provided, be returned to them, but the Railway shall not be responsible for any loss or depreciation to the Earnest Money/Bid Security that may happen thereto-while in their possession, nor be liable to pay interest thereon.
 - (d) In case Contractor submits the Term Deposit Receipt/Bank Guarantee Bond towards either the Full Security Depositor the Part Security Deposit equal to or more than Bid Security, the Railway shall return the Bid Security so retained as per sub para(c) above, to the Contractor.

Note: In case, submission of Bid Security in the form of Bank Guarantee, following shall be ensured:

- i. A scanned copy of the Bank Guarantee shall be uploaded on e-Procurement Portal (IREPS) while applying to the tender.
- ii. The original Bank Guarantee should be delivered in person to the official nominated as indicated in the tender document within 5 working days before closing date for submission of bids.
- iii. The Tender Security shall remain valid for a period of 60 days beyond the validity period for the Tender.
- iv. The details of the BG, physically submitted should match with the details available in the scanned copy and the data entered during bid submission time, failing which the bid will be rejected.
- v. The Bank Guarantee shall be placed in an envelope, which shall be sealed. The envelope shall clearly bear the identification "Bid for the ***** Project" and shall clearly indicate the name and address of the Bidder. In addition, the Bid Due Date should be indicated on the right-hand top corner of the envelope.



- vi. The envelope shall be addressed to the officer and address as mentioned in the tender document.
- vii. If the envelope is not sealed and marked as instructed above, the Authority assumes no responsibility for the misplacement or premature opening of the contents of the Bid submitted and consequent losses, if any, suffered by the Bidder.

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

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

- 8. If the tenderer(s) deliberately gives / give wrong information in his / their tender or creates / create circumstances for the acceptance of his / their tender, the Railway reserves the right to reject such tender at any stage.
- 9. If any partner(s) of a partnership firm expires after the submission of its tender or after the acceptance of its tender, the Railway shall deem such tender as cancelled/contract as terminated under clause 61 of the Standard General Conditions of Contract, unless the firm retains its character as per partnership agreement. If a sole proprietor expires after the submission of tender or after the acceptance of tender, the Railway shall deem such tender as cancelled / contract as terminated under clause 61 of the Standard General Conditions of Contract.

10. Eligibility Criteria:

10.1 Technical Eligibility Criteria:

- (a) The tenderer must have successfully completed or substantially completed any one of the following categories of work (s) during last 07 (seven) years, ending last day of month previous to the one in which tender is invited:

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

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

One similar work each costing not less than the amount equal to 60% of advertised value of the tender.

- (b) (i) In case of composite works (e.g. works involving more than one distinct component, such as Civil Engineering works, S&T works, Electrical works, OHE works etc. and in the case of major bridges – substructure, superstructure etc.), tenderer must have successfully completed any of the following during last 07 (seven) years, ending last day of month previous to the one in which tender is invited:

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

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

One similar work each costing not less than the amount equal to 60% of advertised value of each component of tender.



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

- (b) (2) In such cases, what constitutes a component in a composite work shall be clearly pre-defined with estimated tender cost of it, as part of the tender documents without any ambiguity.
- (b) (3) To evaluate the technical eligibility of tenderer, only components of work as stipulated in tender documents for evaluation of technical eligibility, shall be considered. The scope of work covered in other remaining components shall be either executed by tenderer himself if he has work experience as mentioned in clause 7 of the Standard General Conditions of Contractor through subcontractor fulfilling the requirements as per clause 7 of the Standard General Conditions of Contract or jointly i.e., partly himself and remaining through subcontractor, with prior approval of Chief Engineer in writing.

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

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

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

Note for Item 10.1:

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

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

10.2. Financial Eligibility Criteria:

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

V= Advertised value of the tender in crores of Rupees

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

The average annual contractual turnover shall be calculated as an average of “total contractual payments” in the previous three financial years, as per the audited balance sheet. However, in case balance sheet of the previous year is yet to be prepared/ audited, the audited balance sheet of the fourth previous year shall be considered for calculating average annual contractual turnover.

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



Note:- The balance sheet and all financial documents attested/certified by the Chartered Accountant (CA) to substantiate fulfilment of Financial Eligibility Criteria should be with UDIN, Failing which the offer shall be considered as incomplete and will be Summarily rejected without any further reference

- 10.3.** Bid Capacity: The tender/technical bid will be evaluated based on bid capacity formula detailed as Annexure-VI.
- 10.4** No Technical and Financial credentials are required for tenders having value up to Rs 50 lakh.
- 10.5** Credentials if submitted in foreign currency shall be converted into Indian currency i.e., Indian Rupee as under: The conversion rate of US Dollars into Rupees shall be the daily representative exchange rates published by the Reserve Bank of India or entity authorized by RBI to do so for the relevant date or immediately previous date for which rates have been published. Where, relevant date shall be as on the last day of month previous to the one in which tender is invited. In case of any other currency, the

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

[Explanation for Para 10 of the Tender Form (Second Sheet) including Para 10.1 to 10.5 – Eligibility Criteria:

1. Substantially Completed Work means an ongoing work in which payment equal to or more than 90% of the present contract value (excluding the payment made for adjustment of Price variation (PVC), if any) has been made to the contractor in that ongoing contract and no proceedings of termination of contract on Contractor's default has been initiated. The credential certificate in this regard should have been issued not prior to 60 days of date of invitation of present tender.

2. In case a work is started prior to 07 (seven) years, ending last day of month previous to the one in which tender is invited, but completed in last 07 (seven) years, ending last day of month previous to the one in which tender is invited, the completed work shall be considered for fulfillment of credentials.

3. If a work is physically completed and completion certificate to this extent is issued by the concerned organization but final bill is pending, such work shall be considered for fulfillment of credentials

4. In case of completed work, the value of final bill (gross amount) including the PVC amount (if paid) shall be considered as the completion cost of work. In case final bill is pending, only the total gross amount already paid including the PVC amount (if paid) shall be considered as the completion cost of work. In case of substantially completed work, the total gross amount already paid including the PVC amount (if paid), as mentioned in the certificate, shall be considered as the cost of substantially completed work.

5. If a bidder has successfully completed a work as subcontractor and the work experience certificate has been issued for such work to the subcontractor by a Govt. Organization or public listed company as defined in Note for Item 10.1 Para 10 of the Tender Form (Second Sheet), the same shall be considered for the purpose of fulfillment of credentials.

6. In case a work is considered similar in nature for fulfillment of technical credentials, the overall cost including the PVC amount (if paid) of that completed work or substantially completed work, shall be considered and no separate evaluation for each component of that work shall be made to decide eligibility.



7. *In case of newly formed partnership firm, the credentials of individual partners from previous propriety firm(s) or dissolved previous partnership firm(s) or split previous partnership firm(s), shall be considered only to the extent of their share in previous entity on the date of dissolution/ split and their share in newly formed partnership firm. For example, a partner A had 30% share in previous entity and his share in present partnership firm is 20%. In the present tender under consideration, the credentials of partner A will be considered to the extent of 0.3×0.2 * value of the work done in the previous entity. For this purpose, the tenderer shall submit along with his bid all the relevant documents which include copy of previous partnership deed(s), dissolution deed(s) and proof of surrender of PAN No.(s) in case of dissolution of partnership firm(s) etc.*
8. *In case of existing partnership firm, if any one or more partners quit the partnership firm, the credentials of remaining partnership firm shall be re-worked out i.e., the quitting partner(s) shall take away his credentials to the extent of his share on the date of quitting the partnership firm (e.g. in a partnership firm of partners A, B & C having share 30%, 30% & 40% respectively and credentials of Rs 10 crore; in case partner C quits the firm, the credentials of this partnership firm shall remain as Rs 6 crore). For this purpose, the tenderer shall submit along with his bid all the relevant documents which include copy of previous partnership deed(s), dissolution deed(s) and proof of surrender of PAN No.(s) in case of dissolution of partnership firm(s) etc.*
9. *In case of existing partnership firm if any new partner(s) joins the firm without any modification in the name and PAN/TAN no. of the firm, the credentials of partnership firm shall get enhanced to the extent of credentials of newly added partner(s) on the same principles as mentioned in item 6 above. For this purpose, the tenderer shall submit along with his bid all the relevant documents which include copy of previous partnership deeds, dissolution/splitting deeds and proof of surrender of PAN No.(s) in case of dissolution of partnership firm etc.*
10. *Any partner in a partnership firm cannot use or claim his credentials in any other firm without leaving the partnership firm i.e., In a partnership firm of A&B partners, A or B partner cannot use credentials of partnership firm of A&B partners in any other partnership firm or propriety firm without leaving partnership firm of A&B partners.*
11. *In case a partner in a partnership firm is replaced due to succession as per succession law, the proportion of credentials of the previous partner will be passed on to the successor.*
12. *If the percentage share among partners of a partnership firm is changed, but the partners remain the same, the credentials of the firm before such modification in the share will continue to be considered for the firm as it is without any change in their value. Further, in case a partner of partnership firm retires without taking away any credentials from the firm, the credentials of partnership firm shall remain the same as it is without any change in their value.*
13. *In a partnership firm "AB" of A&B partners, in case A also works as propriety firm "P" or partner in some other partnership firm "AX", credentials of A in propriety firm "P" or in other partnership firm "AX" earned after the date of becoming a partner of the firm AB shall not be added in partnership firm AB.*
14. *In case a tenderer is LLP, the credentials of tenderer shall be worked out on above lines similar to a partnership firm.*
15. *In case company A is merged with company B, then company B would get the credentials of company A also.] The tender/technical bid will be evaluated based on bid capacity formula detailed as Annexure-VI.*

**11. Tenderer Credentials:**

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

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

- (i) Certificates and testimonials regarding contracting experience for the type of job for which tender is invited with list of works carried out in the past.
- (ii) Audited Balance Sheet duly certified by the Chartered Accountant regarding contractual payments received in the past.
- (iii) The list of personnel / organization on hand and proposed to be engaged for the tendered work. Similarly list of Plant & Machinery available on hand and proposed to be inducted and hired for the tendered work.
- (iv) A copy of certificate stating that they are not liable to be disqualified and all their statements/documents submitted along with bid are true and factual. Standard format of the certificate to be submitted by the bidder is enclosed as Annexure-V. In case of other than Company/Proprietary firm, Annexure-V(A) shall also be submitted by the each member of a Partnership Firm/ Joint Venture (JV)/ Hindu Undivided Family (HUF)/ Limited Liability Partnership (LLP) etc, as the case may be. Non submission of a copy of certificate by the bidder shall result in summarily rejection of his/their bid. It shall be mandatorily incumbent upon the tenderer to identify, state and submit the supporting documents duly self attested / digitally signed by which they/he are/is qualifying the Qualifying Criteria mentioned in the Tender Document.
- (v) The Railway reserves the right to verify all statements, information and documents submitted by the bidder in his tender offer, and the bidder shall, when so required by the Railway, make available all such information, evidence and documents as may be necessary for such verification. Any such verification or lack of such verification, by the Railway shall not relieve the bidder of its obligations or liabilities hereunder nor will it affect any rights of the Railway there under.
- (vi) (a) In case of any information submitted by tenderer is found to be false, forged or incorrect at any time during process for evaluation of tenders, it shall lead to forfeiture of the tender Bid Security besides banning of business for a period of upto two years. (As per Advance Correction Slip No.3 dt-26-4-2023 of GCC April-2022)
- (b) In case of any information submitted by tenderer is found to be false, forged or incorrect after the award of contract, the contract shall be terminated. Bid Security, Performance Guarantee and Security Deposit available with the railway shall be forfeited. In addition, other dues of the contractor, if any, under this contract shall be forfeited and agency shall be banned for doing business for a period of upto two years.

12. Non-compliance with any of the conditions set forth therein above is liable to result in the tender being rejected.

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

13.1. Partnership Deeds, Power of Attorney etc.:

- (i) The tenderer shall clearly specify whether the tender is submitted on his own (Proprietary Firm) or on behalf of a Partnership Firm / Company / Joint Venture (JV) / Registered Society / Registered Trust etc. The tenderer(s) shall enclose the attested copies of the constitution of their concern, and copy of PAN Card along with their tender. Tender Documents in such cases are to be signed by such persons



as may be legally competent to sign them on behalf of the firm, company, association, trust or society, as the case may be.

- (ii) In case tenderer is other than sole proprietorship firm, following documents shall be submitted by the tenderer:

14. DOCUMENTS TO BE SUBMITTED ALONG WITH TENDER:

- (i) The tenderer shall clearly specify whether the tender is submitted on his own (Proprietary Firm) or on behalf of a Partnership Firm / company / Joint Venture (JV) /Registered Society / Registered Trust / Hindu Undivided Family (HUF) / Limited Liability Partnership (LLP) etc. The tenderer(s) shall enclose the attested copies of the constitution of their concern, and copy of PAN Card along with their tender. Tender Documents in such cases are to be signed by such persons as may be legally competent to sign them on behalf of the firm, company, association, trust or society, as the case may be.
- (ii) Following documents shall be submitted by the tenderer:
 - (a) Sole Proprietorship Firm:**
 - (i) All documents in terms of Para 10 of the Tender Form (Second Sheet) above.
 - (b) HUF:**
 - (i) A copy of notarized affidavit on Stamp Paper declaring that he who is submitting the tender on behalf of HUF is in the position of 'Karta' of Hindu Undivided Family (HUF) and he has the authority, power and consent given by other members to act on behalf of HUF.
 - (ii) All other documents in terms of Para 10 of the Tender Form (Second Sheet) above.
 - (c) Partnership Firm:**
 - (i) All documents as mentioned in para 18 of the Tender Form (Second Sheet).
 - (d) Joint Venture (JV):** All documents as mentioned in para 17 of the Tender Form (Second Sheet).
 - (e) Company registered under Companies Act 2013:**
 - (i) The copies of MOA (Memorandum of Association) / AOA (Articles of Association) of the company
 - (ii) A copy of Certificate of Incorporation
 - (iii) A copy of Authorization/Power of Attorney issued by the Company (backed by the resolution of Board of Directors) in favor of the individual to sign the tender on behalf of the company and create liability against the company.
 - (iv) All other documents in terms Para 10 of the Tender Form (Second Sheet) above.
 - (f) LLP (Limited Liability Partnership):**
 - (i) A copy of LLP Agreement
 - (ii) A copy of Certificate of Incorporation
 - (iii) A copy of Power of Attorney/Authorization issued by the LLP in favor of the individual to sign the tender on behalf of the LLP and create liability against the LLP.
 - (iv) An undertaking by all partners of the LLP that they are not blacklisted or debarred by Railways or any other Ministry / Department of the Govt. of India from participation in tenders / contracts as on the date of submission of bids, either in their individual capacity or in any firm/LLP or JV in which they were / are partners/members. Concealment / wrong information in regard to above shall make the contract liable for determination under Clause 62 of the Standard General Conditions of Contract.
 - (v) All other documents in terms of Para 10 of the Tender Form (Second Sheet).
 - (g) Registered Society & Registered Trust:**
 - (i) A copy of Certificate of Registration
 - (ii) A copy of Memorandum of Association of Society/Trust Deed
 - (iii) A copy of Power of Attorney in favor of the individual to sign the tender documents and create liability against the Society/Trust.
 - (iv) A copy of Rules & Regulations of the Society
 - (v) All other documents in terms of Para 10 of the Tender Form (Second Sheet) above.



If it is NOT mentioned in the submitted tender that tender is being submitted on behalf of a Sole Proprietorship firm / Partnership firm / Joint Venture / Registered Company etc., then the tender shall be treated as having been submitted by the individual who has signed the tender.

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

A tender from JV shall be considered only where permissible as per the tender conditions.

The Railway will not be bound by any change of power of attorney or in the composition of the firm made subsequent to the submission of tender. Railway may, however, recognize such power of attorney and changes after obtaining proper legal advice, the cost of which will be chargeable to the Contractor.

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

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

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

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

(a) Should a tenderer

i) be a retired Engineer of the Gazetted rank or any other Gazetted officer working before his retirement, whether in the executive or administrative capacity or whether holding a pensionable post or not, in the Engineering or any other department of any of the railways owned and administered by the President of India for the time being, OR

ii) being partnership firm / joint venture (JV) / registered society / registered trust etc have as one of its partners / members a retired Engineer of the Gazetted rank or any other Gazetted officer working before his retirement, OR

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

AND

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

THEN

the tenderer will give full information as to the date of retirement of such Engineer or Gazetted officer from the said service and as to whether permission for taking such contract, or if the Contractor be a partnership firm or an incorporated company, to become a partner or director as the case may be,



has been obtained by the tenderer or the Engineer or officer, as the case may be from the President of India or any officer, duly authorized by him in this behalf, shall be clearly stated in writing at the time of submitting the tender.

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

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

JOINT VENTURE (JV) IN WORKS TENDERS

17. Participation of Joint Venture (JV) in Works Tender: This para shall be applicable for works tenders wherein tender documents provide for the same.

17.1 Separate identity/name shall be given to the Joint Venture.

17.2 Number of members in a JV shall not be more than three, if the work involves only one department (say Civil or S&T or Electrical or Mechanical) and shall not be more than five, if the work involves more than one Department. One of the members of the JV shall be its Lead Member who shall have a majority (at least 51%) share of interest in the JV. The other members shall have a share of not less than 20% each in case of JV with up to three members and not less than 10% each in case of JV with more than three members. In case of JV with foreign member(s), the Lead Member has to be an Indian firm/company with a minimum share of 51%.

17.3 A member of JV shall not be permitted to participate either in individual capacity or as a member of another JV in the same tender.

17.4 The tender form shall be purchased and submitted only in the name of the JV and not in the name of any constituent member. The tender form can however be submitted by JV or any of its constituent member or any person authorized by JV through Power of Attorney to submit tender.

17.5 *Bid Security shall be submitted by JV or authorized person of JV either as:*

- (i) Cash through e-payment gateway or as mentioned in tender document, or
- (ii) Bank Guarantee bond either in the name of JV, or in the name of all members of JV as per MOU irrespective of their share in the JV if the JV has not been constituted legally till the date of submission of tender.

17.6 A copy of Memorandum of Understanding (MoU) duly executed by the JV members on a stamp paper, shall be submitted by the JV along with the tender. The complete details of the members of the JV, their share and responsibility in the JV etc. particularly with reference to financial, technical and other obligations shall be furnished in the MoU.

17.7 Once the tender is submitted, the MoU shall not normally be modified / altered / terminated during the validity of the tender. In case the tenderer fails to observe/comply with this stipulation, the full Bid Security shall be liable to be forfeited.



- 17.8** Approval for change of constitution of JV shall be at the sole discretion of the Railway. The constitution of the JV shall not normally be allowed to be modified after submission of the bid by the JV, except when modification becomes inevitable due to succession laws etc., provided further that there is no change in qualification of minimum eligibility criteria by JV after change of composition. However, the Lead Member shall continue to be the Lead Member of the JV. Failure to observe this requirement would render the offer invalid.
- 17.9** Similarly, after the contract is awarded, the constitution of JV shall not be normally allowed to be altered during the currency of contract except when modification become inevitable due to succession laws etc. and minimum eligibility criteria should not get vitiated. Failure to observe this stipulation shall be deemed to be breach of contract with all consequential penal action as per contract conditions.
- 17.10** On award of contract to a JV, a single Performance Guarantee shall be submitted by the JV as per tender conditions. All the Guarantees like Performance Guarantee, Bank Guarantee for Mobilization Advance, Machinery Advance etc. shall be accepted only in the name of the JV and no splitting of guarantees amongst the members of the JV shall be permitted.
- 17.11** On issue of LOA (Letter of Acceptance), the JV entity to whom the work has been awarded, with the same shareholding pattern as was declared in the MOU/JV Agreement submitted along with the tender, shall be got registered before the Registrar of the Companies under 'The Companies Act - 2013' (in case JV entity is to be registered as Company) or before the Registrar/Sub-Registrar under the 'The Indian Partnership Act, 1932' (in case JV entity is to be registered as Partnership Firm) or under 'The LLP Act 2008' (in case JV entity is to be registered as LLP). A separate PAN shall be obtained for this entity. The documents pertaining to this entity including its PAN shall be furnished to the Railways before signing the contract agreement for the work. In case the tenderer fails to observe/comply with this stipulation within 60 days of issue of LOA, contract is liable to be terminated. In case contract is terminated railway shall be entitled to forfeit the full amount of the Bid Security and other dues payable to the Contractor under this contract. The entity so registered, in the registered documents, shall have, inter-alia, following Clauses:
- 17.11.1** Joint and Several Liability - Members of the entity to which the contract is awarded, shall be jointly and severally liable to the Railway for execution of the project in accordance with General and Special Conditions of Contract. The members of the entity shall also be liable jointly and severally for the loss, damages caused to the Railways during the course of execution of the contract or due to non- execution of the contract or part thereof.
- 17.11.2** Duration of the Registered Entity - It shall be valid during the entire currency of the contract including the period of extension, if any and the maintenance period after the work is completed.
- 17.11.3** Governing Laws - The Registered Entity shall in all respect be governed by and interpreted in accordance with Indian Laws.
- 17.12** Authorized Member - Joint Venture members in the JV MoU shall authorize Lead member on behalf of the Joint Venture to deal with the Contract, sign the agreement or enter into contract in respect of the said tender, to receive payment, to witness joint measurement of work done, to sign measurement books and similar such action in respect of the said tender/contract. All notices/correspondences with respect to the contract would be sent only to this authorized member of the JV.
- 17.13** No member of the Joint Venture shall have the right to assign or transfer the interest right or liability in the contract without the written consent of the other members and that of the Railway in respect of the said tender/contract.
- 17.14** Documents to be enclosed by the JV along with the tender:
- 17.14.1** In case one or more of the members of the JV is/are partnership firm(s), following documents shall be submitted:
- (i) A notarized copy of the Partnership Deed or a copy of the Partnership deed registered with the Registrar. A copy of consent of all the partners or individual authorized by partnership firm, to enter into the Joint Venture Agreement on a stamp paper.



- (ii) A notarized or registered copy of Power of Attorney in favor of the individual to sign the MOU/JV Agreement on behalf of the partnership firm and create liability against the firm
- iii) An undertaking by all partners of the partnership firm that they are not blacklisted or debarred by Railways or any other Ministry / Department of the Govt. of India from participation in tenders / contracts as on the date of submission of bids, either in their individual capacity or in any firm/LLP in which they were / are partners/members. Any Concealment / wrong information in regard to above shall make the bid ineligible or the contract shall be determined under Clause 62 of the Standard General Conditions of Contract.

17.14.2 In case one or more members is/are Proprietary Firm or HUF, the following documents shall be enclosed:

- (i) A copy of notarized affidavit on Stamp Paper declaring that his Concern is a proprietary Concern and he is sole proprietor of the Concern OR he who is signing the affidavit on behalf of HUF is in the position of 'Karta' of Hindu Undivided Family (HUF) and he has the authority, power and consent given by other members to act on behalf of HUF.

17.14.3 In case one or more members of the JV is/are companies, the following documents shall be submitted:

- (i) A copy of resolutions of the Directors of the Company, permitting the company to enter into a JV agreement,
- (ii) The copies of MOA (Memorandum of Association) / AOA (Articles of Association) of the company
- (iii) A copy of Certificate of Incorporation
- (iv) A copy of Authorization/copy of Power of Attorney issued by the Company (backed by the resolution of Board of Directors) in favor of the individual, to sign the tender, sign MOU/JV Agreement on behalf of the company and create liability against the company

17.14.4 In case one or more members of the JV is/are LLP firm/s, the following documents shall be submitted:

- (i) A copy of LLP Agreement
- (ii) A copy of Certificate of Incorporation of LLP
- (iii) A copy of resolution passed by partners of LLP firm, permitting the Firm to enter into a JV agreement
- (iv) A copy of Authorization /copy of Power of Attorney issued by the LLP firm (backed by resolution passed by the Partners) in favor of the individual, to sign the tender and/or sign the MOU/JV agreement on behalf of the LLP and create liability against the LLP.
- (v) An undertaking by all partners of the LLP that they are not blacklisted or debarred by Railways or any other Ministry / Department of the Govt. of India from participation in tenders / contracts as on the date of submission of bids, either in their individual capacity or in any firm/LLP or JV in which they were / are partners/members. Any Concealment / wrong information in regard to above shall make the contract liable for determination under Clause 62 of the Standard General Conditions of Contract.

17.14.5 In case one or more members of the JV is/are Society/s or Trust/s, the following documents shall be submitted:

- (i) A copy of Certificate of Registration
- (ii) A copy of Memorandum of Association of Society/Trust Deed
- (iii) A copy of Rules & Regulations of the Society.
- (iv) A copy of Power of Attorney, in favor of the individual to sign the tender documents and create liability against the Society/Trust.

17.14.6 All other documents in terms of Para 10 of the Tender Form (Second Sheet) above.

17.15 Credentials & Qualifying Criteria: Technical, financial eligibility and Bid capacity of the JV shall be adjudged based on satisfactory fulfillment of the following criteria:

17.15.1 Technical Eligibility Criteria ('a' or 'b' mentioned hereunder):

- (a) For Works without composite components



The technical eligibility for the work as per para 10.1 above, shall be satisfied by either the 'JV in its own name & style' or 'Lead member of the JV'.

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

(b) For works with composite components

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

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

Note for Para 17.15.1:

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

17.15.2 Financial Eligibility Criteria:

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

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

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

17.15.3 Bid Capacity

The JV shall satisfy the requirement of "Bid Capacity" requirement mentioned at para 10.3 above. The arithmetic sum of individual "Bid capacity" of all the members shall be taken as JV's "Bid capacity" to satisfy this requirement. (As per Railway Board letter No.2022/CE-I/CT/GCC-2022/Policy dated:14.07.2022)

18. Participation of Partnership Firms in works tenders:

- 18.1 The Partnership Firms participating in the tender should be legally valid under the provisions of the Indian Partnership Act.
- 18.2 The partnership firm should have been in existence or should have been formed prior to submission of tender. Partnership firm should have either been registered with the Registrar or the partnership deed should have been notarized as per the Indian Partnership Act, prior to submission of tender.
- 18.3 Separate identity / name should be given to the partnership firm. The partnership firm should have PAN / TAN number in its own name and PAN / TAN number in the name of any of the constituent partners shall not be considered. The valid constituents of the firm shall be called partners.
- 18.4 Once the tender has been submitted, the constitution of the firm shall not normally be allowed to be modified / altered / terminated during the validity of the tender as well as the currency of the contract except when modification becomes inevitable due to succession laws etc., in which case prior



permission should be taken from Railway and in any case the minimum eligibility criteria should not get vitiated. The re-constitution of firm in such cases should be followed by a notary certified Supplementary Deed. The approval for change of constitution of the firm, in any case, shall be at the sole discretion of the Railways and the tenderer shall have no claims what-so-ever. Any change in the constitution of Partnership firm after submission of tender shall be with the consent of all partners and with the signatures of all partners as that in the Partnership Deed. Failure to observe this requirement shall render the offer invalid and full Bid Security shall be forfeited. If any Partner/s withdraws from the firm after submission of the tender and before the award of the contract, the offer shall be rejected and Bid Security of the tenderer will be forfeited. If any new partner joins the firm after submission of tender but prior to award of contract, his / her credentials shall not qualify for consideration towards eligibility criteria either individually or in proportion to his share in the previous firm. In case the tenderer fails to inform Railway beforehand about any such changes / modification in the constitution which is inevitable due to succession laws etc. and the contract is awarded to such firm, then it will be considered a breach of the contract conditions liable for determination of the contract under Clause 62 of the Standard General Conditions of Contract.

- 18.5 A partner of the firm shall not be permitted to participate either in his individual capacity or as a partner of any other firm in the same tender.
- 18.6 The tender form shall be submitted only in the name of partnership firm. The Bid Security shall be submitted by partnership firm. The Bid Security submitted in the name of any individual partner or in the name of authorized partner (s) shall not be considered.
- 18.7 On issue of Letter of Acceptance (LOA) to the partnership firm, all the guarantees like Performance Guarantee, guarantee for various Advances to the Contractor shall be submitted only in the name of the partnership firm and no splitting of guarantees among the partners shall be acceptable.
- 18.8 On issue of Letter of Acceptance (LOA), contract agreement with partnership firm shall be executed in the name of the firm only and not in the name of any individual partner.
- 18.9 In case the Letter of Acceptance (LOA) is issued to a partnership firm, the following undertakings shall be furnished by all the partners through a notarized affidavit, before signing of contract agreement.
 - (a) Joint and several liabilities:
The partners of the firm to which the Letter of Acceptance (LOA) is issued, shall be jointly and severally liable to the Railway for execution of the contract in accordance with General and Special Conditions of the Contract. The partners shall also be liable jointly and severally for the loss, damages caused to the Railway during the course of execution of the contract or due to non-execution of the contract or part thereof.
 - (b) Duration of the partnership deed and partnership firm agreement:
The partnership deed/partnership firm agreement shall normally not be modified/altered/ terminated during the currency of contract and the maintenance period after the work is completed as contemplated in the conditions of the contract. Any change carried out by partners in the constitution of the firm without permission of Railway, shall constitute a breach of the contract, liable for determination of the contract under Clause 62 of the Standard General Conditions of Contract.
 - (c) Governing laws: The partnership firm agreement shall in all respect be governed by and interpreted in accordance with the Indian laws.
 - (d) No partner of the firm shall have the right to assign or transfer the interest right or liability in the contract without the written consent of the other partner/s and that of the Railway.
- 18.10 The tenderer shall clearly specify that the tender is submitted on behalf of a partnership firm. The following documents shall be submitted by the partnership firm, with the tender:
 - (i) A notarized copy of the Partnership Deed or a copy of the Partnership deed registered with the Registrar.
 - (ii) A notarized or registered copy of Power of Attorney in favour of the individual to tender for the work, sign the agreement etc. and create liability against the firm.
An undertaking by all partners of the partnership firm that they are not blacklisted or debarred by Railways or any other Ministry / Department of the Govt. of India from participation in tenders /



contracts as on the date of submission of bids, either in their individual capacity or in any firm/LLP in which they were / are partners/members. Any Concealment / wrong information in regard to above shall make the bid ineligible or the contract shall be determined under Clause 62 of the Standard General Conditions of Contract.

(iii) (iv) All other documents in terms of Para 10 of the Tender Form (Second Sheet) above.

18.11 Evaluation of eligibility of a partnership firm:

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

19.0 Advances to Contractor –

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

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

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

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

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

Signature of Tenderer(s)

Date-



SPECIAL CONDITION & SIMILAR NATURE OF WORK

1. Eligibility Criteria: As per Clause no. 10 of Tender Form (Second Sheet) (Applicable for Tenders having value more than Rs. 50 lakh)

2. Definition Similar Nature of Work: APPLICABLE

Work of Similar nature for this Tender would mean –

Panel Interlocking/Route Relay Interlocking/Electronic Interlocking/IBH/Automatic Signaling
OR

Any [Indoor or (Indoor+Outdoor)] signalling work involving Alteration/Modification in Panel Interlocking/Route Relay Interlocking/Electronic Interlocking/IBH/Automatic Signaling

3. Provision for deduction & releasing of Retention Money:

Following clauses may be incorporated in all future S&T tender document of E. C. Railway under Payment Terms.

The payment to the contractor would be made through EFT/ECS as detailed below:

S.N.	Stage of payment	For purely Supply items	For Supply & installation items	For purely execution/ Installation items
1.	After supply of items	90%	--	--
2.	After installation & Testing	--	90%	90%
3.	Commissioning of station	5%	5%	5%
4.	Completion of Work/Final Bill	5%	5%	5%

Bill should be prepared in Railway format on the measurement Book, showing the Description of each items, quantities as per measurement taken by site supervisor from time to time.

1. For Purely Supply items: 90% of the value of each Supply Item of Schedule of Works will be Paid after supply of Items and on production of the following documents:-

- (i) Receipt of Material at Consignee's depot.
- (ii) Original inspection at Consignee's depot.
- (iii) Manufacturers inspection certificate that the materials are in accordance with the specification of the contract.
- (iv) Invoice in duplicate.
- (v) A certificate that the materials supplied are as per the contract and the amount claimed in the invoice is correct as per terms of the contract.
- (vi) Store receipt certificate issued by Railway official/Representative as per format as Annexure-R of existing Tender document (Copy enclosed).
- (a) 5% percent payment for purely Supply Items against tender schedule of works will be made after successful commissioning of the Station.
- (b) The balance 5% percent payment for purely Supply Items against tender schedule of work will be made after Completion of Works, with Final Bill of the Contract.



- 2. For Supply & Installation items:** 90% percent payment for Supply & Installation Items against tender schedule of works will be made after successful installation & testing and on production of the documents mentioned above in Para1. on account bill shall be paid only on

production of certificate by the site Engineer that relevant portion of installation has been completed.

- (a) 5% percent payment for Supply & Installation Items against tender schedule of works will be made after successful commissioning of the Station.
- (b) The balance 5% percent payment for supply & installation items against tender schedule of works will be made after completion of work with final bill of the contract.

- 3. For Purely Execution/Installation items:** 90% of the value of each Purely Installation Item of Schedule of Works will be paid after Installation & Testing of the Item.

- (a) 5% percent payment for Purely Execution/Installation items against tender schedule of works will be made after successful commissioning of the station.
- (b) The balance 5% percent payment for purely Execution/Installation Items against tender schedule of works will be made after successful commissioning of the Station.

Note: In case commissioning of station is delayed by more than 06 months on Railway Account and the physical work has been completed by the contractor in totality then 5% payment on account of commissioning of the station shall be released to the contractor.

(Enclosure: Annexure –R)

4. CONSIGNEE:

1. STORE TO BE SUPPLIED BY RAILWAYS:

The materials will be supplied by **Senior Section Engineer/Sig/Khagaria & Senior Section Engineer/Tele/Barauni** or as specified by Competent Authority after producing indemnity bond equal to the cost of materials. The quantities of materials required to be supplied each time to the contractor will be on the basis of progress of the work. The contractor will be responsible for checking before taking delivery of materials. The receipt of the materials shall be acknowledged by the contractor or his authorized representative mentioning details of materials and quantities. The left out unused materials shall be returned to the store department by the contractor at his own expenses.

- a) All materials specifically supplied by Contractor as per contract to be supplied to the by **Senior Section Engineer/Sig/Khagaria & Senior Section Engineer/Tele/Barauni** or as specified by Competent Authority. These shall include the materials (as per work schedule) in addition to any other materials, which may be considered necessary for execution of the work according to specifications and schedule of work.
- b) Contractor will carry all the materials either railway supplied or contractor supplied from the stores of **Senior Section Engineer/Sig/Khagaria & Senior Section Engineer/Tele/Barauni** as specified by Competent Authority to the site of work at his own cost and arrangement.

5. Instruments to be arranged by contractor :

All instruments required for testing like Megger, Multimeter, Magneto telephone etc. shall be arranged by the contractor at his own expense.

6. Running on account & final Payment will be made as under :-

For all items involving supply in the rate schedule of supply rate quoted in the rate schedule shall be paid to the contractor as on account payment only on receipt of materials in good condition at the Stores of **Senior Section Engineer/Sig/Khagaria & Senior Section Engineer/Tele/Barauni** on production of the materials inspection certificate with materials delivery Challan.



7. STORAGE OF MATERIALS:

Storage of materials, tools and machinery used by the contractors shall be done in orderly manner and anything used by the contractor for the execution of work should in no way cause a danger or hindrance to the working of the railway or to the movement of its staff or passengers.

All completed work shall be jointly recorded by the contractor with Railways in "Measurement Book" which is available in Sr. DSTE/SEE's office. No work other than those recorded in MB will be recognized.

- 8. Digging in the vicinity of existing Railway cables:** Guidelines issued by Railway Board vide letter no. 2021/Tele/5(2)/3- Part (1) (3425647), Dtd.12.06.2023, for undertaking digging work in the vicinity of Signalling, Electrical and Telecommunication cables, need to be followed during digging/trenching work in the vicinity of Railway tracks. Penalty in the event of existing cables getting damaged will be payable by the Contractor.

9. Price Variation Clause (PVC) :

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

- a) Materials supplied by Railway to the Contractors, either free or at fixed rate;
- b) Any extra item(s) included in subsequent variation falling outside the purview of the Bill(s) of Quantities of tender, under clause 39. (1)(b) of these Standard General Conditions, unless applicability of PVC and 'Base Month' has been specially agreed, while fixing the rates of such extra item(s). (As per Rly.Bd. letter no. No. 2022/CE-I/CT/GCC-2022/Policy New Delhi, Dated 14.07.2022)

10. INSPECTION:

- i). The contractor should bear the cost of inspection of all materials both unfinished and finished products at his or at the manufacturer's premises by the Railway's representative. The correctness and quality of the various items shall be checked by the Railway's representative before installation is commenced. If required, they should take necessary measures to ensure that the works at various stages are in order and to the specification prescribed by Railway.
- ii). Railway's Engineer appointed for this purpose will inspect and test the various portions of the equipment as per relevant specifications given in the tender and the Railway's Engineer may inspect the work at all stage and shall have full powers to reject all or any part of the work that he may consider to be defective or inferior in quality or material or workmanship or design to what is called for in the specification. The Contractor shall carry such test at his works as are necessary in the opinion of the Railway to ensure that specifications in the correct are being complied with.
- iii). The contractor shall provide at the point of production, apparatus and labour for making the required tests under the supervision of the Railway or its representatives.
- iv). Tests may be made at the point of production or on samples submitted and may also be made at the destination.
- v). All the inspections will be carried out by the inspecting Authority at the original manufacturer's premises only who are supplying these items, but not any other places in case of important and large value items. The cost of stay of the Railway inspecting official shall be borne by the Railway.
- vi). If the product, which arrives at the destination, does not meet the requirements of the specifications it may be rejected.
- vii). During the execution of the contract, samples may be taken from all the materials employed for the purpose of test and/or analysis under the conditions laid in specification, such samples to be prepared for testing and forwarded to the works laboratory selected by the Railway free of cost to the Railway.



- viii). The cost of all tests and /or analysis effected at the manufacturer or contractor's work shall be borne by the contractor for all the test required as per tender specification.
- ix). The contractor will be called upon to pay all the expenses incurred by the Railway in respect of any work or materials found to be defective or of inferior quality, adulterated or otherwise unacceptable.
- x). Inspecting authority shall be the Railway's own Engineer or any other authority such as RDSO, as shall be nominated by the Railway. In case inspection is waived, the waiver certificate shall be issued within 10 days of call notice.
- xi). For the service rendered by the RITES for inspection of materials supplied by the contractor in works contract, inspection charges @1% of the cost of materials including all taxes, excise duty etc. are to be borne by the contractor & no inspection charges are payable to RDSO by contractor for RDSO Inspected materials.

11. SITE REGISTER :

Site register will be maintained at site of work and contractor / representative and Railway Engineer or authorized representative will sign the site register during the execution of work.

12. COMMENCEMENT OF WORKS

The successful tenderer upon receipt of LOA shall commence the work by way of submitting a detailed time schedule for completion of work within the allowed completion period.

The Contractor shall commence the works within 15 days after the receipt by him of an order in writing to this effect from the Engineer and shall proceed with the same with due expedition and without delay.

Arrangement of required land for construction of site office, labour huts, store sheds etc. and arrangement of required water and electricity for all purposes in connection with this work shall be at the contractor's responsibility, liability and own cost as per tender conditions. Any delay in making arrangements for the same shall not be taken as an excuse for delay in starting the work.

13. COMPLETION OF WORK:

- (a) The work should commence within **15 (Fifteen) days** and be completed within a period of **Nine (09) Months** from the date of issue of acceptance letter.
- (b) In the event of the failure to complete the work in schedule time, necessary action will be taken as per provision of GCC- April 2022 or latest or latest edition of Engineering Department of East Central Railway, Hajipur with latest amendment.

14. MODE OF PAYMENT

The total Earnest Money/Bid Security as stipulated in these documents, may be paid by the tenderer in any one of the following, and no other, forms:

Payments Earnest Money/Bid Security and Tender Document Cost: Payment of Earnest Money/Bid Security Deposit (EMD) should be accepted through net banking or payment gateway only. & Tender Document Cost (TDC) : NIL .

ON ACCOUNT OF PAYMENT: Subject to any deductions or recovery which the railway may be entitled to make under contract, the contractor will be entitled to be paid from time to time by ways of "On account" of payment only for such works as in the opinion of the Engineer, he has executed in the terms of contract. **All payment shall be made through electronic mode only vide Rly Bd's letter no. 2004/AC-II/21/13 New Delhi dt. 11.06.2010. One copies of mandate form is attached as Annexure-C. These must be filled by the contractor.**

15. REFUND:

- (a) The Earnest Money/Bid Security of the tenderer(s) whose tender(s) have not been accepted, shall save as herein provided, be returned to them but the Railway shall not be responsible for any loss or depreciation that may happen thereto while in their possession.
- (b) No interest will be payable on the Earnest Money/Bid Security.
- (c) The Earnest Money/Bid Security of all unsuccessful tenderer will be refunded in their account as per detail available in tender.



16. FORFEITURE

- (a) It shall be understood that these documents have been issued to the tenderer(s) and the tenderer is permitted to tender in consideration of the stipulations on his part that after submitting his tender, he will not resile from his offer or modify the rates, terms and conditions thereof in a manner not acceptable to the Railway. Should the Tenderer fail to observe or comply with the said stipulations full amount of Earnest Money/Bid Security shall be forfeited by the Railway.
- (b) Further, if any modification of rates, terms and conditions is made by the Tenderer after opening but within the period of validity of the tender and the Railway accepts this tender without those modifications and the letter of acceptance is issued to the tenderer without such modifications, and tenderer refuses to accept the award of contract, the total Earnest Money/Bid Security shall be forfeited.
- (c) Full Earnest Money/Bid Security is liable to be forfeited in case any statement, declaration made by the tenderer is proved wrong/false/incomplete/or such as to withhold any information relevant to the consideration of the tender.
- (d) In the event of tenderer(s), whose tender is accepted, resiles from the contract after issue of letter of acceptance or fails to commence the work within 15(Fifteen) days of issue of letter of acceptance or handing over of the site, whichever is later, the provisions contained in clause 62 of GCC- April 2022 or latest or latest shall be applicable.

17. MAINTENANCE PERIOD/ WARRANTY :

Warranty period of the executed work shall be 12 months from the certified date of completion of the work, the contractor shall rectify the defect raised in the executed work due to bad workman ship or inferior quality of materials. During the warranty period the contractor shall replace/ repair all the defects that arise in executed work or materials supplied by the contractor free of cost. Railway will keep the security Deposit for a period of **12 months from the date of completion of work** to safeguard the railway from any fault arises after completion of work.

Contractor has to maintain the completed works in satisfactory condition for a **period of (12) Twelve months** from the date of completion/handing over of all the works covered under this contract.

18. Payment on Final acceptance certificate:

Security deposit along-with Performance guarantee and outstanding bills, if any, will be refunded/released/ paid to the contractor after adjustment of any dues payable by the contractor on completion of the work. Final acceptance certificate, in this case, shall be issued with the final bill.

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

20. WRONG INFORMATION BY TENDERER:

If the Tenderer/s deliberately give/s wrong information in his/their tender, create/s circumstances for the acceptance of his/their tender, the Railway reserves the right to reject such tender at any stage.

21. RATES DURING NEGOTIATION:

The Tenderer/s shall not increase his/their quoted rates in case the Railway Administration negotiate for reduction of rates, such a negotiation shall not amount to cancellation or withdrawal of the original offer and the rates originally quoted will be binding on the Tenderer/s.

22. ACCEPTANCE OF TENDER:

A letter of acceptance (LOA) of the offer shall be issued by the Railway Administration to the successful Tenderer that his offer has been accepted, on receipt of which he shall submit a Performance Bank Guarantee (PBG) bond of 5% of original cost of work within 21 days of receipt of LOA and shall execute a formal Contract Agreement with the President of India acting through the is **Sr. Divl. Signal & Telecommunication Engineer, East Central Railway, Sonpur, Dist.-Saran-841101** or his authorized representative for carrying out the work according to terms and conditions of this tender including "General Conditions of Contract" of Indian Railway and Special Conditions/ Specifications



of this tender. Upon issuing of LOA the contract for the work shall be deemed to have been awarded to the tenderer and accordingly the completion period will be reckoned from the date of issue of LOA irrespective of the date of signing of contract agreement subsequently.

23. SIGNING OF AGREEMENT:

The tenderer whose tender is accepted shall be required to present himself or his duly authorized representative person at the Office of **Sr. Divl. Signal & Telecommunication Engineer, East Central Railway, Sonpur, Dist.-Saran-841101** to execute the contract document within stipulated time after receipt of notice that the contract documents are ready.

Failure to do so shall constitute breach of the agreement effected by the acceptance of the tender in which case the bid security accompanying the tender shall be forfeited by the Railway as liquidated damages for such default, without prejudice to any other right or remedies open to the Railway.

24. SPECIAL CONDITIONS BY TENDERER(S): (Not applicable)**25. CONTRACTORS RESPONSIBILITY**

- (a) All costs, damages or expenses which railway may have paid , for which, under the contract, the contractor is liable may be deducted by the railway from any money due or becoming due by him to the contractor under the contract or may be recovered by action of law or otherwise from the contractor. The Railway reserves the right and is at liberty to retain security deposit/Performance Guarantee, any payment due to the contractors under the contract and the money retained under Clause 16 of the General Condition of Contract for execution of works and to set off against such deposit, payments, and money retained all claims whether arising out of this contract or out of any other transaction or claim whatever against the contractor.
- (b) The contractor shall have to obtain the necessary license before commencing the work, if required under the provision of contract labour (regulation and abolition) Act 1970.

26. SECURITY DEPOSIT BY CONTRACTOR

- i) The Contractor shall furnish total Security Deposit including initial security deposit, at the rate mentioned in clause 16(2) of the GCC- April 2022 or latest which shall be 5% of the contract value.
- ii. The total Earnest Money/Bid Security of the tenderer shall be adjusted to Initial Security Deposit which will merge with the total Security Deposit. Remaining Security Deposit/rate shall be recovered as under:-
The rate of recovery shall be at the rate of 6% of the bill amount till the full security deposit is recovered. For works contract of value ₹ 50.00 (Fifty) Crore and above:- Security Deposits will be recovered only from the running bills of the contract and no other mode of collecting SD such as SD in the form of instruments like BG, FD etc. shall be accepted towards Security Deposit.
For works contract of value more than ₹ 50.00 (Fifty) Crore:- Security Deposits may be accepted in form of irrevocable Bank Guarantee, however in case risk and cost tender security deposit shall be recovered only from running bills.

27. SAFETY FIRST BOOK.

The successful tenderer(s) i.e. the contractor(s) shall purchase, if he does not already possess a copy of the booklet 'SAFETY FIRST' and should have at work site.



ADDITIONAL CONDITIONS

1. No tools and plants shall be supplied by the Rly. and the contractor will have to make own arrangement for their supply free of any extra charges for the same.
2. No passes and concessional facilities either for travel of contractor or his agents or his labour transportation materials be allowed by the Railway.
3. Subject as otherwise provided in this tender all notices to be given on behalf of the President of India and all other action to be taken on his behalf may be given or taken on his behalf by the Divisional Railway Manager (Signal)/Sonpur.
4. The Contractor must make his own arrangement for the supply of good drinking water to the workman employed by him in connection with this work.
5. In the event of termination of his contract as per rules the contractor will have to remove all his materials lying surplus at site and not paid for, within 15 days of the receipt of the notice of termination of his contract issued to him by the Railway. In case of his failure to do so the Rly. Administration will have the option to take over the materials at the rate fixed by the Divisional Signal & Telecom Engineer and remove the same from site of work at the cost of the contractor.
6. The Rly. administration however reserves the right that if necessary, certain items of works as provided in The agreement may be done by any other suitable means as may be decided by the Divisional Signal & Telecom Engineer for which no extra claim whatsoever will be entertained.
7. (a) The administration reserves the right to make any change of quantity of work as and when required during execution. No claim for any change whatsoever will be entertained.
(b) The acceptance of the tender does not entitle the contractor for any compensation in case the work is not done even after the execution of agreement.
8. The rates quoted by the contractors should be inclusive of all other charges (including materials), corporation/ municipal license fees and all other incidental charges that may be necessary for the proper execution of the work.
9. Time is the essence of contract and the work should be completed within the stipulated time embodied in the agreement.
10. The administration reserves the right to make any change in quantity, delete any item or items of work, reduce or increase the quantities and get these works done by any other suitable means or not to do these works all over after execution of the agreement as their own discretion without obtaining the prior consent of the contractor.
11. In any case the contractor shall have to do whatsoever works be ordered pertaining to this contract at the rates quoted and approved by Railway and no claim whatsoever will be entertained for any change in the agreement and General condition of contract will be applicable.
12. The Railway Administration may extend the period of contract for period whatsoever by giving notice to the contractor and the contractor shall be bound to complete the work within the period so extended and the terms and conditions of the original contract will also be operative during the extended period.
13. The contractor shall not be entitled to any compensation for any delay of execution of the work arising or due to cause from Rly. Side. The delay so caused will be assessed and if accepted by the Assistant/ Divisional Signal & Telecom Engineer and contractor immediately for determining any extension of time required for completion to work , for which purpose only such accepted delay will be taken into consideration. If the matter is not brought to the notice of the Assistant/Divl. Signal & Telecom Engineer immediately after such delays occur, no consideration for extension of time will be made later on. The contractor must accept as final and binding the decision of the Divisional Engineer.
15. In case of any doubt as regards any particulars of construction, ambiguities in plans, the decision of the Divisional Engineer shall be final and binding on the contractor.
16. Railway reserve the right to increase or decrease the quantity or the value of the contract and Railway does not guarantee to give work against each item of the tender schedule and contractor's will not be entitled to any claim and compensation on this account.



PART I

GENERAL CONDITIONS OF CONTRACT:

“General Conditions of Contract” (GCC) of Indian Railway in addition to and/or in part super-session up to latest correction slips” will be applicable. Booklet of General Conditions of Contract (GCC) Works Hand Book Parts I & II April-2022 edition/latest edition (**with latest amendments**), may be purchased by Tenderer(s) from Engineering Dept. of East Central Railway at their own cost.

Instructions to Tenderers (ITT)

1.0 Applicability: These instructions and conditions of contract shall be applicable for all the tenders and contracts of railways for execution of ‘Works’ as defined in GFR 2017.

1.01 Order of Precedence of Documents: In a contract agreement, in case of any difference, contradiction, discrepancy, with regard to conditions of tender/contract, specifications, drawings, Bill(s) of Quantities etc., forming part of the tender/contract, the following shall be the order of precedence:

- i. Letter of Award/Acceptance(LOA)
- ii. Bill(s) of Quantities
- iii. Special Conditions of Contract
- iv. Technical Specifications as given in tender documents
- v. Drawings
- vi. Indian Railways Standard General Conditions of Contract updated with correction slips issued up to date of inviting tender or as otherwise specified in the tender documents.
- vii. Indian Railways Unified Standard Specification (IRUSS-2019) updated with correction slips issued up to date of inviting tender or as otherwise specified in the tender documents, if applicable in the contract.
- viii. CPWD Specifications 2019 Vol I & II updated with correction slips issued up to date of inviting tender or as otherwise specified in the tender documents, if applicable in the contract.
- ix. Indian Railways Unified Standard Specifications (Works and Material) 2010 updated with correction slips issued up to date of inviting tender or as otherwise specified in the tender documents, if applicable in the contract.
- x. IR Specifications/Guidelines updated with correction slips issued up to date of inviting tender or as otherwise specified in the tender documents.
- xi. Relevant B.I.S. Codes updated with correction slips issued up to date of inviting tender or as otherwise specified in the tender documents.

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

1.2 Definition: In these Instructions to Tenderers, the following terms shall have the meanings assigned hereunder except where the context otherwise requires:

- (a) “Railway” shall mean the President of the Republic of India or the administrative officers of the Railway or Successor Railway authorized to deal with any matter, which these presents are concerned on his behalf.
- (b) “General Manager” shall mean the Officer-in-Charge of the general superintendence and control of the Zonal Railway/Production Unit and shall also include Addl. General Manager, General Manager (Construction) and shall mean and include their successors of the Successor Railway.
- (c) “Chief Engineer” shall mean the Officer-in-Charge of the Engineering Department of Railway and shall also include Chief Engineer (Construction), Chief Electrical Engineer, Chief Electrical Engineer (Construction), Chief Signal & Telecom Engineer, Chief Signal & Telecom Engineer (Construction), Chief Mechanical Engineer and shall mean and include their successors of the Successor Railway.
- (d) “Divisional Railway Manager” shall mean the Officer-in-Charge of a Division of Zonal Railway and shall mean and include Divisional Railway Manager of the Successor Railway.
- (l) “Drawings” shall mean the maps, drawings, plans and tracings, or prints thereof annexed to the Tender Forms.
- (m) “Contractor’s authorized Engineer” shall mean a graduate engineer or equivalent, having more than 3 years experience in the relevant field of construction work involved in the contract, duly approved by the Engineer.



- (n) Date of inviting tender shall be the date of publishing tender notice on IREPS website if tender is published on website or the date of publication in newspaper in case tender is not published on website.
- (o) "Bill of Quantities" shall mean Schedule of Item(s) included in the tender document along with respective quantities.
2. Words importing the singular number shall also include the plural and vice versa where the context requires.

TENDERS FOR WORKS

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

Value of the Work	Bid Security Deposit (EMD)
For all works	2% of the estimated cost of the work

Note:

- (i) The Bid Security shall be rounded off to the nearest ₹100. This Bid Security shall be applicable for all modes of tendering.
 - (ii) Any firm recognized by Department of Industrial Policy and Promotion (DIPP) as 'Startups' shall be exempted from payment of Bid Security detailed above.
 - (iii) Labour Cooperative Societies shall submit only 50% of above Bid Security detailed above.
- (b) It shall be understood that the tender documents have been issued to the tenderer and the tenderer is permitted to tender in consideration of stipulation on his part, that after submitting his tender he will not resile from his offer or modify the terms and conditions thereof in a manner not acceptable to the Engineer. Should the tenderer fail to observe or comply with the said stipulation, the aforesaid amount shall be liable to be forfeited to the Railway.
- (c) If his tender is accepted, this Bid Security mentioned in sub para (a) above will be retained as part security for the due and faithful fulfillment of the contract in terms of Clause 16 of the Standard General Conditions of Contract. The Bid Security of other Tenderers shall, save as herein before provided, be returned to them, but the Railway shall not be responsible for any loss or depreciation that may happen thereto while in their possession, nor be liable to pay interest thereon.
- (2) The Bid Security shall be deposited either in cash through e-payment gateway or submitted as Bank Guarantee bond from a scheduled commercial bank of India or as mentioned in tender documents. The Bank Guarantee bond shall be as per Annexure- VIA and shall be valid for a period of 90days beyond the bid validity period.



6. Care in Submission of Tenders:

- (a) (i) Before submitting a tender, the tenderer will be deemed to have satisfied himself by actual inspection of the site and locality of the works, that all conditions liable to be encountered during the execution of the works are taken into account and that the rates he enters in the tender forms are adequate and all inclusive to accord with the provisions in Clause-37 of the Standard General Conditions of Contract for the completion of works to the entire satisfaction of the Engineer.
- (a)(ii) Tenderers will examine the various provisions of The Central Goods and Services Tax Act, 2017(CGST)/ Integrated Goods and Services Tax Act, 2017(IGST)/ Union Territory Goods and Services Tax Act, 2017(UTGST)/ respective state's State Goods and Services Tax Act (SGST) also, as notified by Central/State Govt.& as amended from time to time and applicable taxes before bidding. Tenderers will ensure that full benefit of Input Tax Credit (ITC) likely to be availed by them is duly considered while quoting rates.
- (a)(iii) The successful tenderer who is liable to be registered under CGST/IGST/UTGST/SGST Act shall submit GSTIN along with other details required under CGST/IGST/UTGST/SGST Act to railway immediately after the award of contract, without which no payment shall be released to the Contractor. The Contractor shall be responsible for deposition of applicable GST to the concerned authority.
- (a)(iv) In case the successful tenderer is not liable to be registered under CGST/IGST/UTGST/ SGST Act, the railway shall deduct the applicable GST from his/their bills under reverse charge mechanism (RCM) and deposit the same to the concerned authority.
- (b) When work is tendered for by a firm or company, the tender shall be signed by the individual legally authorized to enter into commitments on their behalf.
- (c) The Railway will not be bound by any power of attorney granted by the tenderer or by changes in the composition of the firm made subsequent to the execution of the contract. It may, however, recognize such power of attorney and changes after obtaining proper legal advice, the cost of which will be chargeable to the Contractor.

6.1 The tenderers shall submit a copy of certificate stating that all their statements/documents submitted along with bid are true and factual. Standard format of certificate to be submitted by the bidder is enclosed as **Annexure-V**. In addition to Annexure-V, in case of other than Company/Proprietary firm, Annexure-V(A) shall also be submitted by the each member of a Partnership Firm/Joint Venture (JV)/ Hindu Undivided Family (HUF)/ Limited Liability Partnership (LLP) ect. As the case may be. Non submission of above certificate by the bidder shall result in **summarily** rejection of his/their bid. It shall be mandatorily incumbent upon the tenderer to identify, state and submit the supporting documents duly self attested by which they/he is qualifying the Qualifying Criteria mentioned in the Tender Document.

CONSIDERATION OF TENDERS

- 7. Right of Railway to Deal with Tenders:** The Railway reserves the right of not to invite tenders for any of Railway work or works or to invite open or limited tenders and when tenders are called to accept a tender in whole or in part or reject any tender or all tenders without assigning reasons for any such action. In case if tender is accepted in part by Railway administration, Letter of Acceptance shall be issued as counter offer to the Tenderer, which shall be subject to acceptance by the Tenderer.
- 7A. Two Packets System of Tendering:** With a view to assess the tenders technically without being influenced by the financial bids, 'Two Packets System of tendering' shall be adopted wherein tender documents provide for the same.
- 7 A (i)** Total value of work to be assigned to sub-contractor(s) shall not be more than 50% of total contract value.



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

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

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

7B. Pre Bid Conference: Intenders having advertised value more than Rs 50 Crore or as mentioned in the tender document, Railway shall conduct Pre Bid Conference(s) with the prospective bidders.

7C. Make in India Policy: Provisions of Make in India Policy 2017 issued by Govt. of India, as amended from time to time, shall be followed for consideration of tenders.

“Letter issued by Department of Industrial Promotion and Policy (DIPP) (now renamed as the Department for Promotion of Industry and Internal Trade (DPIIT)) under the Ministry of Commerce and Industry regarding PPP-MII policy issued vide their order No. P45021/2/2017-PP (BE- II) dated 16-09-2020, (as amended from time to time) and Notification of DoT issued vide No. 18-10/2017-IP dated 29.08.2018, 31-08- 2021 (as amended from time to time) shall be applicable for this tender.”

7D. Permission to Bid for a bidder from a country which shares Land boundary with India:

Any bidder from the countries sharing a land border with India will be eligible to bid in any procurement of works (including turnkey projects) only if the bidder is registered with the Competent Authority. The Competent Authority for registration will be the Registration Committee constituted by the Department for Promotion of Industry and Internal Trade (DPIIT), Government of India. For interpretation of this para, Department of Expenditure, Ministry of Finance, Government of India letter F.No.6/18/2019-PPD dated 23/07/2020 shall be referred.

7E. Clarification of Bids: To assist in the examination, evaluation & comparison and prequalification of the Tender, the Railway may, at its discretion, ask any Bidder for a clarification of its Bid. Any clarification submitted by a Bidder that is not in response to a request by the Railway shall not be entertained or considered. The Railway request for clarification and the response of the bidder in this regard shall be in writing.

However, if a Bidder does not provide clarification of its bid by the date and time communicated in the Railway request for clarification, the bid shall be evaluated as per the documents submitted along with the bid.

8. Execution of Contract Document: The Tenderer whose tender is accepted shall be required to appear in person at the office of General Manager/General Manager (Construction), Chief Administrative Officer (Construction), Divisional Railway Manager or concerned Engineer, as the case may be, or if tenderer is a firm or corporation, a duly authorized representative shall appear (there would be no need for appear in person if agreement is signed digitally) and execute the contract agreement within seven days of notice from Railways that the Contract Agreement is ready. Failure to do so shall constitute a breach of the agreement affected by the acceptance of the tender. The Contract Agreement shall be entered into by Railway only after submission of valid Performance Guarantee by the Contractor. In such cases the Railway may determine that such tenderer has abandoned the contract and there upon his tender and acceptance thereof shall be treated as cancelled and the Railway shall be entitled to forfeit the full amount of the Bid Security and other dues payable to the Contractor under this contract. The failed Contractor shall be debarred from participating in the re-tender for that work.



- 9. Form of Contract Document:** Every contract shall be complete in respect of the document it shall so constitute. Not less than 2 copies of the contract document shall be signed by the competent authority and the Contractor and one copy given to the Contractor (there would be no need of signing two copies if agreement is signed digitally).
- (a) For Zone Contracts, awarded on the basis of the percentage above or below the applicable chapter(s) of Standard Schedule of Rates (SSOR) for the whole or part of financial year, the contract agreement required to be executed by the tenderer whose tender is accepted shall be as per specimen form, Annexure-II. During the currency of the Zone Contract, work orders as per specimen form Annexures-III, for works not exceeding ₹ 5,00,000 each, shall be issued by the Divisional Railway Manager / Executive Engineer under the agreement for Zone Contract.
- (b) For contracts for specific works, the contract document required to be executed by the tenderer whose tender is accepted shall be an agreement as per specimen form Annexure- IV.
- 10. Adherence:-** In all matter not expressly provided for or allowed for herein the execution to works shall be in accordance with the East Central Railway General Conditions of contract with latest correction slips as applicable, ECR Standard Specification for works and materials. Moreover, the following conditions will also prevail in addition to those laid down in the said book of GCC etc. referred to above where there is any conflict between the instructions/conditions/ specification contained in the special conditions of this tender and any of these which appear in the GCC and Standard Specification on which, the Schedule of Rates is based referred to in this contract the former shall prevail and the decision of the Engineer in this connection will be final and binding on the contractor.
- 11. Disaster Management-** Vehicles and equipment of contractors can be drafted by Railway administration in case of accidents and natural calamities involving human lives.

**TENDER FORM (Third Sheet)**

Name of Work: _____

BILL OF QUANTITIES

1. Standard Schedule of Rates (SSOR) Items:

SL	Item No. of SSOR	Description of Item of Work	Approximate Quantity	Unit	Rates in Figures and Words (Rs)	Amount (Rs)
1	2	3	4	5	6	7

2. Standard Schedule of Rates (SSOR) Items:

SL	Item No.	Description of Item of Work	Approximate Quantity	Unit	Rates in Figures and Words (Rs)	Amount (Rs)
1	2	3	4	5	6	7

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

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

Dated _____

Signature of the Tenderer(s)

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



PART II

STANDARD GENERAL CONDITIONS OF CONTRACT

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

- (a) "Railway" shall mean the President of the Republic of India or the Administrative Officers of the Railway or of the Successor Railway authorized to deal with any matters which these presents are concerned on his behalf.
- (b) "General Manager" shall mean the Officer in-charge of the General Superintendence and Control of the Railway and shall also include Addl. General Manager, the General Manager (Construction) and shall mean and include their successors, of the successor Railway.
- (c) "Chief Engineer" shall mean the Officer in-charge of the Engineering Department of Railway and shall also include Chief Engineer (Construction), Chief Signal & Telecommunication Engineer, Chief Signal & Telecommunication Engineer (Construction), Chief Electrical Engineer, Chief Electrical Engineer (Construction), Chief Mechanical Engineer and shall mean & include their successors, of the Successor Railway.
- (d) "Divisional Railway Manager" shall mean the Officer in-charge of a Division of the Railway and shall mean and include the Divisional Railway Manager of the Successor Railway.

4. CHANGE IN ADDRESS:

Any change in the address of the contractor shall be forthwith intimated in writing to the Railway. The Railway will not be responsible for any loss/ inconvenience suffered by the Contractor on account of his failure to comply with this.

5. STORES - RECEIPT & ACCOUNTAL:

Exchange of proper requisition and receipt shall be done on a suitable Performa between the Contractor and the Railway's authorized representative. The Contractor shall issue a receipt along with the demand slip for material he requires for the work and obtain receipt when any material is returned to stores. These transactions shall be done with the consignee. All stores drawn by the contractor shall be accounted for either as installed as per site measurements recorded or as per surplus stores returned to the Consignee (stores).

6. LOADING / UNLOADING OF MATERIAL:

material shall be delivered by the Contractor at the Depot of Consignee. Material supplied by Railways for execution of the work and the material delivered by the Contractor will be transported from the Stores of the nominated Consignee to site by the Contractor with his own labour and transport. This includes loading and unloading of materials at consignee depot and at site at by contractor at his own cost.

Alternatively, if the site of work is ready and work is in progress, physically, the materials can be brought to the site directly and supplied with prior approval of Engineer in-charge.

Materials required to carry out this work if supplied by the Railways will be issued at the nominated Depots. The contractor will have to load, Transport these materials to the site of work and unload at his own cost.

Empty cable drums and balance materials after completion of work, if any should be returned back at the nominated Depot of the nominated Senior Section Engineer.

The Contractor will have to furnish an Indemnity Bond for the Security of the Railway material issued to him.

Indemnity Bond will be released after commissioning of work and when all balance material is returned by contractor. The security of the material brought to the site of work will remain with the Contractor, till commissioning of the complete structure and same in handed over to Railway's nominated representative of Engineer-in-charge.

7. SECURITY OF MATERIAL:

Once the material is handed over to the contractor, the contractor shall be responsible for the security of material irrespective of the fact that the material is kept in Railway premises. The contractor shall make adequate arrangements at site as deemed necessary for guarding the same from the thefts by outsiders or his labour or damage of any sort.



The cost of stores lost shall be realized by the Railway out of any payments due to the contractor in this contract or from any other contract executed by Govt. of India. The material issued to the contractor if found defective / unserviceable after transporting at site, the same shall be transported & handed over to the Consignee Depot by the contractor without any extra cost.

8. RETURN OF SURPLUS STORES:

The Contractor with his own staff shall return the stores found to be surplus to Consignee. The contractor shall account for all material that is issued to him. A register shall be maintained at site, which shall be signed by the Contractor as a token of receipt of material. All the issued material shall either be used in the installation or returned to Consignee.

9. RETURN OF RELEASED STORES:

Released material shall be handed over to Consignee in systematic manner. Proper care should be taken while releasing & transporting the stores. This clause is specifically applicable only for outdoor works and for indoor only those items are covered which are released before commissioning of indoor work.

11. NIGHT WORKS:

Notwithstanding the provision in the General Conditions of Contract, if the Engineer is satisfied that the work is not likely to be completed in time, except by resorting to night work, he may order the contractor/s to carry out the works even at night without conferring any right on the contractor for claiming any extra payment for the same. The contractor at his own cost shall make all adequate lighting arrangements and shall take precautions to avoid any mishap during night.

12. EMERGENCY WORKS:

In the event of any accident or failure occurring in or about the work or arising out of or in connection with the construction, completion or maintenance of the works which in the opinion of the Engineer requires immediate attention, the Railway may bring its own workmen or other agency to execute or partly execute the necessary work or carry out repairs if the Engineer considers that the contractor/s is/are not in a position to do so in time and charge the cost thereof, as to be determined by the Concerned **Senior Divisional Signal & Telecom Engineer** to the contractor.

13. MAINS POWER SUPPLY:

Testing of installation / equipments shall be done under supervision of Railway officials or by Railway officials themselves, from the electric supply to be provided by the Railways. However, for any installation activity, like drilling, soldering etc., contractor, if so desires, to use tools / machines, electric power supply (230V) can be arranged by the Railways on usual payment, as per extant procedure. Non-availability of Mains Power will not be a reason for the slow progress of work. If Electric Supply is not available, the contractor shall make his own arrangement for Gen set / electrical power.

14. LOCAL CONDITIONS / INSPECTION OF SITE:

It will be imperative on each tenderer to fully acquaint him with all the local conditions and factors, which would have any effect on the performance of the contract and cost of the work. The purchaser shall not entertain any request for clarifications from the tenderer regarding such local conditions. No request for change of price or time schedule of completion will be entertained after the offer is accepted by the purchaser on account of any local condition or factor. The tenderer(s) shall inspect the proposed site of work and acquaint himself/themselves with the site conditions, working hours, layout of land, trees and shrubs that he/they will have to cut, type of strata likely to be met within the borrow pits, stacking space for materials, approach roads, path ways available etc. and all relevant items connected with the execution of the work. No claim shall be entertained for the contractor(s) making his/their own arrangements for approaches/approach road from outside Railway land and contractor(s) will bear entire expenses such as road taxes, payment for right of way, etc. to outsiders and for Construction of approaches/approach roads, etc.

Tenderer must acquaint himself, at his own responsibility, risk and expense, with all information of the site(s) of work(s) and their neighborhoods, actual working and other prevalent conditions, laws/regulations, availability and suitability of local labourers, materials, surface and sub soil condition, accessibility of site(s) of work(s) sources and availability of water, electricity, camp



site, market, banking facilities etc. and all such possible factors as have bearing on rates and progress of the work under this tender and should be taken all this factors into consideration before submitting this tender.

15. VALIDITY OF OFFER:

- (i) The tenderer shall keep the offer open for a minimum period as **mentioned in NIT** from the date of opening of tender. Within that period, the tenderer cannot withdraw his offer subject to the period being extended further if required by mutual agreement from time to time. Any contravention of the above condition will make the tenderer liable for forfeiture of his Bid Security.
- (ii) It is understood that the tender document has been sold/issued to the Tenderer(s) and the Tenderer(s) is / are permitted to tender in consideration of the stipulation on his/their part that after submitting his / their tender subject to the period being extended further if required by mutual agreement from time to time, he will not resile from his offer or modify the terms and conditions there of in a manner not acceptable to East Central Railway. Should the Tenderer fail to observe or comply with the foregoing stipulation, the amount deposited, as Bid Security for the due performance of the above stipulation shall be forfeited by the Railway.

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

Balance of Security Deposit may be deposited by the Contractor in cash or Term Deposit Receipt issued from Scheduled commercial bank of India or irrevocable Bank Guarantee bond issued from Scheduled commercial bank of India, or may be recovered at the rate of 6% of the bill amount till the full Security Deposit is recovered. Provided also that in case of defaulting Contractor, the Railway may retain any amount due for payment to the Contractor on the pending "on account bills" so that the amounts so retained (including amount guaranteed through Performance Guarantee) may not exceed 10% of the total value of the contract.

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

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

16.(2) (i) Refund of Security Deposit: Procedure Order for release Money and SD/PG in Existing/ On-going Works. East Central Railway. Procedure Order No. EL/2021 dated 08.04.2021

The below mentioned procedure may be adopted for Proportionate release of Retention Money on Pro-rata basis of the work completed and commissioned (in regular use/operations) of On- going contract of S&T Department with following clarification and certification from officer incharge of the work.

- (1) Instructions contained under Para 4 of Ministry of finance office memorandum No. F-18/4/2020-PPD dated 13.05.2020 should be adhered to treating partial refund of retention money in similar manner as performance security.



- (2) It should be certified that the purpose of retention money in S&T contracts is not exhausted.
- (3) It should be certified that the agency has fulfilled its contractual obligations regarding supply, execution or installation of the work and has not stopped work after getting the money for the items supplied.
- (4) An undertaking/indemnity Bond should be taken from the contractor as safeguard of Railway that in case of any default being detected in the work he would liable to defray the costs and damages to the Railways.
- (5) Only financial progress (up to latest CC bill) shall be considered by the executive take as the basis for working out proportionate completion of work and verified by the finance officer.
- (6) When application is received from contractor seeking release of RM officer incharge of the work will certify whether the contractor is not in default of any contractual obligations.
- (7) The FMC has been correctly invoked by contractor and the requirements are fulfilled.
- (8) Performance of contractor is satisfactory.
- (9) No provision of GCC, instruction from Rly. Board and Code provision in this regard, if any, is contravened.
- (10) From above proportionate release of Retention Money Railways shall not sustain an loss/damage.
- (11) No intended/unintended benefit is being given to the Contractor/Contractors by such proportionate release of Retention Money.
- (12) Signaling works Retention money can be released proportionately after stations are commissioned and put to use for train operation similarly for telecom works it can be released after block sections are completed and put to use for train operation.

Above procedure order will be implemented with immediate effect and will be applicable in all ongoing contracts and also for tenders for which NIT done 15th March-2021.

Security Deposit mentioned in sub clause (1) above shall be returned to the Contractor along with or after, the following:

- (a) Final Payment of the Contract as per clause 51.(1) and
 - (b) Execution of Final Supplementary Agreement or Certification by Engineer that Railway has No Claim on Contractor and
 - (c) Maintenance Certificate issued, on expiry of the maintenance period as per clause 50.(1), in case applicable.
- 16. (2) (ii) Forfeiture of Security Deposit:** Whenever the contract is rescinded as a whole under clause 62 (1) of these conditions, the Security Deposit already with railways under the contract shall be forfeited. However, in case the contract is rescinded in part or parts under clause 62 (1) of these conditions, the Security Deposit shall not be forfeited.
- 16.(3)** No interest shall be payable upon the Bid Security and Security Deposit or amounts payable to the Contractor under the Contract, but Government Securities deposited in terms of Sub-Clause 16.(4)(b) of this clause will be payable with interest accrued thereon.

16.(4) PERFORMANCE GUARANTEE /AGREEMENT

The procedure for obtaining Performance Guarantee is outlined below:

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

In all other cases, if the Contractor fails to submit the requisite PG even after 60 days from the date of issue of LOA, the contract is liable to be terminated. In case contract is terminated railway shall be entitled to forfeit Bid Security and other dues payable to the contractor against that particular contract, subject to maximum of PG amount. In case a tenderer has not submitted Bid Security on the strength



of their registration as a Startup recognized by Department of Industrial Policy and Promotion (DIPP) under Ministry of Commerce and Industry, DIPP shall be informed to this effect.

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

- (b) The successful bidder shall submit the Performance Guarantee (PG) amounting to **5% of the original contract value and Additional Performance Guarantee as per clause 16 (4) (h)** in any of the following forms :-

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

Note:

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

- (iv) Government Securities including State Loan Bonds at 5% below the market value;
- (v) Pay Orders and Demand Drafts tendered by any Scheduled Commercial Bank of India;
- (vi) Guarantee Bonds executed or Deposits Receipts tendered by any Scheduled Commercial Bank of India;
- (vii) Deposit in the Post Office Saving Bank;
- (viii) Deposit in the National Savings Certificates;
- (ix) Twelve years National Defence Certificates;
- (x) Ten years Defence Deposits;
- (xi) National Defence Bonds and
- (xii) Unit Trust Certificates at 5% below market value or at the face value whichever is less. Also, FDR in favour of **FA&CAO, EAST CENTRAL RAILWAY, HAJIPUR** (free from any encumbrance) may be accepted.
- (c) The Performance Guarantee shall be submitted by the successful bidder after the Letter of Acceptance (LOA) has been issued, but before signing of the contract agreement. This P.G. shall be initially valid up to the stipulated date of completion plus 60 days beyond that. In case, the time for completion of work gets extended, the Contractor shall get the validity of P.G. extended to cover such extended time for completion of work plus 60 days.
- (d) The value of PG to be submitted by the Contractor is based on original contract value and shall not change due to subsequent variation(s) in the original contract value.
- (e) The Performance Guarantee (PG) shall be released after physical completion of the work based on 'Completion Certificate' issued by the competent authority stating that the Contractor has completed the work in all respects satisfactorily. The completion certificate will be issued only after the issue of PAC of all the divisions.
- (f) Whenever the contract is rescinded, the Performance Guarantee already submitted for the contract shall be encashed.
- (g) The Engineer shall not make a claim under the Performance Guarantee except for amounts to which the President of India is entitled under the contract (not withstanding and/or without prejudice to any other provisions in the contract agreement) in the event of:
 - (i) Failure by the Contractor to extend the validity of the Performance Guarantee as described herein above, in which event the Engineer may claim the full amount of the Performance Guarantee.
 - (ii) Failure by the Contractor to pay President of India any amount due, either as agreed by the Contractor or determined under any of the Clauses/Conditions of the Agreement, within 30 days of the service of notice to this effect by Engineer.
 - (iii) The Contract being determined or rescinded under clause 62 of these conditions (GCC).

Note:- Penal interest for the submission of PG shall be deposited either by contractor in cash with Divisional Cashier /Sonpur.



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

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

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

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

- (i) **Extension due to Modification:** If any modifications have been ordered which in the opinion of the Engineer have materially increased the magnitude of the work, then such extension of the contracted date of completion may be granted as shall appear to the Engineer to be reasonable in the circumstances, provided moreover that the Contractor shall be responsible for requesting such extension of the date as may be considered necessary as soon as the cause thereof shall arise.
- (ii) **Extension for Delay not due to Railway or Contractor:** If in the opinion of the Engineer, the progress of work has any time been delayed by any act or neglect of Railway's employees or by other Contractor employed by the Railway under Sub-Clause (4) of Clause 20 of these Conditions or in executing the work not forming part of the contract but on which Contractor's performance necessarily depends or by reason of proceeding taken or threatened by or dispute with adjoining or to neighbouring owners or public authority arising otherwise through the Contractor's own default etc. or by the delay authorized by the Engineer pending arbitration or in consequences of the Contractor not having received in due time necessary instructions from the Railway for which he shall have specially applied in writing to the Engineer or his authorized representative then upon happening of any such event causing delay, the Contractor shall immediately give notice thereof in writing to the Engineer within 15 days of such happening, but shall nevertheless make constantly his best endeavours to bring down or make good the delay and shall do all that may be reasonably required of him to the satisfaction of the Engineer to proceed with the works. The Contractor may also indicate the period for which the work is likely to be delayed and shall be bound to ask for necessary extension of time.
- (iii) **Extension for Delay due to Railways:** In the event of any failure or delay by the Railway to hand over the Contractor possession of the lands necessary for the execution of the works or to give the necessary notice to commence the works or to provide the necessary drawings or instructions or any other delay caused by the Railway due to any other cause whatsoever, then such failure or delay shall in no way affect or vitiate the contract or alter the character thereof or



entitle the Contractor to damages or compensation therefor, but in any such case, the Railway may grant such extension or extensions of the completion date as may be considered reasonable.

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

The non-submission of request for extension or submission of request within less than 15 days before the expiry of the date fixed for completion of the works, shall make him ineligible for extension under these sub clauses, subject to final decision of Engineer.

17B Extension of Time with Liquidated Damages (LD) for delay due to Contractor: The time for the execution of the work or part of the works specified in the contract documents shall be deemed to be the essence of the contract and the works must be completed not later than the date(s) as specified in the contract. If the Contractor fails to complete the works within the time as specified in the contract for the reasons other than the reasons specified in Clause 17 and 17-A, the Railway may, if satisfied that the works can be completed by the Contractor within reasonable short time thereafter, allow the Contractor for further extension of time (Performa at Annexure-VII) as the Engineer may decide. On such extension the Railway will be entitled without prejudice to any other right and remedy available on that behalf, to recover from the Contractor as agreed damages and not by way of penalty for each week or part of the week, a sum calculated at **the rate of Liquidated Damages as decided by Engineer, between 0.05% to 0.30% of contract value of the works for each week or part of the week.**

For the purpose of this Clause, the contract value of the works shall be taken as value of work as per contract agreement including any supplementary work order/contract agreement issued. Provided also, that the total amount of liquidated damages under this condition shall not exceed 5% of the contract value or of the total value of the item or groups of items of work for which a separate distinct completion period is specified in the contract. Provided further, that if the Railway is not satisfied that the works can be completed by the Contractor and in the event of failure on the part of the contractor to complete the work within further extension of time allowed as aforesaid, the Railway shall be entitled without prejudice to any other right or remedy available in that behalf, to appropriate the contractor's Security Deposit and rescind the contract under Clause 62 of these Conditions, whether or not actual damage is caused by such default.

NOTE:

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

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

i) "Corrupt practice": making offers, solicitation or acceptance of bribe, rewards or gifts or any material benefit, in exchange for an unfair advantage in the procurement process or to otherwise influence the procurement Process or contract execution;



- ii) "Fraudulent practice": any omission or misrepresentation that may mislead or attempt to mislead so that financial or other benefits may be obtained or an obligation avoided. This includes making false declaration or providing false information for participation in a tender process or to secure a contract or in execution of the contract;
- iii) "Anti-competitive practice": any collusion, bid rigging or anti-competitive arrangement, or any other practice coming under the purview of The Competition Act, 2002, between two or more bidders, with or without the knowledge of the procuring entity, that may impair the transparency, fairness and the progress of the procurement process or to establish bid prices at artificial, non-competitive levels;
- iv) "Coercive practice": any coercion or any threat to impair or harm, directly or indirectly, any party or its property to influence the procurement process or affect the execution of a contract;
- v) "Conflict of interest" (COI): any personal, financial, or business relationship between the bidder and any personnel of the procuring entity who are directly or indirectly related to the procurement or execution process of the contract, which can affect the decision of the procuring entity directly or indirectly;
- vi) "Undue Advantage": improper use of information obtained by the bidder from the procuring entity with an intent to gain an unfair advantage in the procurement process or for personal gain. This also includes if the bidder (or his allied firm) provided services for the need assessment/procurement planning of the tender process in which he is participating;
- vii) "Obstructive practice": materially impede the procuring entity's investigation of a procurement process either by deliberately destroying, falsifying, altering; or by concealing of evidence material to the investigation; or by making false statements or by threatening, harassing or intimidating any party to prevent it from disclosing its knowledge of matters relevant to such investigation or from pursuing the investigation; or by impeding the procuring entity's rights of audit or access to information;

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

- i) If his bids are under consideration in any procurement
 - a) Forfeiture or encashment of bid security; b) calling off of any pre-contract negotiations; and
 - c) rejection and exclusion of the bidder from the procurement process
- ii) If a contract has already been awarded
 - a) Cancellation of the relevant contract and recovery of compensation for loss incurred by the procuring entity; b) Forfeiture or encashment of any other security or bond relating to the procurement c) Recovery of payments including advance payments, if any, made by the procuring entity along with interest thereon at the prevailing rate;
- iii) Provisions in addition to above:
 - a) Removal from the list of enlisted contractors and banning/ debarment of the bidder from participation in future procurements of the procuring entity for a period not less than one year;
 - b) In case of anti-competitive practices, information for further processing may be filed under a signature of the Joint Secretary level officer, with the Competition Commission of India;
 - c) Initiation of suitable disciplinary or criminal proceedings against any individual or staff found responsible. Any question or dispute as to the commission of any such offence or compensation payable to the Railway under this Clause shall be settled by the General Manager of the Railway, in such a manner as he shall consider fit & sufficient and his decision shall be final & conclusive.

19.(1) Contractor's understanding: It is understood and agreed that the Contractor has, by careful examination, satisfied himself as to the nature and location of the work, the conformation of the ground, the character, quality and quantity of the materials to be encountered, the character of equipment and facilities needed preliminary to and during the progress of the works, the general and local conditions, the labour conditions prevailing therein and all other matters which can in any way affect the works under the contract.



- 19.(2) Commencement of Works:** The Contractor shall commence the works within **15 days** after the receipt by him of an order in writing to this effect from the Engineer and shall proceed with the same with due expedition and without delay
- 19.(3) Accepted Programme of Work:** The Contractor who has been awarded the work shall as soon as possible but not later than 30 days after the date of receipt of the acceptance letter in respect of contracts with initial completion period of two years or less or not later than 90 days for other contracts have to submit the detailed programme of work indicating the time schedule of various items of works in the form of Bar Chart/PERT/CPM. He shall also submit the details of organization (in terms of labour and supervisors), plant and machinery that he intends to utilize (from time to time) for execution of the work within stipulated date of completion. The programme of work amended as necessary by discussions with the Engineer, shall be treated as the agreed programme of the work for the purpose of this contract and the Contractor shall endeavor to fulfill this programme of work. The progress of work will be watched accordingly and the liquidated damages will be with reference to the overall completion date. Nothing stated herein shall preclude the Contractor in achieving earlier completion of item or whole of the works than indicated in the programme.

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

20. APPROACH ROAD ETC:

The contractor at his own cost shall develop and maintain all the required approach roads for proper execution of various items of this contract.

21. MAINTENANCE PERIOD:

Contractor has to maintain the completed works in satisfactory condition for a period of **(12) Twelve months** from the date of completion/handing over of all the works covered under this contract.

22. COMPLETION DRAWINGS:

Contractor shall, within his quoted rates, prepare and submit detailed completion drawings of all the works executed by him, prepared in AUTOCAD, in three copies on tracing sheets, six copies on paper-sheets and three copies in CD. Drawings may be submitted in phased manner as the works get completed as directed by Engineer. However, all the drawings shall be submitted within 30 days of date of completion.

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

24. PROGRAMME OF WORK:

- a) The Contractor shall be held responsible for the execution of the works according to the time schedule given above for the execution of the work in full compliance of the specifications and the various clause of the supplement technical specification, instructions and Drawings failure to comply with any of these will be dealt with as per provision laid down in general condition of contract and instructions for tenders of the Engineering Department of East Central Railway, Hajipur with latest amendments.
- b) The contractor is liable to carry out the extra work up to 25% of quantity for item under the same terms and conditions of the agreement.



- c) The contractor shall have necessary resources to execute the work, so that the work is to be completed within the specified period mentioned in the agreement.
- d) Program of execution of work at site shall be intimated to the Railway before commencement and completion

25. i) FLUCTUATION IN MARKET RATES :

The rates quoted by the Tenderer(s) and accepted by the Railway Administration shall hold good till the completion of the work and are not subjected to fluctuation(s) of any kind, save and except what is admissible under the Price Variation Clause contained in these documents.

ii) RATES TO INCLUDE ALL TAXES: The rates quoted shall be inclusive of all taxes levied by Central or State Govt. or by any Municipal / Local or any other body. However, change of rate of statutory taxes of the State/Central Government and levy of any new type of such statutory tax shall be on Railway account.

iii) The tenderer(s) should quote his single rate for each schedule taking into consideration estimated rate, quantity of each and every item of schedules, all the conditions of these documents and the Special Conditions mentioned in the various schedules. For works to be done under schedule 'B', the basic rates are those given in L&M Schedule of E. C. Railway, USSOR 2012.

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

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

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

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

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

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

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

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

27. INSPECTION OF WORKS:

(i) The responsibility of providing facilities for inspection lies with the contractor. He shall be responsible for providing required facilities i.e. tools, equipments for inspection at the place of work, for which no additional payments shall be made.

(ii) The completed installation at all stages shall be subjected to checks and test as decided by Railways and the contractor shall be liable to remedy such defects as discovered during these checks and test and make good all deficiencies brought out. However, complete installation will be taken over finally on completion of the full system. It will be the responsibility of the contractor to rectify any discrepancy noticed within a reasonable period from the date the complete system is taken over. For the purpose of taking over, joint inspection will be carried out by DSTE / ADSTE and Sr. Section Engineer/Jr. Engineer. The contractor should make himself or his representative available at the time of joint inspection. The decision of the Engineer shall be final in the matter.



- (iii) The contractor will be called upon to pay all the expenses incurred by the Railway in respect of any work found to be defective or of inferior quality, adulterated or otherwise unacceptable.
- (iv) During the execution of the contract, samples may be taken for the purpose of test and/or analysis under the conditions laid down in specification, such samples to be prepared for testing and forwarded free of all cost to the Railway.
- (v) The contractor will keep a logbook at the work site. The inspecting officer of the Railway may in addition to oral instruction to the representative of the contractor at the work site, enter such instruction as he deems fit in this logbook. The contractor will be responsible to note necessary action and remedy the defects and ensure that the instructions either oral or written are complied with. His non- noting the logbook entries shall not be considered sufficient grounds for non- compliance of the instructions.
- (vi) **SITE ORDER BOOK/FAILURE & MAINTENANCE REGISTER**
An Inspection Register/ Site Order book shall be maintained for this work, wherein the Engineer in-charge of the work or his executive subordinate shall record failure & instructions regarding this work. It is expected that the Contractor or his representative at the site shall note such instructions/ failure and take action accordingly. His non-noting the logbook entries shall not be considered sufficient grounds for non-compliance of the instructions.
Date & time of failure occurrence & its restoration shall be recorded in this register by Railway representative and contractor or his representative respectively, with signature. Date & time of restoration entered by the contractor needs to be verified and counter signed by Railway representative.
This register shall have entry on day-to-day basis regarding the progress of work. Record should also be kept with joint signature of Railways & firms representative for all release material. This should be produced during the inspection & check of Railway engineer in-charge.

28. TOOLS AND PLANTS

It should be clearly understood that it is entirely the Contractor's responsibility and liability to find, procure and use all machinery, tools and plants and their spare parts that are required for efficient and methodical execution of the work. Delay in procurement of such items due to their non-availability or import difficulties or any other cause whatsoever will not be taken as an excuse for not carrying out the work.

- 29. Safety of Public:** The Contractor shall be responsible to take all precautions to ensure the safety of the public whether on public or railway property and shall post such look out men as may, in the opinion of the Engineer, be required to comply with regulations appertaining to the work. Contractor shall ensure placement of barricading / partitions at the place of work to ensure safety of habitants of adjacent area, failing which Engineer may advise stoppage of work as per his discretion.

30. NEGOTIATION:

- i) The accepting authority reserve the right to enter into negotiations with the L-1 or more (in special case) tenderer(s) before acceptance of the tender in order to clarify special conditions or reduction of rates, or, for changes in scope of the work etc, at its sole discretion.
- ii) L-1 should be defined as the lowest, valid, eligible and technically acceptable tenderer.
- iii) In tenders, providing the ' purchase preference' in favour of PSUs, if the quoted rates of L-1 are considered high and negotiation are resorted to, such negotiation may be held with the original L-1 as also the lowest PSU whose original offer is not higher by more than 10% of the original L-1. Provision of Purchase preference in terms of PSUs will be applicable on negotiated offer.
- iv) Should such negotiation with the tenderer(s) be entered into, the tenderer(s) shall not be permitted to increase their quoted rates under any circumstances, even if it includes withdrawal / modification of such special conditions as are given by the tenderer(s) along with their original tender.

31. LETTER OF ACCEPTANCE:

- i.) The acceptance of the tender shall be communicated by Registered Post with A/D at the address given by the Tenderer in these tender documents. The letter of acceptance will remain operative till a formal Contract/ Agreement is executed and signed by and between the Contractor and competent



officer of the Railway, for and on behalf of the President of India, after which the letter of acceptance will merge in the said formal agreement.

- ii) The Railway shall not intimate to the tenderer(s) whose tenders have not been accepted and the result of their tender(s). However, Earnest Money/Bid Security will be refunded.

32. TENDERER'S POSTAL ADDRESS:

- i) Every tenderer shall state in the tender, his complete postal address, E-Mail ID, name and contact numbers
- ii) CHANGE OF ADDRESS : The Tenderer must keep the Railway informed of any change of address during the currency of tender of work in his own interest.

33. TENDERS TO BE SIGNED BY AUTHORISED PERSONS:

- i). The Tender shall be signed by individual or individuals legally authorized to enter into commitments on Behalf of the Tenderer(s). Any individual or individuals signing the tender documents or other documents Connected there with, should specify whether he is signing the said documents:-
 - a) As a Sole Proprietor of the firm or Attorney of the Sole proprietor. Or
 - b) As a Partner of partnership firm Or
 - c) As a Director, manager or secretary in a Limited company (duly authorized by a resolution passed by the board of directors or in presence of the authority conferred by the memorandum of association).
 - d) In case of Joint Ventures/Consortium: all the constituents or the attorney duly authorized by all of them.
- ii) In the case of a firm not registered under the Indian partnership act, all the partners or the attorney duly authorized by all of them, should sign the tender documents and all other concerned documents.
- iii) Requisite power of attorney or such other documents empowering the individual or the individuals to sign the Tender document should be furnished in original, along with the Tender.
- iv) The Railway shall not be bound by any Power of Attorney granted by the Tenderer or by changes in the composition of the firm made subsequent to the execution of the Contract agreement. It may, however, recognize such Power of Attorney and changes, after obtaining legal advice to the satisfaction of the Railway, the cost of which will be borne by the Tenderer.

34. Participation of Joint Venture (JV): As per Clause no. 17 of Tender Form (Second Sheet) (Applicable for works costing more than Rs. 10 Cr., as per Railway Board's letter no. 2002/CE-I/CT/37 JV Pt-VIII dated 14-12-2012)

35. EX. RAILWAY OFFICERS AS TENDERER (S): Should a Tenderer be, himself, a retired employee having held a Gazetted rank in any of the Railways, owned and administered by the President of India, or should a Tenderer, being a partnership firm, have, as one or more of its partners, such retired employee(s) as aforesaid, or, should the Tenderer being an incorporate company, have any such person(s) as aforesaid, as sits Director(s), or, should the tenderer have, in his employment, any person(s), as aforesaid, full information of such person(s) shall be submitted in prescribed proforma. Further, in cases, where such a person(s), as aforesaid, has retired from the Railway service within two years of the date of opening of the Tender, the Tenderer(s) shall furnish a copy of the permission of the President of India, permitting such a person(s), as aforesaid, to associate himself with the Tenderer(s), in any of the capacity as aforesaid, in prescribed proforma.

36. TENDERER (S) RELATIVE EMPLOYED AS GAZETTED OFFICER

In case of a Tenderer(s) being an individual having a relative(s) employed in any Gazetted capacity in the East Central Railway or in the case of partnership firm/or company incorporated under the Indian Company law, should any partner(s) /Director(s) or relatives of the partner(s) / Director(s) or share holder (s), be employed in any Gazetted capacity in the East Central Railway, detailed information about such Gazetted employee(s) shall also be furnished.

37. LIST OF EQUIPMENTS/TOOLS, TECHNICAL PERSONNELS:

The tenderer(s) shall submit list of equipments/tools with him and the list of technical personals in proper Performa. The tenderer(s) should also submit a specific detail along with tender indicating list



of personnel and plant and machinery (owned and hired separately) proposed to be deployed for the subject work. The tenderer(s) without this information may be treated as if the tenderer(s) has no organization and no equipments and tender will be judged accordingly.

38. SCOPE OF WORK & PAYMENTS THERE OF:

- The Railway reserves the right to get the work executed in the best & most economical manner, and may add or may not operate any item(s) of work(s) as the Railway may consider fit.
- The Contractor(s) is expected to use the latest technology and machinery and achieve a most efficient and best quality finished construction.
- The Railway reserves the right to increase or decrease the scope of work and/or not to operate any one or more of the item(s) or work(s) of any one or more of the various Schedules. It is the responsibility of the Contractor to ascertain from the Engineer-in charge, the items to be operated with their actual quantities before making any arrangements(s) for taking up work under the item(s). No claim, whatsoever, from the Contractor will be entertained for non-operation of any of the item(s) or for variation in quantity of any of the item(s).
- The payment shall be made on the basis of actual quantities executed under various item(s) and the accepted rates thereof, and not on the quantities mentioned in the various schedules. Individual N.S. items in contract shall be operated with variation of plus or minus 25% (Twenty five percent) and payment would be made as per the agreed mental rate.

39. Terms & Conditions of payment through ECS/EFT

- i) Tenderer to give consent in a mandate form for receipt of payment through ECS/EFT.
- ii) Tenderer to provide the details of Bank A/c in line with RBI guidelines for the same. These details will include Bank Name, Branch Name & Address, Account type, Bank A/c No. and Bank & Branch Code as appearing on MICR cheque issued by bank.
- iii) Tenderer to attach certificate from their bank certifying the correctness of all above mentioned information (as mentioned in Para (ii) above)
- iv) In case of non-payment through ECS/EFT or where ECS/EFT facility is not available, payment will be released through cheque.

40. PART COMMISSIONING:

If the works are not completed as per the programme of work and there is deviation from the milestones to be achieved Railways will be free to make use of the partially commissioned work. Making such use of partially commissioned work will not be deemed as provisional acceptance from the Railways.

VARIATIONS IN EXTENT OF CONTRACT

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

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



- 42.(2) (i) Unless otherwise specified in the special conditions of the contract, the accepted variation in quantity of each individual item of the contract would be upto 25% of the quantity originally contracted, except in case of foundation work (in which no variation limit shall apply). However, the rates for the increased quantities shall be as per sub- para (iii) below.
- (ii) The Contractor shall be bound to carry out the work at the agreed rates and shall not be entitled to any claim or any compensation whatsoever upto the limit of 25% variation in quantity of individual item of works.
- (iii) In case an increase in quantity of an individual item by more than 25% of the agreement quantity is considered unavoidable, then same shall be executed at following rates
- Quantities operated in excess of 125% but upto 140% of the agreement quantity of the concerned item, shall be paid at 98% of the rate awarded for that item in that particular tender;
 - Quantities operated in excess of 140% but upto 150% of the agreement quantity of the concerned item shall be paid at 96% of the rate awarded for that item in that particular tender;
 - Variation in quantities of individual items beyond 150% will be avoided and would be permitted only in exceptional unavoidable circumstances and shall be paid at 96% of the rate awarded for that item in that particular tender.
 - Variation to quantities of Minor Value Item: The limit for varying quantities for minor value items shall be 100% (as against 25% prescribed for other items). A minor value item for this purpose is defined as an item whose original agreement value is less than 1 % of the total original contract value. d.(i) Quantities operated upto and including 100% of the agreement quantity of the concerned minor value item, shall be paid at the rate awarded for that item in that particular tender; d.(ii) Quantities operated in excess of 100% but upto 200% of the agreement quantity of the concerned minor value item, shall be paid at 98% of the rate awarded for that item in that particular tender; d.(iii) Variation in quantities of individual minor value item beyond 200% will be avoided and would be permitted only in exceptional unavoidable circumstances and shall be paid at 96% of the rate awarded for that item in that particular tender.
- (iv) In case of earthwork items, the variation limit of 25% shall apply to the gross quantity of earthwork items and variation in the quantities of individual classifications of soil shall not be subject to this limit.
- (v) As far as Standard Schedule of Rates (SSOR) items are concerned, the variation limit of 25% would apply to the value of SSOR schedule(s) as a whole and not on individual SSOR items. However, in case of Non Standard Schedule of Rates (SSOR) items, the limit of 25% would apply on the individual items irrespective of the manner of quoting the rate (single percentage rate or individual item rate).
- 42.(3) Valuation of Variations: The enlargements, extensions, diminution, reduction, alterations or additions referred to in Sub-Clause (2) of this Clause shall in no degree affect the validity of the contract; but shall be performed by the Contractor as provided therein and be subject to the same conditions, stipulations and obligations as if they had been originally and expressively included and provided for in the Specifications and Drawings and the amounts to be paid therefor shall be calculated in accordance with the accepted Bill(s) of Quantities. Any extra item(s)/quantities of work falling outside the purview of the provisions of Sub-Clause (2) above shall be paid for at the rates determined under Clause-39 of these Conditions.

42(4) VARIATIONS IN QUANTITIES FOR (DECREASE IN QUANTITIES SPECIFIED IN CONTRACT)

- The contract signing authority can decrease the items up to 25% of individual items without finance concurrence.
 - For decrease beyond 25% for individual items or 25% of contract agreement value, the approval of an officer not less than rank of SA Grade may be taken, after obtaining 'No Claim Certificate' from the contractor and with finance concurrence, giving detailed reasons for each such decrease in the quantities.
- The aspect of vitiation of tender with respect to variation in quantities should be checked and avoided. In case of vitiation of tender (both for increase as well as decrease of value of contract agreement) sanction of competent authority as per single tender should be obtained.



42(5) HANDLING VITIATION DURING VARIATION IN CONTRACT QUANTITIES

The Case of vitiatio in contract will be dealt as per Railway Board letter No. 2017/Trans/01/ Policy dt. 08.02.18 item 01

In partial modification of existing instructions, it has been decided that as a result of variations, a contract shall be considered “vitiatio” only when, the following percentage variation in contract value between tenderer are noticed to have been exceeded.

Sl. No.	Value of Contract	Percentage difference between present Contractor and new L-1 as a result of variation. (percentage shall be calculated with base as the revised contract quantities multiplied by the rates of the present contractor)
1.	Small value contracts (Tender value less than Rs. 50 lakhs)	10
2.	Other than small value contracts (Tender value equal to or more than Rs. 50 lakh)	5

When the percentage difference between present Contractor and new L-1 is noticed as becoming beyond the values specified above, the following action shall be taken.

The Railway administration should immediately examine whether it is practicable to bring in a new agency to carry out the extra quantity of work keeping in view the progress of the work in accordance with the original contract and the nature and lay-out of the work. If it is found that there will be no serious practical difficulty in meeting the additional quantity of work done by another agency, then fresh tenders for the extra quantity may be invited otherwise negotiating the rate with the existing contractor for arriving at a reasonable rate for the additional quantities of work, may be adopted.

(1) The above shall be regulated as under :

- (A) The case shall be decided by the tender accepting authority (competent for the revised quantity) and shall not be treated as a case of single tender. The provisions of Railway Board letter no. 2007/CE/I/CT/18/Pt. XII dt. 31.12.2010 hereby gets superseded.
- (b) These instructions will be similarly applicable to earning contracts with H-1, H-2 substituted for L-1, L-2 and so on.
- (c) Executive while executing the work shall make all efforts to ensure that no vitiatio takes place in normal circumstances. Vitiatio should be an exception rather than a routine affair. Efforts should be made to invite bids on the basis of percentage above /below/at par.
- (d) Vitiatio should always be computed with respect to the items, rates, quantities and conditions as available at the time of Tender Opening and subsequent changes/additions by way of new items will not be counted for computing vitiatio.

42(6) Corrigendum Slip No.1 to Model SOP 2018 as per Railway Board Letter No. 2018/Trans/01/Policy dated 17.10.2018.

Sl. No.	Model SOP 2018 – Part/Item No	Corrigendum
10	Model SOP 2018- Part A (Works Matters) – Item No.7: Introduction of new SOR item in contract for works	Following is addend in Notes for item 7 : “Finance Concurrence is not required subject to following: Value of new items is less then Rs. 5 lakh and percentage change in overall contract value is less than 10 per cent.
11	Part A (Works Matters) – Item No. 9:	Following Note is addend:
	Variation in quantities specified in contracts: (A) & (B)	“Vetting of Corrigendum/addendum in case of variations of a works contract is not required when all following conditions are being satisfied: (i) Value of new items (SOR or NS) is less than Rs. 5 lakh, (ii) Percentage change in overall contract value is less than 10%



		And (iii) Percentage change in all individual NS items is less than 25% (for minor items 100%)
--	--	---

CLAIMS

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

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

MEASUREMENTS, CERTIFICATES AND PAYMENTS

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

45(i). Measurement of Works by Railway: The Contractor shall be paid for the works at the rates in the accepted Bill(s) of Quantities and for extra works at rates determined under Clause 39 of these Conditions on the measurements taken by the Engineer or the Engineer's representative in accordance with the rules prescribed for the purpose by the Railway. The quantities for items the unit of which in the accepted Bill(s) of Quantities is 100 or 1000 shall be calculated to the nearest whole number, any fraction below half being dropped and half and above being taken as one; for items the unit of which in the accepted Bill(s) of Quantities is single, the quantities shall be calculated to two places of decimals. Such measurements will be taken of the work in progress from time to time and at such intervals as in the opinion of the Engineer shall be proper having regard to the progress of works. The date and time on which 'on account' or 'final' measurements are to be made shall be communicated to the Contractor who shall be present at the site and shall sign the results of the measurements (which shall also be signed by the Engineer or the Engineer's representative) recorded in the official measurements book as an acknowledgement of his acceptance of the accuracy of the measurements. Failing the Contractor's attendance, the work may be measured up in his absence and such measurements shall, notwithstanding such absence, be binding upon the Contractor whether or not he shall have signed the measurement books provided always that any objection made by him to measurement shall be duly investigated and considered in the manner set out below:

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

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



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

- (a) The Contractor shall be paid for the works at the rates in the accepted Bill(s) of Quantities and for extra works at rates determined under Clause 39 of these Conditions on the measurements taken by the Contractor's authorized Engineer in accordance with the rules prescribed for the purpose by the

Railway. The quantities for items the unit of which in the accepted Bill(s) of Quantities is 100 or 1000 shall be calculated to the nearest whole number, any fraction below half being dropped and half and above being taken as one; for items the unit of which in the accepted Bill(s) of Quantities is single, the quantities shall be calculated to two places of decimals. Such measurements will be taken of the work in progress from time to time. The date and time on which 'on account' or 'final' measurements are to be made shall be communicated to the Engineer.

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

- (i) It shall be open to the Contractor to take specific objection to test checks of any recorded measurement within 7 days of date of such test checks. Any re-test check done by the concerned Railway's authority in the presence of the Contractor or in his absence after due notice given to him in consequent of objection made by the Contractor shall be final and binding on the Contractor and no claim whatsoever shall thereafter be entertained regarding the accuracy and classification of the measurements.
 - (ii) If an objection raised by the Contractor is found by the Engineer to be incorrect the Contractor shall be liable to pay the actual expenses incurred in measurements.
- (b) **Incorrect measurement, actions to be taken:** If in case during test check or otherwise, it is detected by the Engineer that agency has claimed any exaggerated measurement or has claimed any false measurement for the works which have not been executed; amounting to variation of 5% or more of claimed gross bill amount, action shall be taken as following:
- (i) On first occasion of noticing exaggerated/ false measurement, Engineer shall recover liquidated damages equal to 10% of claimed gross bill value.
 - (ii) On any next occasion of noticing any exaggerated/false measurement, railway shall recover liquidated damages equal to 15% of claimed gross bill value. In addition, the facility of recording of measurements by Contractor as well as release of provisional payment shall be withdrawn. Once withdrawn, measurements shall be done by railway as per clause 45(i) above.

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

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

46.(3) On Account Payments not Prejudicial to Final Settlement: "On-Account" payments made to the Contractor shall be without prejudice to the final making up of the accounts (except where



measurements are specifically noted in the Measurement Book as "Final Measurements" and as such have been signed by the Contractor and Engineer/Engineer's Representative) and shall in no respect be considered or used as evidence of any facts stated in or to be inferred from such accounts nor of any particular quantity of work having been executed nor of the manner of its execution being satisfactory.

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

46.(6) RECOVERY OF INCOME TAX

Income Tax @ 2% (Two percent) & TDS @1% (One Percent) of the Gross/Base amount of the each bill will be recovered from all the bills of the contractor as per Income Tax Act, as introduced through the Finance Act-1972. A surcharge @0% (Zero- percent) on the amount of Income Tax so deducted will also be recovered from the contractor's bills. This is further subject for increase or decrease as per extant instructions in this regard.

FLUCTUATION IN MARKET RATES: The rates quoted by the Tenderer(s) and accepted by the Railway Administration shall hold good till the completion of the work and are not subjected to fluctuation(s) of any kind, save and except what is admissible under the Price Variation Clause contained in these documents.

46.(7) SCOPE OF WORK & PAYMENTS THERE OF:

- The Railway reserves the right to get the work executed in the best & most economical manner, and may add or may not operate any item(s) of work(s) as the Railway may consider fit.
- The Contractor(s) is expected to use the latest technology and machinery and achieve a most efficient and best quality finished construction.
- The Railway reserves the right to increase or decrease the scope of work and/or not to operate any one or more of the item(s) or work(s) of any one or more of the various Schedules. It is the responsibility of the Contractor to ascertain from the Engineer-in charge, the items to be operated with their actual quantities before making any arrangements(s) for taking up work under the item(s). No claim, whatsoever, from the Contractor will be entertained for non-operation of any of the item(s) or for variation in quantity of any of the item(s).
- The payment shall be made on the basis of actual quantities executed under various item(s) and the accepted rates thereof, and not on the quantities mentioned in the various schedules. Individual N.S. items in contract shall be operated with variation of plus or minus 25% (Twenty five percent) and payment would be made as per the agreed mental rate.

46.(8) Terms & Conditions of payment through ECS/EFT

- i) Tenderer to give consent in a mandate form for receipt of payment through ECS/EFT.
- ii) Tenderer to provide the details of Bank A/c in line with RBI guidelines for the same. These details will include Bank Name, Branch Name & Address, Account type, Bank A/c No. and Bank & Branch Code as appearing on MICR cheque issued by bank.
- iii) Tenderer to attach certificate from their bank certifying the correctness of all above mentioned information (as mentioned in Para (ii) above)
- iv) In case of non-payment through ECS/EFT or where ECS/EFT facility is not available, payment will be released through cheque.

46.A. Price Variation Clause (PVC) :

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

- a) Materials supplied by Railway to the Contractors, either free or at fixed rate;
- b) Any extra item(s) included in subsequent variation falling outside the purview of the Bill(s) of Quantities of tender, under clause 39. (1)(b) of these Standard General Conditions, unless applicability of PVC and 'Base Month' has been specially agreed, while fixing the rates of such extra item(s). (As per Rly.Bd. letter no. No. 2022/CE-I/CT/GCC-2022/Policy New Delhi, Dated 14.07.2022)



46A.2 Base Month: The Base Month for 'Price Variation Clause' shall be taken as the one month prior to closing of tender, unless otherwise stated elsewhere. The quarter for applicability of PVC shall commence from the month following the Base month. The Price Variation shall be based on the average Price Index of the quarter under consideration.

46A.3 Validity:

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

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

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

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

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

(I). For Civil Engineering Works

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

* It shall not be considered for any price variation.

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

1 Earthwork in Formation

1A All Item(s) excluding 1B or/and 1C

1B Item(s) for supply of Steel

1C Item(s) for supply of Cement

2 Ballast Supply Works

3 Tunnelling Works (Without Explosives)

3A All Item(s) excluding 3B or/and 3C or/and 3D or/and 3E



- 3B Item(s) for supply of Steel
- 3C Item(s) for supply of Cement or/and Grout
- 3D Item(s) for Fabrication & Erection of Structures including supply of Steel
- 3E Item(s) for Fabrication & Erection of Structures excluding supply of Steel.
- 4 Tunnelling Works (With explosives)

4A All Item(s) excluding 4B or/and 4C or/and 4D or/and 4E

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

5 Building Works

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

6 Bridges & Protection work

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

7 Permanent Way linking

8 Platform, Passenger Amenities

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

9 Any Other Works not covered in Classification 1 to 8

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

46A.7 Formulae: The Amount of variation in prices in various components (labour, material etc.) shall be worked out by the following formulae:

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

(II) For Railway Electrification Works:

- (viii) $T = [0.4136 \times (C_Q - C_B) / C_B] \times 85$
- (ix) $R = [0.94 \times (RT - RO) / RO + 0.06 \times (ZT - ZO) / ZO] \times 85$



$$(x) N = [(PT - PO) / PO] \times 85$$

$$(xi) I = [(IT - IO) / IO] \times 85$$

$$(xii) G = [(MQ - MB) / MB] \times 85$$

$$(xiii) Er = [(LQ - LB) / LB] \times 85$$

Where,

L	Amount of price variation in Labour
M	Amount of price variation in Materials
F	Amount of price variation in Fuel
E	Amount of price variation in Explosives
PM	Amount of price variation in Plant, Machinery and Spares
S	Amount of price variation in Steel Supply Item
C	Amount of price variation in Cement Supply Item
T	Percentage variation payable on the gross value of bill of Concreting (Bill(s) of Quantities for concrete items)
R	Percentage variation payable on the gross value of bill of Ferrous Items (Bill(s) of Quantities for ferrous items)
N	Percentage variation payable on the gross value of bill of Non-Ferrous Items (Bill(s) of Quantities for non-ferrous items)
I	Percentage variation payable on the gross value of bill of Insulator (Bill(s) of Quantities for Insulator items)
G	Percentage variation payable on the gross value of bill of General Works (Bill(s) of Quantities for General items)
Er	Percentage variation payable on the gross value of erection (Bill(s) of Quantities for Erection Item)
LC	% of Labour Component in the item(s)
MC	% of Material Component in the item(s)
FC	% of Fuel Component in the item(s)
EC	% of Explosive Component in the item(s)
PMC	% of Plant, Machinery and Spares Component in the item(s)
SC	% of Steel Supply item Component in the item(s)
CC	% of Cement Supply item Component in the item(s)
W	Gross value of work done by Contractor as per on-account bill(s) excluding the Gross value of work under WS or/and WC or/and WSF or/and WF or/and WSFL or/and WFL and cost of materials supplied by Railway either free or at fixed rate,
W _S	Gross value of work done by Contractor for item(s) of supply of steel.
W _C	Gross value of work done by Contractor for item(s) of supply of cement and /or supply of grout material.
W _{SF}	Gross value of work done by Contractor for item(s) of Fabrication & Erection of Structures including supply of Steel.
W _F	Gross value of work done by Contractor for Fabrication & Erection of Structures excluding supply of Steel.
W _{SFL}	Gross value of work done by Contractor for item(s) of Fabrication, Assembly, Erection / Launching of Girders including supply of Steel.
W _{FL}	Gross value of work done by Contractor for item(s) of Fabrication, Assembly, Erection / Launching of Girders excluding supply of Steel.
L _B	Consumer Price Index for Industrial Workers - All India: Published in R.B.I. Bulletin for the base period
L _Q	Consumer Price Index for Industrial Workers - All India: Published in R.B.I. Bulletin for the average price index of the 3 months of the quarter under consideration
M _B	Wholesale Price Index: All commodities – as published in the R.B.I. Bulletin for the base period
M _Q	Wholesale Price Index: All commodities – as published in the R.B.I. Bulletin for the average price index of the 3 months of the quarter under consideration



F _B	The average of official prices of Diesel available on the official website of 'Petroleum Planning and Analysis cell' under Ministry of Petroleum and Natural Gas for Delhi, Kolkata, Mumbai & Chennai, for the base period
F _Q	The average of official prices of Diesel available on the official website of 'Petroleum Planning and Analysis cell' under Ministry of Petroleum and Natural Gas for Delhi, Kolkata, Mumbai & Chennai, for the 3 months of the quarter under consideration
E _B	Index number of Monthly Whole Sale Price Index for the category 'Explosive' of (g). Manufacture of other chemical products under (J) MANUFACTURE OF CHEMICALS AND CHEMICAL PRODUCTS, published by Office of Economic Adviser, Govt. of India, Ministry of Commerce & Industry, Department of Industrial Policy & Promotion (DIPP), for the base period.
E _Q	Index number of Monthly Whole Sale Price Index for the category 'Explosive' of (g). Manufacture of other chemical products under (J) MANUFACTURE OF CHEMICALS AND CHEMICAL PRODUCTS, published by Office of Economic Adviser, Govt. of India, Govt. of India, Ministry of Commerce & Industry, Department of Industrial Policy & Promotion (DIPP), for the average price index of 3 months of the quarter under consideration.
P _{MB}	Index Number of Wholesale Prices in India by Groups and Sub Groups (Averages) for 'Manufacture of machinery for mining, quarrying and construction'– published in RBI (Reserve Bank of India) Bulletin, for the base period.
P _{MQ}	Index Number of Wholesale Prices in India by Groups and Sub Groups (Averages) for 'Manufacture of machinery for mining, quarrying and construction'– published in RBI (Reserve Bank of India) Bulletin, for the average price index of 3 months of the quarter under consideration.
S _B	The average rate provided by the Joint Plant Committee for the relevant category of steel item as mentioned in Clause 46A.9; for the base period.
S _Q	The average rate provided by the Joint Plant Committee for the relevant category of steel item as mentioned in Clause 46A.9; for the 3 months of the quarter under consideration.
C _B	Index No. of Wholesale Price Index of sub-group Cement, Lime & Plaster as published in RBI Bulletin for the base period
C _Q	No. of Wholesale Price Index of sub-group Cement, Lime & Plaster as published in RBI Bulletin for the average price index of the 3 months of the quarter under consideration
R _T	IEEMA price index for Steel Blooms (size 150mmx150mm) for the month which is two months prior to date of inspection of material.
R _O	IEEMA price index for Steel Blooms (size 150mmx150mm) for the month which is one month prior to date of opening of tender.
P _T	IEEMA price index for Copper wire rods for the month which is two months prior to date of inspection of material.
P _O	IEEMA price index for Copper wire rods for the month which is one month prior to date of opening of tender.
Z _T	IEEMA price index for Zinc for the month which is two months prior to date of inspection of material
Z _O	IEEMA price index for Zinc for the month which is one month prior to date of opening of tender
I _T	RBI wholesale price index for the sub-group "Insulators" for the month which is two months prior to date of inspection of material
I _O	RBI wholesale price index for the sub-group "Insulators" for the month which is one month prior to date of opening of tender

(III) SIGNALING & TELECOMMUNICATION WORKS:

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

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

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

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

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



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

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

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

(i) $VSIGWK = 0.85 \text{ SIGWK} \times [\text{PELEX} \times (\text{ELEXi} - \text{ELEXo}) / \text{ELEXo} + \text{POFC} \times (\text{OFCi} - \text{OFCo}) / \text{OFCo} + \text{PLB} \times (\text{LBi} - \text{LBo}) / \text{LBo} + \text{POTH} \times (\text{OTHi} - \text{OTHo}) / \text{OTHo} + \text{S30Cx} (\text{P30Ci} - \text{P30Co}) / \text{P30Co} + \text{S24C} \times (\text{P24Ci} - \text{P24Co}) / \text{P24Co} + \text{S19C} \times (\text{P19Ci} - \text{P19Co}) / \text{P19Co} + \text{S12C} \times (\text{P12Ci} - \text{P12Co}) / \text{P12Co} + \text{S9C} \times (\text{P9Ci} - \text{P9Co}) / \text{P9Co} + \text{S6C} \times (\text{P6Ci} - \text{P6Co}) / \text{P6Co} + \text{S4C} \times (\text{P4Ci} - \text{P4Co}) / \text{P4Co} + \text{S2C} \times (\text{P2Ci} - \text{P2Co}) / \text{P2Co} + \text{S12C2.5} \times (\text{P12C2.5i} - \text{P12C2.5o}) / \text{P12C2.5o} + \text{S2C2.5} \times (\text{P2C2.5i} - \text{P2C2.5o}) / \text{P2C2.5o} + \text{S2C25} \times (\text{P2C25i} - \text{P2C25o}) / \text{P2C25o} + \text{QC} \times (\text{PQCi} - \text{PQCo}) / \text{PQCo}]$;

(ii) $VINVSIG = 0.85 \text{ SIGWK} \times [\text{PELEX} \times (\text{ELEXi} - \text{ELEXo}) / \text{ELEXo} + \text{POTH} \times (\text{OTHi} - \text{OTHo}) / \text{OTHo}]$;

(iii) $VINTGTESTSIG = 0.85 \text{ INTGTESTSIG} \times [\text{PLB} \times (\text{LBi} - \text{LBo}) / \text{LBo} + \text{POTH} \times (\text{OTHi} - \text{OTHo}) / \text{OTHo}]$;

(iv) $VCOMWK = 0.85 \text{ COMWK} \times [\text{PELEX} \times (\text{ELEXi} - \text{ELEXo}) / \text{ELEXo} + \text{POFC} \times (\text{OFCi} - \text{OFCo}) / \text{OFCo} + \text{PLB} \times (\text{LBi} - \text{LBo}) / \text{LBo} + \text{POTH} \times (\text{OTHi} - \text{OTHo}) / \text{OTHo} + \text{S30C} \times (\text{P30Ci} - \text{P30Co}) / \text{P30Co} + \text{S24C} \times (\text{P24Ci} - \text{P24Co}) / \text{P24Co} + \text{S19C} \times (\text{P19Ci} - \text{P19Co}) / \text{P19Co} + \text{S12C} \times (\text{P12Ci} - \text{P12Co}) / \text{P12Co} + \text{S9C} \times (\text{P9Ci} - \text{P9Co}) / \text{P9Co} + \text{S6C} \times (\text{P6Ci} - \text{P6Co}) / \text{P6Co} + \text{S4C} \times (\text{P4Ci} - \text{P4Co}) / \text{P4Co} + \text{S2C} \times (\text{P2Ci} - \text{P2Co}) / \text{P2Co} + \text{S12C2.5} \times (\text{P12C2.5i} - \text{P12C2.5o}) / \text{P12C2.5o} + \text{S2C2.5} \times (\text{P2C2.5i} - \text{P2C2.5o}) / \text{P2C2.5o} + \text{S2C25} \times (\text{P2C25i} - \text{P2C25o}) / \text{P2C25o} + \text{QC} \times (\text{PQCi} - \text{PQCo}) / \text{PQCo} + \text{PCEQP} \times (\text{CEQPi} - \text{CEQPo}) / \text{CEQPo}]$;

(v) $VINVCOM = 0.85 \text{ SIGWK} \times [\text{PELEX} \times (\text{ELEXi} - \text{ELEXo}) / \text{ELEXo} + \text{PCEQP} \times (\text{CEQPi} - \text{CEQPo}) / \text{CEQPo} + \text{POTH} \times (\text{OTHi} - \text{OTHo}) / \text{OTHo}]$; and

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

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 subparagraph (h);

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

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

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

$VINVCOM$ = 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 (h);

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

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

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

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

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

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

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

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

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



P24Ci = Price payable per Km as adjusted in accordance with price variation Clause for size 24C x 1.5 sq mm signalling cable
P24Co = Price per Km of cable as per purchase order/ Contract agreement.
S24C = Percentage of size 24C x 1.5 sq mm signalling cable shall govern the price adjustment of the contract price for signalling and telecommunication works.
P19Ci = Price payable per Km as adjusted in accordance with price variation Clause for size 19C x 1.5 sq mm signalling cable
P19Co = Price per Km of cable as per purchase order/ Contract agreement.
S19C = Percentage of size 19C x 1.5 sq mm signalling cable shall govern the price adjustment of the contract price for signalling and telecommunication works.
P12Ci = Price payable per Km as adjusted in accordance with price variation Clause for size 12C x 1.5 sq mm signalling cable
P12Co = Price per Km of cable as per purchase order/ Contract agreement.
S12C = Percentage of size 12C x 1.5 sq mm signalling cable shall govern the price adjustment of the contract price for signalling and telecommunication works.
P9Ci = Price payable per Km as adjusted in accordance with price variation Clause for size 9C x 1.5 sq mm signalling cable
P9Co = Price per Km of cable as per purchase order/ Contract agreement.
S9C = Percentage of size 9C x 1.5 sq mm signalling cable shall govern the price adjustment of the contract price for signalling and telecommunication works.
P6Ci = Price payable per Km as adjusted in accordance with price variation Clause for size 6C x 1.5 sq mm signalling cable
P6Co = Price per Km of cable as per purchase order/ Contract agreement.
S6C = Percentage of size 6C x 1.5 sq mm signalling cable shall govern the price adjustment of the contract price for signalling and telecommunication works.
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.

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

FORMULAE FOR SIGNALING & TELECOM CABLE

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

For Signalling Copper Cables:

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

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

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

For Aluminium Power Cables:

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

Where,

P_i = Price payable per KM as adjusted in accordance with Price variation clause.

P_o = Price per KM of cable as per Purchase order.

CuF = Variation factor for Copper

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

$CCFCu$ = Variation factor for PVC Compound for Copper Signalling & Telecom cable

C_{Co} = Price of PVC Compound in Rs. Per MT

AlF = Variation factor for Aluminium

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

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

FeF = Variation factor for Steel

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

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

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

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. $P_{30Ci} = P_{30Co} + 0.391(Cu - C_{uo}) + 0.557(CC - C_{Co}) + 0.425(Fe - Fe_o)$

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 $P_{24Ci} = P_{24Co} + 0.313(Cu - C_{uo}) + 0.481 (CC - C_{Co}) + 0.398(Fe - Fe_o)$

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 $P_{19Ci} = P_{19Co} + 0.248(Cu - C_{uo}) + 0.395(CC - C_{Co}) + 0.343(Fe - Fe_o)$

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 $P_{12Ci} = P_{12Co} + 0.157(Cu - C_{uo}) + 0.277(CC - C_{Co}) + 0.289(Fe - Fe_o)$

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



(v) Size 9C x 1.5 sq.mm $P9Ci = P9Co + 0.117(Cu-Cuo) + 0.241(CC-CCu) + 0.383(Fe-Feo)$

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

(vi) Size 6Cx 1.5 sq.mm $P6Ci = P6Co + 0.078(Cu-Cuo) + 0.199(CC-CCu) + 0.329(Fe-Feo)$

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

(vii) Size 4Cx 1.5 sq.mm $P4Ci = P4Co + 0.052(Cu-Cuo) + 0.152(CC-CCo) + 0.277(Fe-Feo)$

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

(viii) Size 2C x 4 sq.mm(multistrand) $P2Ci = P2Co + 0.073(Cu-Cuo) + 0.156(CC-CCo) + 0.3(Fe-Feo)$

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

(ix) Size 12C x 2.5 sq.mm $P12C2.5i = P12C2.5o + 0.282(Cu-Cuo) + 0.371(CC-CCo) + 0.342(Fe-Feo)$

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.

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

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

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

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

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

46A.10 Price Variation during Extended Period of Contract

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

- In case the indices increase above the indices applicable to the last month of original completion period or the extended period under Clause 17A, the price adjustment for the period of extension granted under Clause 17B shall be limited to the amount payable as per the Indices applicable to the



last month of the original completion period or the extended period under Clause 17A of the Standard General Conditions of Contract; as the case may be.

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

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

48. Certificate of Completion of Works: As soon as in the opinion of the Engineer, the work has been completed and has satisfactorily passed any final test or tests that may be prescribed, the Engineer shall issue a certificate of completion duly indicating the date of completion in respect of the work and the period of maintenance of the work shall commence from the date of completion mentioned in such certificate. The certificate, inter alia, should mention that the work has been completed in all respects and that all the contractual obligations have been fulfilled by the Contractor and that there is no due from the Contractor to Railways against the contract concerned.

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

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

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

The Competent Authority to issue above Maintenance Certificate shall normally be the authority who is competent to sign the contract. If this Competent Authority is of the rank lower than JA Grade, then a JA Grade Officer (concerned with the work) should issue the Certificate. The Certificate, inter alia, should mention that the work has been completed in all respects and that all the contractual obligations have been fulfilled by the Contractor and that there is no due from the Contractor to Railways against the contract concerned.

51.(1) Final Payment: On the Engineer's certificate of completion in respect of the works, adjustment shall be made and the balance of account based on the Engineer or the Engineer's representative's certified measurements or Engineer's certified "contractor's authorized engineer's measurements" of the total quantity of work executed by the Contractor upto the date of completion and on the rates accepted in Bill(s) of Quantities and for extra works on rates determined under Clause 39 of these Conditions shall be paid to the Contractor subject always to any deduction which may be made under these presents and further subject to the Contractor having signed delivered to the Engineer enclosing either a full account in detail of all claims he



may have on the Railway in respect of the works or having delivered No Claim Certificate and the Engineer having after the receipt of such account given a certificate in writing that such claims are not covered under excepted matter i.e. Clauses 7(j), 8, 18, 22(5), 39.1, 39.2, 40A, 43(2), 45(i)(a), 55, 55-A(5), 57, 57A, 61(1), 61(2) and 62(1), 63(iv) and 63.2.11 of the Standard General Conditions of Contract or in any Clause (stated as excepted matter) of the Special Conditions of the Contract, that the whole of the works to be done under the provisions of the Contracts have been completed, that they have been inspected by him since their completion

and found to be in good and substantial order, that all properties, works and things, removed, disturbed or injured in consequence of the works have been properly replaced and made good and all expenses and demands incurred by or made upon the Railway for or in the respect of damage or loss by from or in consequence of the works, have been satisfied agreeably and in conformity with the contract.

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

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

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

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

(i) Any sum of money due and payable to the Contractor (including the Security Deposit returnable to him) under the contract may be withheld or retained by way of lien by the Railway, against any claim of this or any other Railway or any other Department of the Central Government in respect of payment of a sum of money arising out of or under any other contract made by the Contractor with this or any other Department of the Central Government.

(ii) However, recovery of claims of Railway in regard to terminated contracts may be made from the Final Bill, Security Deposits and Performance Guarantees of other contract or contracts, executed by the Contractor. The Performance Guarantees submitted by the Contractor against other contracts, if required, may be withheld and encashed. In addition, 10% of each subsequent 'on-account bill' may be withheld, if required, for recovery of Railway's dues against the terminated contract.

(iii) It is an agreed term of the contract that the sum of money so withheld or retained under this Clause by the Railway will be kept withheld or retained as such by the Railway till the claim arising out of or under any other contract is either mutually settled or determined by arbitration, if the other contract is governed by Arbitration Clause or by the competent court as the case may be and Contractor shall have no claim for interest or damages whatsoever on this account or on any other ground in respect of any sum of money withheld or retained under this Clause and duly notified as such to the Contractor.



53. Signature on Receipts for Amounts: Every receipt for money which may become payable or for any security which may become transferable to the Contractors under these presents, shall, if signed in the partnership name by anyone of the partners of a Contractor's firm be a good and sufficient discharge to the Railway in respect of the moneys or security purported to be acknowledged thereby and in the event of death

of any of the Contractor, partners during the pendency of the contract, it is hereby expressly agreed that every receipt by anyone of the surviving Contractor partners shall if so signed as aforesaid be good and sufficient discharge as aforesaid provided that nothing in this Clause contained shall be deemed to prejudice or effect any claim which the Railway may hereafter have against the legal representative of any Contractor partner so dying for or in respect to any breach of any of the conditions of the contract, provided also that nothing in this clause contained shall be deemed to prejudice or effect the respective rights or obligations of the Contractor partners and of the legal representatives of any deceased Contractor partners interse.

LABOUR

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

If, in compliance with the terms of the contract, the Contractor supplied any labour to be used wholly or partly under the direct orders and control of the Railways whether in connection with any work being executed by the Contractor or otherwise for the purpose of the Railway such labour shall, for the purpose of this Clause, still be deemed to be persons employed by the Contractor.

If any moneys shall, as a result of any claim or application made under the said Act be directed to be paid by the Railway, such money shall be deemed to be moneys payable to the Railway by the Contractor and on failure by the Contractor to repay the Railway any moneys paid by it as aforesaid within seven days after the same shall have been demanded, the Railways shall be entitled to recover the same from Contractor's bills/Security Deposit or any other dues of Contractor with the Government of India.

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

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

55. Provisions of Payments of Wages Act: The Contractor shall comply with the provisions of the Payment of Wages Act, 1936 and the rules made thereunder in respect of all employees employed by him either directly or through petty Contractors or sub-contractors in the works. If in compliance with the terms of the contract, the Contractor directly or through petty Contractors or sub-contractors shall supply any labour to be used wholly or partly under the direct orders and control of the Engineer whether in connection with the works to be executed hereunder or otherwise for the purpose of the Engineer, such labour shall nevertheless be deemed to comprise persons employed by the Contractor and any moneys which may be ordered to be paid by the Engineer shall be deemed to be moneys payable by the Engineer on behalf of the Contractor and the Engineer may on failure of the Contractor to repay such money to the Railways deduct the same from any moneys due to the Contractor in terms of the contract. The Railway shall be entitled to recover the same from

Contractor's bills/Security Deposit or any other dues of Contractor with the Government of India all moneys paid or payable by the Railway by way of compensation of aforesaid or for costs of expenses in connection with any claim thereto and the decision of the Engineer upon any question arising out of the effect or force of this Clause shall be final and binding upon the Contractor.

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

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

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



55-A.(3) The Contractor shall pay to the labour employed by him directly or through subcontractors the wages as per provision of the aforesaid Act and the Rules wherever applicable. The Contractor shall notwithstanding the provisions of the contract to the contrary, cause to be paid the wages to labour, indirectly engaged on the works including any engaged by sub-contractors in connection with the said work, as if the labour had been immediately employed by him.

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

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

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

56. 55-C (i) Contractor is to abide by the provisions of various labour laws in terms of above clause 54, 55, 55-A and 55-B of the Standard General Conditions of Contract. In order to ensure the same, an application has been developed and hosted on website 'www.shramikkalyan.indianrailways.gov.in'. Contractor shall register his firm/company etc. and upload requisite details of labour and their payment in this portal. These details shall be available in public domain. The registration/ updation in Portal shall be done as under:

- (a) Contractor shall apply for onetime registration of his company/firm etc. in the **Shramikkalyan portal** with requisite details subsequent to issue of Letter of Acceptance. Engineer shall approve the contractor's registration in the portal within 7 days of receipt of such request.
- (b) Contractor once approved by any Engineer, can create password with login ID (PAN No.) for subsequent use of portal for all Letter of Acceptances (LoAs) issued in his favour.
- (c) The contractor once registered on the portal, shall provide details of his Letter of Acceptances (LoAs) / Contract Agreements on **shramikkalyan portal** within 15 days of issue of any LoA for approval of concerned Engineer. Engineer shall update (if required) and approve the details of LoA filled by contractor within 7 days of receipt of such request.
- (d) After approval of LoA by Engineer, contractor shall fill the salient details of contract labours engaged in the contract and ensure updating of each wage payment to them on **shramikkalyan portal** on monthly basis.
- (e) It shall be mandatory upon the contractor to ensure correct and prompt uploading of all salient details of engaged contractual labour & payments made thereof after each wage period.

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

57.55-D. Provisions of "The Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996" and "The Building and Other Construction Workers' Welfare Cess Act, 1996": The tenderers, for carrying out any construction work, shall get themselves registered with the



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

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

59. POLICE VERIFICATION OF CONTRACTUAL LABOURERS:

Police Verification of Contractual Labourers deployed for execution of this work is compulsory and it will be the responsibility of the contractor to get this verification done.

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

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

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

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

EXPLANATIONS:

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

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

DETERMINATION OF CONTRACT

61. & 62. DETERMINATION OF CONTRACT:

This shall be considered in accordance with the clause no. 61 and 62 of GCC, with the latest available amendment to clause, if any.

The Contractor shall execute the work with due diligence and expedition, keeping to the approved time schedule. Should he refuse or neglect to comply with any reasonable order given to him in writing by the Purchaser's Engineers in connection with the work lags persistently behind the time schedule due to his neglect, the Railway shall at liberty to give seven days' notice in writing to the Contractor requiring him to



make good the neglect or contravention complained of and should the contractor fail to comply with the requisitions made in the notice within seven days from the receipt thereof, it shall be lawful for the purchaser to take action as per clause 62 of GCC and to take the work wholly or in part out of the Contractor's hands without any further reference and get the work or any part thereof, as the case may be, completed by other agencies at the expense of the contractor without prejudice to any other right or remedy of the Purchaser.

ARBITRATION CLAUSE**63. Conciliation of Disputes:**

- (i) This clause is applicable in the tender having advertised value less than or equal to Rs 50 Crore.
- (ii) All disputes and differences of any kind whatsoever arising out of or in connection with the contract, whether during the progress of the work or after its completion and whether before or after the determination of the contract, shall be referred by the Contractor to the "Chief Engineer" or "Divisional Railway Manager" through "Notice of Dispute" provided that no such notice shall be served later than 30 days after the date of issue of Completion Certificate by the Engineer. Chief Engineer or Divisional Railway Manager shall, within 30 days after receipt of the Contractor's "Notice of Dispute", notify the name of conciliator(s) to the Contractor.
- (iii) The Conciliator(s) shall assist the parties to reach an amicable settlement in an independent and impartial manner within the terms of contract.
- (iv) If the parties reach agreement on a settlement of the dispute, they shall draw up and sign a written settlement agreement duly signed by Engineer In-charge, Contractor and conciliator(s). When the parties sign the settlement agreement, it shall be final and binding on the parties.
- (v) The parties shall not initiate, during the conciliation proceedings, any arbitral or judicial proceedings in respect of a dispute that is the subject matter of the conciliation proceedings.
- (vi) The conciliation proceedings shall be terminated as per Section 76 of 'The Arbitration and Conciliation Act, 1996.

63. Matters Finally Determined by the Railway: All disputes and differences of any kind whatsoever arising out of or in connection with the contract, whether during the progress of the work or after its completion and whether before or after the determination of the contract, shall be referred by the Contractor to the GM and the GM shall, within 120 days after receipt of the Contractor's representation, make and notify decisions on all matters referred to by the Contractor in writing provided that matters for which provision has been made in Clauses 7(j), 8, 18, 22(5), 39.1, 39.2, 40A, 43(2), 45(i)(a), 55, 55-A(5), 57, 57A, 61(1), 61(2), 62(1), 63(iv) and 63.2.11 of the Standard General Conditions of Contract or in any Clause (stated as excepted matter) of the Special Conditions of the Contract, shall be deemed as 'excepted matters' (matters not arbitrable) and decisions of the Railway authority, thereon shall be final and binding on the Contractor; provided further that 'excepted matters' shall stand specifically excluded from the purview of the Dispute Adjudication Board (DAB) and Arbitration.

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

**ADDITIONAL SPECIAL CONDITION OF CONTRACT GENERAL****1.0 GENERAL:****1.1 CONDITIONS REGARDING PLYING VEHICLES:**

The contractor shall not allow any road vehicle belonging to him or his suppliers etc. to ply in Railway land next to the running line. If for execution on of certain works viz. Earthwork for parallel Railway line and supply of ballast for new or existing rail line gauge conversion etc. road vehicles are necessary to be used in railway land next to the railway lines, the contractor shall apply to the Engineer-in-charge for permission giving the type and no. of individual vehicles, name and license particulars of the drivers, location, duration & timings for such work/movement. The Engineer in charge or his authorized representative will personally counsel, examine and certify, the road vehicles drivers, contractor's flagman & supervisor and will give written permission giving names of road vehicle drivers, contractor's flagman and supervisor to be deployed on the work, location, period and timing of the work. This permission will be subject to the following obligatory conditions:-

- (i) The road vehicles will ply only between sunrise & sunset.
- (ii) Nominated vehicles and drivers will be utilized for work in the presence of at least one flagman and one Supervisor certified for such work.
- (iii) The vehicles shall ply 6m. Clear of track any movement/work at less than 6m and up to minimum 3.5m. Clear of track centre, shall be done only in the presence of experienced Trackman who shall be deputed by Railway as Flagman duly authorized by the Engineer in charge at the cost of the contractor to ensure the safety of track. No part of the road vehicle will be allowed at less than 3.5 m. from track centre. Cost of such railway employees shall be borne by the Railway and the expenses towards their wages shall be recovered from the dues of the contractor.
- (iv) The Contractor shall remain fully responsible for ensuring safety and in case of any accident, shall road cost of all damages to the equipment & man and also damages to railway and it's passengers.
- (v) Engineer in charge may impose any other condition necessary for a particular work or site.

2.0 PREVENTION OF ACCIDENTS:

- 2.1.1 The contractor shall be responsible for the safety his workmen and shall provide them with necessary standard wear and apparel consistent with the nature of work being executed by his workmen.
- 2.1.2 The contractor shall ensure safety of his workmen by posting necessary flagmen, whose job will be to caution the workmen of approaching trains, when his workmen work on or near running railway line. Similar action would be taken, while working on or near road in use.
- 2.1.3 The Contractor shall protect the site of the work, excavated areas etc by adequate fencing and or other suitable means to prevent accidents to his own workmen, the railway men or any member of the public.
- 2.1.4 Should any accident take place, total cost of damage including the cost of treatment, loss and or compensation to all affected person/organization and the Railway shall be payable by the contractor. In case the Railway, under any circumstances or law of the country, pays such damage, the same shall be fully recovered from the contractor's dues.

3.0 QUALITY ASSURANCE AND REDUCED PAYMENT:

- (i) The contractor shall supply all materials and execute all works according to the specifications and drawings pertaining to the work, both in respect of structural strength and finish, in addition to complying with provision of GCC April 2022. or latest
- (ii) All charges for working of machine viz. fuels, drivers, repairs, etc. will have to be borne by the contractor. No extra payment will be made on this account.
- (iii) In case a contractor executes a work, which is below the specified structural strength, the work shall be dismantled and re-executed at contractor's cost at the sole discretion of the Engineer at site.



- (iv) In case a contractor executes a work which is structurally up to specifications, but sub-standard in finish, the same may be approved and accepted by the Railway in cases where finish is not so important, at Railways sole discretion, provided that where such a work is accepted, the payment for such work shall be made as decided by competent Railway authority.

3.0 Provisions of Employees Provident Fund and Miscellaneous Provisions Act, 1952 “Clause 55-B to GCC”:

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

Employees Provident Fund Scheme, 1952:

Payment of Contributions: (As per Para 30)

- (i) The employer shall, in the first instance, pay both the contribution payable by himself (in this Scheme referred to as the employer’s contribution) and also, on behalf of the member employed by him directly or by or through a contractor, the contribution payable by such member (in this Scheme referred to as the member’s contribution).
 - (ii) In respect of employees employed by or through a contractor, the contractor shall recover the contribution payable by such employee (in this Scheme referred to as the member’s contribution) and shall pay to the principal employer the amount of member’s contribution so deducted together with an equal amount of contribution (in this Scheme referred to as the employer’s contribution) and also administrative charges.
 - (iii) It shall be the responsibility of the principal employer to pay both the contribution payable by himself in respect of the employees directly employed by himself in respect of the employees directly employed by him and also in respect of the employees employed by or through a contractor and also administrative charges.
- {Explanation: For the purpose of this paragraph, the expression “administrative charges” means such percentage of the pay (basic wages, dearness allowance, retaining allowance, if any, and cash value of food concessions admissible thereon) for the time being payable to the employees other than an excluded employees, and in respect of which Provident Fund Contribution are payable as the Central Government may, in consultation with the Central Board and having regard to the resources of the Fund for meeting its normal administrative expenses fix.}

36-B Duties of Contractor:

Every contractor shall, within seven days of the close of every month, submit to the principal employer a statement showing the recoveries of contributions in respect of employees employed by or through his and shall also furnish to his such information as the principal employer is required to furnish under the provisions of the Scheme to the Commissioner.

Employees Pension Scheme, 1995:

Para 3(1): From and out of the contributions payable by the employer in each month under Section of the “Act” or under the rules of the Provident Fund of the establishment which is exempted either under Clauses (a) and (b) of sub-section (1) of section 17 of the Act or whose employees are exempted under either paragraph 27 or paragraph 27-A of the Employees ‘Provident Fund Scheme, 1952’ a part of contribution representing 8.33 per cent of the Employee’s pay shall be remitted by the employer to the Employees ‘Pension fund within 15 days of the close of every month by a separate bank draft or cheque on account of the Employees ‘Pension Fund Contribution in such manner as may be specified in this behalf by the Commissioner. The cost of the remittance, if any, shall be borne by the employer.

Para 3(2): The Central Government shall also contributes at the rate of 1.16 percent of the pay of the members of the Employees ‘Pension Scheme and credit the contribution to the Employees’ Pension Fund : Provided that where the pay of the member exceeds Rs. 6,500 (Rupees Six thousand and five hundred) per month, the contribution payable by the employer and the Central Government be limited to the amount payable on his pay of Rs.6,500 (Rupees Six thousand and five hundred) only.



Para 4 : *Payment of Contribution:*

- (1) The employer shall pay the contribution payable to the Employees 'Pension Fund in respect of each member employed by him directly or by or through a contractor.
- (2) It shall be responsibility of the principal employer to pay the contributions payable to the Employees' pension fund by himself in respect of the employees directly employed by him and also in respect of the employees employed by or through a contractor.

Employees Deposit Linked Insurance Scheme, 1976:

Para 7: *Contribution:*

- (1) The contribution payable by the employer and the Central Government under sub-section (2) and sub-section (3) of section 6-C of the Act, shall be calculated on the basis wages, dearness allowance (including the cash value of any food concession) and retaining allowance, if any, actually drawn during the whole month whether paid on daily, weekly, fortnightly or monthly basis.
Provided that where the monthly pay of an employee exceeds six thousand five hundred rupees, the contribution payable in respect of him by the employer and the Central Government shall be limited to the amounts payable on a monthly pay of six thousand five hundred rupees including dearness allowance, retaining allowance (if any) and cash value of food concession.

Para 8: *Mode of payment of contribution:*

- (1) The contribution by the employer shall be remitted by him together with administrative charges at such rate as the Central Government may fix from time to time under sub-section 4 of Section 6-C of the Act, to the Insurance Fund within fifteen days of the close of every month by a separate bank draft or cheque or by remittance in cash in such manner as may be specified in this behalf by the Commissioner. The Cost of remittance, if any, shall be borne by the employer. It shall be the responsibility of the employer to pay the contribution payable by himself in respect of the employees directly employed by him and also in respect of the employees' employed by or through a contractor.



EAST CENTRAL RAILWAY

No. ECR/HQ/JPO/efile no. 261966

JOINT PROCEDURE ORDER (JPO) FOR UNDERTAKING EARTH WORK IN THE VICINITY OF ELECTRICAL, SIGNALLING & TELECOM CABLES/ASSETS

Authority: PCSTE/ECR/HJP JPO No.- ECR/HQ/JPO/efile no.-261966 dated 15.05.2024 circulated vide S&T deppt. Policy no.- 09/2024 dtd. 21.05.2024

Note-This JPO is to be followed for undertaking earth work in the vicinity of electrical, signalling & telecom cables/assets

Sub: Procedure for undertaking earth work/digging work/trenching work in the vicinity of Signaling, Telecom and Electrical cable/ others assets- preventative and post cable/ asset damage measures.

Ref: (i) Rly. Bd's letter No. 2021/Tele/5(2)/3-Part(I)(3425647), NDLS dtd. 12.06.2023.

(ii) Rly. Board letter no.- 2020/Tele/11(6)/1(3329554) dated 02.12.2023

Despite Railway Board circulars and JPOs, cuts in cables/ damage to the existing utilities due to construction activities such as multiple tracing, doubling, yard remodelling, additional loop/ longer loop work, station development, building construction, Tower/ Mast erection works, Electrification works, Drainage, water pipe line etc and such others works involving earth work/digging/ trenching work in vicinity of existing assets is a cause of concern. Directions were issued to prevent such cases from time to time including Railway Board JPO no. 2003/Tele/RCII/1/Pt.IX, dated 24.06.2013 (Telecom Circular No. 17/2013). Vide above ref(i) in suppression to above JPO, Railway Board issued guidelines for protection of cable while doing working in vicinity and advised Zonal Railways to issue JPO based on these guidelines.

The JPO is issued to describe the mechanism for different use cases to prevent damage to working asset during the work.

(1)	Divisions will upload updated Cable Route diagram for all types of cable (lock section wise on Home page of internet website of ECR (www.ecr.indianrailways.gov.in)). The Executing Agencies may refer to this while executing the work.
(2)	<p>Leveraging Information Technology to permits cable cut using coordinated information system:</p> <p>(i) For all new/ existing works where trenching/ diggings of soil/earth work is involved by any agencies of S&T, Electrical, Civil Engineering, RVNL, IRCON, DFCCIL, private sector firms, etc., "Call Before u Dig" (CBuD) scheme to be implemented as per direction or Railway Board issued in the regard (as amended time to time). To implement the "Call Before u Dig" (CBuD) mobile app, it is mandated to include the CBuD model of working as part of the tenders off all departments.</p> <p>(ii) Subsequently a joint survey between all assets owners and executing body will be undertaken. Based on the survey a detailed joint sketch plan indicating the presence of cables and their distance from the OHE pole should be prepared and jointly signed. This joint sketch should be available with asset owner as well the executing agency before taking up the work.</p>
(3)	<p>Where new works is being executed: For all new works involving trenching/earth work of any king, system of providing information to be given as per details given in S.No-(2) above. Joint survey by S&T, Electrical and executing department indicating existing S&T, Electrical and others cable should be undertaken. On basis of this survey, a joint sketch indicating items for shifting of existing S&T & Electrical cables should be prepared and it should invariably be made part of DPR and estimate with adequate fund provisioning in it. Trenching/Earth work should only be started/ undertaken when shifting/ relocation of cable and other infrastructure is ensured.</p>



(4)	<p>For all ongoing works: For all ongoing/ existing works involving trenching/earth work of any kind, system of providing information to be given as per details given in S.No.-(2) above. Further, provision of fund should be made either by sanction of work of cable shifting (if necessary) utilizing contingency/ supplementary/ revision of existing estimates where provision does not exist. Trenching/Earth works should only be started/ undertaken when shifting/ relocation of cable and other infrastructure is ensured. For this following is to be ensured:</p> <p>(i) Joint survey between S&T, Electrical and executing department indicating existing S&T, Electrical and other cable should be undertaken. This survey should also indicate the scope of earth work and area involved in the work. Based on the survey a detailed sketch plan indicating the presence of cable and their distance from the OHE pole should be prepared and jointly signed.</p> <p>(ii) On bases of the survey, cable/asset shifting shall be done by executing agency and new cable should be kept ready in location box/relay hut/relay room for shifting. However, shifting of working circuits on new cable of Signal/Telecom/ Electrical assets in location box/ Relay room/ OFC Huts, other location, etc. Shall be responsibility of concerned Sr.DSTs/Sr.DEE in division.</p> <p>(iii) Approval to be obtained by exercising activity at S.No.2 (i) above.</p>												
(5)	<p>In case shifting of cable is not feasible (due to any reason),</p> <p>(i) After the joint survey, detailed joint sketch plan as indicated in S.No.2 (ii) shall be prepared.</p> <p>(ii) In addition to this, lime marking or appropriate marker should be provided indicating presence of cables.</p> <p>(iii) The protection of cable shall be ensured by the executing agency taking all the precautions, preferably by manual method. The work should be carried out as per joint sketch taking care of exiting cables.</p> <p>(iv) However even upon taking all these precautions if cable gets damaged, due to any reason, it should be promptly informed to the concerned S&T/Electrical staff/ respective Control. Under these circumstance, the contractor is expected to help Railways in restoration and there after he can make a request to ADRM for reduction of penalty.</p>												
(6)	<p>Precaution to be taken during commencement of work: All executing/ assets owners departments/ units should take precaution/ utmost care during execution of any work in vicinity of Railway Track. In this regard, Divisional control room of the respective deptt. Shall inform all concerned about the ongoing works with its scope in the section by available means of communication to make them aware of the work being executed in section.</p>												
(7)	<p>For trenching work on Railway land by agencies of Government (other than Railways) i.e NHAI, State Gove, Private Companies/ agencies, etc., the system as elaborated in CBuD should be followed. Engineering department will be coordinating department with these agencies/units.</p>												
(8)	<p>Penalty for cutting/ damaging the Railway cable by firm/ contractor/ agency:</p>												
(i)	<p>Penalty should be levied on the contractor when they work without permission or resort to careless working without making proper arrangements for protecting cables and other utilities. Level of Penalty to be imposed for damages to cable/ utilities shall be as under:</p> <table border="1"> <thead> <tr> <th>Cable Damaged</th><th>Penalty per location (Rs.)</th></tr> </thead> <tbody> <tr> <td>Only Quad cable or Signaling cable</td><td>1.0 Lakh</td></tr> <tr> <td>Only OFC</td><td>1.25 Lakh</td></tr> <tr> <td>Both OFC & Quad</td><td>1.5 Lakh</td></tr> <tr> <td>Electrical Cable</td><td>1.0 Lakh</td></tr> <tr> <td>Telecom PIJF Cable</td><td>0.5 Lakh</td></tr> </tbody> </table>	Cable Damaged	Penalty per location (Rs.)	Only Quad cable or Signaling cable	1.0 Lakh	Only OFC	1.25 Lakh	Both OFC & Quad	1.5 Lakh	Electrical Cable	1.0 Lakh	Telecom PIJF Cable	0.5 Lakh
Cable Damaged	Penalty per location (Rs.)												
Only Quad cable or Signaling cable	1.0 Lakh												
Only OFC	1.25 Lakh												
Both OFC & Quad	1.5 Lakh												
Electrical Cable	1.0 Lakh												
Telecom PIJF Cable	0.5 Lakh												
(ii)	<p>Necessary debit in this regard will be raised by the cable/utility owing department on the executing agency undertaking the work, who shall levy and recover the penalty from the defaulting contractor. The executing agency may make necessary provision in the contract to enforce the penalty.</p>												



(iii)	For penalty to be imposed for each cable cut, a joint report should be prepared on the same day at the level of supervisors of executing unit and affected unit. Responsibility of unit to be fixed based on the joint note and joint sketch. If supervisor of executing unit refrain from signing of the joint note then DAR action may be initiated by concerned department against the associated supervisor.
(iv)	The defaulting contractor/ agency/ unit (on basis of penalty imposed based on joint report) may appeal against the penalty. For this they may apply to ADRM of division through proper channel within one month of receiving the penalty notice along with complete documents and detailed justification. ADRM may enquire over the matter and decide on the appeal after consulting all concerned department/ documents. In case where defaulting contractor has extended help in restoration, the penalty can be reduced to an extent as deemed fit by ADRM. Decisions taken by ADRM shall be final and also be binding on all parties.
(v)	In case of cable cut/ damage due to miscreant activity or anyone working without permission then an information to be given by divisional Control of affected department to Security Control in division for instant preventive action followed by formal complaint by concerned SSE/JE of affected unit to concerned RPF Post for registration of criminal case. Thereafter, joint report should be prepared on the same day at the level of supervisors of RPF and affected unit (owner unit of asset). Case registered by RPF, being a legal procedure at disposal of the court, would not be withdrawn.
(9)	Penalty not to be imposed in case of following:
	Where works are executed by authorized contractors of Railways/ department who have been allowed/ permitted to work in the location & firm is obeying all the prescribed Rules framed by Railways and as per joint sketch but it is found that incorrect cable marking is given by concerned affected department as per initial joint survey.

**ANNEXURE – ‘P’****PROFORMA FOR THE WORK PERFORMANCE GUARANTEE**

I/We _____ hereby guarantee that the tender submitted by us against Tender No. _____ Is such as to meet the requirements of the end objective in the tender documents and to the technical specifications therein. We further guarantee that if the performance of the equipment/work after installation not complying with the end objectives or with the specifications contained in the tender documents. We shall provide further inputs to enable the Railways to realize the end objectives with full compliance of the specifications and end objective contained in these documents without any additional payment for any addition which may be required in this regard.

We further guarantee that all the expenses for providing the additional inputs under the system guarantee inputs will be borne by us to make the work suitable and conforming to the end objectives within 3 months from the date on which this guarantee is invoked by the purchaser.

-----::-----



TO BE FILLED BY THE TENDRER

Address of the firm's Failure Report Center/ Centers.

1. (Address-1)-----

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

Telephone/Mobile No.-----

FAX No.-----

2. (Address-2)-----

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

Telephone/Mobile No.-----

FAX No.-----



MANDATE FORM
BY
VENDOR/CONTRACTOR/EMPLOYEE
FOR EFT/ECR/RTGS/NEFT PAYMENT

1. Firm/Person/Party's Name :
2. Address. :
3. Telephone No./Cell phone No.& fax. :
4. E. Mail. :
5. PAN :
6. Particulars of Bank Account:
 - A. Name of the Bank :
 - B. Name of the branch :
Address :
 - Telephone No. :
 - C. 9-Digit code number of the bank and branch
appearing on the MICR cheque issued by the bank :
 - D. Type of the account (S.E. Current or cash Credit) with code (10/11/13)
 - E. IFS CODE
 - F. Account number (as appearing on the cheque book.)

I hereby declare that the particulars given above are correct and complete. If the transaction is delayed or not effected at all for reasons of incomplete or incorrect information, I would not hold the user institution responsible. I have understood the scheme and agree to discharge the responsibility for which I am liable as a participant under the scheme.

(.....)
 Signature of the
 Supplier/Firm/Contract

Date:

(Please attach a blank cancelled cheque or photocopy of a cheque or front page of your saving bank passbook issued by your bank for verification of the above particulars)

[Where the cheque does not carry IFS Code, an attestation from Bank attesting the IFS Code should be given]

Certified that the particulars furnished above are correct as per our records.

Bank's Stmp

Date:

(.....)
 Signature of the authorized
 Official of the Bank
 (Where required)



**Database for all Venders/Contractors in connection with implementation
of GST from 01.07.2017.**

1. Supplier/Contractor Name :
2. Registered Address as per the Contract Agreement :
3. Location from where Supply made/Where Earning Contract executed :
4. Address of Location of Supply/Where Earning Contract executed :
5. Registered Email id of Firm :
6. Registered Contract No. of Firm :
7. Registered under GST : y/n :
8. If Y (Yes), give GSTIN No. :
9. Whether registered under Composition Scheme (Y/N) :
10. Principal place of Business as per the GSTIN No. :
11. Registered Email id as per GSTIN :
12. Registered Contact No. as per GSTIN :



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

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

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



10. I/We have read the clause regarding restriction on procurement from a bidder of a country which shares a land border with India and certify that I am/We are not from such a country or, if from such a country, have been registered with the competent Authority. I/We hereby certify that I/we fulfil all the requirements in this regard and am/are eligible to be considered (evidence of valid registration by the competent authority is enclosed)

SEAL AND SIGNATURE
OF THE TENDERER

Place :

Dated :

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

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



E. New Annexure-V(A), Part I of GCC shall be read as under

ANNEXURE-V(A)

Reference -Para 6.1 of ITT

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

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

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

SEAL AND SIGNATURE
OF THE CONSTITUENT FIRM/CONSTITUENT PARTNER

Place:

Dated:



FORM OF BANK GUARANTEE BOND FOR P.G.

The FA & CAO
East Central Railway
Hajipur

Dera Sir,

Bank Guarantee No. :-

Amount of Guarantee :-

Guarantee Cover From :- To.....

Last date for lodgment of claim :-

The deed of Guarantee is executed by the(hereinafter referred to as the Bank) in favour of the FA & CAO/E.C. Railway/Hajipur (hereinafter referred to as the beneficiary) for an amount not exceeding Rs. (in word) at the request of M/S (hereinafter referred to as the contractor).

1. In consideration of the President of India (hereinafter called “the Government”) having awarded the work of(Name of the work)..... VIDE Letter of Acceptance No. dated (hereinafter called “the said Letter of Acceptance”), to M/s NAME OF THE CONTRACTOR(hereinafter called “The said Contractor(s)”,

AND

Whereas the contractor(s) is required to furnish “Performance Guarantee” in the form of an Irrevocable Bank Guarantee for the sum of Rs. (Rs. Amount in Words), for the satisfactory completion of the work including maintenance period if any, by the said contractor(s)

AND

Whereas submission of performance guarantee is a condition precedent to the signing of the Contract Agreement.

We (indicate the name of the bank) at the request of (contractor(s) do hereby undertake to pay to the Government an amount not exceeding Rs. against any loss or damage caused to or suffered or would be caused to or suffered by the Government by reason of any breach of the said Contractor(s) of any of the terms or conditions contained in the said Letter of Acceptance and the Agreement to be signed, after furnishing of performance guarantee by the said contractor(s).

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

3. We undertake to pay the Government any money so demanded notwithstanding any dispute or disputes raised by the contractor(s)/Supplier(s) in any suit or proceedings before any court or Tribunal relating thereto our liability under this present bond being absolute and unequivocal. The payment so made by us under this Bond shall be a valid discharge of our liability for payment there under and the contractor(s)/Supplier(s) shall have no claim against us for making such payment.

Contd..P/2.



: 2 :

4. We (Indicate the name of the Bank) further agree that the Guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the works covered in said Letter of Acceptance and / or the Agreement including maintenance / warrantee period, and that it shall continue to be enforceable till all the dues of the Government under or by virtue of the said Letter of Acceptance and / or the Agreement have been fully paid and its claims satisfied or discharged or till FA&CAO/ECR/Hajipur (office/department) Ministry of Railway certified that the terms and conditions of the said Letter of Acceptance and / or Agreement have been fully and properly carried out by the said contractor(s) and accordingly discharges this Guarantee. Unless a demand of claim under the Guarantee is made on us in writing on or before the (Date of completion + 6 months thereafter) we shall be discharged from all liability under this Guarantee thereafter.

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

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

7. We (Indicate the name of bank) lastly undertake not to revoke this Guarantee during its currency except with the previous consent of the Government in writing.

Date the day of 20
for
(Indicate the name of the Bank)

Note :- No any extra clause should be incorporated (i.e. Not Withstanding Clause) by the Bank, even in covering letter.

**(Bid Security)**

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

Name of the Bank:.....

President of India,

Acting through.....

..... Railway,

Beneficiary:.....Railway

Date:.....

Bank Guarantee Bond No.:

Date:.....

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

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

AND

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

1. KNOW ALL MEN that by these present that I/We the undersigned **[Insert name(s) of authorized representatives of the Bank]**, being fully authorized to sign and incur obligations for and on behalf of the Bank, confirm that the Bank, hereby, unconditionally and irrevocably guarantee to pay to the Railway full amount in the sum of **[Insert required Value of Bid Security]** as above stated.
2. The Bank undertakes to immediately pay on presentation of demand by the Railway any amount up to and including aforementioned full amount without any demur, reservation or recourse. Any such demand made by the Railway on the Bank shall be final, conclusive and binding, absolute and unequivocal on the Bank notwithstanding any disputes raised/ pending before any Court, Tribunal, Arbitration or any Authority or any threatened litigation by the Bidder or Bank.
3. The Bank shall pay the amount as demanded immediately on presentation of the demand by Railway without any reference to the Bidder and without the Railway being required to show grounds or give reasons for its demand of the amount so demanded.
4. The guarantee hereinbefore shall not be affected by any change in the constitution of the Bank or in the constitution of the Bidder.
5. The Bank agrees that no change, addition, modifications to the terms of the Bid document or to any documents, which have been or may be made between the Railway and the Bidder, will in any way absolve the Bank from the liability under this guarantee; and the Bank, hereby, waives any requirement for notice of any such change, addition or modification made by Railway at any time.



6. This guarantee will remain valid and effective from.....[insert date of issue] till[insert date, which should be minimum 90 days beyond the expiry of validity of Bid]. Any demand in respect of this Guarantee should reach the Bank within the validity period of Bid Security.
7. The Bank Guarantee is unconditional and irrevocable.
8. The expressions Bank and Railway herein before used shall include their respective successors and assigns.
9. The Bank hereby undertakes not to revoke the guarantee during its currency, except with the previous consent in writing of the Railway. This guarantee is subject to the Uniform Rules for Demand Guarantees, ICC Publication No.758. 10. The Bank hereby confirms that it is on the SFMS (Structured Financial Messaging System) and shall invariably send the advice of this Bank Guarantee to the following bank details –

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

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

Date

Place.....

Bank's Seal and authorized signature(s)
 [Name in Block letters]
 [Designation with Code No.].....
 [P/Attorney] No.

Witness:

1 Signature, Name & Address & Seal

2 Signature, Name& address & Seal

Bank's Seal

[P/Attorney]No.

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



Annexure –VIB

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

NAME OF BIDDER/JV PARTNER:

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

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

SEAL AND SIGNATURE OF THE BIDDER

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

(Signature of Chartered Accountant)

Name of CA: _____

Registration No: _____

(Seal)



ANNEXURE– VI

**TENDERER'S CREDENTIALS (BID CAPACITY)
EAST CENTRAL RAILWAY**

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

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

Where,

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

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

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

Note:

(a) The Tenderer(s) shall furnish the details of-

(i) Maximum value of construction works executed and payment received in any one of the previous three financial years or the current financial year (up to date of inviting tender) for calculating A, and

(ii) existing commitments and balance amount of ongoing works with tenderer as per the prescribed proforma of Railway for statement of all works in progress and also the works which are awarded to tenderer but yet not started upto the date of inviting for calculating B. In case of no works in hand, a 'NIL' statement should be furnished.

This statement details for (i) and (ii) above should be verified by Chartered Accountant.

(b) In case of JV, the tenderer(s) must furnish the details of-

(i) Maximum value of construction works executed and payment received in any one of the previous three financial years or the current financial year (up to date of inviting tender) by each member of JV for calculating A, and

(ii) existing commitments and balance amount of ongoing works with each member of JV either in individual capacity or as a member of other JV as per the prescribed proforma of Railway for statement of all works in progress and also the works which are awarded to each member of JV either in individual capacity or as a member of other JV but yet not started upto the date of inviting of tender for calculating B. In case of no works in hand, a 'NIL' statement should be furnished.

This statement details for (i) and (ii) above should be verified by Chartered Accountant.

(c) Value of a completed work/work in progress/work awarded but yet not started for a Member in an earlier JV shall be reckoned only to the extent of the concerned member's share in that JV for the purpose of satisfying his/her compliance to the above mentioned bid capacity in the tender under consideration.

(d) The arithmetic sum of individual "bid capacity" of all the members shall be taken as JV's "bid capacity".

(e) In case, the tenderer/s failed to submit the above statement along with offer, their/his offer shall be considered as incomplete and will be rejected **summarily**.

(f) The available bid capacity of tenderer shall be assessed based on the details submitted by the tenderer. In case, the available bid capacity is lesser than estimated cost of work put to tender, his offer shall not be considered even if he has been found eligible in other eligibility criteria/tender requirement.

DSTE/Sonpur

Signature of the tenderer



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

ANNEXURE-XVII

Reference Para 16.(4)

Insurance Surety Bond for Performance Security

Name of the issuer of surety bond:

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

Date:

.....

Surety Bond No:

Issue Date:

Amount of Bond:

Expiry Date:

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

AND

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

SB No:

Date:

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

1. KNOW ALL MEN by these present that I/We, the undersigned [Insert name(s) of authorized representatives of the Surety], being fully authorized to sign and incur obligations for and on behalf of the Surety, confirm that the Surety, hereby, unconditionally and irrevocably Bond to pay the Railway the full amount in the sum of XXXX (Rupees XXXX Only) as above stated.
2. The Surety undertakes to immediately pay on presentation of demand by the Railway any amount up to and including aforementioned full amount without any demur, reservation or recourse. Any such demand made by the Railway on the Surety shall be final, conclusive and binding, absolute and unequivocal notwithstanding any disputes raised/pending before any Court, tribunal, arbitration or any authority or any threatened litigation by the Bidder or Bank.
3. On payment of any amount less than aforementioned full amount, as per demand of the Railway, the Bond shall remain valid for the balance amount i.e. the aforementioned full amount less the payment made to the Railway.
4. The Surety shall pay the amount as demanded immediately on presentation of the demand by Railway without any reference to the contractor and without the Railway being required to show grounds or give reasons for its demand or the amount demanded.
5. The Surety Bond shall be unconditional and irrevocable.
6. The Bond hereinbefore shall not be affected by any change in the constitution of the Surety or in the constitution of the Contractor.
7. The Surety agrees that no change, addition, modifications to the terms of the Contract Agreement or to any documents, which have been or may be made between the Railway and the Contractor, will in any way release us from the liability under this Bond; and the Surety, hereby, waives any requirement for notice of any such change, addition or modification to the Surety.



8. This Bond is valid and effective from the date of its issue, which is [insert date of issue]. The Bond and our obligations under it will expire on XXXX (Expiry Date). All demands for payment under the Bond must be received by us on or before that date.

9. The Surety agrees that the Railways right to demand payment of aforementioned full amount in one instance or demand payments in parts totalling up to the aforementioned full amount in several instances will be valid until either the aforementioned full amount is paid to the Railway or the Bond is released by Railway before the Expiry date.

10. The Surety agrees that its obligation to pay any amount demanded by the Railway before the expiry of this Bond will continue until the amount demanded has been paid in full.

11. The expressions Surety and Railway hereinbefore used shall include their respective successors, administrators and assigns.

12. The Surety hereby undertakes not to revoke the Bond during its currency, except with the previous consent in writing of the Railway. This Bond is subject to the Uniform Rules for Demand Bonds, ICC Publication No. 758.

13. We, the Surety Insurer, further agree that the Authority shall be the sole judge to decide as to whether the Bidder is in default of due and faithful fulfilment and compliance with the terms and conditions contained in the Bidding Documents including, inter alia, the failure of the Bidder to keep its Bid open during the Bid validity period set forth in the said Documents, and the decision of the Authority that the Bidder is in default as aforesaid shall be final and binding on us, notwithstanding any differences between the Authority and the Bidder or any dispute pending before any Court, tribunal, arbitrator or any other authority.

14. The Bond shall be in addition to and without prejudice to any other security Bond (s) of the contractor in favour of the Railway available with the Railway. The Surety, under this Bond, shall be deemed as Principal Debtor of the Railway.

Notwithstanding anything to the contrary contained in these presents,

a. Our liability under this Surety Bond shall not exceed XXXX (Rupees XXXXX Only).

b. This Surety Bond shall be valid up to XXXX (being the date of expiry);

c. Unless the bank is served a written claim or demand on or before XXXX [date of expiry) all rights under this Bond shall be forfeited and the Surety shall be relieved and discharged from all liabilities under this Bond irrespective of whether or not the original Surety bond is returned to the Surety.

Dated the day of 2024

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

Place.....

Bank's Seal and authorized signature(s)

[Name in Block letters]

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

[P/Attorney] No.

Witness

1.

2.

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

ANNEXURE- R**RECEIPT CERTIFICATE (FOR SUPPLY ONLY)**

From: Sr. Section Engineer/Section Engineer (Signal/ Works)
East Central Railway,

No.		Date:
1	Contract No	
2	Name of Work	
3	Item No. As in Rate Schedule	
4	Description of Item.	
5	Material inspected by :	
6	Dispatch particular & date	
7	Quantity as per dispatch particular	
8	Quantity received	
9	Quantity short received	
10	Condition of Stores Received	
11	Name of Firm & Address	
12	Place of receipt	
13	Date of receipt	
14	Ledger No.	
15	Name & designation of Stores In-charge	

Signature of Stores-in-Charge



SCOPE OF WORK

Name of work: Danauli Phulwaria~ Yard remodeling work for extension of CSL of lines at DPL station.

A. For Contractor:

- 1.0** The work will be done by the contractor as per schedule & as per latest specification.
- 2.0** The work will be done as per instruction and to the satisfaction of Railway Engineer & site in-charge.
- 3.0** All the supplied materials should be from well known brand & it must be clearly mentioned. Otherwise, the materials may be rejected.
- 4.0** All the materials supplied by the contractor should comply all the instructions / guidelines/technical parameters.
- 5.0** Installation, Commissioning & Testing of the equipments should be carried out properly and no damage should be caused to other Railway property at the site.
- 6.0** All the wiring should be done properly, neat & clean.
- 7.0** Contractor shall be fully responsible for safety of signalling installations during execution and any failure/disruption attributable to contractor's activity shall be rectified by contractor at his own cost. The contractor shall be responsible for safe custody of all newly installed equipment including Railway materials, if any, till such time the installation is completed in all respects and is taken over by the railway.
- 8.0** Any damage in existing signalling/ telecom assets during execution shall be made good by contractor at his own cost. The contractor shall see that no damage is caused to railway signalling installation, communication lines and cable, electric devices, trains of any kind, fencing as well as any rolling stock and in general to any railway installation and equipment. If any damages is caused to or suffered by any railway property or as an consequence of the acts or unlawful omissions of the contractor, its employees and workmen or other persons connected with it, the necessary repairs or replacements shall be effected by the railway at the risk and cost of the contractor. The said expenses shall be recovered from the moneys due and payable to the contractor or by other appropriate proceeding.
- 9.0** The work during execution shall be subjected to checks and tests at any or all stages. The tests shall be carried out by the engineer-in-charge or his authorized representative. After taking the test a list of discrepancies/deficiencies, if any, shall be given to the contractor. The contractor shall be liable to remedy such discrepancies / deficiencies as discovered during these tests and make good at his own cost, within a period of 30 (Thirty) days from the date of testing.
- 10.0** The contractor shall have to arrange adequate tools and measuring equipment's for execution of the work at his own cost.
- 11.0** If the materials or tools however, not available in Railway stock or Railway decides not to supply the same, whatsoever be the reason, the railway shall not be bound to arrange for the supply nor will this fact be accepted as an excuse for delay in the execution of the work.
- 12.0** No work on working installations shall be undertaken without the specific permission of the Railway representative and without the presence of Railway representative at the site of the work.
- 13.0** The firm should be responsible to do the maintenance work for 12 months after the date of commissioning of the equipment without any extra expenditure charge on railway and free of cost.
- 14.0** The contractor will be responsible to transport the required material at site including loading & un- loading of materials at his own cost.
- 15.0** All the materials against the schedule of work will be delivered to SSE/Sig/KGG & SSE/Tele/BJU and will be inspected by authorized representative of Sr. DSTE/SEE.



- 16.0** Digging in the vicinity of existing Railway cables: Guidelines issued by Railway Board vide letter no. 2021/Tele/5(2)/3- Part (1) (3425647), Dtd.12.06.2023& S&T Policy No. 09/2024 (Letter No. ECR-HQ0SnT(GENL)/41/2020(5954), 21.05.2024, for undertaking digging work in the vicinity of Signalling, Electrical and Telecommunication cables, need to be followed during digging/trenching work in the vicinity of Railway tracks. Penalty in the event of existing cables getting damaged will be payable by the Contractor.
- 17.0** Any confusion about any items, terms and condition, technical specification, tender document items etc. should be discussed with Railway official nominated by Sr. DSTE/SEE.

B. For Railway:

1. Site will be provided by site engineer.
2. SIP & ST will be provided by Railway.
3. Necessary traffic block/power block shall be arranged by Railway subject to operational feasibility and no claim on this account shall be entertained.
4. Power supply of 220 V, 50 Hz AC if required shall be arranged by railway but necessary socket, plug points and extension boards as per requirement will be provided by the contractor with necessary wiring.



TECHNICAL SPECIFICATION

Name of work: Danauli Phulwaria~ Yard remodeling work for extension of CSL of lines at DPL station.

A. (Supply):

Supply of following S&T materials as per specification mentioned in Schedule of work with latest ammendment:-

- 1.0** Supply and fixing of G.I. Pipe with threaded collars of 100 mm nominal bore specn. No. IS 1239 medium grade. Perforated of required length on bridge/below metallad road/L-Xing/Culvert as per technical specification of tender.
- 2.0** Supply of 6 way & 1 way PBT ARA terminal as per IRS SPECN No. IRS:S-75-91
- 3.0** Supply of Bakelite Strip/Sheet of Size (950 x 75 x 12) mm. for fixing 30 Nos. ARA terminals/ Fuse base terminals/Fuse base.
- 4.0** Supply of offset bracket for colour/position light signal (90/140 mm outside Dia) post with U- clamps, nuts, washers complete as per RDSO DRG.No.SA 23080/ADV/ALT-1.(Dia will be as per site engineer)
Note- Proper size offset bracket for position light shunt signal to be supplied. Site engineer to give details of the offset bracket to the contractor.
- 5.0** Supply of CLS Post 4.5 mtr. and Ladder 4.5 Mtr. with bases as per RDSO DRG. No. SA.5533/ADV and RDSO Spec. No.S6-81.
- 6.0** Supply of CLS Post 3.5 mtr. And Ladder 3.5 Mtr. with bases as per RDSO DRG. No. SA.5533/ADV and RDSO Spec. No.S6-81.
- 7.0** Supply of Enamelled number plate P/G/C marker as per site requirement & instruction of Site incharge & as per standard practice in ECR.
- 8.0** Supply of point JB fitted with 18 Nos. 1 way ARA PBT terminal block conforming to IRS - S- 75/91 with 3 Nos. of 40 mm Bore. GI pipe 600 mm long as per DRG No.SGW/MGS/PT4/91 fixed on hard wood plank with U-channel (75 x 40 x 1500) mm for fixing.
- 9.0** Supply of complete ground fittings for point machine, including insulated stretcher Bar Switch extension piece etc. and all other accessories required for installation. i) For IRS point machine (Spec. IRS -24/2002) a) Turn out (RDSO DRG. No. SA - 8800-01)
- 10.0** Supply of CT rack (DRG.No.S&T/C-9/2001/ER) complete with all fittings including 8 way PBT terminals as per Spec.No.IRS-79/92.
- 11.0** Supply of relay racks to accommodate 100 relays complete with all fittings as per ER. DRG. No. S&T/C-20/ 2001
- 12.0** Supply of earth electrode. Materials to be procured as per E. Rly Sketch No.SGW/T/3/G/8/89.
- 13.0** Supply of full size location box as per design of GKP signal workshop.
- 14.0** Supply of E-type lock without key, spec. No. IRS-S-30, Drg. no.S-3376/M , key-S-3377/M.
Individual number of miniature E locks and Normal size of locks required at site & ward of E-type lock to be decided by the site engineer as per site requirement.
- 15.0** Supply of Key for E type lock supplied above of ward no. as specified by railway site engineer.
- 16.0** Supply of Non deteriorating type low voltage cartridge fuse as per Spec. No. IRS/S/78/92. Round head type of rating 4 Amp, 6 Amp, 10 Amp& 16 Amp Capacity.
- 17.0** Supply of slotted angle (40 x 40 x 2 mm)
- 18.0** Supply of paper base hylum sheet 12 mm thick.
- 19.0** Supply of indoor signalling cable as per IRS-S-76/89. [40c x 0.6 mm]
- 20.0** Supply of PVC wire coil of size of 16/0.2 mm, 3/0.750 mm&7/0.75 mm of colours as per instruction of site engineer in 100 mtr. Coils. Spec. no. IRS-S-76/89.Material to be procured from RDSO approved firm only with performance guarantee.



21.0 Supply of MS number plate (200 mmx300 mmx3 mm) with fixing clamps. Letter shall be of black colour in the white back ground. Details of description shall be given by site engineer. The plate & clamps shall be painted before lettering of signal numbers.

22.0 Supply of tools & plants, measuring instruments. Each set containing the following items:-

- i) Cutting plier (Taparia make) 200 mm insulated. = 1 no.
- ii) Nose plier round insulated, 150 mm (Taparia make) = 1 no
- iii) Screw driver adjustable with common handle for different screw driver (Taparia make) = 1 no.
- iv) Spanner double ended, 33 mm = 1 no.
- v) Hammer ball pans, 1.5 lbs = 1 no.
- vi) Electric soldering iron (Philips/Soldron make), 230 V, 60 Watt. = 1 no.
- vii) Wire cutter insulated (Taparia make) = 1 no
- x) Spanner set double end (Chromium plated, (Taparia make) = 1 no.
- ix) Wrench adjustable sf 305 mm (Taparia make) = 1 no.
- x) Spanner double ended, 25 mm = 1 no.
- xi) Megger, 0-500 volt (Motvani/Shanti make)= 1 no
- xii) Digital multimeter with following range= 1 no.
(a) 0-1000V AC/DC (b) 0-10 Amp (c) 0-1000 Ohms, 3-1/2 digits
The meter shall be supplied with test probes, leather cover battery and of reputed make like Philips/Meco or similar.
- xiii) Box spanner insulated 1/4 inch x 3/8 inch = 1 no.
- xiv) Box spanner insulated 3/8 inch x 1/2 inch = 1 no.
- xv) True RMS digital multimeter of 4-1/2 digits capable of measuring (i) 10 Amp AC and DC current (ii) True RMS voltage with a bandwidth of 5 Khz. Similar to Escorts 97 or Fluke.
- xvi) Drill bits 7 mm - 7 nos.

23.0 Supply of Thermo Shrink Jointing kit for Jointing underground Quad cable [0.9 mm dia of conductor] as per RDSO specification no. IRS: TC: 77/2012 Rev.3.0 with amdt.1 to 2 or latest.

24.0 Supply of split DWC pipe with the socket / couplar and T joint where ever required, (size of outer dia 300 mm / inner dia 260 mm.)

25.0 Installation, erection and wiring of CLS unit, LED unit including laying out of tail cable from Location Box and earthing of CLS (LED type). This includes supply of Non Metallic (FRP) Color light signal housing multi unit type for Railway signalling suitable for RE area, **4 aspect complete** (without lenses, lamps and signal transformer) as per RDSO Drg. No. SA- 23001/A/M/ADV,ALT-8 and as per Spec No. RDSO/SPN/194/2006 (version 1.0) with latest amdt and FRP material as per RDSO Spec No. RDSO/SPN/151/1997 or latest. All drawings should be as per latest. Material to be procured from RDSO's approved firm only.

Note:- Signal unit should be compatible to 'LED' type. Installation, erection & wiring of signalling unit includes LED signal lighting unit including current regulator & Health Monitoring unit. This also includes protection of unit from Rain water.

26.0 Installation, Erection & Wiring of CLS unit, Post, Ladder & Base, LED unit including laying out of tail cable from location box & earthing of CLS (LED type). This includes supply of non- metallic (FRP) colour light signal housing multi-unit type for Rly. signalling, suitable for RE area, **3 aspect complete** without lenses, lamps and signal transformer as per drg. no. SA23002/A/M/ ADV. ALT-8 and as per spec. no. RDSO/SPN/194/2006 (VER- 1.0) or latest and FRP material as RDSO spec. no. RDSO/SPN/ 151/ 1997 or latest. All drawings should be as per latest. Material to be procured from RDSO's approved firm only.

Note:- Signal should be compatible to 'LED' type. Installation, Erection & Wiring of signalling unit includes LED signal lighting unit including Current Regulator & Health Monitoring unit. This also includes protection of unit from rain water.

27.0 Installation, Erection & Wiring of CLS unit, Post, Ladder & Base, LED unit including laying out of tail cable from location box & earthing of CLS (LED type). This includes supply of non- metallic (FRP) colour light signal housing multi-unit type for Rly. signalling, suitable for RE area, **2 aspect complete** without lenses, lamps and



signal transformer as per drg. no. SA23003/A/M/ADV.ALT-8 and per spec. no. RDSO/SPN/194/2006 (VER- 1.0) or latest and FRP material as RDSO spec. no. RDSO/SPN/ 151/1997 or latest. All drawings should be as per latest. Material to be procured from RDSO's approved firm only.

Note:- Signal should be compatible to 'LED' type. Installation, Erection & Wiring of signalling unit includes LED signal lighting unit including Current Regulator & Health Monitoring unit. This also includes protection of unit from rain water.

- 28.0 Installation, Erection and wiring of Junction Type Route Indicator (LED type).** This includes supply of non-metallic (FRP) Junction Type Route Indicator for Rly signalling suitable for RE area without lamp, lenses, signal transformer as per RDSO spec. no. RDSO/SPN/194/2006 (VER-1.0) or latest. FRP material as per RDSO SPEC no. RDSO/SPN/151/1997 or latest. All drawings should be as per latest. Material to be procured from RDSO's approved firm only. (1 Way as per RDSO drg. no. SA- 23401(ADV)/ALT-2 & 3 Way as per RDSO drg. no. SA- 23403(ADV)/ALT-2)

Note:- Signal unit should be compatible to 'LED' type. Installation, Erection & Wiring of signalling unit includes LED signal lighting unit. This also includes protection of unit from rain water.

- 29.0 Installation, Erection, laying out of tail cable from location box and wiring of Calling-On signal/Guard repeater, LED unit on same post below Main signal.**

This includes supply of non-metallic (FRP) **Calling-On signal housing** unit type for railway signalling, suitable for RE area, without lense, lamp and holder, compatible to LED signal unit as per RDSO drg. no. SA24351/ADV or latest and as per RDSO spec. no. RDSO/SPN/194/2006 (VER-1.0) or latest. FRP material spec. as per RDSO/SPN/151/1997 or latest. This includes cost of protection cover (wire mesh guard of expanded metal of size 2inch x 1inch) and mounting bracket with U-clamps nuts & washer. All drawings should be as per latest.

Note:- Installation, Erection & Wiring of signalling unit includes LED signal lighting unit This also includes protection of unit from rain water.

- 30.0 Installation, erection, laying out of tail cable from LB and wiring of Shunt signal LED unit on the same post below the main signal as per technical specification.** This includes supply of Non Metallic (FRP) Shunt signal unit (without lenses, lamps base, post and signal transformer) as per RDSO Drg. No. SA- 23840/ ADV/Alt-2 or latest.FRP material Spec No. as per RDSO/SPN/151/1997 or latest. Material to be procured from RDSO's approved firm only.

Note:- Signal unit should be compatible to 'LED type. Installation, erection & wiring of signalling unit includes LED signal lighting unit. This also includes provision of offset bracket and protection of unit from rain water.

- 31.0 Installation, Erection of Shunt Signal unit with base and post and laying out of tail cable from location box and wiring of shunt signal, LED unit as per technical spec.** This includes supply of non-metallic (FRP) shunt signal housing multi-unit type (without lenses, lamps) with base & post and without signal transformer for Rly signalling suitable for RE area without lens, lamp & holder, compatible to LED signal unit as per RDSO drg. no. 23840/ADV/ALT-2 or latest and as per RDSO spec. no. RDSO/SPN/194/2006 (VER-1.0) or latest. FRP material spec. no. as per RDSO/SPN/ 151/1997 or latest. All drawings should be as per latest. Material to be procured from RDSO's approved firm only.

Note:- Installation, Erection & Wiring of signalling unit includes LED signal lighting unit. This also includes protection of unit from rain water.

- 32.0 Supply of Plastic cover for 2 aspect signal unit cover** operated from front side and bottom side and made of black polythene sheet of 100 micron thickness size of 1200 mm x 460 mm x 205 mm and back side 75 mm wide corner to corner diagonal to be provide total up cover with signal unit suitable nylon rope of 5 mm dia .and meter length to be provided on front size and of 1.5 meter length at center. **Note:-** Before supply, sample must be approved by consignee & controlling officer.

- 33.0 Supply of Plastic Cover of 3 Aspect Signal unit cover** operated from front & bottom side made of black polythene sheet of 100 micron thickness size of 300mm x 460mm x 205 mm and back side 75mm wide corner to corner diagonal to be provide total up cover with signal unit suitable nylon rope of 5mm dia and 4meter length to be provided on front size and of 1.5 Meter length at centre. **Note:-**Before supply, sample must be approved by consignee & controlling officer.



34.0 Supply of Plastic cover for **4 aspect** signal operated from front side and bottom side and made of black polythene sheet of 100 micron thickness size of 1700 mm x 460 mm x 205 mm and back side 75 mm wide corner to corner diagonal mark of silver colour of 100 micron thickness to be provide total up cover with signal unit suitable nylon rope of 5 mm dia and 4 meter length to be provided on front size and of 1.5 meter length at centre. **Note:-**Before supply, sample must be approved by consignee & controlling officer.

35.0 **Supply of MSDAC Record Books both side Printing (20 Page) and bounding size Length 8" width 5".**

Note- Supply should be as per instruction of Site incharge & as per standard practice in ECR. Sample must be approved by consignee & controlling officer before supply.

36.0 **Supply of Printed and Binded IPS Record LSC/ECU Indoor both side printing 50 Page and Bounding Size Width-11", Height- 8", Battery Record LSC/ECU Indoor both side printing 50 Page and Bounding Size Width-11", Height- 8", Signal Failure Memo Book Size 6" Long 4" Width of 100 Page printed with duplex top binding.**

Note- Supply should be as per instruction of Site incharge & as per standard practice in ECR. Sample must be approved by consignee & controlling officer before supply.

37.0 **Supply & Erection of passenger/Goods Warning Boards as per Drg.No.SA 2380 ADV with reflecting strips** as per instruction of Site incharge & as per standard practice in ECR.

38.0 Supply of Key Lock Relay (KLCR) (Neutral relay) to work on 24V DC 2F/2B with 1 Key and 2 Ward along with housing suitable for mounting 1 no. Key lock relay with push button, LED indication complete. **Note-** Material should be supplied along with Test certificate from OEM and his warranty certificate. Before supply, sample must be approved by consignee & controlling officer.

39.0 Supply of Smart Cabinet/Rack for Housing of Various S&T equipments like KLCR, Reset Box, IPS Indication Panel, CAVA Unit for FACS, SPAU for Point Reversal, Crank Handle, Quad Cable Earth Sensing Unit along with Fixing of KLCR(KLCR will be provided by Railway) as per instruction of Site Engineer, Make- RITTAL,SANTEL, VERO PRESIDENT or similar.

40.0 **Supply of Terminal Blocks of following specifications:-**(Inspection- RDSO)

i)	Supply of 4 Conductor Disconnect Terminal Block for test and measurement 0.08 mm ² - 2.5 mm ² center marking with test slot for test plug 2 mm/0.079 in and 2.3 mm/0.091 in carrier rail din35 front entry cage clamp connection grey WAGO or Similar as per RDSO Spec. No. RDSO/Spn/189/2004 Ver. 3.0 or Latest.
ii)	Supply of End and Intermediate plate 2.5 mm/0.098 in thick WAGO or similar as per RDSO Spec. No. RDSO/Spn/189/2004 Ver. 3.0 or Latest.
iii)	Supply of steel carrier rail 35x7.5 mm, 1 mm/0.039 in thick unslotted, yellow with chrome WAGO or similar as per RDSO Spec. No. RDSO/Spn/189/2004 Ver. 3.0 or Latest
iv)	Supply of Screwless End stop 10 mm/0.394 in wide carrier rail din 35, grey WAGO or similar as per RDSO Spec. No. RDSO/Spn/189/2004 Ver. 3.0 or Latest.

41.0 Supply of PVC flexible copper cable single core multistrand 1 x 10 Sq.mm (80 conductor each diameter 0.40 +/- 0.01) as per IS 694/2010 with latest amendment if any with insulation thickness of 1.0 mm nominal conductor resistance 1.91 ohms/Km and test parameters are as per IRS (S)76/89 (Amd.3).(Inspection by RDSO)

42.0 Supply and fixing of MS FLAT size 32mm *5 mm as Earth lead on Location boxes and Interlocked LC gates. All required material will be supplied by the contractor. Inspection Consignee

43.0 Supply and installation of earth electrodes including MS flate for signaling equipment such as lever frame, apparatus case, signal, relay rack, block instrument, etc. as per instruction of site engineer. Earth measurement will be done jointly. The record of the earth will be submitted by the contractor to the site engineer.

44.0 **Supply, Installation, Testing & Commissioning of Earth Leakage Detector for monitoring different AC & DC supplies Multichannel (12 channel) conforming to RDSO /SPN/256/2002 with latest amendments as per technical specification attached .**

- 12 channel- (110V DC- 01 channel, 110V AC- 04 channels, 12V DC- 01 channel and 24 V DC -06 channels)
- It should be in 19 inch sub rack with insulation tester with 6 digit counter
- Make: Anu Vidyut or similar (Inspection-RDSO)



- 45.0** Arrangement of Battery operated Rail Core Drill along with additional 18mm TCT Rail Core Drill, Maximum core cutting capacity: 36 mm, Rated speed: 250/450 RPM, Battery type: Li-on, Battery voltage: 50 Volt, Battery pack capacity: 4 AH, Number of Battery supplied: 2 Nos, Number of Charger supplied: 1 No, Special design pressurized Internal spindle cooling to give maximum life of core cutter and to avoid heating of the rail. Time taken to drill one hole of 32 mm in 60 KG 90 UTS rail section less than one minute. Time taken to fix the machine on the rail, less than 2minutes and to de-clamp less than 1minute. 34 Number 32 mm diameter hole with full charge batteries (17 hole per battery) in 60 Kg 90 UTS rail section. 3 Sets of standard center rail drilling adapters for gauge 90, 52, 49 provided along with machine. Weight of machine with battery: 18.5 KG, Make: Eibenstock. Bosch, KPTL.(Inspection by Consignee)
- 46.0** Supply of GI-Cover for Point Machine. Note:- Sample must be approved by consignee & controlled officer before supply.
- 47.0 Supply of Indoor power cable of 4 sq mm size as per IS 694-1990 or latest as per attached technical specification . Colour Code decided by as per Site engineer. Inspection: Consignee**
Technical specifications:-
- a) PVC insulated; PVC sheathed unarmoured
 - b) Voltage Grade 1.1KV.
 - c) FRLSH (Flame retardant low smoke and low halogen cable) as per BIS 694 1990 or its latest amendment.
 - d) Multi Stranded type
 - e) Size: 4 sq. mm
 - f) Length: coil of 90 to 100 meter
 - g) Shape: Complete round on outer side
 - h) Marking on the cable: Manufacture's name, voltage grade, length(in metres), size of cable, year of manufacture and the letters 'FR-LSH'shall be printed, indented or embossed on the insulation of the cable throughout the length. The distance between any two consecutive printings, indentations or embossing shall be not more than 1 m.
 - i) Colour: Black, Red, Green (Note- Colour Code as decided by Site engineer)
 - j) Make: Any brand with valid BIS manufacturing license & type test certificates.
- 48.0 Supply of indoor power cable of size 2.5 Sq.mm as per IS 694-1990 or latest as per attached technical specification. Colour Code decided by as per Site engineer. Inspection: Consignee**
Technical specifications:-
- a) PVC insulated; PVC sheathed unarmoured
 - b) Voltage Grade 1.1KV.
 - c) FRLSH (Flame retardant low smoke and low halogen cable) as per BIS 694 1990 or its latest amendment.
 - d) Multi Stranded type
 - e) Size: 2.5 sq. mm
 - f) Length: coil of 90 to 100 meter
 - g) Shape: Complete round on outer side
 - h) Marking on the cable: Manufacture's name, voltage grade, length(in metres), size of cable, year of manufacture and the letters 'FR-LSH'shall be printed, indented or embossed on the insulation of the cable throughout the length. The distance between any two consecutive printings, indentations or embossing shall be not more than 1 m.
 - i) Colour: Black, Red, Green(colour code as decided by site engineer)
 - j) Make: Any brand with valid BIS manufacturing license & type test certificates.
- 49.0 Supply of 35 sq mm Multistrand Single core PVC insulated Copper Cable as per IS:694 for connecting Main Earth Electrode to MEEB in the equipment room in duplicate.**
Technical Specifications



- **Cable Type:** Single Core, Multi-strand, Flexible Copper Conductor
- **Cross-Sectional Area:** 35 sq mm
- **Insulation:** Flame Retardant (FR) PVC suitable for 1100 V systems
- **Standards Compliance:** Conforms to **IS: 694** (Conductor generally as per **IS: 8130**)
- **Color Code:** Typically Green (Standard for Earth connections)
- **Purpose:** Ensures minimal electrical resistance and high current-carrying capacity to safely divert fault currents or lightning surges from the MEEB (Main Equipotential Earth Busbar) to the Main Earth Electrode.

50.0 Supply of basic material to construct unit maintenance free earth as per RDSO Specs.No RDSO/SPN/197/2008 or latest and conforming to RDSO Drg.No. SDO/ RDSO/E&B/001dtd.19.09.08 . It consist of following items:-

- (i) Copper bonded steel electrode of 3.0 m long, 17.2 mm dia with copper bonding thickness of minimum macrons and UL listed and marked = 1 no.
- (ii) Earth enhancement material supplied in sealed bags of minimum 10kg = 3 nos.
- (iii) Copper strip of 150x25x6 mm, to terminate earth rod= 1 no.
- (iv) Copper strip of 300x25x6 mm (MEEB)= 1 no.
- (v) Copper strip of 150x25x6mm (SEEB) = 1 no.
- (vi) Supply of 35 sq. mm multistrand single core PVC insulated copper cable as per IS: 694 for connecting main earth electrode to MEEB in the equipment room in duplicate.(minimum 10 meter)
- (vii) Supply of 16 sq. mm multistrand single core PVC insulated copper cable as per IS: 694 for connecting MEEB to SEEB and SPD to MEEB (minimum 10 meter)
- (viii) Supply of 10 sq. mm multistrand single core PVC insulated copper cable as per IS: 694 for connecting various equipments to SEEB
- (ix) Supply of copper lug sleeve for 3/16 cable

Note:- RDSO latest TAN No. STS/E/TAN/3006 Ver.3.1, dtd. 30.6.2025 or latest will be applicable & followed by the firm for Supply, installation & testing & commissioning for earthing for S&T installation.

51.0 Supply, Installation, Testing & commissioning of complete Automatic Fire Detection & Alarm System (AFDAS) for signaling installation as per RDSO spec. no. RDSO/SPN/217/2018 Ver. 2.0 or latest consisting of 01 no. Control panel, 01 Flasher, 1 no. hooter, 6 nos. smoke detectors, 06 nos heat detector and 01no. Manual call point.

Note:-

- The system shall be approved by UL or FM or Vds or LPCB. Document of approval must be submitted along with supply.
- In case, where OEMs are not listed/approved by UL or FM or Vds or LPCB, the equipment may be listed/approved from any ISO 17065 accredited body which is authorized for carrying out fire detection system certification.).
- Automatic Fire detection & Alarm System shall be supplied only from Approved Vendor as per latest RDSO Vendor Directory.
- The manufacturer must be certified with ISO 9001 (the scope of the ISO Certification has to specifically refer to the manufacturing of the products related to AFDAS). The copy of the certification shall be provided by the manufacturer. The manufacturer in this specification shall at least manufacture the Control Panel, Heat and Smoke Multi Sensor, Audio Visual alarms and Manual Call Point. The manufacturer may outsource the left over items of AFDAS from other firms but shall be responsible for the complete system functioning. The outsourced firms shall be ISO 9001 certified and the certification shall refer to the manufacturing of products being outsourced.
- The manufacturer shall guarantee for supply of spares including outsourced items during life of the equipment for minimum 10 years from the date of supply & extend maintenance support, if required by the Railway/purchaser.
- The manufacturer shall supply detailed instructions for proper installation of the system. The manufacturer shall depute his engineers/supervisors to purchaser's site during the installation of the equipment.
- The RDSO Approved Vendor shall ensure that all the required spares as per RDSO Specification No. RDSO/SPN/217/2021 Ver. 3.0 or latest shall be supplied at the time of the supply of material and the same shall also be mentioned in the RDSO Inspection Certificate.



- The control panel shall be designed to work on power supply of 110V/230V AC as well as on DC battery backup of adequate capacity to work upto 24 hrs. Backup.
 - The Power supplies like batteries, chargers and control module shall be supplied by the contractor.
- 52.0 Supply and installation of CO2 type fire extinguisher capacity 4.5 Kg capacity ISI Mark IS: 15683 operating temperature (-30°C to +55°C) for class 13 B type of fire with 1 mtr. Hose pipe fitted with PVC bent horn complete in all respect. Note:- BIS certification & Testing certification of NABL accredited Lab must be submitted by tenderer along with supply .**

i. Technical specification:-

Extinguishing media	Carbon dioxide shall comply with IS 15222.
Capacity	4.5 kg
Fire Rating	13B
minimum Discharge Time	2 Sec
throw	1 m
Operating Temperature	-30 °C to +55 °C
Mounting Bracket	Wall bracket
Approvals	BIS

- ii. **BIS certification marking:-**The extinguisher may also be marked with the Standard Mark obtained from the Bureau of Indian Standards.

iii. Inspection Instructions:-

The inspection instructions shall state that the extinguisher is to be checked to ensure that:-

- i. The seals and tamper indicators are not broken or missing;
- ii. It is full (by weighing or lifting);
- iii. It is not obviously damaged, corroded, leaking or has a clogged nozzle; and
- iv. Its pressure gauge reading or indicator is in the operable range or position.

D. User Manual and Service Manual:-

A user manual shall be provided with each extinguisher. This manual shall contain the necessary instructions, warnings, and cautions for the intended installation, operation and inspection of the extinguisher. The manual shall also reference the manufacturer's service manual for maintenance and recharging of the extinguisher. It shall be made available upon request and shall:-

- a) Contain necessary instruction, warnings, and cautions, a description of servicing equipment, and a description of recommended operations for intended servicing,
- b) Provide a list of part numbers of all replaceable parts.

E. Certificate for Testing of fire extinguisher by NABL accredited Lab must be submitted by tenderer.

- 53.0 Supply, Installation, testing and commissioning of single channel laser or High power LED based Aspiration detection unit (for AC room) with area covering 5000 sq. ft. with programmable 4 stage alarm generation and with 4 addressable modules.** It should have auto cleaning facility in optical chamber, electronic discrimination of particle size, ultrasonic air flow sensing auto learn feature with TCP/IP network capability, the aspiration system shall also include external power supply unit with battery backup. Approval- UL/LPCB/VDS listed (document of approval must be submitted along with supply and shall comply to specification No. RDSO/SPN/217/ 2021 Ver-3 or latest.

- 54.0 Supply, Installation, Testing & Commissioning of UL/LPCB/VDS Listed CPVC pipe 25 mm Dia & Pipe Accessories for the Aspiration Detection complying to the RDSO/SPN/217/2021 Ver-3 or latest.**

The pipe and their assemblies such as couplings, unions, elbows, tees, end caps, capillary tubes, sampling ports, mounting brackets shall be as per the recommendation of manufacturer of Aspirating (Air Sampling) type smoke detector in cabinet and above cabinet sampling shall also be planned as per request of the purchaser. All distribution piping shall be installed by qualified individuals using accepted practices and quality procedures.

Note:- Approval - UL (document of approval must be submitted along with supply).



55.0 Supply, Installation, Testing & Commissioning of Analog Addressable Type Output/Control Modules with Inbuilt Fault Isolator or Alternate arrangement which shall isolate the module in case of short circuit. The Module should have Programmable supervised & unsupervised output. The Module should have visual indication for its operation, Approval - UL/LPCB/VDS Listed and shall comply to RDSO/SPN/217/2021 Ver 3 or Latest.

56.0 Supply, installation and commissioning of Multi Section Digital Axle Counter [MSDAC] complete set with all accessories consisting of complete indoor and outdoor equipment including reset box ,Central evaluator and monitoring console as per RDSO Specification No. RDSO/SPN/176/2013 Ver.3 with latest amendment/revision of required track section and detection points including transportation of materials at Site as per attached technical specifications below:-

- (i) Supply, Transportation, Installation, Testing & Commissioning of Multi Section Digital Axle Counter (MSDAC) for mentioned DP as per SIP for the purpose of TCs, complete system including Central Evaluator, Processors, Final Track clearance relay for each track sections, Reset boxes, Monitoring Console, Diagnostic PC/LAPTOP of suitable configuration, LV Boxes, Detection points, Mushroom Housing for track side electronics, reflector plate, maintenance free earth per Dp, Diagnostic system per station, Tool Set, 2 DP as spare per station and all other accessories for successfully commissioning as per RDSO Specification No. RDSO/ SPN/ 176/2013(Ver.3) or latest Specification of OEM/Manufacturer and as per TS as per site requirement. INSPECTION-By RDSO.(**Make-Frauscher or similar make of RDSO approved OEM**)
- (ii) Dual Detection to be provided with complete redundancy for all other equipment as well as communication media. MSDAC shall be used to provide dual detection with existing DCTC.
- (iii) Automatic resetting facilities through hardware /software for auto resetting to be provided by contractor by his own materials for this no extra cost /payment will be made by Railways for Wheel Sensor with 10 M/15M Cable as per site requirement and installation practice of ECR)
- (iv) One reset box shall be provided for each track section in SM room and one LV box shall be provided as per site requirement and installation practice of ECR for point zone and it shall be possible to reset MSDAC provided through one Reset box in SM room & one LV box/reset box at site. In case of failure of MSDAC track section, track section will be reset as hard reset or preparatory reset as per Railway requirement.
- (v) The wheel sensor mounting should be of clamp type to avoid the track drilling in terms of Railway Board letter No.2018/CE-II/TK/S&T/AGJ & D4 dt.20/8/20.
- (vi) OEM supplied /Certified Pre-fabricated Dust proof Rack with power supply arrangement for Evaluator which is to be supplied along with system. Railway will only provide 24V/60VDC Supply.
- (vii) OEM supplied / certified Mushroom cover /TLJB (Both item if required for installation) for track side equipment's/each detection point housing (Inspection by RDSO for OEM supplied/certified Mushroom cover). Quantity of Mushroom Cover shall be same as that of detection point. However, if RDSO declines, will be inspected by authorized representative of railways.
- (viii) OEM supplied/certified Line Verification Boxes as per drawing no RDSO/S/2001. (Inspection by RDSO) OEM supplied/certified Mushroom cover (if required for installation) for track-side equipment's/each detection point housing (Inspection by RDSO for OEM supplied/certified Mushroom cover; Quantity of Mushroom Cover shall be same as that of detection point. However, if RDSO declines, will be inspected by authorized representative of railways.)
- (ix) OEM supplied /certified Tool Kit with marking jig consisting of all tools and measuring Instruments required for installation, testing, failure attention and all types of maintenance of MSDAC; to be supplied along with main equipment (Inspection by RDSO) confirming to Item no. 20 of RDSO specification no.-RDSO/SPN/176/2013Ver.3 as updated by RDSO from time to time. However, if RDSO declines to inspect, then it will be inspected by authorized Representative of railways.
- (x) OEM recommended lightning and surge protection devices for all sub-systems as per RDSO specification no RDSO/SPN/144/2006.(Inspection by RDSO) as per para-5.0.24 of spec. RDSO/SPN/176/2013 or latest..
- (xi) Central Evaluator of each set of MSDAC shall be configured line /corridor wise or as per site engineer in-charge. MSDAC shall be designed in such a way that Disturbance /failure related to one track section shall not influence the normal working of other track sections in each individual set of MSDAC. The central evaluator shall have a separate port to connect to the station datalogger for monitoring the section wise information, as per RDSO Spec. RDSO/SPN/176/2013 or latest.



- (xii) Supply of Event logger (In-Built) with monitoring software (one Set)/web interface with a Provision of stand-alone remote /centralized monitoring of MSDAC for a yard/section.
- (xiii) For ease of maintenance, only one uniform made of MSDAC is to be supplied and installed in this work. The systems to be offered against this tender shall be from RDSO approved sources only on the date of tender opening.
- (xiv) All empty slots in Plates-files shall have dummy plates fitted to prevent entry of lizards, etc.
- (xv) Transportation, Installation, Testing & Commissioning of Multi section digital Axle counter(MSDAC) as per approved yard layout with Reset unit, Relay unit, Evaluator(s),line verification boxes, Power supply, event loggers, remote diagnostic terminals, programming etc with supply of all necessary cable ,connectors, fixture, clamps
- (xvi) The material will be supplied at the consignee store. For installation, same will be transported to the site by the contractor at his own cost, installed and balance material (if any) be returned to consignee store. The safe guarding of the equipment from the moment it is issued to the contractor till its commissioning or return to Railways to re shall be the Contractor's responsibility.
- (xvii) The site connection shall be taken out of the DPs in a secured manner i.e. the connections shall be buried in the ground at a depth of minimum 0.8-1.0 meters in DWC pipes or any other suitable means of protection.
- (xviii) Cable connected to Counting Head shall be suitably clamped with rail with sturdy clamp for protection against vibrations. Materials of the clamp shall be suitable so as to protect against environmental hazards. Nut bolt provided shall be provided with lock seal to avoid them getting loose.
- (xix) Cable termination at the Axle Counter Field Unit towards both sides, i.e. track side and previous location side will be done by the supplier/authorized representative under OEM Supervision.
- (xx) Evaluator & resetting equipment to be connected to the PI/EI Ring earth.(Central Relay Room / Goomty.) (PI/EI ring earth will be provided by Railway).The earth connection between Evaluator/Resetting equipment to Ring earth will be done by the contractor.
- (xxi) Power connection from Power Board to the Evaluator will be done by the contractor including cost of wire.
- (xxii) Wiring from Central Evaluator to rest panel including supply of wires will be done by contractor.
- (xxiii) Indoor wiring from evaluator to the CT rack will be done by the contractor as per requirement, with his own material.
- (xxiv)Resetting bit/relay contact will be provided by Railway. Same will be taken into Reset Box by the contractor.
- (xxv) Installation of Event logger & Remote diagnostic terminal with monitoring software at Maintainers room and connectivity from evaluator to remote diagnostic terminal by supplier. For centralized monitoring Railways will provide connectivity over Rail Net.
- (xxvi)Railway will provide marking of the Axle counter Field unit and quad cable (which will be coiled up and buried in the ground) up to the field unit, as per the quad cable requirement per DP mentioned by the contract or at the time of bidding. Rest all outdoor installation including formation of DP will be done by the contractor.
- (xxvii)Instruction manuals, installation manual & maintenance manuals including DO's Don'ts, mechanical drawing for each sub system, schematic block diagram showing mounting arrangement of various-component & details of each type of assembled PCB, trouble shooting manual, pre-commissioning checklist and other technical information regarding MSDAC to be supplied (As per item no. 18 of RDSO specification No. RDSO/SPN/176/2013, Ver.3 as updated by RDSO from time to time).
- (xxviii) Training on installations, maintenance & troubleshooting shall be imparted to Railway Personnel at site or at OEM's premises. Training shall be organized for railway staff & officers through the OEM/Agency and proper record shall be maintained. During the training, each of the attendee shall be given a physical copy of the training manual.
- (xxix)**Following Commissioning activities to be done by OEM Engineer only:-**
 - Functional testing of track sections.
 - Functional testing of resting and auto resetting.
 - Functional and correspondence testing of indications on panel/VDU/Reset Box.
 - Correspondence testing of track section.
 - Correspondence testing of auto resetting.
 - Filling of pre-commissioning checklist and other Commissioning of hardware and Software as per OEM manual. Same to be signed jointly by Railway official, OEM engineer and contractor/representative.



(xxx) The successful bidder shall submit an undertaking from RDSO-approved MSDAC OEM, within 21 days from issue of LOA or at Last with submission of PG, to confirm compliance with extant RDSO guidelines and to meet specific requirements and to provide after-sales support required during the warranty period and beyond the warranty period, failing which the contract will be terminated.

B. (Execution):-

- 1.0 The execution work will be done as per schedule, as per instruction of railway site engineer & as per site requirement.
 - 2.0 Reinstatement of platform and repairing to original state after cable laying work as per requirement & as per instruction of site incharge.
 - 3.0 Repair of PUCCA Roads to original state in level x-ing area after cable laying works as per instruction of site incharge.
 - 4.0 Laying of telecom cable as per Annexure-1
 - 5.0 Casting, concreting and curing of foundation for Shunt signal and as per DRG. No. SGW/MGS/S1/91 including cost of all materials required for casting and concreting and provision of holding down bolts & nuts.
 - 6.0 Casting, Concreting and curing of foundation for Main signal and as per DRG. No. SGW/MGS/S1/91 including cost of all materials required for casting and concreting and provision of holding down bolts & nuts.
 - 7.0 Casting, Concreting and curing of foundation & erection for SLB/BSLB/SB as per DRG. No. S&T/C-34 (NKG) including supply & fixing of holding down bolts & nuts.
 - 8.0 **CASTING, CONCRETING & CURING OF FOUNDATION & ERECTION FOR FULL SIZE APPARATUS CASE:-**
 - Casting, concreting and curing of foundation and erection for full size apparatus case (GKP-type) as per DRG. No. SGW/MGS/L1/91 or latest including cost of all materials required for fixing holding down bolts, casting, concreting and fixing of "E" type lock.
 - Bottom of apparatus cases should be filled with sand and the top surface covered with masonry work and neat cementing. The apparatus cases shall be installed as per the directions of the Engineer In charge.
 - Fixing, wiring of terminal strips, Bakelite strip, transformers, relays, fuses, with base and fixing of shelves for full size apparatus case with termination, earthing of cables and wiring with lettering as required including supply of wires, cable tags and miscellaneous materials, sand filling and plastering over sand filling per location.
 - Materials other than transformers, relay, terminal strips, Bakelite strip and fuses with base viz. miniature E type lock, nut and bolts etc. shall be supplied by the contractor at his own cost.
 - The foundations shall be well cured before installation of apparatus cases.
- Note:** - All the materials viz. miniature E type lock, nut and bolts etc. shall be supplied by the contractor at his own cost.
- 9.0 Installation of cable termination Rack with scaffolding materials; ladder for supporting outdoor cable; wire guide; complete with other necessary hardwares as per requirements of Rly. & erection materials. ii) 6 to 8 Line Station
 - 10.0 Installation and wiring of relay rack as per CSTE/ ER's DRG. No. S&T/7/90 and as per IRS:S-36/87 fixing transformers and supply and installation of fuses; Diodes; resistances; condensers; terminal strips/ tag blocks; busbar & other equipments required for the approved system design complete with scaffolding materials & required hardware & erection materials (Station wise quantity to be specified by tenderer) Note: 16/0.2 MM PVC wire to be supplied by contractor. Wire to be procured from the RDSO approval firms and inspected by RDSO.
 - 11.0 Preparation of cable route plan, cable core chart, power supply layout, cable termination chart in relay room and location box. Location wiring plan, cable insulation chart, fuse analysis, equipment disposition plan, track bonding plan, as per railways practice. I) All the above plans for end bungalow also to be submitted. All diagrams/plans to be submitted in polyester film tracing to the railways along with 6 sets of ferro prints of the above. The diagrams/ plans should also be submitted in soft copy in editable autocad/pdf format through USB media..b) 5 to 8 line station.
 - 12.0 Fixing of Earth electrode including earth wire as per DRG. No. S&T/C-41(NKG) for apparatus cases, signal post and other equipment as per instruction of site engineer all materials except earth electrode shall be supplied by contractor required for execution of the work.



- 13.0** Installation, commissioning & testing of LED Signal as per instruction of site engineer & as per site requirement..
- 14.0** Fixing of P/G/C/IB marker with complete fittings as per instruction of site engineer & as per site requirement..
- 15.0** Filling earth around location box/signal post for a width of 0.5 m on all sides, upto a level of 150 mm below the foundation top. This work includes consolidation of earth by watering.
- 16.0** Inter connection wiring with ladder arrangement from power supply equipment to relay rack, IPS, Data logger, Control panel, Block instruments, CTR etc. It also includes interconnection wiring with ladder arrangement between relay racks, CTR's, indication board and block instruments. This also includes termination of cables/wires on all the above and dressing, bunching etc. as required at site. Wire shall be 16/0.2 mm for relays, 3.0737 mm for MCB's and 7/0.75 mm for power wiring. Indoor cable 60 x 0.6 mm/40 x 0.6 mm as per IRS-S-76/89 or Latest for interconnection of indication board. Wires shall be procured from RDSO approved firm and inspected by RDSO.
- 17.0** Carrying out alterations to the existing relay wiring at relay rack/location as per the circuit diagram. The work includes releasing the existing unused wires and wiring the relays using wire PVC 16/0.2 mm copper. {Wire PVC 16/0.2 mm copper, paint, soldering materials and all other miscellaneous materials required for the work shall be supplied by the contractor.}
- 18.0** Lettering & numbering of details and description writings of particulars of termination and equipments on relay rack, relays, cable termination rack, etc constituting entire system with contractors own paint and writing materials. ("Asian" make enamel paint only to be used.). This includes supply & fixing of Teflon strips 3mm thick and 25 mm wide for each row of relays and cable terminations. The work shall be done as per extant practice on ECRLy and instruction of Rly engineer at site.
- 19.0** Termination of cable cores on ARA terminals or on 8 way terminals in the cable termination rack. This includes all associated works of pulling out the cable from under ground, Peeling off insulation, dressing of cable core supported on sting rod with contractors own materials as per instruction of the site incharge. The cable armour to be earthed. Cable tags to be provided.
- 20.0** Excavation of trench in all kinds of soil and refilling of trenches (1 Mtr. Depth 300 mm with) without bricks as per technical specification below:-
Excavation of trench in all kinds of soil including cleaning of roots etc up to a depth of 01 mtr and 300 mm width in all kinds of soil including medium but excluding hard rocky soil duly cleaning any roots of trees, plants, bushes etc in entire section as per RE specification. The trench should be parallel to the track. Back filling of trenches after laying of cable and ramming of soil trenches and consolidation of soil to Original ground level and disposal of soil.
- 21.0** Excavation of trenchless track under Railway Track/Busy Road, culvert/River, (IN HDD portion) at a depth of minimum 1.0 meter along with laying of HDPE/DWC pipe/GI Pipe and its accessories & all other items which will be required for laying of cable through HDPE / DWC Pipe as per requirement at site. (Note:- HDPE/DWC pipe/GI Pipe shall be supplied by the contractor).
- 22.0** Installation of Thermo Shrink Jointing Kit {Spec. No. IRS:TC 77/2012(Rev.3.0) Amdt.3} for jointing underground Six Quad Cable for straight through cum derivation joints with VF transformer.
- 23.0** Installation of split DWC Pipe as per site requirement & as per instruction of site engineer incharge.
- 24.0** Transportation of HDD machine with accessories including handling of stores materials, preparation of site and boring of 110 mm dia HDPE PIPE of size 63/40 mm in single /double /triple etc required for crossing /laying of railway cables in a combination of quad & signalling cables etc. as per required comprising maximum 72 cores in any HDD section on land /bridges/culverts /track/pucca road crossing and blowing /pulling of Quad /signalling cables etc. within HDPE pipe. Boring of trench shall be (one) Mtr below the track to 1.5 (one point five) minimum 3 (three) meter below the river bed, 01 meter below other lands including road/pucca road 63/40mm dia& its accessories suitable for HDT as permanently lubricated HDPE pipe of size 63/40 crossing area. This includes supply as per Specification No. RDSO/SPN/TC/45/2013 with latest amendment & cost of the fuel and all other items which will be required for laying of cable through it. Note- The number of HDPE pipes(of any dia as mentioned above) to be pulled in any HDD section will depend upon the numbers of quad /signalling cables to be pulled through that HDD section as per site requirement. At a particular site, the second /additional HDD is to be



done only after completing the pulling of 72 cores of cable through 1st HDD other wise the second/additional HDD will not be counted as a new /additional HDD for the purpose of billing.

- 25.0** Providing and laying in position cement concrete of 1:3:6 (1 cement: 3 sand: 6 graded stone aggregate 20 mm nominal size) including cement as per site requirement & as per instruction of site engineer incharge.
- 26.0** Installation of KLCR lock relay assembly as per direction of concerned engineer.
- 27.0** Modification and alteration to Existing Panel Interlocking MACLS station for interconnection wiring with station for interconnections wiring with panel, Relay Room Equipments and Power Supply Equipments, Battery Room, SM/ ASM Rooms, Outdoor Equipments, Termination in Relay Rooms Equipments Terminals, CT Racks, HV Racks (If required) and Rack to Rack wiring etc as per approved Signalling plan & Circuit Diagrams.
- 28.0** Modification and alteration to Existing of panel face diagram as per spec. no. IRS-S-36-87 with modifications, dt. 05-7-94 of CSTE/E. Rly. Domino type control Panel Spec no:- RDSO/SPN/186/2004 (Latest)
Note: After getting approval of the above diagrams from railways, the diagram is to be submitted in polyester film tracing along with 6 sets of ferro prints of the same. Out of this, 2 set to be submitted in laminated plastic cover and in soft copy in editable autocad/pdf format through USB media also.

29.0 Installation of Unit Maintenance Free Earth as supplied above. It includes following items:-

- a. Digging the earth to the required depth.
- b. Insertion of electrode.
- c. Filling of earth enhancing compound(Approx.30 Kg)
- d. Provision of exothermic weld connections to copper tape of 25 mm x 6mm x 200 mm to the earth electrodes. All material tools and features required for weld will be arranged by contractor.
- e. This also includes CC cover 1.5 ft x 1.5 ft. 1 ft wall thickness 2 inch with cover 3inch thickness. Cables 35 Sq mm/ 16 Sq mm/10 sq mm for connecting earth to busbar, busbar to busbar and busbars to various equipments. Earth electrode of 17.20 mm dia and 3.00 meter long high tensile low carbon steel circular rods molecularly bonded with copper and outer surface(minimum copper bonding thickness of 250 microns to made requirement of underwriter's laboratories (UL) 467-2007 or latest. Copper strips of 150 mm x 25 mm x 6 mm to be welded with each earth electrode, copper strips of 300mm x 25 mm x 6 mm for main equip- potential busbar, copper strips of 150 mm x 25mm x 6 mm sub equipotential busbar in relay room, power room and panel room. Copper strip 25 mm x 2 mm for ring formation of earth pits Earth enhancement material in bags for each Earth Electrode.
- f. Inspection chamber of site 300mm x 300 mm x 300 mm(Inside dimension) of approximate 50 mm thick with pulling hooks to cover the earth pits.

Note:-

- Supply & installation should be done in accordance of RDSO's latest Technical advisory No. "STS/E/TAN/3006 ver 3.1 dated 30.6.25" & as per drawing conforming to RDSO Drg. No. SDO/RDSO/E&B/001 or latest
 - Only NABL/ILAC tested exothermic materials are used for exothermic welding in earthing & bonding system. The installation of earthing system should be carried out by OEM.
 - OEM shall associate them by deputing his engineers / supervisors during installation, testing & commissioning of system. After installation, warranty certificate valid for 60 months will be obtained by tenderer from OEM.
- 30.0** Preparation of Station Working Rule (SWR) in English & Hindi based on approved SIP, ESP etc as per the extent practice being followed in E.C. Railway. The contractor should supply two paper print of SWR as draft for approval and comments. Once the approval is given he shall supply two paper prints of the SWR for final approval and signature of the concerned officials on obtaining the final approval the contractor shall supply 10 sets of the SWR duly photo copies from the original signed off copies of SWR. The approved SWR shall be finally supplied in soft copy in editable word/ pdf format through USB media.
- 31.0** Preparation & printing of Station Working Rule Diagram (SWRD) on AUTOCAD based on approved SIP, ESP etc. as per the extant practice being followed in E.C. Railway. Contractor shall supply one print of the SWRD (paper print Size as required) as draft for approval and comments. Once the approval is given shall tracing of the SWRD on good quality flim paper of thickness not less than 75 microns for signature of all officials. On approval,



the contractor shall supply 10 copies blue print of the tracing. The approved SWRD shall be finally supplied in soft copy in editable autocad/pdf format through USB media.

- 32.0** Designing and preparation of SIP to the scale through Autocad software. Contractor shall supply one print of the SIP as draft for approval and comments. Once the approval is given, contractor shall provide the tracing print of the same on good quality flim paper of thickness not less than 75 microns for signature of all officials. On approval, the contractor shall supply 10 copies paper print of the tracing after completion of the work. The approved SIP shall be finally supplied in soft copy in editable autocad/pdf format through USB media.
- 33.0** Designing and preparation of Selection Table through Autocad software. Contractor shall supply one print of the ST as draft for approval and comments. Once the approval is given, contractor shall provide the tracing print of the same on good quality flim paper of thickness not less than 75 microns for signature of all officials. On approval, the contractor shall supply 10 copies paper print of the tracing after completion of the work. The approved ST shall be finally supplied in soft copy in editable autocad/pdf format through USB media.
- 34.0** The execution work will be done as per schedule, as per instruction of railway site engineer & as per site requirement.

**Annexure-1.**

While laying the underground signaling & telecom cables, the following instructions will be followed strictly:

1. The trench has to be dug generally straight and parallel to the railway track. For this purpose should be stretched, straight and marking to be done by lime powder. Only after it, digging shall be done. While crossing the track, the trench shall be perpendicular to the track. Location of the cable route signals/locations at the station/block section will be given by the Engineer-in-charge and cable laying has to be done within these marks of cable routes, signals/locations. Necessary instructions will be issued by the Engineer-in-charge of the work as and when necessary in this regard. Whenever, considered necessary the contractor will also seek instructions from the Engineer-in-charge. The digging of trench shall be undertaken by the contractor only after the requisite amount of cables are available and the alignment of the trench has been approved by the Engineer-in-charge and so advised to the contractor.
2. The main cable trench should be 100 cms. deep and 30 cms wide within the station yard except on platform, level crossings, track crossings and for tail cables and cable trench out side the station yard where it will be 100 cms. deep and 30 cms. wide. If the depth of cable trench cannot be maintained due to some technical reasons, the pro-rate payment shall be made to the contractor. This issue shall be decided by DSTE/ASTE jointly with contractor.
3. Circular pits of suitable sizes will have to be dug near each location box/ junction box/apparatus case/signal en-route, as per direction of Engineer-in-charge for provision of extra cable coils approximately 4 to 5 mtr. length for each cable to facilitate termination. The pits are also to be filled up to the ground level after the cable coils are properly placed in the pit.
4. The work of trenching under the tracks shall be done only under the personal supervision of Railway Engineer-In charge, who will take necessary precautions in regard to safety of train running.
5. The cable will be issued to contractor at godown of the concerned SSE/SE(Signal). The contractor will be responsible for loading, transporting and unloading at site of work. Before taking delivery, he will be responsible for testing the cable also.
6. After the cable trench has been dug, the cable in the drum should be meggered before bringing at site and only good cable shall be brought at site and test report should be given to the concerned SSE/SE (Signal) before laying. The laying is to be done by the contractor on the direction of the Railway Engineer-in-charge at site. The drum should be kept on two-end jacks with a shaft threaded in the cable drum and the cable should be released by rolling the drums, so that there is no twist in the cable. This aspect must be ensured by the Contractor, while pulling the cable, it should be supported by adequate number of staff at an interval of minimum 10 metre, so that the cable do not get scratched/ damaged while pulling. The cable/cables shall be laid on the soft ground at the bottom of the trench. Thereafter the trench should be filled up with earth and rammed after providing cable markers at suitable intervals if supplied by Railway along with the cable route as per direction of the Engineer-in-charge. The earth level after filling the trench should be about 20cms above the original ground level over the trench.
7. Before taking over the cable from Railway, contractor should test the cable and get himself satisfied that there is no defect in the cable. Any damage to the cable during the laying shall be entirely the responsibility of the contractor and railway can realize cost of damage cable.
8. Cable laying should commence only after the trench has been approved by the Railway's Engineer-in-charge. The laying of cable/cables should be started by the contractor under proper direction and supervision of Engineer-in-charge as indicated in above para. While laying the cable, proper care should be taken to ensure that there are no kinks/twist/damages of any type caused in the cable, so that the life of the cable is not reduced in the long run.
9. The work of digging of trench, laying of cables and filling of trench etc. Once started, should proceed continually in full tempo and not to be left incomplete.
10. After completion of the work the Railway Engineer-in-charge should certify that the cable laying and trench filling is over and the work has been carried out to his full satisfaction and as per specifications.



11. While crossing the track/ tracks/ level crossings/ platforms, the cable/ cables/is / are to be laid through pipes as per the directions of Railway's Engineer-in-charge at site. The cable laying at culverts/ bridges /underground sub-way will be done through by providing GI pipes. These pipes should be suitably fixed with clamps/ fixing arrangements. The cable laid through pipes as mentioned above will be treated as cable laid in normal ground for measurement purpose. Fixing arrangements have to be provided by contractor at his cost. Both ends of pipe when laid on bridges/ culverts shall be fixed by masonry work at contractor's cost.
12. The testing of the cables for the insulation resistance between conductor to conductor and individual conductor with respect to earth, and continuity test of each core of the cable must be carried out before and after the laying of the cable in the trench. Contractor must record all parameters measured in tabular form. The sample of the tabular form will be supplied by Engineer-in-charge and signed jointly by the Railway Engineer-in-charge and the contractor/ contractor's representative at site and submitted to Sr. DSTE/Sonpur.
13. As a result of the test after laying of the cable/cables, if any cable is found defective the same should be withdrawn from the trench and fresh cable of good quality be laid by the contractor at no extra labour charges and contractor shall be responsible for defective cable. After laying the cables, the empty drums and un-used signaling cables shall be deposited in the stores of concerned SSE/SE/Sig. Loading, unloading and transportation of empty drums and unused signalling cables shall be at contractors cost.
14. If, at any stage, it is detected that the contractor has dug the trench and laid the cables at a depth of less than specified or less bricks/broken bricks have been used, the contractor shall again re-dig the trench to the complete depth and provide intact bricks in trench. In this process if the cable is damaged, the contractor shall pay the cost of cables/ replace the cable without delay. If any twist is detected in the cable laid, the contractor shall be responsible to replace the cable as if it is damaged.
15. Digging in the vicinity of existing Railway cables: Guidelines issued by Railway Board vide letter no. 2021/Tele/5(2)/3- Part (1) (3425647), Dtd.12.06.2023&S&T Policy No. 09/2024 (Letter No. ECR-HQ0SnT(GENL)/41/2020(5954), 21.05.2024 for undertaking digging work in the vicinity of Signalling, Electrical and Telecommunication cables, need to be followed during digging/trenching work in the vicinity of Railway tracks. Penalty in the event of existing cables getting damaged will be payable by the Contractor.



Technical Specifications **(Telecom)**

Name of Work: Danauli Phulwaria~ Yard remodeling work for extension of CSL of lines at DPL station.

Item	Technical Specification
Item No-1	Laying/blowing/ drawing of Quad/PIJF cable in the trench as per cable route plan approved by railway and as per instruction of site engineer nominated by Sr.DSTE/SEE.
Item No-2	Thermo shrink jointing kit for jointing of underground Quad cable (0.9 mm dia) should be supplied as per technical specification No.IRS:TC-77/2012 rev-3.0 amdt.-3 or latest.
Item No-3	Thermo Shrink Jointing Kit installation must be carried out as Spec.No.IRS:TC 77 / 2012(Rev.3.O)Amdt.3 for jointing underground Six Quad Cable for straight through cum derivation joints with VF transformer as per instruction of site engineer.
Item No-4	20 Pair Cable Termination Box (CT Box) should have metal Body for termination of 20 pair PIJF/Armoured telecom cable in outdoor/indoor locations. Box Material will have CRCA sheet, 1.6 mm thick minimum, powder coated and size 300mm H x 250mm W x 100mm D $\pm 10\%$ (approx). It should have protection with IP-54 minimum for outdoor, IP-43 for indoor & rain canopy for outdoor. Capacity will be 20 pairs = 40 terminals + 10% spare = 44 terminals minimum. Terminal Rating should be 500V, 24A, suitable for 0.5mm to 0.9mm dia conductor with mounting(Wall/Pole) facility with MS clamps and 4 nos fixing holes. Make: Wago or similar with 24 months warranty.
Item No-5	It should be done properly, neat and clean and no any damage should be caused to other railway property at site.
Item No-6	The excavation of trench in all kinds of soil and refilling of trenches (1 Mtr. Depth 300 mm width) without bricks. Back filling to trench by shifted earth after laying the cable and ramming the earth upto original ground level after work. Ramming and consolidation of soil in the trench as well as disposal of excess soil if any as per site requirement.
Item No-7	Materials i.e 24 fibre armoured mono mode optical fibre cable must be supplied as per RDSO Specification No.-IRS.TC/55/2006 Rev-1.0 Amnd-3 or latest.
Item No-8	The laying of HDPE duct in the trenches, including in HDD/Manual Boring and supply pulling of Nylon rope through it at different places as per direction of Engineer incharge/ site Engineer. It includes Supply of HDPE duct outer dia 40mm & inner dia 33mm as per TEC Gr No. G/CDS-08/02 Nov /2004 with latest amendment with end cap to be provided along with the drum at both ends.
Item No-9	Work portion like Blowing/Drawing of OFC cable in the HDPE duct by mechanical system through the HDPE duct already provided in the excavated treanch as per approved cable route plan taking due care while transporting and sealing both ends after laying. Work will be done as per technical supplement.
Item No-10	The supply and installation of OFC joint closure with all accessories for jointing of 24 fibre OFC as per TEC specification no G-OJC- 02/01 May 99. The Splice loss shall not be more than 0.1dB, Make- Andatel/Techroute/ Intelco technochip or Similar
Item No-11	<ul style="list-style-type: none"> ➤ Type of Switch: Unmanaged ➤ Technology: Non-PoE ➤ Number of 1G&10G Copper ports: 8 ➤ Multi-Gigabit support: Yes ➤ Redundant power supply: Available ➤ Operating system; Available ➤ Console Port: Available ➤ Switching capacity Non Blocking: 1000 ➤ PoE Power Budget(Watt):370 ➤ On Site OEM Warranty: 1 year ➤ Make: TP-Link/ D-Link/ Netgear or better.



Item No-12	<ul style="list-style-type: none"> ➤ Type: G.703 E1 to V.35 DTE Interface Converter/Modem. ➤ Line Interface: G.703 E1, 2.048 Mbps ± 50 ppm, 120Ω RJ45/BNC + 75Ω BNC, ➤ Data Interface: V.35 DTE/DCE, DB-25/M34 connector, Up to 2.048 Mbps. ➤ Framing: Framed/Unframed G.704, CRC-4 On/Off selectable. ➤ Clock Source: Internal, Line/Recovered, External, DTE. ➤ Indicators: PWR, E1 SYNC, TD, RD, LOS, AIS, LAL, RAL. ➤ Management: DIP switch + Console port for config. ➤ Power Supply: 100-240V AC or -48V DC, ≤ 5W. ➤ Dimensions: 1U, 200 x 140 x 40 mm approx, Table-top/Rack mount. ➤ Warranty: 3 years OEM. ➤ Make: D-Link or better. 																		
Item No-13	Four Port Media Converter 100 Mbps OFC Port Connector driving distance 15 KM on single mode Fibre with Four 10/100 Mbps. Ethernet ports and internal AC supply. Make- Mrotek or similar.																		
Item No-14	<ul style="list-style-type: none"> ➤ Type: High Wattage PA Mixer Amplifier. ➤ Power Output: 250W RMS @ $\leq 10\%$ THD. ➤ Inputs: 6x Mic 0.65mV, 2x Aux 100mV, 1x Line 1V. ➤ Outputs: 4Ω, 8Ω, 70V & 100V Line, Preamp/Line out. ➤ Frequency Response: 50 Hz – 15,000 Hz ± 3dB. ➤ S/N Ratio: ≥ 60 dB ➤ Tone Control: Bass & Treble ± 10dB ➤ Power Supply: 220-240V AC, 50Hz & 24V DC with auto changeover. ➤ Warranty: 1 year or more. ➤ MAKE : HITONE BOSS, MODEL : SSA300M or better. 																		
Item No-15	<table border="1"> <tr> <td>Length</td><td>10 Metres (approx. 33 Feet)</td></tr> <tr> <td>Cable Core Type</td><td>Shielded Twisted Pair (STP) to stabilize TMDS data lines</td></tr> <tr> <td>Conductor Material</td><td>High-purity Oxygen-Free Copper (OFC) or Tinned Copper</td></tr> <tr> <td>Wire Gauge (Thickness)</td><td>Typically 24 AWG to 28 AWG (thicker cores prevent long-distance attenuation)</td></tr> <tr> <td>Shielding Matrix</td><td>Triple shielding (Aluminium Foil + Mylar Layer + High-density Copper Braid)</td></tr> <tr> <td>Outer Diameter (OD)</td><td>7.5 mm to 9.0 mm (varies by brand and jacket density)</td></tr> <tr> <td>Connectors</td><td>19-Pin Type-A Male to Male, 24K Gold-Plated contacts</td></tr> <tr> <td>Outer Jacket</td><td>High-flex PVC, TPE, or Nylon-braided structural mesh</td></tr> <tr> <td>Make</td><td>Belkin or better.</td></tr> </table>	Length	10 Metres (approx. 33 Feet)	Cable Core Type	Shielded Twisted Pair (STP) to stabilize TMDS data lines	Conductor Material	High-purity Oxygen-Free Copper (OFC) or Tinned Copper	Wire Gauge (Thickness)	Typically 24 AWG to 28 AWG (thicker cores prevent long-distance attenuation)	Shielding Matrix	Triple shielding (Aluminium Foil + Mylar Layer + High-density Copper Braid)	Outer Diameter (OD)	7.5 mm to 9.0 mm (varies by brand and jacket density)	Connectors	19-Pin Type-A Male to Male, 24K Gold-Plated contacts	Outer Jacket	High-flex PVC, TPE, or Nylon-braided structural mesh	Make	Belkin or better.
Length	10 Metres (approx. 33 Feet)																		
Cable Core Type	Shielded Twisted Pair (STP) to stabilize TMDS data lines																		
Conductor Material	High-purity Oxygen-Free Copper (OFC) or Tinned Copper																		
Wire Gauge (Thickness)	Typically 24 AWG to 28 AWG (thicker cores prevent long-distance attenuation)																		
Shielding Matrix	Triple shielding (Aluminium Foil + Mylar Layer + High-density Copper Braid)																		
Outer Diameter (OD)	7.5 mm to 9.0 mm (varies by brand and jacket density)																		
Connectors	19-Pin Type-A Male to Male, 24K Gold-Plated contacts																		
Outer Jacket	High-flex PVC, TPE, or Nylon-braided structural mesh																		
Make	Belkin or better.																		
Item No-16	<ul style="list-style-type: none"> ➤ D Link Brand, RJ 45 Connector Pins for Cat6 Cable Crimping, in Packing Of 100 Pin Per Packet. <p>Make:D-link or similar.</p>																		
Item No-17	Supply of HDMI Splitter 1 Input 8 Output, supports up to 4K@30Hz, 10.2 Gbps bandwidth, EDID management, HDCP 1.4/2.2, plug & play, metal enclosure with power adapter. Make: Kramer/Aten/Extron or better.																		
Item No-18	Annealed Tinned Electrolytic High Conductivity Copper Multistrand Flexible, Conductor as per IS:8130/1984 of class-5, PVC Insulated as per IS:5831/1984, Cores, Twisted together, Melinex taped, Shielded with aluminium mylar taped and screened with tinned copper braiding, taped again and overall PVC sheathed as per BS-5308 Part-2 multi core instrumentation Shielded Flexible cable, Size 2 Core x 1.5 sqmm, Make-Avercab or similar.																		
Item No-19	Item: Full Duplex Counter Communication System, Configuration: 1 x Master Console + 1 x Sub-Station per counter. 1:N expandable, Audio: Full duplex, hands-free, acoustic echo cancellation, noise suppression, Microphone: Gooseneck condenser mic, 400mm, mute button on Master, Speaker: 3W min, 85dB SPL @1m, volume control on both units, Control: Push-to-mute, call button, LED indication for busy/call, Interconnection: CAT6/4-core cable up to 100m between Master & Sub, Power: 12V/24V DC with adapter, < 5 W power consumption, Enclosure: ABS/Polycarbonate, desktop/wall mount, tamper proof, Jack for headset, Auto-standby, Mounting: Master on staff side, Sub-station flush/surface mount on customer side glass, Glass Cutout: Sub-unit suitable for 8mm–12mm glass partition, Make: Ahuja CCS-502 / Bosch LBB 3316 / Zenitel Vingtor / Honeywell CCS. Warranty: 36 months.																		



Item No-20	It should be done properly, neat and clean as per site requirement and instruction of site incharge.
Item No-21	<ul style="list-style-type: none"> ➤ Type: LED Backlit LCD TV/Commercial Display. ➤ Screen Size: 55 Inch diagonal, 16:9 aspect ratio. ➤ Resolution: 3840 x 2160 pixels, 4K UHD. ➤ Panel: IPS/VA, Brightness ≥ 350 nits, Contrast $\geq 1200:1$. ➤ Viewing Angle: 178° H/V, Response time ≤ 8msInputs: 3x HDMI 2.0, 2x USB 2.0/3.0, 1x VGA, 1x RF, 1x AV. ➤ Audio: 20W x 2 speakers, Optical/SPDIF out, Earphone out. ➤ Connectivity: Wi-Fi, LAN RJ-45, Bluetooth ➤ Features: Smart TV/Non-Smart, USB media play, HDR10, HLG. ➤ Operating System: Android/WebOS/Tizen for Smart or Basic for Monitor. ➤ Power: 100-240V AC, <150W, Energy Star/BEE 3 Star min. ➤ Mount: VESA 400x400, Table stand + Wall mount bracket included. ➤ Warranty: 3 years comprehensive on-site. ➤ Make: Samsung / LG / Sony or similar.
Item No-22	Ø Micro phone with stand: similar to Microphone Model:-AUD77DX make Ahuja, And Microphone Stand-DGT make Ahuja or similar.
Item No-23	<ul style="list-style-type: none"> ➤ Type: Dual Channel Wireless Microphone System ➤ Model: Similar to AHUJA AWM-490V2 or latest ➤ Frequency: VHF 170-270 MHz / UHF 500-865 MHz band. ➤ Channels: 2x Handheld cordless microphones ➤ Modulation: FM, PLL synthesized, Multiple frequencies. ➤ Operating Range: ≥ 50 meters in open area ➤ Audio Response: 50Hz-15KHz ± 3dBTHD: $<0.5\%$, S/N Ratio >90dB ➤ Receiver: Dual antenna diversity, LED RF/AF indication ➤ Output: Balanced XLR + Unbalanced 6.3mm jack, Mic/Line level ➤ Mic Power: 2x 1.5V AA batteries, ≥ 8 Hrs operation ➤ Receiver Power: 12-15V DC adaptor included ➤ Accessories: 2x mics, Receiver, Adaptor, 2x Antennas, Audio cable ➤ Warranty: 1 year. ➤ Make: AHUJA / Shure or similar.
Item No-24	Item: 15 Watt Column Speaker with 100V Line Matching Transformer, Power Rating:15 Watt RMS, 20 Watt Max, Input Voltage: 100V line, Power Taps: 15W / 10W / 5W / 2.5W selectable via rotary switch/LMT taps, Speaker Unit:2 x 4" or 1 x 6.5" woofer + 1" dome tweeter, 2-way system, Frequency Response: 100 Hz – 15 kHz ± 3 dB7, , LMT: In-built 100V line matching transformer, low insertion loss, Mounting:Swivel bracket for wall mounting, U-type MS bracket with SS hardware, Impedance:8 Ohm direct + 100V line, Make:Ahuja ASC-15T / Bosch LBC 3201 / Honeywell X-LS15 / Yamaha VXS5 or better.Warranty: 24 months from date of installation.
Item No-25	Item: Horn Loudspeaker with Driver Unit & 100V LMT, Power Rating:15 Watt RMS, with tapping for 10W, Input Voltage:100V line, Power Taps:15W / 10W / 5W selectable on line matching transformer, Driver Unit: 15W low impedance driver unit, die-cast aluminum6. SPL110 dB ± 2 dB, 1W/1m. Max SPL 122 dB, Frequency Response: 350 Hz – 7.5 kHz ± 3 dB8, LMT: In-built 100V line matching transformer, epoxy potted, Horn Material: UV stabilized ABS/FRP, corrosion resistant, , Mounting: U-type GI/MS adjustable bracket with SS nut-bolts, Impedance:8 Ohm direct + 100V line, Make: Ahuja SUH-15XT / Bosch LBC 3481/00 / Honeywell HN-15LMT / Yamaha VXH8 or better, Warranty: 24 months from the date of installation.
Item No-26	It should be of branded quality with ISI marked.
Item No-27	It should be done properly, neat and clean and no any damage should be caused to other railway property at site and as per instruction of site engineer.



Schedule of work
(Rate are to be quoted by the tenderer)

Tender No. S&T/SEE/E-OT/26-27/14					
Name of Work: Danauli Phulwaria~ Yard remodeling work for extension of CSL of lines at DPL station.					
S. No.	Schedule	Item	Basic cost	escalation on basic rate for instant tender	Tender Cost/Assessed Cost
1	Schedule 1	SOR Item (part-1)	9,78,615.00	assessed rate @186.49% above on basic rate	28,03,634.11
2	Schedule 2	Non-SOR-I item (part-2)	12,03,379.70	assessed rate @129.7% above on basic rate	27,64,163.17
3	Schedule 3	Non-Schedule item (part-3)	2,40,81,775.19	—	2,40,81,775.19
4	Schedule 4	Telecom items(part- 4)	13,42,232.25		13,42,232.25
		Total cost of Schedule (Part-1, 2, 3 & 4)			3,09,91,804.72

Note – The tenderer should quote % above or % below the assessed amount for each schedule (Part-1, 2, 3 & 4) in both figure as well as words.

NOTE : 2. :

1. The above rates are inclusive of all taxes .
2. GST & TDS shall be applicable as per extant instruction on the subject.
3. In addition to general condition of contract, additional condition as per attached sheet shall also apply.
4. Under the existing condition of work, nothing extra other than the quoted rate shall be payable to the contactor.



Tender No. S&T/SEE/E-OT/26-27/14						
Name of work : Danauli Phulwaria~ Yard remodeling work for extension of CSL of lines at DPL station.						
ANNEXURE - Z (Part-1) SOR ITEMS						
Sl. No.	Description	Unit	Inspection	Qty.	Basic Rate	Basic Amount
1	Reinstatement of platform and repairing to original state after cable laying work.	mtr	—	200	100.00	20000.00
2	Repair of Pucca Roads to original state in level x-ing area after cable laying works.	mtr	—	500	150.00	75000.00
3	Laying cable of different sizes as per cable route plan approved by Railway and meggering of all main & tail cables as per technical specification of tender.					
	i) 2 core to 12 core signalling cable.	km		50	2900.00	145000.00
	Telecom Cable 5 Pcs./10 Pcs./Quad	km	—	25	3000.00	75000.00
4	Supply and fixing of G.I. Pipe with threaded collars of 100 mm nominal bore specn. No. IS 1239 medium grade. Perforated of required length on bridge/below metalled road/L-Xing/Culvert as per technical specification of tender.					
	a)Supply portion for the G.I.Pipe & collars.	mtr	Consignee	200	335.00	67000.00
	b)Execution with remaining miscellaneous materials	mtr	—	200	15.00	3000.00
5	Supply of PBT ARA terminal as per IRS SPECN No. IRS:S-75-91					0.00
	i) 6 way	Nos.	RDSO	100	220.00	22000.00
	ii)1 way		RDSO	100	30.00	3000.00
6	Supply of Bakelite Strip/Sheet of Size (950 x 75 x 12) mm. for fixing 30 Nos. ARA terminals/ Fuse base terminals/Fuse base.	nos	consignee	100	160.00	16000.00
7	Supply of offset bracket for colour/position light signal (90/140 mm outside Dia) post with U- clamps, nuts, washers complete as per RDSO DRG.No.SA 23080/ADV/ALT-1.(Dia will be as per site engineer.) Note- Proper size offset bracket for position light shunt signal to be supplied. Site engineer to give details of the off set bracket to the contractor.	Nos.	consignee	5	775.00	3875.00
8	Casting, concreting and curing of foundation for Shunt signal and as per DRG.No. SGW/MGS/S1/91 including cost of all materials required for casting and concreting and provision of holding down bolts & nuts.	Nos.	—	5	1000.00	5000.00
9	Casting,concreting and curing of foundation for Main signal and as per DRG.No. SGW/MGS/S1/91 including cost of all materials required for casting and concreting and provision of holding down bolts & nuts.	Nos.	—	12	2300.00	27600.00
10	Supply of CLS Post 4.5 mtr. and Ladder 4.5 Mtr. with bases as per RDSO DRG.No. SA.5533/ADV and RDSO Spec. No.S6-81.	Nos.	consignee	4	7150.00	28600.00
11	Supply of CLS Post 3.5 mtr. And Ladder 3.5 Mtr. with bases as per RDSO DRG.No. SA.5533/ADV and RDSO Spec. No.S6-81.	Nos.	consignee	8	6050.00	48400.00



12	Supply of SLB/BSLB/SB for SLB/BSLB REF. RDSO DRG. No. SA-2373 (with latest amendment) as per site requirement.	Nos.	consignee	2	475.00	950.00
13	Casting, Concreting and curing of foundation & erection for SLB/BSLB/SB as per DRG.No.S&T/C-34 (NKG) including supply & fixing of holding down bolts & nuts.	Nos.	—	2	2300.00	4600.00
14	Provision of Screen on signal by expanded metal (size 20 mm x 60 mm strand, 3.2 mm wide and 1.6 mm thick) as per instruction of site engineer incharge. This includes supply of all materials including earth electrode and earthing arrangement (supply and installation)	Nos.	consignee	2	3000.00	6000.00
15	Supply of Enamelled number plate P/G/C marker as per site requirement & instruction of Site incharge & as per standard practice in ECR.	Nos.	consignee	2	95.00	190.00
16	Supply of point JB fitted with 18 Nos. 1 way ARA PBT terminal block conforming to IRS - S- 75/91 with 3 Nos. of 40 mm Bore. GI pipe 600 mm long as per DRG No. SGW/MGS/PT4/91 fixed on hard wood plank with U-channel (75 x 40 x 1500) mm for fixing.	Nos.	consignee, PBT terminals- RDSO	6	1150.00	6900.00
17	Supply of complete ground fittings for point machine, including insulated stretcher Bar Switch extension piece etc. and all other accessories required for installation.					
	i) For IRS point machine (Spec.IRS -24/2002) a) Turn out (RDSO DRG. No. SA - 8800-01)	Nos.	consignee	6	4300.00	25800.00
18	Casting, Concreting and Curing of foundation and erection for full apparatus case (GKP-type) as per DRG No. SGW/MGS/L1/91 including cost of all materials required for fixing holding down bolts, casting, concreting and fixing of "E" type lock. Note:- (i) The contractor will provide holding down bolts. (ii) Bottom of appratus cases should be filled with sand and the top surface covered with masonry work and neat cementing. (iii) E type locks to be fixed as per instructions of site Engineer.	nos	—	50	1550.00	77500.00
19	Fixing, wiring of terminal strips, bakelite strip, transformers, relays fuses with base and supply and fixing of shelves for full apparatus case with termination earthing of cable and wiring with lettering as required including supply of wires and miscelleneous materials, sand filling and plastering over sand filling per location. (All materials except transformers, relay, terminal strips, bakelite strip and fuses with base to be supplied by the contractor.).	nos	—	50	1450.00	72500.00
20	Supply of CT rack (DRG.No.S&T/C-9/2001/ER) complete with all fittings including 8 way PBT terminals as per Spec.No.IRS-79/92.	No.	consignee, PBT terminals- RDSO	2	15000.00	30000.00
21	Installation of cable termination Rack with scaffolding materials; ladder for supporting outdoor cable; wire guide; complete with other necessary hardwares as per requirements of Rly. & erection materials. ii) 6 to 8 Line Station	stn	—	1	1500.00	1500.00



22	Supply of relay racks to accommodate 100 relays complete with all fittings as per ER.DRG.No.S&T/C-20/ 2001	No.	consignee	3	13400.00	40200.00
23	Installation and wiring of relay rack as per CSTE/ ER's DRG. No. S&T/7/90 and as per IRS:S-36/87 fixing transformers and supply and installtion of fuses; Diodes; resistances; condensers; terminal strips/ tag blocks; busbar & other equipments required for the approved system design complete with scaffolding materials & required hardware & errection materials (Station wise quantity to be specified by tenderer) Note: 16/0.2 MM PVC wire to be supplied by contractor. Wire to be procured from the RDSO approval firms and inspected by RDSO.	Stn	—	1	90500.00	90500.00
24	Preparation of cable route plan, cable core chart , power supply layout, cable termination chart in relay room and location box. Location wiring plan, cable insulation chart, fuse analysis, equipment disposition plan, track bonding plan, as per railways practice.I) All the above plans for end bungalow also to be submitted.All diagrams/plans to be submitted in polyester film tracing to the railways along with 6 sets of ferro prints of the above.The diagrams/ plans should also be submitted in soft copy in editable autocad/pdf format through USB media..b) 5 to 8 line station.	job	—	1	50000.00	50000.00
25	Supply of earth electrode.Materials to be procured as per E.Rly Sketch No.SGW/T/3/G/8/89.	No.	consignee	50	500.00	25000.00
26	Fixing of Earth electrode including earth wire as per DRG. No. S&T/C-41(NKG) for aparatus cases, signal post and other equipment as per instruction of site engineer all materials except earth electrode shall be supplied by contractor required for exectuion of the work.	No.	—	50	150.00	7500.00
	Total basic cost					978615.00
	Escalation @186.49% above on basic cost					1825019.11
	Total Assessed amount of Annexure - Z (Part -1) SOR Item, Rs.					2803634.11

Note :- The Latest Alteration/ Amendments shall apply to all the Drawing/ Specifications.



Tender No. S&T/SEE/E-OT/26-27/14						
Name of work : Danauli Phulwaria~ Yard remodeling work for extension of CSL of lines at DPL station.						
ANNEXURE - Z (Part-2) Non SOR-I ITEMS						
Sl. No.	Description	Unit	Inspection	Qty.	Basic Rate	Basic Amount
1	Supply of full size location box as per design of GKP signal workshop.	nos	consignee	50	9260.23	463011.50
2	Supply of E-type lock without key, spec . no. IRS-S-30, Drg.no.S-3376/M key-S-3377/M. Individual number of miniature E locks and Normal size of locks required at site & ward of E-type lock to be decided by the site engineer as per site requirement.	nos	consignee	100	521.52	52152.00
3	Supply of Key for E type lock supplied above of ward no. as specified by railway site engineer.	nos	consignee	15	78.31	1174.65
4	Supply of Non deteriorating type low voltage cartridge fuse as per Spec. No. IRS/S/78/92. Round head type.					
	4 Amp. Capacity.	nos	RDSO	150	31.99	4798.50
	6 Amp. Capacity.	nos	RDSO	150	36.57	5485.50
	10 Amp. Capacity	nos	RDSO	150	30.17	4525.50
	16 Amp. Capacity	nos	RDSO	150	30.17	4525.50
5	Supply of slotted angle (40 x 40 x 2 mm)	mtr	consignee	200	93.99	18798.00
6	Supply of paper base hylum sheet 12 mm thick.	Sq mtr.	consignee	50	3153.01	157650.50
7	Supply of indoor signalling cable as per IRS-S-76/89. [40c x 0.6 mm]	mtr	RDSO	1000	77.35	77350.00
8	Supply of PVC wire coil of size of colours as per instruction of site engineer in 100 mtr. Coils. Spec. no. IRS-S-76/89. Material to be procured from RDSO approved firm only with performance guarantee.					0.00
	16/0.2 mm	coil	RDSO	200	442.63	88526.00
	3/0.75 mm	coil	RDSO	50	905.16	45258.00
	7/0.75 mm	coil	RDSO	20	1736.81	34736.20
9	Supply of MS number plate (200 mmx300 mmx3 mm) with fixing clamps. Letter shall be of black colour in the white back ground. Details of description shall be given by site engineer. The plate & clamps shall be painted before lettering of signal numbers.	No.	consignee	12	309.42	3713.04
10	Installation, commissioning & testing of LED Signal as per instruction of site engineer & as per site requirement..	per aspect	-	50	364.01	18200.50
11	Fixing of P/G/C/IB marker with complete fittings as per instruction of site engineer & as per site requirement..	No.	-	2	103.97	207.94
12	Filling earth around location box/signal post for a width of 0.5 m on all sides, upto a level of 150 mm below the foundation top. This work includes consolidation of earth by watering.	Per Cu. Mtr.	-	50	71.1	3555.00



13	Inter connection wiring with ladder arrangement from power supply equipment to relay rack, IPS, Data logger, Control panel, Block instruments, CTR etc. It also includes interconnection wiring with ladder arrangement between relay racks, CTR's, indication board and block instruments. This also includes termination of cables/wires on all the above and dressing, bunching etc. as required at site. Wire shall be 16/0.2 mm for relays, 3.0737 mm for MCB's and 7/0.75 mm for power wiring. Indoor cable 60 x 0.6 mm/40 x 0.6 mm as per IRS-S-76/89 or Latest for interconnection of indication board. Wires shall be procured from RDSO approved firm and inspected by RDSO.	stn	RDSO for PVC wire	2	55668.64	111337.28
14	Carrying out alterations to the existing relay wiring at relay rack/location as per the circuit diagram. The work includes releasing the existing unused wires and wiring the relays using wire PVC 16/0.2 mm copper. {Wire PVC 16/0.2 mm copper, paint, soldering materials and all other miscellaneous materials required for the work shall be supplied by the contractor.}	per relay	—	200	209.00	41800.00
15	Lettering & numbering of details and description writings of particulars of termination and equipments on relay rack, relays, cable termination rack, etc constituting entire system with contractors own paint and writing materials. ("Asian" make enamel paint only to be used.). This includes supply & fixing of Teflon strips 3mm thick and 25 mm wide for each row of relays and cable terminations. The work shall be done as per extant practice on ECRly and instruction of Rly engineer at site.	per rack	—	3	222.15	666.45
16	Termination of cable cores on ARA terminals or on 8 way terminals in the cable termination rack. This includes all associated works of pulling out the cable from under ground, Peeling off insulation, dressing of cable core supported on sting rod with contractors own materials as per instruction of the site incharge. The cable armour to be earthed. Cable tags to be provided.	Per Core	—	1000	6.53	6530.00



17	Supply of tools & plants, measuring instruments. Each set containing the following items i) Cutting plier (Taparia make) 200 mm insulated. = 1 no. ii) Nose plier round insulated, 150 mm (Taparia make) = 1 no iii) Screw driver adjustable with common handle for different screw driver (Taparia make) = 1 no. iv) Spanner double ended, 33 mm = 1 no. v) Hammer ball pans, 1.5 lbs = 1 no. vi) Electric soldering iron (Philips/Soldron make), 230 V, 60 Watt. = 1 no. vii) Wire cutter insulated (Taparia make) = 1 no x) Spanner set double end (Chromium plated, (Taparia make) = 1 no. ix) Wrench adjustable sf 305 mm (Taparia make)=1 no. x) Spanner double ended, 25 mm = 1 no. xi) Megger, 0-500 volt (Motvani/Shanti make)= 1 no xii) Digital multimeter with following range= 1 no. a) 0-1000V AC/DC b) 0-10 Amp c) 0-1000 Ohms 3-1/2 digits The meter shall be supplied with test probes, leather cover battery and of reputed make like Philips/Meco or similar. xiii) Box spanner insulated 1/4 inch x 3/8 inch = 1 no. xiv) Box spanner insulated 3/8 inch x 1/2 inch = 1 no. xv) True RMS digital multimeter of 4 1/2 digits capable of measuring (i) 10 Amp AC and DC current (ii) True RMS voltage with a bandwidth of 5 Khz. Similar to Escorts 97 or Fluke. xvi) Drill bits 7 mm - 7 nos.	SET	consignee	1	59377.64	59377.64
	Total basic cost					1203379.70
	Escalation @129.70% above on basic cost					1560783.47
	Total Assessed amount of Annexure - Z (Part -2) Non SOR-I Item, Rs.					2764163.17

Note :- The Latest Alteration/ Amendments shall apply to all the Drawing/ Specifications.



Tender No. S&T/SEE/E-OT/26-27/14						
Name of work: Danauli Phulwaria~ Yard remodeling work for extension of CSL of lines at DPL station.						
ANNEXURE - Z (Part-3) Non- Schedule items						
S. No.	Description of the Work	Unit	Inspection	Qty	Rate ₹	Amount ₹
1	Excavation of trench in all kinds of soil and refilling of trenches (1 Mtr. Depth 300 mm width)	km	—	5	56160.00	280800.00
2	Excavation of trenchless track under Railway Track/Busy Road etc. at depth culvert/River, (IN HDD portion) laying of 100 mm die GI PIPE of medium grade in it (GI Pipe shall be supplied by the contractor). Note:- Pipe inspection by consignee.	Nos	—	500	1035.86	517930.00
3	Supply of Thermo Shrink Jointing kit for Jointing underground Quad cable [0.9 mm dia of conductor] as per RDSO specification no. IRS:TC:77/2012 Rev.3.0 with amdt.1 to 2 or latest.	Nos	RDSO	10	3004.51	30045.12
4	Installation of Thermo Shrink Jointing Kit {Spec.No.IRS:TC 77/2012(Rev.3.0) Amdt.3} for jointing underground Six Quad Cable for straight through cum derivation joints with VF transformer.	Nos	—	10	2990.49	29904.87
5	Supply of split DWC pipe with the socket / couplar and T joint where ever required, (size of outer dia 300 mm / inner dia 260 mm.)	Mtr	RITES	5000	1197.60	5988000.00
6	Installation of split DWC Pipe as per site requirement & as per instruction of site engineer incharge.	Mtr	—	5000	66.95	334750.00
7	Transportation of HDD machine with accessories including handling of stores materials, preparation of site and boring of 110 mm dia HDPE PIPE of size 63/40 mm in single /double /triple etc required for crossing /laying of railway cables in a combination of quad & signalling cables etc. as per required comprising maximum 72 cores in any HDD section on land /bridges/culverts /track/pucca road crossing and blowing /pulling of Quad /signalling cables etc. within HDPE pipe. Boring of trench shall be (one) Mtr below the track to 1.5 (one point five) minimum 3 (three) meter below the river bed, 01 meter below other lands including road/pucca road 63/40mm dia & its accessories suitable for HDT as permanently lubricated HDPE pipe of size 63/40 crossing area. This includes supply as per Specification No. RDSO/SPN/TC/45/2013 with latest amendment & cost of the fuel and all other items which will be required for laying of cable through it. Note- The number of HDPE pipes(of any dia as mentioned above) to be pulled in any HDD section will depend upon the numbers of quad /signalling cables to be pulled through that HDD section as per site requirement. At a particular site, the second /additional HDD is to be done only after completing the pulling of 72 cores of cable through 1st HDD other wise the second/additional HDD will not be counted as a new /additional HDD for the purpose of billing.	Mtrs	consignee for supply portion	1000	1007.51	1007510.00
8	Providing and laying in position cement concrete of 1:3:6 (1 cement:3 sand: 6 graded stone aggregate 20 mm nominal size) including cement as per site requirement & as per instruction of site engineer incharge.	cum	—	20	6,138.29	122765.80



9	Installation, erection and wiring of CLS unit, LED unit including laying out of tail cable from Location Box and earthing of CLS (LED type). This includes supply of Non Metallic (FRP) Color light signal housing multi unit type for Railway signalling suitable for RE area, 4 aspect complete (without lenses, lamps and signal transformer) as per RDSO Drg. No. SA- 23001/A/M/ADV,ALT-8 and as per Spec No. RDSO/SPN/194/2006 (version 1.0) with latest amdt and FRP material as per RDSO Spec No. RDSO/SPN/151/1997 or latest. All drawings should be as per latest. Material to be procured from RDSO's approved firm only. Note:- Signal unit should be compatible to 'LED' type. Installation, erection & wiring of signalling unit includes LED signal lightning unit including current regulator & Health Monitoring unit. This also includes protection of unit from Rain water.					
(i)	Execution	Nos.	—	2	2764.77	5529.54
(ii)	Supply	Nos.	consignee	2	40973.26	81946.52
10	Installation, Erection & Wiring of CLS unit, Post, Ladder & Base, LED unit including laying out of tail cable from location box & earthing of CLS (LED type). This includes supply of non- metallic (FRP) colour light signal housing multi-unit type for Rly. signalling, suitable for RE area, 3 aspect complete without lenses, lamps and signal transformer as per drg. no. SA23002/A/M/ ADV. ALT-8 and as per spec. no. RDSO/SPN/194/2006 (VER- 1.0) or latest and FRP material as RDSO spec. no. RDSO/SPN/ 151/ 1997 or latest. All drawings should be as per latest. Material to be procured from RDSO's approved firm only. Note:- Signal should be compatible to 'LED' type. Installation, Erection & Wiring of signalling unit includes LED signal lightning unit including Current Regulator & Health Monitoring unit. This also includes protection of unit from rain water.					
(i)	Execution	Nos	—	4	2777.72	11110.90
(ii)	Supply	Nos	consignee	4	34258.60	137034.40
11	Installation, Erection & Wiring of CLS unit, Post, Ladder & Base, LED unit including paying out of tail cable from location box & earthing of CLS (LED type). This includes supply of non- metallic (FRP) colour light signal housing multi-unit type for Rly. signalling, suitable for RE area, 2 aspect complete without lenses, lamps and signal transformer as per drg. no. SA23003/A/M/ADV.ALT-8 and per spec. no. RDSO/SPN/194/2006 (VER- 1.0) or latest and FRP material as RDSO spec. no. RDSO/SPN/ 151/1997 or latest. All drawings should be as per latest. Material to be procured from RDSO's approved firm only. Note:- Signal should be compatible to 'LED' type. Installation, Erection & Wiring of signalling unit includes LED signal lightning unit including Current Regulator & Health Monitoring unit. This also includes protection of unit from rain water.					0.00
(i)	Execution	Nos	—	4	2314.77	9259.08
(ii)	Supply	Nos	consignee	4	32406.78	129627.12



12	Installation, Erection and wiring of Junction Type Route Indicator (LED type) . This includes supply of non- metallic (FRP) Junction Type Route Indicator for Rly signalling suitable for RE area without lamp, lenses, signal transformer as per RDSO spec. no. RDSO/SPN/194/2006 (VER-1.0) or latest. FRP material as per RDSO SPEC no. RDSO/SPN/151/1997 or latest. All drawings should be as per latest. Material to be procured from RDSO's approved firm only. Note:- Signal unit should be compatible to 'LED' type, Note:- Installation, Erection & Wiring of signalling unit includes LED signal lighting unit . This also includes protection of unit from rain water.					
(a)	1 Way as per RDSO drg. no. SA- 23401(ADV)/ALT-2					
(i)	Execution	Nos	—	2	758.30	1516.61
(ii)	Supply	Nos	consignee	2	45445.42	90890.84
(b)	3 Way as per RDSO drg. no. SA- 23403(ADV)/ALT-2					
(i)	Execution	Nos	—	2	1,181.21	2362.42
(ii)	Supply	Nos	consignee	2	47,796.52	95593.04
13	Installation, Erection paying out of tail cable from location box and wiring of Calling-On signal/Guard repeater, LED unit on same post below Main signal. This includes supply of non-metallic (FRP) Calling-On signal housing unit type for railway signalling, suitable for RE area, without lense, lamp and holder, compatible to LED signal unit as per RDSO drg. no. SA24351/ADV or latest and as per RDSO spec. no. RDSO/SPN/194/2006 (VER-1.0) or latest. FRP material spec. as per RDSO/SPN/151/1997 or latest. This includes cost of protection cover (wire mesh guard of expanded metal of size 2 inch x 1inch) and mounting bracket with U-clamps nuts & washer. All drawings should be as per latest. Note:- Signal unit should be compatible to 'LED' type. Installation, Erection & Wiring of signalling unit includes LED signal lighting unit This also includes protection of unit from rain water.					
(i)	Execution	Nos	—	2	660.63	1321.26
(ii)	Supply	Nos	consignee	2	10930.86	21861.72
14	Installation, erection, laying out of tail cable from LB and wiring of Shunt signal LED unit on the same post below the main signal as per technical specification. This includes supply of Non Metallic (FRP) Shunt signal unit (without lenses, lamps base, post and signal transformer) as per RDSO Drg. No. SA-23840/ ADV/Alt-2 or latest.FRP material Spec No. as per RDSO/SPN/151/1997 or latest. Material to be procured from RDSO's approved firm only. NOTE:- Signal unit should be compatible to 'LED' type. Installation, erection & wiring of signalling unit includes LED signal lighting unit . This also includes provision of offset bracket and protection of unit from rain water.					
(i)	Execution	Nos	—	5	465.63	2328.15
(ii)	Supply	Nos	consignee	5	6197.90	30989.50
15	Installation, Erection of Shunt Signal unit with base and post and paying out of tail cable from location box and wiring of shunt signal, LED unit as per technical spec. This includes supply of non-metallic (FRP) shunt signal housing multi-unit type (without lenses, lamps) with base & post and without signal transformer for Rly signalling suitable for RE area without lens, lamp & holder, compatible to LED signal unit as per RDSO drg. no. 23840/ADV/ALT-2 or latest and as per RDSO spec. no. RDSO/SPN/194/2006 (VER-1.0) or latest. FRP material spec. no. as per RDSO/SPN/ 151/1997 or latest. All drawings should be as per latest.Material to be procured from RDSO's approved firm only. Note:- Installation, Erection & Wiring of signalling unit includes LED signal lighting unit This also includes protection of unit from rain water.					



(i)	Execution	Nos	-	5	493.18	2465.91
(ii)	Supply	Nos	Consignee	5	14832.75	74163.74
16	Supply of Plastic Cover for 2 Aspect Signal Unit as per technical specification attached. Note:-Before supply, sample must be approved by consignee & controlling officer.	nos	Consignee	30	166.52	4995.60
17	Supply of Plastic Cover for 3 Aspect Signal Unit as per technical specification attached. Note:-Before supply, sample must be approved by consignee & controlling officer.	nos	Consignee	20	172.16	3443.20
18	Supply of Plastic Cover for 4 Aspect Signal Unit as per technical specification attached. Note:-Before supply, sample must be approved by consignee & controlling officer.	nos	Consignee	10	191.58	1915.80
19	Supply of MSDAC Record Books both side Printing (20 Page) and bounding size Length 8" width 5". Note- Supply should be as per instruction of Site incharge & as per standard practice in ECR. Sample must be approved by consignee & controlling officer before supply.	Book let	Consignee	50	135.70	6785.00
20	Supply of Printed and Binded of IPS Record LSC/ECU Indoor both side printing 50 Page and Bounding Size Width-11", Height- 8", Battery Record LSC/ECU Indoor both side printing 50 Page and Bounding Size Width-11", Height- 8", Signal Failure Memo Book Size 6" Long 4" Width of 100 Page printed with duplex top binding. Note- Supply should be as per instruction of Site incharge & as per standard practice in ECR. Sample must be approved by consignee & controlling officer before supply.	Book let	Consignee	20	528.64	10572.80
21	Supply & Erection of passenger/Goods Warning Boards as per Drg.No.SA 2380 ADV with reflecting strips as per instruction of Site incharge & as per standard practice in ECR.	No.	Consignee	2	6736.80	13473.60
22	Supply of Key Lock Relay (KLCR) (Neutral relay) to work on 24V DC 2F/2B with 1 Key and 2 Ward along with housing suitable for mounting 1 no. Key lock relay with push button, LED indication complete. Note- Material should be supplied along with Test certificate from OEM and his warranty certificate.	Nos	RDSO	3	12810.49	38431.47
23	Installation of KLCR lock relay assembly as per direction of concerned engineer	Nos		3	298.47	895.41
24	Supply of Smart Cabinet/Rack for Housing of Various S&T equipments like KLCR, Reset Box, IPS Indication Panel, CAVA Unit for FACS, SPAU for Point Reversal, Crank Handle, Quad Cable Earth Sensing Unit along with Fixing of KLCR(KLCR will be provided by Railway) as per instruction of Site Engineer, Make- RITTAL,SANTEL, VERO PRESIDENT or similar.	Nos.	Consignee	1	50493.53	50493.53
25	Supply of hand cuff locks with keys.	Nos.		100	413.70	41370.00
26	Supply of Terminal Blocks as per following specifications:- Supply of 4 Conductor Disconnect Terminal Block for test and measurement 0.08 mm ² - 2.5 mm ² center marking with test slot for test plug 2 mm/0.079 in and 2.3 mm/0.091 in carrier rail din35 front entry cage clamp connection grey WAGO or Similar as per RDSO Spec. No. RDSO/Spn/189/2004 Ver. 3.0 or Latest.	Nos.	RDSO	5000	70.09	350450.00
27	Supply of Terminal Blocks as per following specifications:- Supply of End and Intermediate plate 2.5 mm/0.098 in thick WAGO or similar as per RDSO Spec. No. RDSO/Spn/189/2004 Ver. 3.0 or Latest.	Nos.	RDSO	1000	13.77	13770.00
28	Supply of Terminal Blocks as per following specifications:- Supply of steel carrier rail 35x7.5 mm, 1 mm/0.039 in thick unslotted, yellow with chrome WAGO or similar as per RDSO Spec. No. RDSO/Spn/189/2004 Ver. 3.0 or Latest	Nos.	RDSO	500	118.00	59000.00
29	Supply of Terminal Blocks as per following specifications:- Supply of Screwless End stop 10 mm/0.394 in wide carrier rail din 35, grey WAGO or similar as per RDSO Spec. No. RDSO/Spn/189/2004 Ver. 3.0 or Latest.	Nos.	RDSO	500	14.50	7250.00



30	Supply of PVC flexible copper cable single core multistrand 1 x 10 Sq.mm (80 conductor each diameter 0.40 +/-0.01) as per IS 694/2010 with latest amendment if any with insulation thickness of 1.0 mm nominal conductor resistance 1.91 ohms/Km and test parameters are as per IRS (S)76/89 (Amd.3).(Inspection by RDSO)	km	RDSO	1	129252.63	129252.63
31	Modification and alteration to Existing Panel Interlocking MACLS station for interconnection wiring with station for interconnections wiring with panel, Relay Room Equipments and Power Supply Equipments, Battery Room, SM/ ASM Rooms, Outdoor Equipments, Termination in Relay Rooms Equipments Terminals, CT Racks, HV Racks (If required) and Rack to Rack wiring etc as per approved Signalling plan & Circuit Diagrams.	Station	—	1	87150	87150.00
32	Modification and alteration to Existing of panel face diagram as per spec.no. IRS-S-36-87 with modifications, dt. 05-7-94 of CSTE/E. Rly. Domino type control Panel Spec no.: RDSO/SPN/186/2004 (Latest) Note: After getting approval of the above diagrams from railways, the diagram is to be submitted in polyester film tracing along with 6 sets of ferro prints of the same. Out of this, 2 set to be submitted in laminated plastic cover and in soft copy in editable autocad/pdf format through USB media also.					
	(a) Up 4 to 8 Lines Stations.	Station	—	1	15120	15120.00
33	Supply and fixing of MS FLAT size 32mm *5 mm as Earth lead on Location boxes and Interlocked LC gates. All required material will be supplied by the contractor. Inspection Consignee	Nos.	consignee	50	343.93	17196.50
34	Supply and installation of earth electrodes including MS flate for signaling equipment such as lever frame, apparatus case, signal, relay rack, block instrument, etc. as per instruction of site engineer. Earth measurement will be done jointly. The record of the earth will be submitted by the contractor to the site engineer. Inspection: Consignee	No	consignee	20	9514.645	190292.90
35	Supply, Installation, Testing & Commissioning of Earth Leakage Detector for monitoring different AC & DC supplies Multichannel (12 channel) conforming to RDSO /SPN/256/2002 with latest amendments as per technical specification attached.	No	RDSO	1	212106.3	212106.30
36	Arrangement of Battery operated Rail Core Drill along with additional 18mm TCT Rail Core Drill, Maximum core cutting capacity: 36 mm, Rated speed: 250/450 RPM, Battery type:Li-on, Battery voltage: 50 Volt, Battery pack capacity: 4 AH, Number of Battery supplied: 2 Nos, Number of Charger supplied: 1 No, Special design pressurized Internal spindle cooling to give maximum life of core cutter and to avoid heating of the rail. Time taken to drill one hole of 32 mm in 60 KG 90 UTS rail section less than one minute. Time taken to fix the machine on the rail, less than 2 minutes and to de-clamp less than 1 minute. 34 Number 32 mm diameter hole with full charge batteries (17 hole per battery) in 60 Kg 90 UTS rail section. 3 Sets of standard center rail drilling adapters for gauge 90, 52, 49 provided along with machine. Weight of machine with battery: 18.5 KG, Make: Eibenstock. Bosch, KPTL.(Inspection by Consignee)	No.	consignee	1	140133.65	140133.65
37	Supply of GI-Cover for Point Machine Point Machine	Nos	consignee	10	2622.00	26220.00
38	Supply of Indoor power cable of 4 sq mm size as per IS 694-1990 or latest as per technical specification attached. . Colour Code decided by as per Site engineer.	metre	consignee	1000	87.37	87370.00



39	Supply of indoor power cable of size 2.5 Sq.mm as per IS 694-1990 or latest as per technical specification attached.Colour Code decided by as per Site engineer.	metre	consignee	1000	254.029	254029.00
40	Supply of 35 sq mm Multistrand Single core PVC insulated Copper Cable as per IS:694 for connecting Main Earth Electrode to MEEB in the equipment room in duplicate.	mtr	consignee	1000	274.04	274043.00
41	Supply of basic material to construct unit maintenance free earth as per RDSO Specs.No. RDSO/SPN/197/2008 or latest and conforming to RDSO Drg.No. SDO/RDSO/E&B/001 dtd.19.09.08 . It consist of following: (i) Copper bonded steel electrode of 3.0 m long,17.2 mm dia with copper bonding thickness of minimum macrons and UL listed and marked = 1 no. (ii) Earth enhancement material supplied in sealed bags of minimum 10kg = 3 nos. (iii) Copper strip of 150x25x6 mm, to terminate earth rod= 1 no. (iv) Copper strip of 300x25x6 mm (MEEB)= 1 no. (v) Copper strip of 150x25x6mm (SEEB) = 1 no.(vi) Supply of 35 sq. mm multistrand single core PVC insulated copper cable as per IS: 694 for connecting main earth electrode to MEEB in the equipment room in duplicate.(minimum 10 meter) (vii)Supply of 16 sq. mm multistrand single core PVC insulated copper cable as per IS: 694 for connecting MEEB to SEEB and SPD to MEEB(minimum 10 meter) (viii)Supply of 10 sq. mm multistrand single core PVC insulated copper cable as per IS: 694 for connecting various equipments to SEEB (ix) Supply of copper lug sleeve for 3/16 cable Note:- RDSO latest TAN No. STS/E/TAN/3006 Ver.3.1, dtd. 30.6.2025 or latest will be applicable & followed by the firm.	No.	RDSO	20	15133.46	302669.20
42	Installation of Unit Maintenance Free Earth as supplied. It includes (i)Digging the earth to the required depth. (ii) Insertion of electrode. (iii) Filling of earth enhancement compound(Approx.30 Kg) (iv) Provisionof exothermic weld connections to copper tape of 25 mm x 6mm x 200 mm to the earthelectrodes. All material tools and features required for weld will be arranged by contractor.(v) This also includes CC cover 1.5 ft x 1.5 ft. 1 ft wall thickness 2 inch with cover 3 inch thickness. Cables 35 Sqmm/ 16 Sq mm/10 sq mm for connecting earth to busbar,busbar to busbar and busbars to various equipments. Earth electrode of 17.20 mm dia and 3.00 meter long high tensile low carbon steel circular rods molecularly bonded with copper and outer surface(minimum copper bonding thickness of 250 microns to made requirement of underwriter's laboratories (UL) 467-2007 or latest. Copper strips of 150 mm x 25 mm x 6 mm to be welded with each earth electrode, copper strips of 300mm x 25 mm x 6 mm for main equip- potential busbar,copper strips of 150 mm x 25mm x 6 mm sub equipotential busbar in relay room, power room and panel room. Copper strip 25 mm x 2 mm for ring formation of earth pits Earth enhancement material in bags for each Earth Electrode.Inspection chamber of site 300mm x300 mm x 300 mm (Inside dimension) of approximate 50 mm thick with pulling hooks to cover theearth pits. Note: The installation of this item shall be carried out by the contractor as per RDSO Specn.No.RDSO/SPN/197/2008 or latest and conforming to RDSO Drg.No.SDO/RDSO/E&B/001 or latest & as per RDSO TAN 3006 ver 3.1 dt. 30.06.2025.	No.	—	20	5634.57	112691.40
43	Preparation of Station Working Rule (SWR) in English & Hindi based on approved SIP, ESP etc as per the extent practice being followed in E.C. Railway. The contractor should supply two paper print of SWR as draft for approval and comments. Once the approval is given he shall supply two paper prints of the SWR for final approval and signature of the concerned officials on obtaining the final approval the contractor shall supply 10 sets of the SWR duly photo copies from the original signed off copies of SWR. The approved SWR shall be finally supplied in soft copy in editable word/pdf format through USB media.	stn	-	1	18,454.14	18454.14



44	Preparation & printing of Station Working Rule Diagram (SWRD) on AUTOCAD based on approved SIP, ESP etc. as per the extant practice being followed in E.C.Railway. Contractor shall supply one print of the SWRD (paper print Size as required) as draft for approval and comments. Once the approval is given shall tracing of the SWRD on good quality flim paper of thickness not less than 75 microns for signature of all officials. On approval, the contractor shall supply 10 copies blue print of the tracing. The approved SWRD shall be finally supplied in soft copy in editable autocad/pdf format through USB media.	stn	-	1	3,919.66	3919.66
45	Designing and preparation of SIP to the scale through Autocad software. Contractor shall supply one print of the SIP as draft for approval and comments. Once the approval is given, contractor shall provide the tracing print of the same on good quality flim paper of thickness not less than 75 microns for signature of all officials. On approval, the contractor shall supply 10 copies paper print of the tracing after completion of the work. The approved SIP shall be finally supplied in soft copy in editable autocad/pdf format through USB media.	stn	-	1	24,890.00	24890.00
46	Designing and preparation of Selection Table through Autocad software. Contractor shall supply one print of the ST as draft for approval and comments. Once the approval is given, contractor shall provide the tracing print of the same on good quality flim paper of thickness not less than 75 microns for signature of all officials. On approval, the contractor shall supply 10 copiess paper print of the tracing after completion of the work. The approved ST shall be finally supplied in soft copy in editable autocad/pdf format through USB media.	stn	-	1	49,780.00	49780.00
47	Supply, Installation, Testing & commissioning of complete Automatic Fire Detection & Alarm System (AFDAS) for signaling installation as per RDSO spec. no. RDSO/SPN/217/2018 Ver.2.0 or latest & as per attached technical specification consisting of 01 no. Control panel, 01 Flasher, 1 no. hooter, 6 nos. smoke detectors, 06 nos heat detector and 01 no. Manual call point. Note:-The system shall be approved by UL or FM or Vds or LPCB.	nos.	RDSO	1	313276.22	313276.22
48	Supply and installation of CO2 type fire extinguisher capacity 4.5 Kg capacity ISI Mark IS: 15683 operating temperature (-30°C to +55°C) for class 13 B type of fire with 1 mtr. Hose pipe fitted with PVC bent horn complete in all respect as per technical specification attached. Note:- BIS certification & Testing certification of NABL accredited Lab must be submitted by tenderer along with supply.	No.	Consignee	10	3513.52	35135.20
49	Supply, Installation, testing and commissioning of single channel laser or High power LED based Aspiration detection unit (for AC room) with area covering 5000 sq. ft. with programmable 4 stage alarm generation and with 4 addressable modules. It should have auto cleaning facility in optical chamber, electronic discrimination of particle size, ultrasonic air flow sensing auto learn feature with TCP/IP network capability, the aspiration system shall also include external power supply unit with battery backup. Note- Approval- UL/LPCB/VDS listed (document of approval must be submitted along with supply) and shall comply to specification No. RDSO/SPN/217/ 2021 Ver-3 or latest.	nos.	RDSO	1	231679.37	231679.37
50	Supply, Installation, Testing & Commissioning of UL/LPCB/VDS Listed CPVC pipe 25 mm Dia & Pipe Accessoris for the Aspiration Detection complying to the RDSO/SPN/217/2021 Ver-3 or latest. Note:- Approval - UL (document of approval must be submitted along with supply)	mtr	RDSO	40	472.28	18891.20



51	Supply, Installation, Testing & Commissioning of Analog Addressable Type Output/Control Modules with Inbuilt Fault Isolator or Alternate arrangement which shall isolate the module in case of short circuit. The Module should have Programmable supervised & Unsupervised output. The Module should have visual indication for its operation, Approval - UL/LPCB/VDS Listed and Shall comply to RDSO/SPN/217/2021 Ver 3 or Latest.	nos.	RDSO	4	3523.83	14095.32
52	Supply, installation and commissioning of Multi Section Digital Axle Counter [MSDAC] complete set with all accessories consisting of complete indoor and outdoor equipment including reset box ,Central evaluator and monitoring console as per RDSO Specification No. RDSO/SPN/176/2013 Ver. 3 with latest amendment/revision of required track section and detection points including transportation of materials at Site as per attached technical specifications.(Make- Frauscher or similar make of RDSO approved OEM)	DP	RDSO	35	340309.33	11910826.55
	Total Assessed amount of Annexure - Z (Part -3) Non Schedule Item, Rs.					24081775.19

Note :- The Latest Alteration/ Amendments shall apply to all the Drawing/ Specifications.



Tender No. S&T/SEE/E-OT/26-27/14						
Name of work : Danauli Phulwaria~ Yard remodeling work for extension of CSL of lines at DPL station.						
ANNEXURE - Z (Part-4) Telecom Items						
Sl. No.	Description	Unit	Inspection	Qty.	Rate	Amount
1	Laying/blowing/ drawing of Quad/PIJF cable in the trench. As per specification attached.	km	--	1.5	8594.70	12892.05
2	Supply of thermo shrink jointing kit for jointing of underground Quad cable (0.9 mm dia) as per technical specification No.IRS:TC-77/2012 rev-3.0 amdt.-3 or latest.	Nos.	Consignee	4	3004.51	12018.05
3	Installation of Thermo Shrink Jointing Kit {Spec.No.IRS:TC 77 / 2012(Rev.3.O)Amdt.3} for jointing underground Six Quad Cable for straight through cum derivation joints with VF transformer.	Nos.	--	4	2990.49	11961.95
4	Supply of 20 pair CT box (Metal box) with Wago terminal type. Inspection: Consignee	Nos.	Consignee	2	2943	5886.00
5	Fixing of 20 pair CT box and termination of cable at the site/station/L.C. gate etc. This includes fixing of PIJF cables and C.T. box on the wall with necessary wooden plank and PVC pipe for entire length of the cable inside the room.	Nos.	Consignee	2	2432.88	4865.76
6	Excavation of trench in all kinds of soil and refilling of trenches (1 Mtr. Depth 300 mm width).	Mtrs.	--	1500	56.16	84240.00
7	Supply of 24 fibre armoured mono mode optical fibre cable as per RDSO Specification No.- IRS.TC/55/2006 Rev-1.0 Amnd-3 or latest.	Km	Consignee	3	94234.8	282704.40
8	Laying of HDPE duct in the trenches, including in HDD/Manual Boring and supply pulling of Nylon rope through it at different places as per direction of Engineer incharge/ site Engineer. It includes Supply of HDPE duct outer dia 40mm & inner dia 33mm as per TEC Gr No. G/CDS-08/02 Nov /2004 with latest amendment with end cap to be provided along with the drum at both ends.	Km	--	3	74496.01	223488.03
9	Blowing/Drawing of OFC cable in the HDPE duct by mechanical system through the HDPE duct already provided in the excavated treanch as per approved cable route plan taking due care while transporting and sealing both ends after laying. Work will be done as per technical supplement.	km	--	3	11384.12	34152.36
10	Supply and installation of OFC joint closure with all accessories for jointing of 24 fibre OFC as per TEC specification no G-OJC- 02/01 May 99. The Splice loss shall not be more than 0.1dB, Make-Andatel/Techroute/ Intelco technochip or Similar	No	Consignee	4	4998	19992.00
11	Switch 8 port unmanageable.	Nos.	Consignee	15	898.1098	13471.65
12	2 Mbps leased line Modem as per TEC Spec. No. IR/DCA-18/04, Oct.2005 each pair consisting of one V.35 unit and one G.703 unit.	Pair	Consignee	6	18644	111864.00



13	Supply of four port media Converter 100 Mbps OFC port SC Connector driving distance 15 KMs on single mode fiber with four 10/100 mbps. Ethernet port and internal AC supply Make-MROTEK Model FABIO 104L/SA/SMIS/AC or similar.	Pair	Consignee	4	2242	8968.00
14	Supply and installation of Audio Amplifier similar to Ahuja Model SSA-250 or better make, workable on AC: 220-240 V 50/60 Hz Dc :24V (2x12V car Battery DC supply with protection against wrong battery polarity connections in the control console, as directed at site. FIRMS OFFER: M AKE : HITONE BOSS, MODEL : SSA300M	Nos.	Consignee	2	12272	24544.00
15	Supply and Installation of 10 meter HDMI cable.(Inspection by consignee)	Nos.	Consignee	10	1000.00	10000.00
16	Supply of RJ-45 Connector for networking	Nos.	Consignee	500	5.20	2600.00
17	Supply of HDMI Splitter 1 in 8 Out with Video Resolutions up to 4K@30hz, EDID Management, 10.2 Gbps Video Bandwidth & Plug and Play	Nos.	Consignee	5	4799.00	23995.00
18	Annealed tinned Electrolytic high conductivity copper multi Stand flexible conductor. size: 2 core x 1.5 sqmm. Make- AVERCAB or similar.	mtrs.	Consignee	1000	45.49	45490.00
19	Supply of CCS (Counter Communication System) at various station of SEE Division with defined specification.	Nos.	Consignee	2	8643.1	17286.20
20	Installation, testing, commissioning including all necessary electrical wiring, telecom cabling, provision of accessories required for commissioning of system as a whole.	Nos.	Consignee	2	3184.3	6368.60
21	Supply, installation, testing & Commissioning of Full HD LED TV/Large Format Display Monitor(55 inch) suitable for 24x7 operation with HDMI ports complete with all accessories and HDMI cables, as per Specification attached.	Nos.	Consignee	2	113725	227450.00
22	Supply of microphone with stand.	Nos.	Consignee	4	2820.38	11281.52
23	Supply of Cordless microphone Similar to Model no.-AWM 490V2 of Ahuja-Make.	Nos.	Consignee	2	3639.2	7278.40
24	Supply of column speaker 15 Watt with line matching transformer make Ahuja or Philips.	Nos.	Consignee	15	1169.719	17545.79
25	Supply of 15 watts Hornspeaker with 10 watttapping, matching transformer and driver unit. Inspection- Consignee	Nos.	Consignee	15	1694.9	25423.50
26	Supply of PVC pipe 1" diameter or better of ISI marked.	Mtrs.	Consignee	1500	39.19	58785.00
27	Laying of power/data/OFC/Screened cable through PVC pipe. (PVC pipe will be supplied by Railway).	Mtr.	--	1500	25.12	37680.00
	Total Assessed amount of Annexure - Z (Part -4) Telecom Item, Rs.					1342232.25

Note :- The Latest Alteration/ Amendments shall apply to all the Drawing/ Specifications

END DOCUMENT