



RAILTEL CORPORATION OF INDIA LTD.

(A Govt. of India Enterprise)

Eastern Region Office

19th Floor, Aurora Waterfront, GN 34/1,

Sector V, Bidhannagar, Kolkata, West

Bengal 700091 **Corporate Office**

Plate-A, 6th Floor, Office Tower-2,

NBCC Building, East Kidwai Nagar, New Delhi-110023

Invitation for Expression of Interest

for

Selection of Implementation Partner from RailTel Empanelled Business Associate for exclusive PRE-BID TEAMING ARRANGEMENT for

“Design, manufacture, supply, installation, testing and commissioning of Automatic Block Signalling in BAKTIYARPUR-Mankatha (MKB) (Exclusive) section (72 Km) in Danapur division of E. C. Railway”.

&

“Design, manufacture, supply, installation, testing and commissioning of Automatic Block Signalling in Mankatha (MKB) (Exclusive) -JHAJHA section (61 Km) section in Danapur division of E. C. Railway”.

EOI No: RAILTEL/ER/MKT/EOI/2023-24/Tender/35

DTD 06.03.2024

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Disclaimer

RailTel Corporation of India Ltd. (herein after called the RailTel) has prepared this Expression of Interest (EOI) document solely to assist prospective bidders in making their decision of whether bid or not to bid.

While the RailTel has taken due care in the preparation of information contained herein and believes it to be accurate, neither the RailTel or any of its Authorities or Agencies nor any of their respective officers, employees, agents or advisors give any warranty or make any representations, express or implied as to the completeness or accuracy of the information contained in this document or any information which may be provided in association with it. This information is not intended to be exhaustive and interested parties are required to make their own inquiries and do site visits that it may require in order to submit the EOI. The information is provided on the basis that it is non-binding on RailTel, any of its authorities or agencies or any of their respective officers, employees, agents or advisors. The RailTel reserves the right not to proceed with the bidding/EOI process at any stage without assigning any reasons thereof, or to alter the time table reflected in this document or to change the process or procedure to be applied. It also reserves the right to decline to discuss the EOI further with any party submitting an EOI. No reimbursement of cost of any type will be paid to persons or entities submitting the EOI.

NOTICE

RailTel Corporation of India Limited, Eastern Region,
19th Floor, Aurora Waterfront Building,
Plot no. 34/1, Block -GN, Sector - V,
Salt Lake City, Kolkata -700091, West Bengal

EXPRESSION OF INTEREST

EOI Notice No: RAILTEL/EOI/ER/COR'S-UICCC /MKT/2023-24/35 DTD 06.03.2024

RailTel Corporation of India Ltd., (hereafter referred to as RailTel) invites EOIs from RailTel's Empaneled Partners/OEMs/Authorized Distributors of OEMs for Selection of Partner from for exclusive PRE-BID TEAMING ARRANGEMENT for

PART-1 *"Design, manufacture, supply, installation, testing and commissioning of Automatic Block Signalling in BAKTIYARPUR-Mankatha (MKB) (Enclusive) section (72 Km) in Danapur division of E. C. Railway".*

And/or

PART-2 *"Design, manufacture, supply, installation, testing and commissioning of Automatic Block Signalling in Mankatha (MKB) (Exclusive) -JHAJHA section (61 Km) section in Danapur division of E. C. Railway".*

The details are as under:

The bidder will be at discretion to bid for any one Part (ie Part-1 & Part-2) of the EoI or for both the EoI

1	Date of EOI Floating	06th March,2024 at 16. 00 Hours
2	Last date for submission of Bids against EOI	11th March,2024 at 12:00 Hours
3	Opening of Bids received against EOI	11th March,2024 at 12:30 Hours
4	Number of copies to be submitted	Single Stage (Single Packet System)
5	EOI document cost inclusive tax(non-refundable)	Rs. 5,900/- (Five Thousand Nine Hundred only)
6	(PART-1) Estimated amount of EOI <i>Ref Tender no- SG-W-DNR-OT-03-2023-24</i>	Rs. ₹ 17,39,54,506.68/- (incl GST)
7	(PART-2) Estimated amount of EOI <i>Ref Tender no- SG-W-DNR-OT-04-2023-24</i>	Rs. ₹ 15,06,33,499.51/- (incl GST)
8	EMD for Pre-Bid Arrangement (Token EMD)	Rs. ₹ 05,00,000/- (Five Lakhs Only) to be submitted along with EOI. (To be submitted via online bank transfer). <i>The Balance amount of advertised EMD by the customer in NIT, in proportion to the scope of work for BA</i>

9	Bid Submission Mode	Online on https://railtel.enivida.com
10	Single packet/two Packet bid	Single Packet Bid

Note: RailTel reserves the right to change the above dates at its discretion.

The bidder will be at discretion to bid for any one Part (ie Part-1 & Part-2) of the EoI or for both part of the EoI

Initially while participating in EoI the bidder needs to submit EMD i.e., Rs. 5,00,000/- in form of RTGS / NEFT.
The remaining amount may be submitted before the CoR Bid.

The EMD should be in the favour of RailTel Corporation of India Limited payable at KOLKATA through online bank transfer. Partner needs to share the online payment transfer details like UTR No. date and Bank along with the proposal.

RailTel Bank Details for Submission of EMD/PBG: Union Bank of India, Account no. 401601010519491, IFSC Code: UBIN0540161. Demand Draft should be submitted in favour of RailTel Corporation of India Limited payable at Kolkata.

Eligible Business Associates are required to direct all communications related to this Invitation for EoI document, through the following Nominated Point of Contact persons:

Prospective bidders are required to direct all communications related to this Invitation for EoI document, through the following Help Desk:

Level:1 Contact: Sh. Sridip Das , Position: Chief Manager/Marketing/ER

Email: sridip.das@railtelindia.com Contact: +91- 9007041225

Level:2 Contact: Sh. Abhishek Mani Position: Sr. DGM/Marketing/ER

Email: abhishekmani@railtelindia.com Contact: +91-6289857500

Note:

1. The EOI response is invited from eligible OEM/ Authorized distributors of the OEMs/**Empaneled Partners of RailTel**. However, RailTel reserves the right to select non-empaneled companies as per RailTel's BA/SI Policy & its exception clause.
2. Empanelled partners are required to submit soft copy of response through Online on RailTel's e-nivida portal at <https://railtel.enivida.com> duly signed by Authorized Signatories with Company seal and stamp.
3. If, the interested bidder is OEM/Distributor of OEM/Direct Partner of OEM or Consortium, it should submit the supporting document for the same.
4. All the document must be submitted with proper indexing and page no.
5. This is an exclusive pre-RFP partnership arrangement with empaneled business associate of RailTel for participating in the end customer RFP. Selected partner's authorized signatory has to give an undertaking they will not submit directly or indirectly their bids and techno-commercial solution/association with any other Organization once selected in this EOI for pre-bid teaming arrangement (before and after submission of bid to prospective customer Organization by RailTel). This undertaking has to be given with this EOI Response.
6. **Transfer and Sub-letting:** The Business Associate has no right to give, bargain, sell, assign or sublet or otherwise dispose-off the Contract or any part thereof, as well as to give or to let a third party take benefit or advantage of the present Contractor any part thereof.
7. **Bidder has to provide Necessary documents & undertakings on behalf of RailTel as sought by CoR (but not limited to) in terms of Quality Assurance, Long term Availability of spares, Technical collaboration/MOU and Software validation.**
8. Bidder has to agree to comply with all scope of work and term and conditions including special term and condition, SLA and OEM technical & Financial documentation including, Technical certificates/others as per end-to-end requirement mentioned in the end customer's RFP & its corrigendum (if any) as mentioned below:

Tender Ref. No.	NIT No: SG-W-DNR-OT-03-2023-24 & NIT No: SG-W-DNR-OT-04-2023-24 Dated: 12/03/2024 12:00
Date of floating	08/02/2024 11:39 & 08/02/2024 14:53
Floated on portal	www.ireps.gov.in

9. The selected bidder will have to accept all Terms & Conditions of CoR RFP **on back-to-back basis**.
10. Anything not mentioned in the EOI, Customer RFP and its corrigendum (if any) may be referred & considered. Customer RFP is enclosed along with.
11. OEM considered by Bidder for this project have to mandatorily comply all the eligibility & technical criteria/compliance.

12. **Make in India-** The bidder must comply the make in India clause as per the CoR, and must submit an undertaking specifying the total Percentage (%) of Local Content for the total system supply as a whole for Unified System Integration Project, along with specific Details. **The same must be submitted along with the bid EoI.**

1) PROJECT BACKGROUND & OBJECTIVE OF EOI

RailTel Corporation of India Ltd (here after referred to as 'RailTel') an ICT arm of Indian Railways has been in the forefront of building innovative platforms and solutions and vision to build range of Information and Communication Technology (ICT) Services for its customers.

RailTel intends to participate in SIGNAL & TELECOM WORKS floated by EAST CENTRAL RAILWAY for

Design, manufacture, supply, installation, testing and commissioning of Automatic Block Signalling in BAKTIYARPUR-Mankatha (MKB) (Enclusive) section (72 Km) in Danapur division of E. C. Railway.

&

Design, manufacture, supply, installation, testing and commissioning of Automatic Block Signalling in Mankatha (MKB) (Exclusive) -JHAJHA section (61 Km) section in Danapur division of E. C. Railway.

RailTel is hence inviting EOIs from eligible OEM/ Authorized distributors of the OEMs/Empaneled Partners of RailTel for the selection of suitable partner for participating in above mentioned work for the agreed of the scope of work. The empaneled partner is expected to have excellent execution capability and good understanding of customer local environment.

Bidder has to agree to comply with all technical & Financial documentation including Technical certificates/others as per end-to-end requirement mentioned in the end customer's RFP. Bidder also undertake to submit technical solution of major items of the proposed solution and other documents required in the end Customer Organization tender in favour of RailTel against the proposed products.

The details of pertinent tender are as below:

Tender Title: -PART-1 Design, manufacture, supply, installation, testing and commissioning of Automatic Block Signalling in BAKTIYARPUR-Mankatha (MKB) (Enclusive) section (72 Km) in Danapur division of E. C. Railway. **& PART-2** Design, manufacture, supply, installation, testing and commissioning of Automatic Block Signalling in Mankatha (MKB) (Exclusive) -JHAJHA section (61 Km) section in Danapur division of E. C. Railway

2) RAILTEL – INTRODUCTION

RailTel Corporation of India Limited (RailTel), an ISO-9001:2000 organization is a Mini Ratna Government of India undertaking under the Ministry of Railways. The Corporation was formed in Sept 2000 with the objectives to create nationwide Broadband Telecom and Multimedia Network in all parts of the country, to modernize Train Control Operation and Safety System of Indian Railways and to contribute to realization of goals and objective of national telecom policy 1999. RailTel is a wholly owned subsidiary of Indian Railways. RailTel has approximately 61000 kms of OFC along the protected Railway tracks. The transport network is built on high capacity DWDM and an IP/ MPLS network over it to support mission critical communication requirements of Indian Railways and other customers. RailTel has Tier-III Data Center in Gurgaon and Secunderabad hosting / collocating critical applications. RailTel is also providing Telepresence as a Service (TPaaS), where a High-Definition Video Conference facility bundled with required BW is provided as a Service.

For ensuring efficient administration across India, country has been divided into four regions namely, Eastern, Northern, Southern & Western each headed by Executive Director and Headquartered at Kolkata, New Delhi, Secunderabad & Mumbai respectively. These regions are further divided into territories for efficient working. RailTel has territorial offices at Guwahati, & Bhubaneswar in East, Chandigarh, Jaipur, Lucknow in North, Chennai & Bangalore in South, Bhopal, and Pune & Ahmedabad in West. Various other territorial offices across the country are proposed to be created shortly.

RailTel's business service lines can be categorized into three heads namely B2G/B2B (Business to Government and Business to Business) and B2C (Business to customers):

Licenses & Service portfolio:

Presently, RailTel holds Infrastructure Provider -1, National Long-Distance Operator, International Long-Distance Operator and Internet Service Provider (Class-A) licenses under which the following services are being offered to various customers:



- National Long Distance: Carriage of Inter & Intra -circle Voice Traffic across India using state of the art NGN based network through its Interconnection with all leading Telecom Operators
- Lease Line Services: Available for granularities from E1 to multiple of Gigabit bandwidth&above
- Dark Fiber/Lambda: Leasing to MSOs/Telco's along secured Right of Way of Railway tracks
- Co-location Services: Leasing of Space and 1000+ Towers for collocation of MSC/BSC/BTS of Telco's

b) Enterprise Services

- Managed Lease Line Services: Available for granularities from E1, DS-3, STM-1 & above
- MPLS VPN: Layer-2 & Layer-3 VPN available for granularities from 2 Mbps& above
- Dedicated Internet Bandwidth: Experience the "Always ON" internet connectivity at your fingertips in granularities 2 Mbps to several Gbps.

c) DATA CENTER

Infrastructure as a service (IaaS), Hosting as Services, Security operation Centre as a Service (SOCaaS): RailTel has MeitY empanelled two Tier-III data centres in Gurgaon & Secunderabad. Presently RailTel is hosting critical applications of Indian Railways, Central & State government/ PSUs applications. RailTel will facilitate Government's applications / Hosting services including smooth transition to secured state owned RailTel's Data Centers and Disaster Recovery Centres. RailTel also offers SOC as a Service 'SOCaaS'. In addition, RailTel offers VPN client services so that employees can seamlessly access government's intranet, applications securely from anywhere without compromising security.

d) High-Definition Video Conference:

RailTel has unique service model of providing high-definition video conference bundled with Video Conference equipment, bandwidth and FMS services to provide end to end seamless services on OPEX model connecting HQ with other critical offices. RailTel also offers application-based video conference solution for employees to be productive specially during this pandemic situation.

e) Retail Services – RailWire

RailWire: Triple Play Broadband Services for the Masses. RailTel has unique model of delivering broadband services, where local entrepreneurs are engaged in delivering

& maintaining broadband services and upto 66% of the total revenues earned are shared to these local entrepreneurs in the state, generating jobs and revitalizing local economies. On date RailTel is serving approx. 5,00,000 subscribers on PAN Indian basis. RailTel can provide broadband service across– Government PSU or any organization's officers colonies and residences.

3) SCOPE OF WORK & PARTNER SELECTION

SCOPE OF WORK:

The scope of work will be as mentioned in the pertinent end Customer organization Tender for Design, manufacture, supply, installation, testing and commissioning of Automatic Block Signalling in BAKTIYARPUR-Mankatha (MKB) (Enclusive) section (72 Km) in Danapur division of E. C. Railway. SG-W-DNR-OT-03-2023-24 ***Designated as PART-1***

&

Design, manufacture, supply, installation, testing and commissioning of Automatic Block Signalling in Mankatha (MKB) (Exclusive) -JHAJHA section (61 Km) section in Danapur division of E. C. Railway. Railway SG-W-DNR-OT-04-2023-24. ***Designated as part-2***

RailTel's Authorized Officials will work for direct Supervision of the Entire Project .The scope of work shall include but not be limited to the following broad areas, considering the approach towards the Automatic Block Signaling of the specified stretch. Any functionality not expressly stated in this document but required to meet the needs of COR'S as specified in the scope in this RFP and captured during the assessment/requirement gathering phase and preparation of Project Design Documents for actual implementation of the project shall essentially be under the scope of the bidder to ensure successful operations of the system and for that, no extra charges shall be admissible. The bidder will have to maintain the implemented Project for a period as specified in the CoR.

Bidder is required to download and read complete RFP/ clarifications/ reply to pre-bid queries/ subsequent amendments/ subsequent corrigendum issued by the end customer till the last date of submission of response to this EOI. Submitting response/ bid to this EOI will be considered as that the bidder has submitted technical and financial bid considering all the entities mentioned above and agrees to all terms and conditions mentioned in end customer RFP and will not deviate from the quoted technical and financial solution.

In case of any discrepancy or ambiguity in any clause / specification pertaining to scope of work area, the RFP released by end customer organization shall supersede and will be considered sacrosanct. (All associated clarifications, response to queries, revisions, addendum and corrigendum, associated prime

service agreement (PSA)/MSA/SLA also included.)

The bidder will be at discretion to bid for any one Part (ie Part-1 & Part-2) of the EoI or for both part of the EoI

Special Note: RailTel may retain some portion of the work mentioned in the end organization RFP, or directly take the rates from the OEMs or where RailTel has competence so that overall proposal becomes most winnable proposal

4) RESPONSE TO EOI GUIDELINES

4.1 Language of Proposals

The proposal and all correspondence and documents shall be written in English in soft copy through an email.

4.2 RailTel's Right to Accept/Reject responses

RailTel reserves the right to accept or reject any response and annul the bidding process or even reject all responses at any time prior to selecting the partner, without thereby incurring any liability to the affected bidder or Business Associate or without any obligation to inform the affected bidder or bidders about the grounds for RailTel's action.

4.3 EOI response Document

The bidder is expected to examine all instructions, forms, terms and conditions and technical specifications in the bidding documents. Submission of bids, not substantially responsive to the bidding document in every aspect will be at the bidder's risk and may result in rejection of its bid without any further reference to the bidder.

All pages of the documents shall be signed by the bidder including the closing page in token of his having studied the EOI document and should be submitted along with the bid.

4.4 Period of Validity of bids and Bid Currency

Bids shall remain valid for a period of **180 days** from the last date of submission of bids to end Customer organization.

4.5 Bidding Process

The bidding process as defined in para 4.10 & 6.

4.6 Bid Earnest Money (EMD)

4.6.1 The Business Associate shall furnish a sum as given in EOI Notice via online transfer from any scheduled bank in India in favour of "RailTel Corporation of India Limited" along with

the offer or directly through e-Nivida portal. This will be called as **EOI EMD**.

- 4.6.2** Offers not accompanied with valid EOI Earnest Money Deposit shall be summarily rejected.
- 4.6.3** In case of sole partner/ consortium offer is selected for bidding, sole partner/consortium has to furnish Earnest Money Deposit (for balance amount as mentioned in the customer's Bid as and if applicable) for the bid to RailTel. The selected Business Associate shall have to submit a Bank Guarantee against EMD in proportion to the quoted value/scope of work to RailTel before submission of bid to end customer as and if applicable.
- 4.6.4 Return of EMD for unsuccessful Business Associates:** EOI EMD of the unsuccessful Business Associate shall be returned without interest after completion of EOI process.
- 4.6.5 Return of EMD for successful Business Associate:** EOI-EMD & Earnest Money Deposit (balance proportionate EMD) if applicable of the successful bidder will be discharged / returned as promptly as possible after the receipt of RailTel's EMD/BG from the Customer and or on receipt of Security Deposit Performance Bank Guarantee as applicable (clause no. 4.7) from Business Associate whichever is later.
- 4.6.6** Forfeiture of EOI EMD or EOI EMD & EMD (balance proportionate EMD) and or Penal action as per EMD Declaration:
- 4.6.6.1** The EOI EMD may be forfeited and or penal action shall be initiated if a Business Associate withdraws his offer or modifies the terms and conditions of the offer during validity period.
- 4.6.6.2** In case of non-submission of SD/PBG (as per clause no. 4.7) lead to forfeiture of EOI EMD, EMD (balance proportionate EMD) if applicable and or suitable action as prescribed in the EMD Declaration shall be initiated as applicable.

4.7 Security Deposit / Performance Bank Guarantee (PBG)

- 4.7.1** In case the bid is successful, the PBG of requisite amount proportionate to the agreed scope of work will have to be submitted to RailTel.
- 4.7.2** As per work share arrangements agreed between RailTel and Business Associate the PBG will be proportionately decided and submitted by the selected Business Associate/consortium.

4.8 Modification and/or Withdrawal of EOI response

EOI response once submitted will be treated, as final and no modification will be permitted except with the consent of the RailTel.

No Business Associate shall be allowed to withdraw the response after the last date and time for submission.

The successful Business Associate ~~will not~~ be allowed to withdraw or back out from the

response commitments. In case of withdrawal or back out by the successful business associate, the Earnest Money Deposit shall be forfeited and all interests/claims of such Business Associate shall be deemed as foreclosed.

4.9 Details of Financial bid for the above referred tender

Sole partner/ consortium with lowest (L1) offer will be selected for exclusive pre-bid arrangement for optimizing technical and commercial solution so that most winnable solution is submitted to end customer.

The final bid for the tender will be prepared jointly with the selected Business Associate/Consortium so that the optimal bid can be put with a good chance of winning the Tender.

4.10 Clarification of EOI Response

To assist in the examination, evaluation and comparison of bids the purchaser may, at its discretion, ask the Business Associate for clarification. The response should be in writing and no change in the price or substance of the EOI response shall be sought, offered or permitted.

4.11 Period of Association/Validity of Agreement

RailTel will enter into a pre-bid agreement with selected bidder with detailed Terms and conditions.

5) BIDDER'S PROFILE

The bidder shall provide the information in the below table:

Sl. No.	ITEM	Details
1.	Full name of bidder's firm	
2.	Full address, telephone numbers, fax numbers, and email address of the primary office of the organization / main / head / corporate office	
3.	Name, designation and full address of the Chief Executive Officer of the bidder's organization as a whole, including contact numbers and email Address	
4.	Full address, telephone and fax numbers, and email addresses of the office of the organization dealing with this tender	
5.	Name, designation and full address of the person dealing with the tender to whom all reference shall be made regarding the tender enquiry. His/her telephone, mobile, Fax and email address	
6.	Bank Details (Bank Branch Name, IFSC Code, Account number)	

7.	GST Registration number	
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6) ELIGIBILITY CRITERIA FOR BIDDING BUSINESS PARTNER OF RAILTEL & ASSOCIATED ANNEXURES

S No	Particulars	Documents Required
A)	Financial Conditions	
i)	Sole partner/all consortium members should be registered under Companies Act, 1956 or Companies Act 2013 or Limited Liability Partnership Act, 2008 as amended and should have at least 3years of operations in India as on bid submission date.	1. Certificate of Incorporation 2. GST Registration 3. PAN Card 4. Audited Financial Reports for FY 22-23,21-22 & 20-21 5. ITR (Last 3 Years)
ii)	Sole partner/ consortium should have cumulative annual turnover of at least 150% of the estimated Eol Value , for the respective Part of the Eol for last three years i.e year ending 20-21, 21-22 & 22-23 . If the partner wishes to bid for both Part 1 & Part 2 , the annual turn over will be 150% of the Total Estimated Amount of Part 1 & Part -2	Turnover Certificate issued by the Chartered Accountant. Certificate should contain UDIN no. issued by ICAI.
iii)	Sole partner/ consortium should also have a positive net worth in the last 3 financial years i.e year ending 20-21, 21-22 & 22-23.	Positive Net Worth Certificate issued by the CA for the last three financial years (FY 20-21, 21-22, 22-23). Certificate should contain UDIN no. issued by ICAI.
B)	Technical Conditions	
iv)	<p>The Bidder must have experience of works (includes completed/ ongoing) with completion certificate/P.O of similar work during last 5 (five) years ending Bid submission date.</p> <p>In order to qualify on above account, the bidder must have completed/ongoing</p> <p>i. One single work of Minimum 60% of the Estimated amount of EOI (<i>for the specific Part ie part 1 & Part 2 or the cumulative Total of part 1 & part 2 if the bidder wishes to bid for both the part</i>)</p> <p>OR</p> <p>ii. Two works of Minimum 40% of Estimated amount of EOI. (<i>for the specific Part ie part 1 & Part 2 or the cumulative Total of part 1 & part 2 if the bidder wishes to bid for both the part</i>)</p> <p>OR</p>	<p>Documentary evidence such as Certificate from Customer for satisfactory services/supply/ Payments along with Customer's purchase orders/ work orders /GST Invoices etc for completed / ongoing project.</p>

S No	Particulars	Documents Required
	<p>iii. Three works of Minimum 30% of Estimated amount of EOI. <i>(for the specific Part ie part 1 & Part 2 or the cumulative Total of part 1 & part 2 if the bidder wishes to bid for both the part)</i></p> <p>Definition of similar work: Similar work means “Any RRI/PI/EI/MACLS SITC Signalling work” OR “Any RRI/PI/EI/MACLS Alteration Signalling work” OR “Any CTC/TMS work”</p>	
C)	Annexures	
vi)	Annexure 1	Covering Letter: Self-certification duly signed by authorized signatory on company letter head.
vii)	Annexure 2	<p>The Bidder should agree to abide by all the technical, commercial & financial conditions of the end customer RFP for which EOI is submitted.</p> <p>Self-certification duly signed by authorized signatory on company letter head.</p>
viii)	Annexure 3	An undertaking signed by the Authorized Signatory of the sole partner/ all consortium partners to be provided on letter head. The Bidder/any of the OEM should not have been blacklisted/debarred by any Governmental/ Non-Governmental Organization in India as on bid submission date.
ix)	Annexure 3A	Declaration- OEM has not been blacklisted
x)	Annexure-4	Format for Affidavit to be uploaded by sole partner/ all consortium partners with the tender documents.
xi)	Annexure-5	Non-disclosure agreement by sole partner/ all consortium partners with RailTel.
xii)	Power of Attorney	<p>In case of Sole Partner: Power of Attorney and Board Resolution in favour of one of its employees who will sign the Bid Documents.</p> <p>In case of consortium:</p> <p>1) Board resolution of each consortium members authorizing and appointing the authorized signatory for signing the EOI</p>

S No	Particulars	Documents Required
		documents. 2) Power of Attorney by all the members of consortium in favor of the lead member Consortium Agreement duly signed by all authorized members of consortium.
xiii)	Additional Documents to be Submitted	Technical Proposal with overview of the project with strength of the Partner. <ul style="list-style-type: none"> • Understanding of the Project and it's Scope of Work • Approach & Methodology for implementation and support • Risk Management Plan • Detailed Project Plan
xiv)	Annexure-6	EMD (as PBG) Format
xv)	Annexure-7	Undertaking for Quality Assurance, Long term Availability of spares, Technical collaboration/MOU and Software validation.
xvi)	Annexure-8	Consortium Format
xvii)	Annexure-9	Self-declaration of not be under Ineligibility for corrupt and fraudulent practice
xviii)	Annexure-10	Proposed Manpower Details
xix)	Annexure-11	Self-declaration - Land Border Clause
xx)	Annexure-12	Price Bid Letter
xxi)	Annexure-13	Price Bid Format (BOQ) (Financial Bid)

- ***The Bidder must submit the proposed EXECUTION Time line and plan as per Annexure K of the CoR along with diagrammatical BAR/PERT Chart***
- The Technical Compliance sheet provided with Hard Copy of Technical Specs.
- BOQ/BOM without Price quote in the attached format.
- ***Compliance of OEM with their MAF's and all mandatory documents asked by CoR from OEM.***
- Unconditional Acceptance of the Tender document of CoR and any Other/General Document of CoR Tender RFP along with corrigendum and addendum.
- This EOI acceptance.
- Annexure Form at as mentioned in this EOI.
- All documents mentioned in checklist and annexures of this EOI.
- The Seller agrees to undertake a Maintenance contract for a minimum period as per CoR. Undertaking in this regard is to be submitted along with the technical bid.

- Delivery Period Undertaking – As per pertinent tender floated by CoR.
- The bid should be duly signed and submitted by Authorized Signatory.

7) EVALUATION CRITERIA

- The Business Associates are first evaluated on the basis of the Eligibility Criteria as per clause 5 above.
- The Business Associate who fulfills the Eligibility criteria of Bidding sole partner/ consortium shall be further evaluated on the basis of Technical Evaluation and Financial evaluation.

For the opened bid as per outcome of the Eligibility criteria above, the bidder will be selected on the lowest quote (L-1) basis for complete 'Scope of Work' as mentioned in the EOI document and documents of technical specifications of CoR, subject to the respective overall bid is in compliance to the requirements of this EOI. The so selected partner will be termed as 'Commercially Suitable Partner (hereafter referred to as 'CSP')'. It is re-mentioned, that the final selection of CSP will be on the L-1 basis only. Further, RailTel reserves the right to have negotiation with the CSP at any stage before issuing Work Order.

- The Business Associate with lowest commercial (L1) offer will be selected for exclusive pre-bid arrangement for optimizing technical and commercial solution so that most winnable solution is submitted to end customer.

- RailTel reserves the right to accept or reject the response against this EOI, without assigning any reasons. The decision of RailTel is final and binding on the participants. The RailTel evaluation committee will determine whether the proposal/ information is complete in all respects and the decision of the evaluation committee shall be final. RailTel may at its discretion assign lead factor to the Business associate as per RailTel policy for shortlisting partner against this EOI.

- All General requirement mentioned in the Technical Specifications are required to be complied. The solution proposed should be robust and scalable.

8) PAYMENT TERMS

- Payment will be made on receipt of payment from Railways to RailTel as per the following criteria

- For all items involving supply in the rate schedule, 90% of the supply rate quoted in the rate schedule shall be paid to the contractor as on account bills only on receipt of the materials in good condition at the stores of the consignee on production of the applicable documents.
- For all items involving either installation only or supply and installation, 90% of the installation rate quoted in the rate schedule shall be paid to the contractor as on account bills only on production of certificate by the site Engineer that relevant portion of installation has been completed.

- c) The balance 10% of the supply and installation rate quoted against each item involving both supply and installation or installation and 100% of the rate quoted in respect of items involving installation and commissioning only may be released on physical completion of the installation/erection and on issue of the completion certificate by the authorized railway official/representative for that particular installation/station.

Or

Where ever there is a provision of in-built AMC in that case physical completion of work shall be considered as and when all schedule of work of supply, installation, testing and commissioning of all items completed to the satisfaction of Railway except AMC. The balance payment of all items of schedule except AMC can be released after issue of completion certificate of the physical work of the contract.

- d) The following document shall be attached along with the bills:

- (i) Invoice in original and duplicate
- (ii) Delivery challan
- (iii) Inspection certificate
- (iv) Warranty certificate of the OEM/Authorized dealer.
- (v) Bidders Certificate of Dispatch
- (vi) E-way bill
- (vii) Copy of Purchase Order
- (viii) Insurance of the materials
- (ix) PAN, GST Registration Certificates

B. Final Payment

Final payment of 10% (Ten Percent) of the contract value shall be made after one year from the date of issue of PAC.

**** Any deduction/LD/Penalties levied by CoR on invoices of RailTel will be carried back-to- back in terms of value and will be deducted from CSP's invoices or PBG.**

- i. **Payment will only be released once GSTR-1 and GST-3B is filed by the bidder for claimed invoice**
- ii. **Last bills shall be settled after end of the contract period after adjusting all outstanding dues**
- iii. **No interest is payable on any amount whatsoever to the successful Bidder.**

- iv. **Final Costing and Reverse Auction:** The Bidder has to revise its cost during RA and the same will be considered as the final Bidding value of the EoI. The Work Order will be issued on the final negotiated rates after Reverse Auction, (if Reverse Auction is applicable in the CoR)
- v. **Bill Passing Authority:** RailTel's authorised representative
- vi. **Bill Paying Authority:** GM/Fin or Authorised Representatives

11. SERVICE LEVEL AGREEMENT (SLA)

There shall be two different service levels for Implementation Phase and O&M Phase. For Implementation Phase, the EA shall be liable for meeting the Project timeline as defined in the CoR RFP. If the EA fails to meet the overall implementation timeline and execute the project, then liquidated damage will be applicable as pre-implementation SLA. (Please refer Section – D of CoR RFP).

Note: Penalty/LD will be charged on back-to-back basis.

12. Performance Bank Guarantee (PBG)

- a) In case of successful participation by RailTel in the pertinent CoR's tender and subsequent engagements with CSP, The CSP shall at its own expense, deposit with department, within fifteen (15) days of the notification of award (done through issuance of the Purchase Order / Work Order etc.) and communicated through email, an unconditional and irrevocable Performance Bank Guarantee (PBG) from a Nationalized/ Commercial Scheduled Indian Bank as per the format enclosed in this EOI, payable on demand, for the due performance and fulfilment of the contract by the CSP. This PBG will be for an amount of '10 %' of the contract value. The claim period should be one year more than the expiry date. The quantum of this 'percentage (%)' will be equal to the PBG % as asked by CoR from RailTel. All charges whatsoever such as premium, commission, etc. with respect to the PBG shall be borne by the CSP. Besides, if the total BG amount comes upto ₹5 Lakhs, then same may be deposited through DD/RTGS/NEFT. Along with submission of PBG, CSP needs to submit PBG issuing bank's SFMS report. The SFMS report is also to be submitted in case of renewal / extension of PBG.
- b) PBG should have validity for a period as per CoR RFP and shall be on back-to-back basis. The PBG may be discharged / returned by RailTel upon being satisfied that there has been due performance of the obligations of the CSP under the contract. However, no interest shall be payable on the PBG. In the event, CSP being unable to service the contract for whatsoever reason, RailTel would invoke the PBG at its discretion. Notwithstanding and without prejudice to any rights whatsoever of RailTel under the contract in the matter, the proceeds of the PBG shall be payable to RailTel as compensation for any loss resulting from the CSP's failure to complete its obligations under the contract. RailTel shall notify the CSP in writing of the exercise of its right to receive such compensation within 14 days, indicating the contractual obligation(s) for which

the CSP is in default.

- c) RailTel shall also be entitled to make recoveries from the CSP's bills, PBG or from any other amount due to him, the equivalent value of any payment made to him due to inadvertence, error, collusion, misconstruction or misstatement.
- d) If the service period gets extended by virtue of extension of same by CoR, PBG should also be extended accordingly.
- e) During the contract period, RailTel may issue Purchase Order(s) for the additional services ordered by CoR (in case) to RailTel.
- f) In case the CoR has sought PBG of the contract in the terms of Indemnity Bond from RailTel, the selected bidder has to provide the equivalent value PBG from scheduled Bank to RailTel. No Indemnity Bond from Selected Bidder will be accepted in lieu of PBG from Scheduled Bank.
- g) In case CoR has sought any other types of PBG in this contract at present or in future or else Integrity Pact PBG (presently or in future), same remain applicable on selected Bidder/Consortium. The said PBG will be issued by Selected Bidder from Scheduled Bank favoring RailTel Corporation of India Limited. No Indemnity Bond in lieu of such PBG will be accepted by RailTel.
- h) If, CoR ask for submission for value more than 10%, same also needs to be submitted by the selected BA/Consortium.
- i) Integrity pact in the format as per CoR to be provided by the Bidder.

13. Insurance

The CSP agrees to take insurances to cover all the elements of the project under this EOI including but not limited to Manpower, Hardware, Software etc. as per CoR tender specified terms.

14. Liquidated Damages:

RailTel will levy the liquidated damages imposed by CoR to bidder on value terms for the services/items under its SOR.

15. Delivery & Inspection

- i. Delivery, Installation and Commissioning Period: As per CoR's RFP Terms from issue of LOI
- ii. All the material should be made available for Inspection by RailTel nominated person/agency.
- iii. Bidder will be custodian of all the material till installation and commissioning of system.

18. Provisional Acceptance Certificate (PAC)

- a) Immediately after the completion of the work at all the sites, the Bidder shall certify and advise the purchaser in writing that the installation is complete, commissioned and ready for handing over to customer.
- b) The tests will be conducted jointly by purchaser and Bidder as soon as possible after receipt of such advice of completion of the work from the Bidder. The test schedule shall be finalized mutually between the Bidder and RailTel. Any component/modules/sub-assemblies or equipment failing during the commissioning shall be replaced/repared free of cost by tenderer.
- c) Purchaser's Engineer shall issue a Provisional Acceptance Certificate (PAC) after successful Supply, installation, Configuration, integration & commissioning at all locations covering all materials and services included in the Schedule of Requirements after the acceptance test as per the approved test procedure have been completed and the performance has been found to meet the specifications. RailTel's decision in this respect shall be final. The Provisional Acceptance Certificate (PAC) shall be signed by both the parties. The period of Comprehensive Maintenance shall commence from the date of issue of Provisional Acceptance Certificate (PAC)

19. Final Acceptance Certificate (FAC)

- a) The final acceptance of the works shall take effect after One year i.e. 12 months of issue of Provisional Acceptance Certificates, provided in any case that the Bidder has complied fully with his obligations in respect of each item under the contract.
- b) Notwithstanding the issue of Final Acceptance Certificate (FAC), the Bidder and the purchaser (subject to Sub Clause as above) shall remain liable for fulfillment of any obligation incurred under the provision of the contract prior to the issue of Final Acceptance Certificate which remains unperformed at the time such certificate is issued and for determining the nature and extent of such obligation the contract shall be deemed to remain in force between the parties hereto.

Note: Depending on RailTel's business strategy RailTel may choose to work with Partner who is most likely to support in submitting a winning bid.

20. Integrity Pact Program

RailTel has adopted Integrity Pact Program and for implementation thereof all tenders relating to procurement of OFC, quad cable, pre-fab shelters, electronic equipment and its installation and/or commissioning etc and other item(s) or activity/activities proposed to be carried out or required by the Company for the value exceeding Rs. 15 crores at a time including for repair and maintenance of cable/network and any other items required for special works assigned to RailTel will be covered under the Integrity Pact Program and the vendors are required to sign the IP document and submit the same to RailTel before or along with the bids.

- a) Only those vendors who have purchased the tender document and signed the IP document can send their grievances, if any, to the Independent External Monitors (IEMNs) through the nodal officer, i.e. Chief Vigilance Officer (CVO), RailTel.

Name of IEMs and contact details:

1. Shri. Vinit Kumar Jayaswal E-Mail: gkvinit@gmail.com M.No. +91-9871893484
2. Shri. Punati Sridhar E-Mail: poonatis@gmail.com M.No. +91-9448105097

Name & contact details of Nodal Officer (IP) in RailTel:

Chief Vigilance Officer
RailTel Corporation of India Ltd
6th Floor, Office Block Tower-2,
NBCC Complex, East Kidwai Nagar,
New Delhi-110023
E-Mail: cvo@railtelindia.com

- b) If the order, with total value equal to or more than the threshold value, is split to more than one vendor and even if the value of PO placed on any/each vendor(s) is less than the threshold value, IP document having been signed by the vendors at bid stage itself, the Pact shall continue to be applicable.
- c) Bidder of Indian origin shall submit the Integrity Pact (in 2 copies) on a non-judicial stamp paper of Rs. 100/- duly signed by the person signing the bid. If the bidder is a partnership or a consortium, the Integrity Pact shall be signed by all the partners or consortium members.
- d) Bidder of foreign origin may submit the Integrity Pact on its company's letterhead, duly signed by the person signing the bid.
- e) The 'Integrity Pact' shall be submitted by the Bidder duly signed in all pages along with the Bid in a separate envelope, duly superscripted with 'Integrity Pact'. Tender received without signed copy of the Integrity Pact document will be liable to be rejected. Proforma for signing the Integrity Pact is available in Chapter-6 of this tender document (Form No. 6).
- f) One copy of the Integrity Pact shall be retained by RailTel and the 2nd copy will be issued to the representative of the bidders during bid opening. If the Bidders representative is not present during the Bid opening, the 2nd copy shall be sent to the bidder by post/courier.
- g) The Integrity Pact is applicable in this tender vide CVC circular no. 10/05/09 dated 18.05.09 and revised guideline of CVC circular no. 015/VGL/091 dated 13.01.17 or the latest updated from time to time shall be followed.

Annexure 1: Format for COVERING LETTER (to be submitted by sole partner/lead partner in case of consortium)

COVERING LETTER (To be on company letter head)

To,

The Principle Executive Director
RailTel Corporation of India Ltd. 19th Floor,
Aurora Waterfront, opposite NALBAN,
Sector V, Bidhannagar, Kolkata, West Bengal
700091

Dear Sir,

SUB: Participation in the Eol process

Having examined the Invitation for Eol document bearing the reference number _____ released by your esteemed organization, we, undersigned, hereby acknowledge the receipt of the same and offer to participate in conformity with the said Invitation for Eol document.

If our application is accepted, we undertake to abide by all the terms and conditions mentioned in the said Invitation for Eol document.

We hereby declare that all the information and supporting documents furnished as a part of our response to the said Invitation for Eol document, are true to the best of our knowledge. We understand that in case any discrepancy is found in the information submitted by us, our Eol is liable to be rejected.

We hereby Submit EMD amount of Rs. _____ issued vide _____ from Bank _____.

Authorized
Signatory Name
Designation

Annexure 2: Format for Self-Certificate & Undertaking (to be submitted by sole partner/lead partner in case of consortium)

Self-Certificate (To be on company letter head)

Eol Reference No:

Date:

To,

The Principle Executive Director
RailTel Corporation of India Ltd. 19th Floor,
Aurora Waterfront, opposite NALBAN,
Sector V, Bidhannagar, Kolkata, West Bengal
700091

Dear Sir,

Sub: Self Certificate for Tender, Technical & other compliances

- 1) Having examined the Technical specifications mentioned in this EOI & end customer tender, we hereby confirm that we meet all specification.
- 2) We _____ agree to abide by all the technical, commercial & financial conditions of the end customer RFP for which EOI is submitted (except pricing, termination & risk purchase rights of the RailTel). We understand and agree that RailTel shall release the payment to selected sole partner/lead partner in case of consortium after the receipt of corresponding payment from end customer by RailTel. Further we understand that in case selected sole partner/lead partner in case of consortium fails to execute assigned portion of work, then the same shall be executed by RailTel through third party or departmentally at the risk and cost of selected sole partner/lead partner in case of consortium.
- 3) We agree to abide by all the technical, commercial & financial conditions of the end customer's RFP for the agreed scope of work for which this EOI is submitted.
- 4) We hereby agree to comply with all OEM technical & Financial documentation including MAF, Technical certificates/others as per end to end requirement mentioned in the end customer's RFP. We are hereby enclosing the arrangement of OEMs against each of the BOQ item quoted as mentioned end customer's RFP. We also undertake to submit MAF and other documents required in the end Customer organization tender in favour of RailTel against the proposed products.
- 5) We hereby certify that any services, equipment and materials to be supplied are produced in eligible

source country complying with OM/F. No. 6/18/2019 dated 23rd July 2020 issued by DoE, MoF.

- 6) We hereby undertake to work with RailTel as per end customer's RFP terms and conditions. We confirm to submit all the supporting documents constituting/ in compliance with the Criteria as required in the end customer's RFP terms and conditions like technical certificates, OEM compliance documents.
- 7) We understand and agree that RailTel is intending to select sole partner/ consortium who is willing to accept all terms & conditions of end customer organization's RFP for the agreed scope of work. RailTel will strategies to retain scope of work where RailTel has competence.
- 8) We hereby agree to submit that in case of being selected by RailTel as sole partner/ consortium for the proposed project (for which EOI is submitted), we will submit all the forms, appendix, relevant documents etc. to RailTel that is required and desired by end Customer well before the bid submission date by end customer and as and when required.
- 9) We hereby undertake to sign Pre Bid Agreement and Non-Disclosure Agreement with RailTel on a non-judicial stamp paper of Rs. 100/- in the prescribed Format.
- 10) We undertake that we will not submit directly or indirectly out bids and techno-commercial solution/association with any other organization once selected in this EOI for pre-bid teaming arrangement (before and after submission of bid to end customer organization by RailTel)

Authorized

Signatory Name

& Designation

Annexure 3: Undertaking for not Being Blacklisted/Debarred (to be submitted by sole partner/each of the consortium partners)

<On Company Letter Head>

To,

The Principle Executive Director
RailTel Corporation of India Ltd. 19th Floor,
Aurora Waterfront, opposite NALBAN,
Sector V, Bidhannagar, Kolkata, West Bengal
700091

Subject: **Undertaking for not Being Blacklisted/Debarred**

We, Company Name, having its registered office at Address

hereby declares that that the Company has not been blacklisted/debarred by any
Governmental/ Non-Governmental organization in India for past 3 Years as on bid submission date.

Date and Place

Authorized Signatory's Signature:

Authorized Signatory's Name and Designation:

Bidder's Company Seal:

Annexure 3A - OEM has not been blacklisted

(To be submitted on the Letterhead of the responding agency)

To,

The Principle Executive Director
RailTel Corporation of India Ltd. 19th Floor,
Aurora Waterfront, opposite NALBAN,
Sector V, Bidhannagar, Kolkata, West Bengal
700091

RFP Notification no. & date

Subject: Self Declaration of Original Equipment Manufacturer (OEM) not been blacklisted in response to the RFP

Dear Sir/Madam,

We confirm that our company (OEM), _____, is not blacklisted in any manner whatsoever by any of the State/UT and/or central government in India on any ground including but not limited to indulgence in corrupt practice, fraudulent practice, coercive practice, undesirable practice or restrictive practice. It is further certified that I am an authorized signatory of my company and am, therefore, competent to make this declaration.

If this declaration is found to be incorrect then without prejudice to any other action that may be taken, my/ our security may be forfeited in full and the tender if any to the extent accepted may be cancelled.

Yours very Truly,

Place:

OEM's Company Seal:

Date:

Authorized Signatory's Signature

Annexure 4: Format of Affidavit (to be submitted by sole partner/each of the consortium partners)

FORMAT FOR AFFIDAVIT TO BE UPLOADED BY SOLE PARTNER/ ALL CONSORTIUM PARTNERS ALONGWITH THE EOI DOCUMENTS

(To be executed in presence of Public notary on non-judicial stamp paper of the value of Rs. 100/-.The paper has to be in the name of the BA) **

I..... (Name and designation)** appointed as the attorney/authorized signatory of the BA (including its constituents),

M/s.....(hereinafter called the BA) for the purpose of the EOI documents for the work of as per the EOI No.

.....of (RailTel Corporation of India Ltd.), do hereby solemnly affirm and state on the behalf of the BA including its constituents as under:

1. I/we the BA (s), am/are signing this document after carefully reading the contents.
2. I/we the BA(s) also accept all the conditions of the EOI and have signed all the pages in confirmation thereof.
3. I/we hereby declare that I/we have downloaded the EOI documents from RailTel website www.railtel.enivida.com. I/we have verified the content of the document from the website and there is no addition, no deletion or no alternation to be content of the EOI document. Incaseof any discrepancy noticed at any stage i.e. evaluation of EOI, execution of work or finalpayment of the contract, the master copy available with the RailTel 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/credentialssubmitted 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 EOI by me/us arecorrect and I/we are fully responsible for the correctness of the information and documents,submitted by us.
7. I/we undersigned that if the certificates regarding eligibility criteria submitted by us are foundto be forged/false or incorrect at any time during process for evaluation of EOI, it shall lead to forfeiture of the EOI EMD besides banning of business for five years on entire RailTel. Further, I/we (insert name of the BA)**.....and all my/our constituentsunderstand that my/our constituents understand that my/our offer shall be summarilyrejected.

8. I/we also understand that if the certificates submitted by us are found to be false/forged or incorrect at any time after the award of the contract, it will lead to termination of the contract, along with forfeiture of EMD/SD and Performance guarantee besides any other action provided in the contract including banning of business for five years on entire RailTel.

DEPONE
NTSEAL AND
SIGNATURE
OF THE BA

VERIFICATION

I/We above named EOI do hereby solemnly affirm and verify that the contents of my/our above affidavit are true and correct. Nothing has been concealed and no part of it is false.

DEPONENT

SEAL AND SIGNATURE
OF THE BA

Place:

Dated:

****The contents in Italics are only for guidance purpose. Details as appropriate, are to be filled in suitably by BA. Attestation before Magistrate/Notary Public.**

Annexure-5: Non-Disclosure Agreement (NDA) Format (to be submitted by sole partner/each of the consortium partners)

NON-DISCLOSURE AGREEMENT

This Non-Disclosure Agreement (this "**Agreement**") is made and entered into on this _____ day of _____, 2024 (the "**Effective Date**") at _____.

By and
between

RailTel Corporation of India Limited, (CIN: L64202DL2000GOI107905), a Public Sector Undertaking under Ministry of Railways, Govt. of India, having its registered and corporate office at Plate-A, 6th Floor, Office Block, Tower -2, East Kidwai Nagar, New Delhi-110023, (hereinafter referred to as '**RailTel**'), which expression shall unless repugnant to the context or meaning thereof, deem to mean and include its successors and its permitted assignees of the ONE PART,

And

_____ (CIN: _____), a company duly incorporated under the provisions of Companies Act, _____ having its registered office at _____, (hereinafter referred to as '**_____**'), which expression shall unless repugnant to the context or meaning thereof, deem to mean and include its successors and its permitted assignees of OTHER PART

RailTel and _____ shall be individually referred to as "Party" and jointly as "Parties"

WHEREAS, RailTel and _____, each possesses confidential and proprietary information related to its business activities, including, but not limited to, that information designated as confidential or proprietary under Section 2 of this Agreement, as well as technical and non-technical information, patents, copyrights, trade secrets, know-how, financial data, design details and specifications, engineering, business and marketing strategies and plans, forecasts or plans, pricing strategies, formulas, procurement requirements, vendor and customer lists, inventions, techniques, sketches, drawings, models, processes, apparatus, equipment, algorithms, software programs, software source documents, product designs and the like, and third party confidential information (collectively, the "**Information**");

WHEREAS, the Parties have initiated discussions regarding a possible business relationship for _____.

WHEREAS, each Party accordingly desires to disclose certain Information (each Party, in such disclosing capacity, the "**Disclosing Party**") to the other Party (each Party, in such receiving capacity, the "**Receiving Party**") subject to the terms and conditions of this Agreement.

NOW THEREFORE, in consideration of the receipt of certain Information, and the mutual promises made in this Agreement, the Parties, intending to be legally bound, hereby agree as follows:

1. **Permitted Use.**

(a) Receiving Party shall:

- (i) hold all Information received from Disclosing Party in confidence;
- (ii) use such Information for the purpose of evaluating the possibility of entering into a commercial arrangement between the Parties concerning such Information; and
- (iii) restrict disclosure of such Information to those of Receiving Party's officers, directors, employees, affiliates, advisors, agents and consultants (collectively, the "**Representatives**") who the Receiving Party, in its reasonable discretion, deems need to know such Information, and are bound by the terms and conditions of (1) this Agreement, or (2) an agreement with terms and conditions substantially similar to those set forth in this Agreement.

(b) The restrictions on Receiving Party's use and disclosure of Information as set forth above shall not apply to any Information that Receiving Party can demonstrate:

- (i) is wholly and independently developed by Receiving Party without the use of Information of Disclosing Party;
- (ii) at the time of disclosure to Receiving Party, was either (A) in the public domain, or (B) known to Receiving Party;
- (iii) is approved for release by written authorization of Disclosing Party; or
- (iv) is disclosed in response to a valid order of a court or other governmental body in the India or any political subdivision thereof, but only to the extent of, and for the purposes set forth in, such order; provided, however, that Receiving Party shall first and immediately notify Disclosing Party in writing of the order and permit Disclosing Party to seek an appropriate protective order.

(c) Both parties further agree to exercise the same degree of care that it exercises to protect its own Confidential Information of a like nature from unauthorised disclosure, but in no event shall a less than reasonable degree of care be exercised by either party.

2. Designation.

(a) Information shall be deemed confidential and proprietary and subject to the restrictions of this Agreement if, when provided in:

- (i) written or other tangible form, such Information is clearly marked as proprietary or confidential when disclosed to Receiving Party; or
- (ii) oral or other intangible form, such Information is identified as confidential or proprietary at the time of disclosure.

3. Cooperation. Receiving Party will immediately give notice to Disclosing Party of any unauthorized use or disclosure of the Information of Disclosing Party.

4. Ownership of Information. All Information remains the property of Disclosing Party and no license or other rights to such Information is granted or implied hereby. Notwithstanding the foregoing, Disclosing Party understands that Receiving Party may currently or in the future be developing information internally, or receiving information from other parties that may be similar to Information of the Disclosing Party. Notwithstanding anything to the contrary, nothing in this Agreement will be construed as a representation or inference that Receiving Party will not develop products, or have products developed for it, that, without violation of this Agreement, compete with the products or systems contemplated by Disclosing Party's Information.

5. No Obligation. Neither this Agreement nor the disclosure or receipt of Information hereunder

shall be construed as creating any obligation of a Party to furnish Information to the other Party or to enter into any agreement, venture or relationship with the other Party.

6. Return or Destruction of Information.

(a) All Information shall remain to sole property of Disclosing Party and all materials containing any such Information (including all copies made by Receiving Party) and its Representatives shall be returned or destroyed by Receiving Party immediately upon the earlier of:

- (i) termination of this Agreement;
- (ii) expiration of this Agreement; or
- (iii) Receiving Party's determination that it no longer has a need for such Information.

(b) Upon request of Disclosing Party, Receiving Party shall certify in writing that all Information received by Receiving Party (including all copies thereof) and all materials containing such Information (including all copies thereof) have been destroyed.

7. Injunctive Relief: Without prejudice to any other rights or remedies that a party may have, each party acknowledges and agrees that damages alone may not be an adequate remedy for any breach of this Agreement, and that a party shall be entitled to seek the remedies of injunction, specific performance and/or any other equitable relief for any threatened or actual breach of this Agreement

8. Notice.

(a) Any notice required or permitted by this Agreement shall be in writing and shall be delivered as follows, with notice deemed given as indicated:

- (i) by personal delivery, when delivered personally;
- (ii) by overnight courier, upon written verification of receipt; or
- (iii) by certified or registered mail with return receipt requested, upon verification of

receipt.

(b) Notice shall be sent to the following addresses or such other address as either Party specifies in writing.

RailTel Corporation of India limited:

Attn: _____

Address: _____

Phone

:

Email.

_____:

Attn:

Address:

Phone:

Email:

9. Term, Termination and Survivability.

(a) Unless terminated earlier in accordance with the provisions of this agreement, this Agreement shall be in full force and effect for a period of _____ years from the effective date hereof.

(b) Each party reserves the right in its sole and absolute discretion to terminate this Agreement by giving the other party not less than 30 days' written notice of such termination.

(c) Notwithstanding the foregoing clause 9(a) and 9 (b) , Receiving Party agrees that its obligations, shall:

(i) In respect to Information provided to it during the Term of this agreement, shall survive and continue even after the expiry of the term or termination of this agreement; and

(ii) not apply to any materials or information disclosed to it thereafter.

10. Governing Law and Jurisdiction. This Agreement shall be governed in all respects solely and exclusively by the laws of India without regard to its conflicts of law principles. The Parties hereto expressly consent and submit themselves to the jurisdiction of the courts of New Delhi.

11. Counterparts. This agreement is executed in duplicate, each of which shall be deemed to be the original and both when taken together shall be deemed to form a single agreement

12. No Definitive Transaction. The Parties hereto understand and agree that no contract or agreement with respect to any aspect of a potential transaction between the Parties shall be deemed to exist unless and until a definitive written agreement providing for such aspect of the transaction has been executed by a duly authorized representative of each Party and duly delivered to the other Party (a "**Final Agreement**"), and the Parties hereby waive, in advance, any claims in connection with a possible transaction unless and until the Parties have entered into a Final Agreement.

13. Settlement of Disputes:

- a) The parties shall, at the first instance, attempt to resolve through good faith negotiation and consultation, any difference, conflict or question arising between the parties hereto relating to or concerning or arising out of or in connection with this agreement, and such negotiation or consultation shall begin promptly after a Party has delivered to another Party a written request for such consultation.
- b) In the event of any dispute, difference, conflict or question arising between the parties hereto, relating to or concerning or arising out of or in connection with this agreement, is not settled through good faith negotiation or consultation, the same shall be referred to arbitration by a sole arbitrator.
- c) The sole arbitrator shall be appointed by CMD/RailTel out of the panel of independent arbitrators maintained by RailTel, having expertise in their respective domains. The seat and the venue of arbitration shall be New Delhi. The arbitration proceedings shall be in accordance with the provision of the Arbitration and Conciliation Act 1996 and any other statutory amendments or modifications thereof. The decision of arbitrator shall be final and binding on both parties. The arbitration proceedings shall be conducted in English Language. The fees and cost of arbitration shall be borne equally between the parties.

14. CONFIDENTIALITY OF NEGOTIATIONS

Without the Disclosing Party's prior written consent, the Receiving Party shall not disclose to any

Person who is not a Representative of the Receiving Party the fact that Confidential Information has been made available to the Receiving Party or that it has inspected any portion of the Confidential Information or that discussions between the Parties may be taking place.

15. REPRESENTATION

The Receiving Party acknowledges that the Disclosing Party makes no representation or warranty as to the accuracy or completeness of any of the Confidential Information furnished by or on its behalf. Nothing in this clause operates to limit or exclude any liability for fraudulent misrepresentation.

16. ASSIGNMENT

Neither this Agreement nor any of the rights, interests or obligations under this Agreement shall be assigned, in whole or in part, by operation of law or otherwise by any of the Parties without the prior written consent of each of the other Parties. Any purported assignment without such consent shall be void. Subject to the preceding sentences, this Agreement will be binding upon, inure to the benefit of, and be enforceable by, the Parties and their respective successors and assigns.

17. EMPLOYEES AND OTHERS

Each Party shall advise its Representatives, contractors, subcontractors and licensees, and shall require its Affiliates to advise their Representatives, contractors, subcontractors and licensees, of the obligations of confidentiality and non-use under this Agreement, and shall be responsible for ensuring compliance by its and its Affiliates' Representatives, contractors, subcontractors and licensees with such obligations. In addition, each Party shall require all persons and entities who are not employees of a Party and who are provided access to the Confidential Information, to execute confidentiality or non-disclosure

agreements containing provisions no less stringent than those set forth in this Agreement. Each Party shall promptly notify the other Party in writing upon learning of any unauthorized disclosure or use of the Confidential Information by such persons or entities.

18. NO LICENSE

Nothing in this Agreement is intended to grant any rights to under any patent, copyright, or other intellectual property right of the Disclosing Party, nor will this Agreement grant

the Receiving Party any rights in or to the Confidential Information of the Disclosing Party, except as expressly set forth in this Agreement.

19. RELATIONSHIP BETWEEN PARTIES:

Nothing in this Agreement or in any matter or any arrangement contemplated by it is intended to constitute a partnership, association, joint venture, fiduciary relationship or other cooperative entity between the parties for any purpose whatsoever. Neither party has any power or authority to bind the other party or impose any obligations on it and neither party shall purport to do so or hold itself out as capable of doing so.

20: UNPULISHED PRICE SENSITIVE INFORMATION (UPSI)

_____ agrees and acknowledges that _____, its Partners, employees, representatives etc., by virtue of being associated with RailTel and being in frequent communication with RailTel and its

employees, shall be deemed to be “Connected Persons” within the meaning of SEBI (Prohibition of Insider Trading) Regulations, 2015 and shall be bound by the said regulations while dealing with any confidential and/ or price sensitive information of RailTel. _____ shall always and at all times comply with the obligations and restrictions contained in the said regulations. In terms of the said regulations, _____ shall abide by the restriction on communication, providing or allowing access to any Unpublished Price Sensitive Information (UPSI) relating to RailTel as well as restriction on trading of its stock while holding such Unpublished Price Sensitive Information relating to RailTel

21 MISCELLANEOUS. This Agreement constitutes the entire understanding among the Parties as to the information and supersedes all prior discussions between them relating thereto. No amendment or modification of this Agreement shall be valid or binding on the Parties unless made in writing and signed on behalf of each Party by its authorized representative. The failure or delay of any Party to enforce at any time any provision of this Agreement shall not constitute a waiver of such Party’s right thereafter to enforce each and every provision of this Agreement. In the event that any of the terms, conditions or provisions of this Agreement are held to be illegal, unenforceable or invalid by any court of competent jurisdiction, the remaining terms, conditions or provisions hereof shall remain in full force and effect. The rights, remedies and obligations set forth herein are in addition to, and not in substitution of, any rights, remedies or obligations which may be granted or imposed under law or in equity.

IN WITNESS WHEREOF, the Parties have executed this Agreement on the date set forth above.

_____:

RailTel Corporation of India Limited:

By _____

By _____

Name:

Name:

Title:

Title:

Witnesses

Annexure-6: EMD (as PBG) Format

DELETED

Annexure-7: Under Taking

******Undertaking for Quality Assurance, Long term Availability of spares, Technical collaboration/MOU and Software validation, as per CoR******

Annexure-8: CONSORTIUM AGREEMENT

(On Stamp Paper of appropriate value)

This Consortium Agreement is executed at on this _ day of. BETWEEN

M/s. , a Company incorporated under the Companies Act, 1956 and having its Registered Office at acting through its Managing Director, duly authorized by a resolution of the Board of Directors dated (hereinafter referred to as the „LEAD MEMBER“ which expression unless excluded by or repugnant to the subject or context be deemed to mean and include its successors in interest, legal representatives, administrators, nominees and assigns) of the ONE Part;

AND

M/s. , a Company having its Office at and Office at , acting through its Joint President/ MD/... , duly authorized by a resolution of the Board of Directors dated (hereinafter referred to as the (“Participant member”) which expression unless excluded by or repugnant to the subject or context be deemed to mean and include its successors in interest, legal representatives, administrators, nominees and assigns) of the OTHER PART“

AND

M/s. , a Company having its Office at and Office at , acting through its Joint President/ MD/... , duly authorized by a resolution of the Board of Directors dated (hereinafter referred to as the (“Participant member”) which expression unless excluded by or repugnant to the subject or context be deemed to mean and include its successors in interest, legal representatives, administrators, nominees and assigns) of the OTHER PART“

Whereas RailTel Corporation of India Ltd. (hereinafter referred to as „RCIL“) has invite tenders for the “(NAME OF WORK)” in terms of the tender documents issued for the said purpose and the eligibility conditions required that the applicants bidding for the same should meet the conditions stipulated by RCIL for participating in the bid by the Consortium for handling the project for which the tender has been floated by RCIL.

AND WHEREAS in terms of the bid documents the parties jointly satisfy the eligibility criteria laid down for a bidder for participating in the bid process by forming a Consortium between themselves.

AND WHEREAS the parties hereto have discussed and agreed to form a Consortium for participating in the aforesaid bid and have decided to reduce the agreed terms to writing.

NOW THIS CONSORTIUM Agreement hereby WITNESSES:

1. That in the premises contained herein the Lead Member and the Participant Member having decided to pool their technical know-how, working experiences and financial resources, have formed themselves into a Consortium to participate in the tender process for “(NAME OF WORK)” in terms of the tender invited by RailTel Corporation of India Ltd., (RCIL).
2. That the members of the Consortium have represented and assured each other that they shall abide by and be bound by the terms and conditions stipulated by RCIL for awarding the tender to the Consortium so that the Consortium may take up the aforesaid “(NAME OF WORK)” in case the Consortium turns out to be the successful bidder in the bid being invited by RCIL for the said purpose.
3. That the members of the Consortium have satisfied themselves that by pooling their technical know-how and technical and financial resources, the Consortium fulfills the prequalification/ eligibility criteria stipulated for a bidder, to participate in the bid for the said tender process for “(NAME OF WORK)”
4. That the Consortium have agreed to nominate any one of , and as the common representative who shall be authorized to represent the Consortium for all intents and purposes for dealing with the Government and for submitting the bid as well as doing all other acts and things necessary for submission of bid documents such as Tender Application Form etc., Mandatory Information, Financial Bid. Etc., and such other documents as may be necessary for this purpose.
5. That if any change in the membership of the Consortium be required to be made by the members of the Consortium, the same shall be done with the consent of RCIL subject to the conditions as may be stipulated by them in this regard.
6. That in case to meet the requirements of bid documents or any other stipulations of RCIL, it becomes necessary to execute and record any other documents amongst the members of the Consortium, they undertake to do the needful and to participate in the same for the purpose of the said project.
7. That it is clarified by and between the members of the Consortium that execution to this Consortium Agreement by the members of the Consortium does not constitute any type of partnership for the purposes of provisions of the Indian Partnership Act and that the members of the Consortium shall otherwise be free to carry on their independent business or commercial activities for their own respective benefits under their own respective names and styles. This Consortium Agreement is limited in its operation to the specified project.
8. That the Members of the Consortium undertake to specify their respective roles and responsibilities for the purposes of implementation of this Consortium Agreement and

the said project, if awarded to the Consortium, to meet the requirements and stipulations of RCIL.

9. The consortium formed will not be subject to alteration with regard to change in constituting firms and/or reorientation of roles. Any changes, if proposed by Consortium to take advantage of certain developments during evaluation stage will render the bid liable to be **REJECTED**.
10. All partners of the consortium shall be jointly and severally liable to RailTel for the execution of the entire contract in accordance with its terms.
11. Each Consortium member has minimum 20% contribution in the work and role/scope of each member is enclosed.
12. Power of Attorney by all members of the Consortium in favor of the Lead Member is also enclosed.

IN FAITH AND TESTIMONY WHEREOF, THE PARTIES HERETO HAVE SIGNED THESE PRESENTS ON THE DATE, MONTHS AND YEAR FIRST ABOVE WRITTEN

1. ()	2. ()	3 ()
Managing Director	Managing Director	Managing Director
For (Name of company)	For (Name of company)	For (Name of company)

WITNESSES:

1.

2.

Enclosure:

Board resolution of each of the Consortium Members authorizing:

- (i) Execution of the Consortium Agreement, and
- (ii) Appointing the authorized signatory for such purpose.

Annexure 9 - Self declaration of not be under Ineligibility for corrupt and fraudulent practice

(To be submitted on the letterhead of the Bidder)

To

The Principle Executive Director
RailTel Corporation of India Ltd. 19th Floor,
Aurora Waterfront, opposite NALBAN, Sector
V, Bidhannagar, Kolkata, West Bengal 700091

Ref: Tender No.: NIT No: SG-W-DNR-OT-03-2023-24 & SG-W-DNR-OT-04-2023-24
Dated: 12/03/2024 12:00

Sub: RFP for "XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX"

Dear Sir/Madam, We have examined the RFP document, we, the undersigned, herewith submit our RFP in response to your RFP no. _____ dated _____ for the work of "_____ " in full conformity with the said RFP document.

- I. We have read the provisions of the RFP document and confirm that these are acceptable to us. We further declare that additional conditions, variations, deviations, if any, found in our RFP shall not be given effect to.
- II. We agree to abide by this RFP, consisting of this letter, the detailed response to the RFP and all attachments, for a period of 180 days from the date of submission of the bid.
- III. We would like to declare that we are not involved in any major litigation that may have an impact of affecting or compromising the delivery of services as required under this assignment and we are not under a declaration of ineligibility for corrupt or fraudulent practices.
- IV. We would like to declare that there is no conflict of interest in the services that we will be providing under the terms and conditions of this RFP.
- V. We hereby declare that all the information and statements made in this proposal are true and accept that any misrepresentation contained in it may lead to our disqualification.
- VI. We understand you are not bound to shortlist / accept any RFP you receive.

Sincerely,

Signature of Authorized Signatory and Seal of the Bidder

Name:

Designation:

Date:

Annexure 10 - Proposed Manpower Details

Annexure 11 – Land Border Clause Declaration

To,

The Principle Executive Director
RailTel Corporation of India Ltd. 19th
Floor, Aurora Waterfront, opposite
NALBAN, Sector V, Bidhannagar,
Kolkata, West Bengal 700091

Tender Reference No. : _____

Sub: Undertaking of Rule 144 (xi) in the General Finance Rules (GFR)-2017 bearing reference number: F. No.6/18/2019-PPD dated 23.07.2020 published by Ministry of Finance, Dept. of Expenditure, Public Procurement Division.

Dear Sir,

We, _____ (Name/ Address) have read the clause regarding restriction on procurement from a bidder of a country which shares a land border with India. We certify that our quoted product and our company are not from such a country, or if from such a country, our quoted product and our company have been registered with competent authority. We hereby certify that these quoted products and our company fulfils all requirements in this regard and is eligible to be considered for procurement for Bid.

For _____

_____ (Designation with seal)

Annexure 12- Price Bid Letter

To,

The Principle Executive Director
RailTel Corporation of India Ltd. 19th Floor,
Aurora Waterfront, opposite NALBAN, Sector
V, Bidhannagar, Kolkata, West Bengal 700091

Ref: Tender no. . CoR NIT No: SG-W-DNR-OT-03-2023-24 & SG-W-DNR-OT-04-2023-24
Dated: 12/03/2024 12:00

Subject: Submission of financial proposal of Tender CoR NIT No: SG-W-DNR-OT-03-2023-24 & SG-W-DNR-OT-04-2023-24 Dated: 12/03/2024 12:00

Dear Sir,

We, the undersigned, offer to provide the services as mentioned in the scope of work of the RFP dated [date]. Our Financial Proposal shall be binding upon us subject to the modifications resulting from arithmetic correction, if any, up to expiration of the validity period of the Proposal, i.e. [date].

We undertake that, in competing for (and, if the award is made to us, in executing) the above contract, we will strictly observe the laws against fraud and corruption in force in India namely "Prevention of Corruption Act 1988".

We understand you are not bound to accept any Proposal you receive. We remain,

Yours sincerely,

Authorized Signature [In full and initials]:

Name and Title of Signatory:

Name of Firm:

Address:

Annexure 13 - Price Bid Format**Commercial Bid****To be uploaded as per BOQ Format in RailTel eNivida Portal.**

To,
Principal Executive Director
RailTel Corporation of India Limited,
19th Floor, Aurora Waterfront Building,
Plot no. 34/1, Block -GN, Sector - V,
Salt Lake City, Kolkata -700091, West Bengal.

Ref: 1. CoR NIT No: SG-W-DNR-OT-03-2023-24 & SG-W-DNR-OT-04-2023-24

Dated: 12/03/2024 12:00

2. RailTel's EOI Ref: RAILTEL/EOI/ER/MKT/2023-24/35 DTD 06.03.2024

Dear Sir

Summary of Price Bid

PART-1- SG-W-DNR-OT-03-2023-24

S.No.	Description	Item Qty	Qty Unit	Unit Rate	Total Rate
01	Description:- "Supply of basic material to construct unit maintenance free earth as per RDSO spec. No. RDSO/SPN /197/2008 with latest amnd or latest, consisting the followings (Inspection:RITES) (i) copper bonded steel electrodes of 3.0 meter long & 17.0 mm dia with Cu-bonding thickness of min. 250 microns and UL listed and marked = 1 no. (ii) Earth enhancement material supplied in sealed bags of min. 10Kgs = 3 nos. (iii) Cu-strip 150 X 25 X 6 mm to terminate earth rod = 1no. (iv) Cu-strip 300 X 25 X 6 mm (MEEB) = 1 no. (v) Cu-strip 150 X 25 X 6 mm (SEEB) = 1 no."	30.00	Set		

02	Description:- Installation of unit earth which includes the followings: (i) digging the earth to the required depth (ii) insertion of electrode (iii) Filling of earth enhancing compound (30Kg) provision of exothermic weld connection on copper tape/bus bar of 25mm X 6mm X 150mm to the earth electrodes all the materials, tools and features required for the weld to be arranged by the contractor-1No. (iv)Trenching , laying & Provision of exothermic weld connecting, one to connect copper tape/ 35 sqmm multi strand single core PVC insulated copper cable to the copper strip/ tape/ busbar welded to the earth electrode and another to the copper tape to be fixed inside the equipment/relay rack /apparatus room as per RDSO's Spec (fixtures for mounting the copper tape inside the relay room, weld materials, tool features and all other materials required for the weld shall be arranged by the contractor. (v)exothermic weld connection, fixing of Cu-strips and routing the cables to bus bar in equipment/relay room (all other materials required for the work shall be borne by the contractor. (vi)construction of concrete inspection chamber as per RDSO Spec. NOTE- Above includes Interconnection of the earthing installed with the already existing erthing electrode, if any, as per site requirement and as per instruction of site incharge.	30.00	Set		
03	Description:- Transportation of materials by 15 MT capacity truck or similar	1500.00	Kilometre		
04	Description:- Transportation of less heavy materials & manpower by supply & running of one MUV to the sites of work as per requirement and direction of Engineer-in-charge along with driver. The rate includes all taxes, licence fee,road permit, driver wages, fuel, repair and maintenance cost etc, complete in all respects.	4000.00	Kilometre		
05	Description:- Loading unloading of heavy S&T materials in 15MT truck.	25.00	Per Trip		
06	Description:- Supply of Disconnect type Terminal,screwless, 2IN 2 OUT (as per spec. no. RDSO/SPN/189/2004 or latest) along with all accessories including separators, shorting link, channel, end stopper for fixing on Cable Termination Rack/Location boxes for Cable Termination Purpose. (Wago or Silzer or LMAX or superior) Inspection - RITES.	#####	Numbers		
07	Description:- Supply of PIG tail (10Mtrs long) with SC/LC & LC/LC connector as per tec specification no. G/OFJ - 01/03 Jun'99 with latest amendments.Make -R & M or superior (Inspection - Consignee)	260.00	Numbers		
08	Description:- Supply of Patch Cord (10 Mtrs Long) with SC/LC & LC/LC connector on Both side as per specification No.G/OFJ-01/03 June'99 with latest amendments.Make -R & M or superior (Inspection - Consignee)	160.00	Numbers		
09	Description:- Preperation & printing of Station Working Rule Diagram (SWRD)on AUTO CAD based on approved SIP, ESP etc. as per the extant practice being followed in E.C. Railway. Contrctor shall supply one print of the SWRD (praper print Size as requird) 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 micorns for signature of all officials. On approval the contractor shall supply 10 copys blue prient of the tracing. The approved SWRD shall be finally supplied on 2 CDs. (Inspection - Consignee)	14.00	Station		

10	Description:- Preparation of Station Working Rule (SWR) in English and Hindi based on approved SIP, ESP etc as per the extent practice being followed in E. C. Railway. The contractor shall supply two paper print of the 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 on 2 CDs. (Inspection - Consignee)	14.00	Station		
11	Description:- Final location survey of the cable route. Preparation of cable route plan as per technical supplement mentioned in tender document. The cable route plan to be prepared and submitted on standard polyester film comprising the details of entire commissioned section. All drawings will be prepared on CAD and shall be submitted to railway for their approval before making the final copy. 6 sets of the plan to be prepared on standard polyester film and shall be supplied to railway along with soft copy of the plan on CDs. (Inspection - Consignee)	145.00	Route Kilo Meter (RKM)		
12	Description:- Description: Supply of TDR Based Cable fault locator for Metallic cables viz LV Power Cable/Control Cables/ Signaling Cables fault location. Make: Greenlee/ Megger or Superior. IR Kit as per attached annexure 1. Inspection by RITES. Annexure1:- TECHNICAL SPECIFICATION FOR "TELECOM TDR CABLE FAULT LOCATOR SET THE TDR fault locator must be suitable for use by a wide range or operation of all levels or technical knowledge. It must be capable of measuring distance to fault in telecom and signaling cables: Open, short, load coils, bridge taps/laterals, cross, splice/joint faults in copper/ metallic cables. The instrument should be able to locate the following faults: The instrument should have following features: Should have zoom functions- Should measure distance to fault in meters, feet or time - Should have menu push buttons to navigate through the cable length - Facility to select cable type from built in menu or create custom cable types, with present parameters including Vop. Pulse width, VP, gain, and vertical position are automatically selected - Cloning feature: Cable Tables; Settings should be possible to be 'cloned' via SD/USB Card from one TDR unit to another - instrument should contain help button for guiding the operator on control and displayed values. Physical Specification: Size: >=255 mm x 155 mm x 50mm. Weight: 0.95 kg. Power Supply: Rechargeable Lithium ion battery pack, Specifications: Test Signal Output 1/2 Sine Pulse Widths for precision TDR measurement 1 ns Additional pulse widths required 5ns, 25 ns Dead zone 0m, Resolution 0.075m Filtering 1,2,4,8,16,32 Automatic far end detection feature. Should be provided Input Protection +/-400V, DC Display Type Should be "Full Color" LCD display, backlit with display resolution 800x400 or higher Display size >=6.8 inch Operating temperature 0 to 50 deg C Communication interface USB Data Storage >=8GB SD card should be built in to store traces Certified Standard accessories: The equipment should be provided with Test Leads, Soft carrying case with shoulder strap.	6.00	Numbers		

13	Description:- Supply of RFID Electronic cable route tracer / locator with high power 12W transmitter for effective long distance locating, 4 active locating frequencies (577Hz/8kHz/ 33kHz/ 200kHz/ 101.4 khz), depth range up to 3 meter passive power frequency, current and resistance measurement in both transmitter and receiver, super induction mode, with capability of electronic marker locating (both passive and RFID) and sheath fault locating in a single equipment, Marker records, built in GPS Module 4x20 Digit LCD Display & allows software to be downloaded from website, weight less than 2.5 kgs for transmitter as well as receiver, signal current measurement in cable. Inspection- RITES	6.00	Numbers		
14	Description:- Supply and installation of OFC joint enclosure and making straight through joints for 48 fibre cable and testing. This includes splicing and making pits of size 1.2 M dia x 1.2M depth with top cover slab as per drawing. Make -R & M or superior Inspection :- RITES.	100.00	Numbers		
15	Description:- Excavation of trenches including clearing of roots of trees etc. up to a depth of 1.2 Mtr./1.0Mtr. and width of 0.3Mtr. At the bottom in any soil including moorum but excluding hard/rocky soil in the entire section. Back filling and ramming of the soil in the trenches after cable laying/placing HDPE pipe (to be supplied by Rlys.) with GI wire/rope and consolidation of the soil as well as disposal of the soil, if any. 1.2 mtrdepth. NOTE:- (I) Payment will be made as per actual work done on pro rata basis, if required depth is not available at site (II) If the depth of trench is not uniform in a span of 100 mtr. or shorter length, if site condition demands along the cable run average depth will be taken for that particular stretch for payment.	60.00	Kilometre		
18	Description:- 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 01no. Control panel, 01 Flasher, 1no. hooter, 6 nos. smoke detectors, 06 nos heat detector and 01no. Manual call point. Inspection:RDSO	13.00	Numbers		
19	Description:- Supply of split DWC pipe with the socket/couplar and T joint where ever requird, Size of outer dia 250mm/inner dia 217 mm. Inspection: RITES.	#####	Metre		
20	Description:- Installation of Split DWC Pipe	#####	Numbers		
21	Description:- Supply and installation of RFID electronic marker for S&T underground cables with programmable memory for saring user specific data inside the RFID electronic marker locator during location 10 digit Hexadecimal ID code, (577Hz/8kHz/ 33kHz/ 200kHz/ 101.4 khz), active/deactive with GPS Module, navigation function to navigating to select RFID marker. Inspection:RITES	1400.00	Numbers		
22	Description:- Supply of hand cuff lock with key. Inspection Consignee.	320.00	Numbers		
23	Description:- Supply of MS flat Galvanised (specification No. 226 STD) of size 35mm x 6 mm with length 5 mtrs with holes of 12mm dia at both ends as per CSTE ER's DRG No. S&T-1/2007. Inspection - Consignee	480.00	Numbers		

24	Description:- Fixing of earth electrode including laying and installation of MS flat size 35mm x 6 mm with length 5 mtrs, as per CSTE ER's DRG No. S&T-1/2007 or latest for apparatus cases, signal post & other equipments as per instruction of site engineer. Provision for fixing MS flat at apparatus cases/signal post/other equipment should be made by the firm at site, full threaded bolts of 10 mm dia and length 40 mm should be welded in the apparatus case in such way that the MS flat at apparatus case end can be fixed from outside or, from inside, welding arrangement with accessories and welding materials should be arranged by the contractor for fixing of bolts at equipment end where required as per instruction of site engineer. All hardware and other miscellaneous materials required for installation to be supplied by the contractor except earth electrodes and MS flat. Note:- All materials required to be arranged by the contractor.	500.00	Numbers		
25	Description:- 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.	28.00	cum		
26	Description:- "Supply and fixing of Early Streamer Emission Lightning conductor (ESEL), with NFC 17-102 standard fully autonomous having lower series of energy collecting electrodes, upper series of Spark-generating electrodes, as inbuilt micro controller for detection of lightning downward leader and releasing upward leader at that very precise moment to ensure nuisance free, fail safe, real need based operation any and every time, with , triggering time of 25 microsecond giving 45 m radius high protection (Inspection: RITES)	8.00	Station		
27	Description:- "Supply and erection of mast/High mast suitable for ESE technology based lightning protection installation, mechanically robust, good corrosion and fire resistance. 5 meter (Including 2 meter FRP) long. GI/MS painted along with guying kit, foundation and other accessories required for installations of the mast.(Inspection:- Consignee)	8.00	Station		
28	Description:- "Supply and laying of 70 sq mm PVC insulated flexible tinned electrolytic copper down conductor placed in a metallic/PVC protective covering wherever exposed to human intervention including saddles and all accessories etc. as required. (Inspection:-Consignee)	250.00	Metre		
29	Description:- Supply & installation of resettable 6 digit LCD lightning stroke recorder/transient event counter with 10 year long life lithium battery in an all weather proof box of IP67 grade protection along with clamps etc. as required. Inspection: RITES	9.00	Station		
30	Description:- 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. Inspection : RITES	1500.00	Numbers		
31	Description:- Supply Power cable PVC 10 sq. mm dia Copper as per IS: 694. Inspection:- RITES Please see Item Breakup for details.	4.00	Kilometre		

32	<p>Description:- 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. Inspection:- RITES, Note:- Installation, Erection & Wiring of signalling unit includes LED signal lightening unit including Current Regulator & Health Monitoring unit. This also includes protection of unit from rain water. Please see Item Breakup for details.</p>				
33	<p>Description:- 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 railwat 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 2inchx1inch) and mounting bracket with U-clamps nuts & washer. All drawings should be as per latest. Note:- Inspection by RITES (for value of material above Rs.5 lac). Inspection by consignee (for value of material below than Rs. 5 lac). Note:- Installation, Erection & Wiring of signalling unit includes LED signal litghtening unit including Current Regulator & Health Monitoring unit. This also includes protection of unit from rain water. Please see Item Breakup for details.</p>				
34	<p>Description:- Installation, Erection, paying out of tail cable from location box and wiring of shunt signal, LED unit on the same post below the main signal 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. FRP unit - Inspection by Consignee. Base & post - Inspection by Consignee. Note:- Installation, Erection & Wiring of signalling unit includes LED signal litghtening unit including Current Regulator & Health Monitoring unit. This also includes protection of unit from rain water. Please see Item Breakup for details.</p>				

35	Description:- 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 SPEWC 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, Inspection - RITES Note:- 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.				
36	Description:- Design, fabrication and supply of Fuse Auto Changeover System for 32 Nos. of external non- deteriorating type fuses or 'G' type fuses from 0.6A Amp to 4A Amp capacities used in signalling circuits. System shall have 8 cards with monitoring arrangement of 4 fuses in one card. As per RDSO Spec.RDSO/SPN/209/2012 Ver.2.0 or latest amendment if any.(Inspection by RDSO) (Unit-No. of Modules) and (b) Wiring, fixing & commissioning of modules of fuse 0.6 to 4 Amp. rating alarm system having change over arrangement and potential free contact wiring at Datalogger IDF. etc. as per instructions of Railway Engineer (Module fo 32 nos. fuses) (Unit-No of modules) Inspection: Consignee. Please see Item Breakup for details.				
38	Description:- Supply, Installation, wiring, testing and commissioning of Signal Post Telephone (SPT)Two-wire talk back system for ABS working on 110v AC/12v DC consisting of One MASTER and One SLAVE unit. (Inspection: Supply-RITES, Installation- Site Incharge)	24.00	Numbers		
40	Description:- SUPPLY, TRANSPORTATION, INSTALLATION & COMMISSIONING ELECTRICALLY OPERATED LIFTING BARRIER SET as per Spec. no. RDSP/SPN/208/2012 Ver. 2.0 or latest EACH CONSISTING OF 2 NOS. OF LIFTING BARRIER PEDESTALS, EACH WITH MIN. 6 CONTACT CIRCUIT CONTROLLER WITH TOP ROLLER TYPE LIMIT SWITCHES, HAND CRANK, 2 ELECTRIC MOTORS, 110VAC OF CAPACITY SUITABLE TO OPERATE BARRIERS UPTO 32' LONG BOOMS, 2 NOS. OF STEEL OCTAGONAL BOOMS OF 32' LENGTH WITH 2 NOS. STOP BOARDS. BOOM LIGHT BOXES, MS COUNTER WEIGHTS AND 2 NOS. OF BOOM SUPPORT WITH SUITABLE BOOM LOCKING BUT WITHOUT FRINGES ALONG WITH CONTROL PANEL WITH BUTTONS AND INDICATING LAMPS, MOTOR CONNECTORS AND MCB TO OPERATE 2 BARRIERS OF 1 SET. THIS INCLUDES SUPPLY AND INSTALLATION OF GATE HOOTER - 1 NO. AND HORN (8 WATT) - 1 NO. WITH ALL FIXING ARRANGEMENTS . ALL OF THE ABOVE ITEMS INCLUDING SUPPLY OF CEMENT, CIVIL WORK MATERIALS ETC. SHALL BE DONE BY THE CONTRACTOR FOR COMMISSIONING. 230VAC SUPPLY ONLY SHALL BE ARRANGED BY THE RAILWAY IN NEAR BY RELAY ROOM.(Complete set) Inspection: RDSO				

41	Description:- SUPPLY & INSTALLATION OF SLIDING BOOM GATE AS PER E.RLY SIGNAL WORKSHOP/HWHS DWG NO. BSA/29/730.BSA/29/731 & BSA/29/737. THIS INCLUDES SUPPLY OF 8 NOS. 'E' TYPE LOCK WITH KEY AS PER IRS SPEC. IRS:S-30/64 WITH LATST AMENDMENT . KEY LOCK E TYPE AS PER DRAWING NO. SA-3376/M WITH LATEST AMENDMENT, KEY FOR E TYPE LOCK AS PER DRAWING NO. 3377/M WITH LATEST AMENDMENT WARD NO. TO BE FIXED ON MS PLATE AS MENTIONED IN THE DRAWING. Inspection:RITES	5.00	Set		
42	Description:- CASTING CONCRETING & CURING OF FOUNDATION (1:3:6) FOR SLIDING GATE AS PER DWG. NO. SGW-SDAH / SLIDING GATE FOUNDATION / 2012 INCLUDING SUPPLY & FIXING OF HOLDING DOWN BOLTS WITH WASHERS AND NUTS , MS PLATES OF SIZE 350 MM X 350MM X 8 MM, CEMENT ETC 10 FOUNDATIONS REQUIRED IN EACH SET OF GATE.	5.00	Set		
43	Description:- INSTALLATION & COMMISSIONING OF SLIDING BOOM GATE . THIS INCLUDES LEVELLING , FIXING OF SLIDING BOOM WITH FIXING OF E TYPE LOCK ETC. NOTE ALL MATERIALS EXCEPT SLIDING BOOM GATE TO BE SUPPLIED BY THE CONTRACTOR.	5.00	Set		
44	Description:- Supply & Installation of Earth Leakage detector 8 channel as per RDSO/SPN/256/2002 or latest with 6 digit counter (in 19' Sub Rack with insulation tester). Insepection - RDSO	6.00	Numbers		
45	Description:- Supply of LC Gate Road user warning alarm hooter along with accessories. Inspection - CONSIGNEE	5.00	Numbers		
46	Description:- "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, 4 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. Inspection:- RITES, Note:- Installation, Erection & Wiring of signalling unit includes LED signal lighthouse unit including Current Regulator & Health Monitoring unit. This also includes protection of unit from rain water." (i) Supply	150.00	Numbers		

47	Description:- "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, 4 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. Inspection:- RITES, Note:- Installation, Erection & Wiring of signalling unit includes LED signal lightening unit including Current Regulator & Health Monitoring unit. This also includes protection of unit from rain water." (ii) Execution	150.00	Numbers		
48	Description:- SUPPLY AND INSTALLATION OF LED TYPE TABLE MOUNTING GATE CONTROL-CUM- INDICATION PANEL OF REQUIRED SIZE AS PER SITE ENGINEER AND AS PER SIGNALLING PLAN INCLUDING SUPPLY OF WOODEN TABLE (HARD WOOD) OF STANDARD HEIGHT FOR MOUNTING OF PANEL, CABLE ENTRY IN PANEL WITH 50 MM DIA GALLANT. NOTE- GATE PANEL SHOULD HAVE BUTTON OPERATION FOR GATE CLOSE & OPEN INSTEAD OF SWITCH. THE SWITCH FOR SIGNAL OPERATION PREFERABLY SHOULD HAVE 2NC/2RC CONTACT. Inspection:-Consignee	5.00	Numbers		
50	Description:- Supply and fixing of fire Extinguisher (Capacity - 1Kg) (Inspection -Consignee) Please see Item Breakup for details.	8.00	Numbers		
52	Description:- supply of fusion splicing fully automatic PTC Micro processor controlled (ARC Fusion) as per spec No. g/osm/01.02 with latest amendment,Make -Fujikura model 88S or superior Inspection: Consignee	3.00	Set		
53	Description:- Supply of OFC tool kit with testing measuring instrument with accessories. (Optical Power Meter, Visual Fault Locator, Fibre tool kit etc.), inspection: Consignee Please see Item Breakup for details.	6.00	Set		
55	Description:- Laying of Optical Fibre Cable through HDPE pipe/Telecom Duct for by Blowing as per detail in Technical specification Enclosed and Advice by site Engineer.	30.00	Kilometre		
56	Description:- SUPPLY AND INSTALLATION OF OFC FIBRE DISTRIBUTION FRAME AS PER SPEC. DOT/G/FDF- 01/01,JAN -93 OR LATEST AND SPLICING OF OFC INSIDE THE TERMINATION BOX WITH PROVISION OF TAKING OUT FIBERS OF OFC AS REQUIRED AND TESTING OF ALL FIBRE.THIS INCLUDES SUPPLY AND FIXING OF HARD WOOD BOARD OF SIZE. 3FT X 5FT X 1.5 IN.WITH WALL FIXING ARRANGEMENTS AND ALL ACCESSORIES, I.E PIGTAIL CABLE WITH FC/PC CONNECTORS, FDF ETC. AS REQUIRED. WORK WILL DONE AS PER TECHNICAL SUPPLEMENT AND AS PER ADVISE OF SITE ENGINEER. Inspection: Make -R & M or superior Inspection - Consignee	70.00	Numbers		

57	Description:- Supply and placing of Polyolefin Injection Molded Plastic Cable ducts of size, Width 240/340mm, Height 155/230mm internal/external, length 1 Metre, produced of POLYOLEFIN with fire protection class K1 in accordance with DIN53438 Pt.II for laying signing/telecom cables, channel attachable to each other with male/female swallow tail connectors and having suitable detachable cover. The plastic cable trays/ducts, technical specifications and testing procedures as per RDSO Letter No.-STS/E/Cable-Laying Practices Vol-IV d dated 09.05.2018 and material should be procured only through RDSO approved firm as per RB's Policy Circular No. 02/2023 dt.07.08.23. Inspection: RITES	4500.00	Metre		
60	Description:- Installation, Testing and Commissioning of the Display arrangements at Non-Vital Mux modules (supplied against Item No. 58 above) at the SM's Room/Cabin of Station with drawing, as per the instruction of Railway site engineer.	26.00	Set		
61	Description:- Supply and installation 55-inch UHD Monitor 4K with following specifications: Display Size: 55 inch Screen Type: LED, Smart TV: YES, Resolution Standard: 4K (UHD), Resolution (pixels): 3840x2160, No of HDMI Port: 2 or more, No of USB Port: 2 latest or more, Built in Wi-Fi: YES, Ethernet (RJ45): 1 or more, Analog Audio Input: YES, Speaker Output RMS: 20 W or higher, Remote: YES, Android App support - YES, Operating System Present: Android, Screen Mirroring: YES, Supported Video Formats:MPEG1/MPEG2TS/AVCHD/MP4/AVI/WMV/LPCM/MP3/WMA/JPEG or any other.	2.00	Numbers		
62	Description:- Supply and installation 32-inch UHD Monitor 4K with following specifications: Display Size: 32 inch Screen Type: LED, Smart TV: YES, Resolution Standard: 4K (UHD), Resolution (pixels): 3840x2160, No of HDMI Port: 2 or more, No of USB Port: 2 latest or more, Built in Wi-Fi: YES, Ethernet (RJ45): 1 or more, Analog Audio Input: YES, Speaker Output RMS: 20 W or higher, Remote: YES, Android App support - YES, Operating System Present: Android, Screen Mirroring: YES, Supported Video Formats:MPEG1/MPEG2TS/AVCHD/MP4/AVI/WMV/LPCM/MP3/WMA/JPEG or any other.	22.00	Numbers		
64	Description:- Modification and alteration to Existing Inter connection wiring with ladder arrangement from power supply of equipment to relay rack. IPS, Data Logger, Control Panel, Block instrument, CTR etc. It also includes interconnection wiring with ladder arrangement between relay rack, CTR, indication board and block instruments. Its also includes termination of cables/wires on all the above and dressing bunting etd. as required at site wire shall be 16/0.02 mm for relays, 3/0.737 mm for MCBs 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 supplied by firm. wires shall be procured from RDSO approved firm and inspected by RDSO. all above material will be supplied by firm.	4.00	Numbers		
68	Description:- Earthing of SSI equipments , relay racks , power equipments etc. to be done along with the supply of all requisite stores as per latest Guidelines of RDSO & Railway Board.	3.00	Station		
72	Description:- Round the clock maintenance of the entire system after commissioning of concern Auto Section (For Shift: 01 Supervisor, 02 Artisen staff along with Railway material for smooth maintenance of entire system)	90.00	Man-Days		

73	Description:- Relay AC Immune plug in type Style QNNA1 DC Neutral line, 24V, 2x6F, 2B contacts each for LH and RH, front and back contacts metal to carbon with plug board, retaining clip and connectors confirming to BRS:960, IRS: S 60-78, IRS:S-34 and IRS:S-23 [as applicable]. The interlocking code for this unit shall be CDEHX. Firm's offer:Relay, AC Immune, plug-in-type, Style 'QNNA1', Twin DC neutral line, 24V, 6F.2B contacts each for LH and RH front and back contacts metal to carbon, complete with plug-board retaining clip and connectors to BRS:960, IRS:S 60, IRS:S 34 & IRS:S 23 (as applicable). Inspection: RDSO	60.00	Numbers		
74	Description:- For Track Crossing:- Boring & trenchless cabling alongwith supply & insertion of HDPE self lubricated pipe as RDSO Spec.No.RDSO/SPN/204/2011 Version.1.1 of 110 mm outer Dia & 100 mm inner Dia with 10 mm wall thickness in Bore for laying of signalling/ Telecom/Power Cable under Track/Road/Culvert etc. Cable Laying convered. Inspection FOR PIPE: RITES .	1700.00	Metre		
75	Description:- Supply of OFC Hybrid Multi service 19" rack mountable device IPV6 ready with Auto Change Over feature V.21/V/23 interface device supporting OSPF / IS-IS/ BGP / LDP & L2 /L3features for switch and PDH / El facility MPLS PDMUJX . LVCD/Digital Axle Counter /MSDAC purpose with four tributary slots & front panel Quad indication status vide LEDs, Optical support vide4 SFP port supporting TDMoIP / IPMPLS in the unit supporting dual core OFC and Four 100/1000mbps Ethernet port (POE required at site supporting 802.3af / at) for surveillance/smoke detector,optical SFP ports provided distance support to be 20 KMs, unit to have two E&M card / module each card / module supporting four 2W/4W configurable & four quad port 2W/4W or each module without change over feature of 8 port E&M as per site condition. Each port configurable to support axle counter/UFSBI/control phone/EC/RTU and one telnet/SNMP port, unit to support 04 El ports in addition to 04 El ports for internal mapping of PDH time slots & SFP ports of TDMoIP/ IPMPLS dual DC power supply 48VDC VDC support , unit to support change over mechanism automatic between E&M (V.21) to El port & optical fiber TDMoIP (SFP) & quad path for E&M interface option, cable to be provided along with each E&M module . Equipment should be able integrate with direct optical fibre & STM El & IPMPLS 1Gbps ports FABIO 2CX+/OFC/ DC & module 2W/4W four port E&M(1+1) protection, the unit to be able to integrate on 1Gbps with IPMPLS devices and can be networked ; Voice Module 10 port FXO : 01 number , 10 port FXS unit to be capable to accommodate and map on El or 1Gbps as required Make:-FABIO 2CX + / RAD / CISCO / WAVES /TANSY or similar (Inspection by RITES)	12.00	Numbers		
76	Description:- Installation of Integrated Multiplexer supplied above (S.N./74).	12.00	Numbers		
77	Description:- Supply of Apparatus Case (Full) FRP type as per RDSO spec. no.RDSO/SPN/194/2006 and RDSO Drg. No.S 11500 or latest. Inspection: RITES	18.00	Numbers		
78	Description:- Modification in Domino type Control Cum Indication Panel of station in connection with conversion of UP & DN main line signals including supply of required nos. of Domino Units with Top cover plate, top plate with Buttons, Panel Indication LEDs of required colours as per approved Panel Diagram including panel wirings.	7.00	Numbers		

79	Description:- Supply of 'A'/'AG' LED Signal lighting unit retrofittable in existing CLS housing and compatible with AC LED ECR (as per spec.no.RDSO/SPN/199/2010 Rev.1.1 or latest with Brackets & fixing accessories. Inspection: RDSO	175.00	Job		
80	Description:- Fixing of Calling on Signal/A-Sign/AG-Sign unit on signal post including guard repeater signal. The item includes fixing of calling on signal/A-Sign/AG-Sign unit on signal post with Bracket, Hood etc. Item includes supply of bracket & fixing materials etc. by the contractor. The item also includes termination of cable & wiring of inside Calling on/A-Sign/AG-Sign unit as per standard practice.	175.00	Job		
81	Description:- Supply of Mini DCDP Box as per existing IPS available at concern stations containing 6 Nos. 24-40 V/05 Amp and 6 Nos. 24-32 V/05 Amp DC-DC Converter having Tech. Spec.No. RDSO/SPN/165/2012 or Latest. Note:- Supply to be made in such a way that output of 3 converter is connected at one terminals block. (Inspection: RDSO)	12.00	Numbers		
82	Description:- Supply of covered 19" Rack 42 U complete with all fittings for housing the telecom equipment's. The Components of Rack are Specified Below :-(i) Rack size 2200 HX 600 WX 600 D (ii) Fixed side panels 42U X 600 D (iii) Front glass door plain 42U X 600D (iv) Rear MS door plain 42 U X 600W (v) Levelling screws-4 Nos. (vi) Compact Fan Module working with 48 V DC- 2 Nos. (vii) Earth connecting kit- 1 No. (viii) Caster with breaks- 04 Nos Inspection: Consignee.	12.00	Numbers		
83	Description:- Relay Non AC immune plug in type Style QN1K DC Neutral line 1000 ohms, 24 V, (12F/4B) contacts, front and back contacts metal to carbon with plug Board, retaining clip and connectors confirming to BRS:930, IRS:S-34 and IRS:S-23 [as applicable]. The interlocking code for this unit shall be ABCDE. Inspection: RDSO.	280.00	Numbers		
84	Description:- Relay Non AC immune plug in type Style QN1K DC Neutral line 1000 ohms, 24 V, (8F/8B) contacts, front and back contacts metal to carbon with plug Board, retaining clip and connectors confirming to BRS:930, IRS:S-34 and IRS:S-23 [as applicable]. The interlocking code for this unit shall be ABCDF. Inspection: RDSO.	800.00	Numbers		
85	Description:- Supply of 24 port manageable Layer 3 MPLS switch with 4 Nos of dedicated 10G SFP ports and 24 Nos of SFP ports capable to support 12 nos. optical and 12 nos. electrical ; unit to support AC+DC with all accessories, as per Spec. No. :RDSO/SPN/TC/83/2020 Ver 2.0 or latest. As per TS-04. (Inspection by RITES)	5.00	Numbers		
86	Description:- Installation, Testing and Commissioning of 24 port manageable Layer 3 MPLS switch with 4 Nos of dedicated 10G SFP ports and 24 Nos of SFP ports capable to support 12 nos. optical and 12 nos. electrical; unit to support AC+DC with all accessories as per Spec.No.:RDSO/SPN/TC/83/2020 Ver 2.0 or latest. As per TS-22. Please see Item Breakup for details.	5.00	Numbers		
87	Description:- Construction of Service Building for Automatic signalling work in BKP-MKB section as per Annexure 1.Provision of Auto Hut (14.0x6.75M=94.50 M2) -7 Nos. 2.Provision of Room (4.0x4.0M=16 M2) - 10 Nos. 3.Supply and filling in plinth with sand under floors including watering, ramming consolidating and dressing complete. - 13 Nos. 4.Provision of C.C. Approach Road 3m wide - 7 Nos. Please see Item Breakup for details.				

88	Description:- Electrification of Electrification of Service Building for Automatic signalling work in BKP-MKB section. 1. Electrification of Auto Hut (14.0x6.75M)- 7 Nos. 2. Electrification of Additional Relay Room (4.0x4.0M)- 10 Nos.				
90	Excavation, trenching, earth work and reinstatement of track while track crossing.	300.00	Metre		
91	Reinstatement of platform and repairing to original state after cable laying work.	600.00	Metre		
92	Repair of Pucca Roads to original state in level x-ing area after cable laying works.	600.00	Metre		
93	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. ii) 2 core to 12 core signalling cable. NOTE:- (I) Payment will be made as per actual work done on pro rata basis, if required depth is not available at site (II) If the depth of trench is not uniform in a span of 100 mtr. or shorter length, if site condition demands along the cable run minimum depth will be taken for that particular stretch for payment.	700.00	Kilometre		
94	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. iii) Power Cable. NOTE:- (I) Payment will be made as per actual work done on pro rata basis, if required depth is not available at site (II) If the depth of trench is not uniform in a span of 100 mtr. or shorter length, if site condition demands along the cable run minimum depth will be taken for that particular stretch for payment.	40.00	Kilometre		
95	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. iv) Telecom Cable 5 Prs./10 Prs./Quad NOTE:- (I) Payment will be made as per actual work done on pro rata basis, if required depth is not available at site (II) If the depth of trench is not uniform in a span of 100 mtr. or shorter length, if site condition demands along the cable run minimum depth will be taken for that particular stretch for payment.	250.00	Kilometre		
96	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. Inspection: RITES.	600.00	Metre		
97	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. b) Execution with remaining miscellaneous materials	600.00	Metre		
98	Supply of galvanised iron trunking with cover of same materials as ser DRG. No. SGW/MGS/C7/91 and fixing on girder bridges including supply of channel, angle iron, bracket units, nuts and bolts of proper size & fitting of support at an interval of 1mtr including laying of cables inside the trough & filling with bitumen compound as per spec. no. IRS-TC-25/76 after cable is laid. Bitumen compound and other materials as required for the work shall be supplied by the contractor. a) Supply portion Inspection: RITES.	300.00	Metre		

99	Supply of galvanised iron trunking with cover of same materials as ser DRG. No. SGW/MGS/C7/91 and fixing on girder bridges including supply of channel, angle iron, bracket units, nuts and bolts of proper size & fitting of support at an interval of 1mtr including laying of cables inside the trough & filling with bitumen compound as per spec. no. IRS-TC-25/76 after cable is laid. Bitumen compound and other materials as required for the work shall be supplied by the contractor. b) Execution Portion	300.00	Metre		
100	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. Inspection: RITES.	150.00	Numbers		
101	Supply of enamelled number plate of size 8" Dia (letter in black on white background with complete clamping arrangement - as per Drg. No. RDSO SA -23476 (ADV.). iii) A-Marker Inspection: Consignee	150.00	Numbers		
102	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.	150.00	Numbers		
103	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) Inspection: Consignee.	20.00	Numbers		
104	Supply of PBT ARA terminal block as per IRS Specn. No. IRS:S-75/2006 (Rev-2) i) 6 way (Drawing No. SA-23756 (Alt.-3) Inspection : Consignee.	300.00	Numbers		
105	Supply of PBT ARA terminal block as per IRS Specn. No. IRS:S-75/2006 (Rev-2) ii) 1 way(Small) (M6) (Drawing No. SA-23741 A) (Alt-4) Inspection : Consignee.	1200.00	Numbers		
106	Supply of Bakelite Strip/Sheet of Size (950 x 75 x 12) mm. For fixing 30Nos. ARA terminals/Fuse base terminals/Fuse base. Inspection - Consignee.	1400.00	Numbers		
107	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.	300.00	Numbers		
108	Casting, Concreting and Curing of foundation and erection for Half 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 ii) Bottom of appratus cases should be filled with sand and the top surface covered with masonry work and neat cementing.	15.00	Numbers		
109	Casting, Concreting and Curing of foundation for Quarter Size apparatus case(GKP- type) includong 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 covered with masonry work and neat cementing.	15.00	Numbers		

110	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 miscellaneous 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.)	300.00	Job		
111	Fixing, wiring of terminal strips, bakelite strip, transformers, relays, fuses with base and supply and fixing of shelves for half apparatus case with termination, earthing of cables and wiring with lettering as required including supply of wires 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 to be supplied by the contractor.)	20.00	Job		
112	Fixing of terminal strip, Bakelite strip for JN. Box/ Quarter location Box (GKP type) including all cable termination and earthing of cable complete with lettering as required including supply of miscellaneous materials, sand filling and plastering over sand filling per location. (Materials other than terminal strips, bakelite strip to be supplied by the contractor.)	25.00	Job		
113	Supply of PBT fuse block with inserts cartridge type, to be mounted inside the location Box/Relay Rack. i) Fuses (2A, IRS : S-78/92) Inspection - RDSO.	1800.00	Numbers		
114	Supply of PBT fuse block with inserts cartridge type, to be mounted inside the location Box/Relay Rack. ii) Fuse Base (DRG No. SA - 23748, IRS: S-75/91) Inspection - RDSO.	1200.00	Numbers		
115	Supply of CT rack (DRG. N0. S&T/C-19/2001/ER) complete with all fittings including connect/disconnect terminal block (700 No) as per Spec. No. RDSO/SPN/189/2004. Note: Connect/Disconnect terminals to be inspected by RITES. Inspection : RITES.	16	Numbers		
116	Installation of cable termination Rack with scaffolding materials; ladder for supporting outdoor cable; wire guide; complete with other necessary hardware as per requirements of Rly. & erection materials. (Rate & Station Wise Qty. to be specified by the tenderer.) i) Upto 4 to 5 Line Station	28	Station		
117	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 railway practice. Note i) All the above 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 CD. a) upto 4 line station	20	Job		
118	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 railway practice. Note i) All the above 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 CD. b) 5 to 8 line station.	1	Job		
119	Supply of earth electrode. Materials to be procured as per E.Rly Sketch No. SGW/T/3/G/8/89. Inspection : RITES	500	Numbers		

120	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.	500	Numbers		
121	Supply of electrical key transmitter for crank handle interlocking arrangement siding control, LC Gate control as per yard diagram, approved circuit diagram and IRS Spec.No.IRS-S-21/64.and IRS S-23 (latest) Inspection : RDSO.	30	Numbers		
122	Installation of electrical key transmitter on suitable bracket as per inspection of site engineer., wiring and testing of electrical key transmitter for crank handle arrangement, siding control, LC gate control as per yard diagram approved circuit diagram etc.	30	Numbers		
123	Testing & commissioning of station installed as a whole, Testing shall be carried out by the engineer in charge of work with the help of representative of contractor to ensure compliance of SEM, RE manual & Tender Specification. a) Upto 5 Line station	11	Job		
124	E-type lock (c) Miniature lock. Inspection : Consignee.	15	Numbers		
125	Supply of full size location box as per design of GKP signal workshop, Inspection : RITES.	280	Numbers		
126	Supply of half size location box as per design of GKP signal workshop, Inspection : Consignee.	20	Numbers		
127	Supply of quarter size steel apparatus case GKP type Inspection : Consignee.	25	Numbers		
128	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.	350	cum		
129	Supply of magneto telephones with all accessories including 3 nos. Primary cell, each telephone with wooden battery box. Spec.no.IRS-TC-36/97 for magneto telephone, for primary cell - Spec.no.IRS-S-95/96. Material to be procured from RDSO approved firm only. Inspection - Consignee.	20	Numbers		
130	Supply of Non deteriorating type low voltage cartridge fuse as per Spec. No. IRS/S/78/92. Round head type. 6 Amp. Capacity. Inspection - RDSO.	600	Numbers		
131	Supply of Non deteriorating type low voltage cartridge fuse as per Spec. No. IRS/S/78/92. Round head type. 16 Amp. Capacity Inspection - RDSO.	120	Numbers		
132	Supply of slotted angle (40 x 40 x 2 mm) Inspection - Consignee.	2000	Metre		
133	8Supply of operation aids for station staff a)Godrej Chair model PCH-7002 or better Inspection:Consignee	12	Numbers		
134	8Supply of operation aids for station staff b)Godrej Chair model KES - CH4 as supplied in ECR. Inspection: Consignee	24	Numbers		
135	8Supply of operation aids for station staff c)Godrej Office table model T-8 Inspection: Consignee	24	Numbers		
136	8Supply of operation aids for station staff d)Godrej Slimline storewell Plain of size 1950 mm(H)x 507 mm (D) Approx with four adjustable shelves. Inspection: Consignee	15	Numbers		
137	Painting and numbering of all equipments such as Signals, Shunt Signals/Calling-On Signals, Electric Point machines, Track circuit equipments, Apparatus cases, Rod. runs and its accessories, Junction boxes, Track lead junction boxes including existing gears. Painting shall consist of "2 coats" of "primer" and "3 coats" of "final paint". Note:- Paint should be ISI marked (a) Upto 8 lines stations	2	Station		

138	Painting of two coats of enamel paint over one coat of red oxide primer and there after numbering on the following items after scrapping and cleaning of the surface where ever necessary. Primer and paints both Asian paint make are to be supplied by the contractor. Numbering is as per practice of the ECR and directives of the site Engineer. Location boxes inside and outside surfaces with Aluminium paint. (a) Single case.	350	Numbers		
139	Painting of two coats of enamel paint over one coat of red oxide primer and there after numbering on the following items after scrapping and cleaning of the surface where ever necessary. Primer and paints both Asian paint make are to be supplied by the contractor. Numbering is as per practice of the ECR and directives of the site Engineer. Location boxes inside and outside surfaces with Aluminium paint. 9b) Half case.	15	Numbers		
140	Painting of two coats of enamel paint over one coat of red oxide primer and there after numbering on the following items after scrapping and cleaning of the surface where ever necessary. Primer and paints both Asian paint make are to be supplied by the contractor. Numbering is as per practice of the ECR and directives of the site Engineer. Location boxes inside and outside surfaces with Aluminium paint. (c) Quarter case.	15	Numbers		
141	Painting of two coats of enamel paint over one coat of red oxide primer and there after numbering on the following items after scrapping and cleaning of the surface where ever necessary. Primer and paints both Asian paint make are to be supplied by the contractor. Numbering is as per practice of the ECR and directives of the site Engineer. Location boxes inside and outside surfaces with Aluminium paint. Main signal post, signal unit, surface base and complete fitting as per ECRly standard practice.	180	Numbers		
142	Painting of two coats of enamel paint over one coat of red oxide primer and there after numbering on the following items after scrapping and cleaning of the surface where ever necessary. Primer and paints both Asian paint make are to be supplied by the contractor. Numbering is as per practice of the ECR and directives of the site Engineer. Location boxes inside and outside surfaces with Aluminium paint. Point machine with ground connections complete(Point machine with black enamel only outside and ground connection with red oxide)	15	Numbers		
143	Painting of two coats of enamel paint over one coat of red oxide primer and there after numbering on the following items after scrapping and cleaning of the surface where ever necessary. Primer and paints both Asian paint make are to be supplied by the contractor. Numbering is as per practice of the ECR and directives of the site Engineer. Location boxes inside and outside surfaces with Aluminium paint. Lifting barrier assembly complete.	5	Numbers		
144	Painting of two coats of enamel paint over one coat of red oxide primer and there after numbering on the following items after scrapping and cleaning of the surface where ever necessary. Primer and paints both Asian paint make are to be supplied by the contractor. Numbering is as per practice of the ECR and directives of the site Engineer. Location boxes inside and outside surfaces with Aluminium paint. Installation of magneto telephone with all accessories and rail road dry cells (3 nos.) for each phone with wooden battery box.	20	Numbers		
145	Supply of indoor signalling cable as per IRS-S-76/89. 40c x 0.6 mm Inspection - RDSO.	3000	Metre		

146	Supply of PVC Wire coil of size 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. a)16/0.02 mm (1 lot = 1 coil) Inspection - RDSO.	800	Lot		
147	5Supply of PVC Wire coil of size 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. c)7/0.75 mm (1 lot = 1 coil) Inspection - RDSO.	120	Lot		
148	Supply of prewired Relay Rack as per Drg No. S&T/C- 20/2001 complete with fixing hardware and transformer, fuses with base and fitted with diode , resistance, condensers, terminal strips / tag blocks, bus bar and other equipments (Supplied by firm) required for the approved system design complete with scaffolding materials and required hardware and erection materials. Inspection - RITES. Inspection - RDSO for fuses and base & wires.	18	Numbers		
149	Supply of fail safe electronic time delay device mounted on Q series relay base & covered with fixed timing of 120 sec. As per RDSO Spec.no.IRS-S-61/2000, IRS-S-34 & IRS-S-23 (as applicable). Interlocking code for this relay shall be AFGKY. Inspection - RDSO.	15	Numbers		
150	Relay, AC Immune, plug -in type, Style 'QNA1', DC Neutral line, 24V, 12F/4B contacts front and back contacts metal to carbon with plug board, retaining clip & connectors conforming to BRS: 931A , IRS:S 60, IRS:S 34 & IRS :S 23 (as applicable). The interlocking code for this unit shall be ABDFH. Inspection - RDSO.	280	Numbers		
151	Relay, AC Immune, plug -in type, Style 'QNA1', DC Neutral line, 24V, 8F/8B contacts front and back contacts metal to carbon with plug board, retaining clip & connectors conforming to BRS: 931A , IRS:S 60, IRS:S 34 & IRS :S 23 (as applicable). The interlocking code for this unit shall be ABDGH. Inspection - RDSO.	600	Numbers		
152	Relay plug in type Style 'AC -LIT' All aspect AC lamp proving relay unit with in built current transformer type slow release neutral line relay, 4F.4B contacts, front and back contacts metal to carbon shall be suitable for working in series with 110V/AC LED signal lamp rated at 15 W confirming to RDSO Spec. STS/E/relay/AC lit LED Signal /09 - 2002, BRS:941A IRS:S 34 & IRS:S 23 (As applicable). Inspection - RDSO.	800	Numbers		
153	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 16/0.02mm for relays, 3/0.737 mm for MCB's and 7/0.75 mm for power wiring. Indoor cable 60x0.6mm/40x0.6mm as per IRS-S-76/89 or Latest for interconnection of indication board supplied by firm . Wires shall be procured from RDSO approved firm and inspected by RDSO. Upto 4 lines stations	8	Station		
154	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 16/0.02 mm copper. { Wire PVC 16/0.02 mm copper, paint, soldering materials and all other miscellaneous materials required for the work shall be supplied by the contractor.) Inspection - RDSO for PVC wire.	1200	Numbers		

155	Installation of pre wired relay rack with scaffolding materials ladder as per drawing No. S&T/C/20/2001 fitted with transformer ,fuses, diode , resistance , condensers, terminal strips/ tag block, busbar and other component required for approved system design complete with scaffolding materials and required hardware and erection materials to accomodate 100 relays Note:- Alternate tag block terminals to be used. Ferules to be provided. Fuse blown indication to be provided.	20	Numbers		
156	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.	12000	CORE		
157	Supply of MS number plate (200mmx300mmx3 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. Inspection: consignee.	180	Numbers		
158	Installation, commissioning & testing of LED signals. (Per Function = Per Aspect)	800	Per function		
159	4Dismantling & Releasing of following S&T gears. The work includes transportation of the released material to the store of SSE/SIG/CON/MGS and properly stacking the same in the store. The rate shall cover the cost of tools and plants, ladders, scaffoldings, all other adjuncts required for the works. a)S&T gears in battery room / relay room. This includes all equipments & relays , relay racks , termination board, batteries, battery charger, angle iron etc.	3	Job		
160	4Dismantling & Releasing of following S&T gears. The work includes transportation of the released material to the store of SSE/SIG/CON/MGS and properly stacking the same in the store. The rate shall cover the cost of tools and plants, ladders, scaffoldings, all other adjuncts required for the works. c)Signal post which includes dismantalling of unit, ladder, post base, mounted shunt signals & fittings etc.	30	Per Signal		
161	4Dismantling & Releasing of following S&T gears. The work includes transportation of the released material to the store of SSE/SIG/CON/MGS and properly stacking the same in the store. The rate shall cover the cost of tools and plants, ladders, scaffoldings, all other adjuncts required for the works. f)Lifting barrier gate and its complete fittings.	3	Job		
162	4Dismantling & Releasing of following S&T gears. The work includes transportation of the released material to the store of SSE/SIG/CON/MGS and properly stacking the same in the store. The rate shall cover the cost of tools and plants, ladders, scaffoldings, all other adjuncts required for the works. g)Location boxes/ apratus cases/ J.bboxes which includes releasing of terminal board , relays, terminals, batteries, track feed charger and other concern fittings installed in the locations.	60	Numbers		
163	Supply of Thermo shrink joint kit for 2T joints as per RDSO spec no. IRS:TC-77 -2000 with latest amendment. 6 Quad Inspection-RDSO.	110	Numbers		
164	Installation of Thermo Shrink Jointing Kit as per DOT/Technical Specification with RDSO modification/Termination Joints with VF Transformer on 6 quad Telecom cable.	110	Numbers		

165	Supply and fixing of cable termination box. Spec.no.IRS- TC-18-75 with locking arrangements and termination of derivation cable as per the technical supplements. a) 20 Pairs Inspection: Consignee.	60	Numbers		
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PART-2 SG-W-DNR-OT-04-2023-24

SN	Description	Item Qty	Qty Unit	Unit Rate	Total Amount
01	Description:- "Supply of basic material to construct unit maintenance free earth as per RDSO spec. No. RDSO/SPN /197/2008 with latest amnd or latest, consisting the followings (Inspection:RITES) (i) copper bonded steel electrodes of 3.0 meter long & 17.0 mm dia with Cu-bonding thickness of min. 250 microns and UL listed and marked = 1 no. (ii) Earth enhancement material supplied in sealed bags of min. 10Kgs = 3 nos. (iii) Cu-strip 150 X 25 X 6 mm to terminate earth rod = 1no. (iv) Cu-strip 300 X 25 X 6 mm (MEEB) = 1 no. (v) Cu-strip 150 X 25 X 6 mm (SEEB) = 1 no."	30.00	Set		
02	Description:- Installation of unit earth which includes the followings: (i) digging the earth to the required depth (ii) insertion of electrode (iii) Filling of earth enhancing compound (30Kg) provision of exothermic weld connection on copper tape/bus bar of 25mm X 6mm X 150mm to the earth electrodes all the materials, tools and features required for the weld to be arranged by the contractor-1No. (iv)Trenching , laying & Provision of exothermic weld connecting, one to connect copper tape/ 35 sqmm multi strand single core PVC insulated copper cable to the copper strip/ tape/ busbar welded to the earth electrode and another to the copper tape to be fixed inside the equipment/relay rack /apparatus room as per RDSO's Spec (fixtures for mounting the copper tape inside the relay room, weld materials, tool features and all other materials required for the weld shall be arranged by the contractor. (v)exothermic weld connection, fixing of Cu-strips and routing the cables to bus bar in equipment/relay room (all other materials required for the work shall be borne by the contractor. (vi)construction of concrete inspection chamber as per RDSO Spec. NOTE- Above includes Interconnection of the earthing installed with the already existing erthing electrode, if any, as per site requirement and as per instruction of site incharge.	30.00	Set		
03	Description:- Transportation of materials by 15 MT capacity truck or similar	3000.00	Kilometre		
04	Description:- Transportation of less heavy materials & manpower by supply & running of one MUV to the sites of work as per requirement and direction of Engineer-in-charge along with driver. The rate includes all taxes, licence fee,road permit, driver wages, fuel, repair and maintenance cost etc, complete in all respects.	6000.00	Kilometre		

05	Description:- Loading unloading of heavy S&T materials in 15MT truck.	25.00	Per Trip		
06	Description:- Supply of Disconnect type Terminal,screwless, 2IN 2 OUT (as per spec. no. RDSO/SPN/189/2004 or latest) along with all accessories including separators, shorting link, channel, end stopper for fixing on Cable Termination Rack/Location boxes for Cable Termination Purpose. (Wago or Silzer or LMAX or superior) Inspection - RITES.	9000.00	Numbers		
07	Description:- Supply of PIG tail (10Mtrs long) with SC/LC & LC/LC connector as per tec specification no. G/OFJ - 01/03 Jun'99 with latest amendments.Make -R & M or superior (Inspection - Consignee)	240.00	Numbers		
08	Description:- Supply of Patch Cord (10 Mtrs Long) with SC/LC & LC/LC connector on Both side as per specification No.G/OFJ-01/03 June'99 with latest amendments.Make -R & M or superior (Inspection - Consignee)	140.00	Numbers		
09	Description:- Preperation & printing of Station Working Rule Diagram (SWRD)on AUTO CAD besed on approved SIP, ESP etc. as per the extant practice being followed in E.C. Railway. Contrctor shall supply one print of the SWRD (paper print Size as requird) 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 micorns for signature of all officials. On approval the contractor shall supply 10 copys blue prient of the tracing. The approved SWRD shall be finally supplied on 2 CDs. (Inspection - Consignee)	8.00	Station		
10	Description:- Preparation of Station Working Rule (SWR) in English and Hindi based on approved SIP, ESP etc as per the extent practice being follwed in E. C. Railway. The contractor shall supply two paper print of the SWR as draft for approval and comments .Once the approval is given he shall supply two paper prients of the SWR for final approval and signature of the concerned officials. on obtaining the final approveal 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 on 2 CDs. (Inspection - Consignee)	8.00	Station		
11	Description:- Final location survey of the cable route. Preparation of cable route plan as per technical suppliment mentioned in tender document. The cable route plan to be prepared and submitted on standard polyester flim comprising the details of entire commissioned section. All drawings will be prepared on CAD and shall be submitted to railway for their approval before making the final copy . 6 sets of the plan to be prepared on standard polyester flim and shall be supplied to railway along with soft copy of the plan on CDs. (Inspection - Consignee)	125.00	Route Kilo Meter (RKM)		

12	<p>Description:- Description: Supply of TDR Based Cable fault locator for Metallic cables viz LV Power Cable/Control Cables/ Signaling Cables fault location. Make: Greenlee/ Megger or Superior. IR Kit as per attached annexure 1. Inspection by RITES. Annexure1:- TECHNICAL SPECIFICATION FOR "TELECOM TDR CABLE FAULT LOCATOR</p> <p>SET THE TDR fault locator must be suitable for use by a wide range or operation of all levels or technical knowledge. It must be capable of measuring distance to fault in telecom and signaling cables: Open, short, load coils, bridge taps/laterals, cross, splice/joint faults in copper/ metallic cables. The instrument should be able to locate the following faults: The instrument should have following features: Should have zoom functions- Should measure distance to fault in meters, feet or time - Should have menu push buttons to navigate through the cable length - Facility to select cable type from built in menu or create custom cable types, with present parameters including Vop. Pulse width, VP, gain, and vertical position are automatically selected - Cloning feature: Cable Tables; Settings should be possible to be 'cloned' via SD/USB Card from one TDR unit to another - instrument should contain help button for guiding the operator on control ad displayed values. Physical Specification: Size: >=255 mm x 155 mm x 50mm. Weight: 0.95 kg. Power Supply: :Rechargeable Lithium ion battery pack, Specifications: Test Signal Output ½ Sine Pulse Widths for precision TDR measurement 1 ns Additional pulse widths required 5ns, 25 ns Dead zone 0m, Resolution 0.075m Filtering 1,2,4,8,16,32 Automatic far end detection feature. Should be provided Input Protection +/-400V, DC Display Type Should be "Full Color" LCD display, backlit with display resolution 800x400 or higher Display size >=6.8 inch Operating temperature 0 to 50 deg C Communication interface USB Data Storage >=8GB SD card should be built in to store traces Certified Standard accessories: The equipment should be provided with Test Leads, Soft carrying case with shoulder strap.</p>	4.00	Numbers		
13	<p>Description:- Supply of RFID Electronic cable route tracer / locator with high power 12W transmitter for effective long distance locating, 4 active locating frequencies (577Hz/8kHz/ 33kHz/ 200kHz/ 101.4 khz), depth range up to 3 meter passive power frequency, current and resistance measurement in both transmitter and receiver, super induction mode, with capability of electronic marker locating (both passive and RFID) and sheath fault locating in a single equipment, Marker records, built in GPS Module 4x20 Digit LCD Display & allows software to be downloaded from website, weight less than 2.5 kgs for transmitter as well as receiver, signal current measurement in cable. Inspection- RITES</p>	4.00	Numbers		
14	<p>Description:- Supply and installation of OFC joint enclosure and making straight through joints for 48 fibre cable and testing. This includes splicing and making pits of size 1.2 M dia x 1.2M depth with top cover slab as per drawing. Make -R & M or superior Inspection :- RITES.</p>	90.00	Numbers		

15	Description:- Excavation of trenches including clearing of roots of trees etc. up to a depth of 1.2 Mtr./1.0Mtr. and width of 0.3Mtr. At the bottom in any soil including moorum but excluding hard/rocky soil in the entire section. Back filling and ramming of the soil in the trenches after cable laying/placing HDPE pipe (to be supplied by Rlys.) with GI wire/rope and consolidation of the soil as well as disposal of the soil, if any. 1.2 mtrdepth. NOTE:- (I) Payment will be made as per actual work done on pro rata basis, if required depth is not available at site (II) If the depth of trench is not uniform in a span of 100 mtr. or shorter length, if site condition demands along the cable run average depth will be taken for that particular stretch for payment.	60.00	Kilometre		
16	Description:- 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 01no. Control panel, 01 Flasher, 1no. hooter, 6 nos. smoke detectors, 06 nos heat detector and 01no. Manual call point. Inspection:RDSO	7.00	Numbers		
17	Description:- Supply of split DWC pipe with the socket/couplar and T joint where ever requird, Size of outer dia 250mm/inner dia 217 mm. Inspection: RITES.	9000.00	Metre		
18	Description:- Installation of Split DWC Pipe	9000.00	Metre		
19	Description:- Supply and installation of RFID electronic marker for S&T undergrond cables with programmable memory for saring user specific data inside the RFID electronic marker locator during location 10 digit Hexadecimal ID code, (577Hz/8kHz/ 33kHz/ 200kHz/ 101.4 khz), active/deactive with GPS Module, navigation function to navigating to select RFID marker. Inspection:RITES	1300.00	Numbers		
20	Description:- Supply of hand cuff lock with key. Inspection Consignee.	280.00	Numbers		
21	Description:- Supply of MS flat Galvanised (specification No. 226 STD) of size 35mm x 6 mm with length 5 mtrs with holes of 12mm dia at both ends as per CSTE ER's DRG No. S&T-1/2007. Inspection - Consignee	420.00	Numbers		

22	Description:- Fixing of earth electrode including laying and installation of MS flat size 35mm x 6 mm with length 5 mtrs, as per CSTE ER's DRG No. S&T-1/2007 or latest for apparatus cases, signal post & other equipments as per instruction of site engineer. Provision for fixing MS flat at apparatus cases/signal post/other equipment should be made by the firm at site, full threaded bolts of 10 mm dia and length 40 mm should be welded in the apparatus case in such way that the MS flat at apparatus case end can be fixed from outside or, from inside, welding arrangement with accessories and welding materials should be arranged by the contractor for fixing of bolts at equipment end where required as per instruction of site engineer. All hardware and other miscellaneous materials required for installation to be supplied by the contractor except earth electrodes and MS flat. Note:- All materials required to be arranged by the contractor.	450.00	Numbers		
23	Description:- 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.	22.00	cum		
24	Description:- "Supply and fixing of Early Streamer Emission Lightning conductor (ESEL), with NFC 17-102 standard fully autonomous having lower series of energy collecting electrodes, upper series of Spark-generating electrodes, as inbuilt micro controller for detection of lightning downward leader and releasing upward leader at that very precise moment to ensure nuisance free, fail safe, real need based operation any and every time, with , triggering time of 25 microsecond giving 45 m radius high protection (Inspection: RITES)	6.00	Station		
25	Description:- "Supply and erection of mast/High mast suitable for ESE technology based lightning protection installation, mechanically robust, good corrosion and fire resistance. 5 meter (Including 2 meter FRP) long. GI/MS painted along with guying kit, foundation and other accessories required for installations of the mast. (Inspection:- Consignee)	6.00	Station		
26	Description:- "Supply and laying of 70 sq mm PVC insulated flexible tinned electrolytic copper down conductor placed in a metallic/PVC protective covering wherever exposed to human intervention including saddles and all accessories etc. as required. (Inspection:-Consignee)	150.00	Metre		
27	Description:- Supply & installation of resettable 6 digit LCD lighting strobe recorder/transient event counter with 10 year long life lithium battery in an all weather proof box of IP67 grade protection along with clamps etc. as required. Inspection: RITES	9.00	Station		
28	Description:- 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. Inspection : RITES	1500.00	Numbers		
29	Description:- Supply Power cable PVC 10 sq. mm dia Copper as per IS: 694. Inspection:- RITES	4.00	Kilometre		

30	<p>Description:- 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. Inspection:- RITES, Note:- 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.</p>				
31	<p>Description:- 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 2inchx1 inch) and mounting bracket with U-clamps nuts & washer. All drawings should be as per latest. Note:- Inspection by RITES (for value of material above Rs.5 lac). Inspection by consignee (for value of material below than Rs. 5 lac). Note:- 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.</p>				
32	<p>Description:- Installation, Erection, paying out of tail cable from location box and wiring of shunt signal, LED unit on the same post below the main signal 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. FRP unit - Inspection by Consignee. Base & post - Inspection by Consignee. Note:- 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.</p>				

33	<p>Description:- 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 SPEWC 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, Inspection - RITES Note:- 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.</p>				
34	<p>Description:- Design, fabrication and supply of Fuse Auto Changeover System for 32 Nos. of external non-deteriorating type fuses or 'G' type fuses from 0.6A Amp to 4A Amp capacities used in signalling circuits. System shall have 8 cards with monitoring arrangement of 4 fuses in one card. As per RDSO Spec.RDSO/SPN/209/2012 Ver.2.0 or latest amendment if any.(Inspection by RDSO) (Unit-No. of Modules) and (b) Wiring, fixing & commissioning of modules of fuse 0.6 to 4 Amp. rating alarm system having change over arrangement and potential free contact wiring at Datalogger IDF. etc. as per instructions of Railway Engineer (Module fo 32 nos. fuses) (Unit-No of modules) Inspection: Consignee.</p>				
35	<p>Description:- Supply, Installation, wiring, testing and commissioning of Signal Post Telephone (SPT)Two-wire talk back system for ABS working on 110v AC/12v DC consisting of One MASTER and One SLAVE unit. (Inspection: Supply-RITES, Installation- Site Incharge)</p>	2.00	Numbers		

36	<p>Description:- SUPPLY, TRANSPORTATION, INSTALLATION & COMMISSIONING ELECTRICALLY OPERATED LIFTING BARRIER SET as per Spec. no. RDSP/SPN/208/2012 Ver. 2.0 or latest EACH CONSISTING OF 2 NOS. OF LIFTING BARRIER PEDESTALS, EACH WITH MIN. 6 CONTACT CIRCUIT CONTROLLER WITH TOP ROLLER TYPE LIMIT SWITCHES, HAND CRANK, 2 ELECTRIC MOTORS, 110VAC OF CAPACITY SUITABLE TO OPERATE BARRIERS UPTO 32' LONG BOOMS, 2 NOS. OF STEEL OCTAGONAL BOOMS OF 32' LENGTH WITH 2 NOS. STOP BOARDS. BOOM LIGHT BOXES, MS COUNTER WEIGHTS AND 2 NOS. OF BOOM SUPPORT WITH SUITABLE BOOM LOCKING BUT WITHOUT FRINGES ALONG WITH CONTROL PANEL WITH BUTTONS AND INDICATING LAMPS, MOTOR CONNECTORS AND MCB TO OPERATE 2 BARRIERS OF 1 SET. THIS INCLUDES SUPPLY AND INSTALLATION OF GATE HOOTER - 1 NO. AND HORN (8 WATT) - 1 NO. WITH ALL FIXING ARRANGEMENTS . ALL OF THE ABOVE ITEMS INCLUDING SUPPLY OF CEMENT, CIVIL WORK MATERIALS ETC. SHALL BE DONE BY THE CONTRACTOR FOR COMMISSIONING. 230VAC SUPPLY ONLY SHALL BE ARRANGED BY THE RAILWAY IN NEAR BY RELAY ROOM.(Complete set)</p> <p>Inspection: RDSO</p>				
37	<p>Description:- SUPPLY & INSTALLATION OF SLIDING BOOM GATE AS PER E.RLY SIGNAL WORKSHOP/HWHS DWG NO. BSA/29/730.BSA/29/731 & BSA/29/737. THIS INCLUDES SUPPLY OF 8 NOS. 'E' TYPE LOCK WITH KEY AS PER IRS SPEC. IRS:S-30/64 WITH LATST AMENDMENT . KEY LOCK E TYPE AS PER DRAWING NO. SA-3376/M WITH LATEST AMENDMENT, KEY FOR E TYPE LOCK AS PER DRAWING NO. 3377/M WITH LATEST AMENDMENT WARD NO. TO BE FIXED ON MS PLATE AS MENTIONED IN THE DRAWING.</p> <p>Inspection: RITES</p>	5.00	Set		
38	<p>Description:- CASTING CONCRETING & CURING OF FOUNDATION (1:3:6) FOR SLIDING GATE AS PER DWG. NO. SGW-SDAH / SLIDING GATE FOUNDATION / 2012 INCLUDING SUPPLY & FIXING OF HOLDING DOWN BOLTS WITH WASHERS AND NUTS , MS PLATES OF SIZE 350 MM X 350MM X 8 MM, CEMENT ETC 10 FOUNDATIONS REQUIRED IN EACH SET OF GATE.</p>	5.00	Set		
39	<p>Description:- INSTALLATION & COMMISSIONING OF SLIDING BOOM GATE . THIS INCLUDES LEVELLING , FIXING OF SLIDING BOOM WITH FIXING OF E TYPE LOCK ETC. NOTE ALL MATERIALS EXCEPT SLIDING BOOM GATE TO BE SUPPLIED BY THE CONTRACTOR.</p>	5.00	Set		
40	<p>Description:- Supply & Installation of Earth Leakage detector 8 channel as per RDSO/SPN/256/2002 or latest with 6 digit counter (in 19' Sub Rack with insulation tester). Insepection - RDSO</p>	6.00	Numbers		

41	Description:- Supply of LC Gate Road user warning alarm hooter along with accessories. Inspection - CONSIGNEE	5.00	Numbers		
42	Description:- "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, 4 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. Inspection:- RITES, Note:- 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) Supply	130.00	Numbers		
43	Description:- "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, 4 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. Inspection:- RITES, Note:- 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." (ii) Execution	130.00	Numbers		
44	Description:- SUPPLY AND INSTALLATION OF LED TYPE TABLE MOUNTING GATE CONTROL-CUM-INDICATION PANEL OF REQUIRED SIZE AS PER SITE ENGINEER AND AS PER SIGNALLING PLAN INCLUDING SUPPLY OF WOODEN TABLE (HARD WOOD) OF STANDARD HEIGHT FOR MOUNTING OF PANEL, CABLE ENTRY IN PANEL WITH 50 MM DIA GALLANT. NOTE- GATE PANEL SHOULD HAVE BUTTON OPERATION FOR GATE CLOSE & OPEN INSTEAD OF SWITCH. THE SWITCH FOR SIGNAL OPERATION PREFERABLY SHOULD HAVE 2NC/2RC CONTACT. Inspection:-Consignee	5.00	Numbers		
45	Description:- Supply and fixing of fire Extinguisher (Capacity - 1Kg) (Inspection -Consignee)	7.00	Numbers		
46	Description:- supply of fusion splicing fully automatic PTC Micro processor controlled (ARC Fusion) as per spec No. g/osm/01.02 with latest amendment, Make -Fujikura model 88S or superior Inspection: Consignee	2.00	Set		

47	Description:- Supply of OFC tool kit with testing measuring instrument with accessories. (Optical Power Meter, Visual Fault Locator, Fibre tool kit etc.), inspection: Consignee	4.00	Set		
48	Description:- Laying of Optical Fibre Cable through HDPE pipe/Telecom Duct for by Blowing as per detail in Technical specification Enclosed and Advice by site Engineer.	20.00	Kilometre		
49	Description:- SUPPLY AND INSTALLATION OF OFC FIBRE DISTRIBUTION FRAME AS PER SPEC. DOT/G/FDF-01/01,JAN -93 OR LATEST AND SPLICING OF OFC INSIDE THE TERMINATION BOX WITH PROVISION OF TAKING OUT FIBERS OF OFC AS REQUIRED AND TESTING OF ALL FIBRE.THIS INCLUDES SUPPLY AND FIXING OF HARD WOOD BOARD OF SIZE. 3FT X 5FT X 1.5 IN.WITH WALL FIXING ARRANGEMENTS AND ALL ACCESSORIES, I.E PIGTAIL CABLE WITH FC/PC CONNECTORS, FDF ETC. AS REQUIRED. WORK WILL DONE AS PER TECHNICAL SUPPLEMENT AND AS PER ADVISE OF SITE ENGINEER. Inspection: Make -R & M or superior Inspection - Consignee	60.00	Numbers		
50	Description:- Supply and placing of Polyolefin Injection Molded Plastic Cable ducts of size, Width 240/340mm, Height 155/230mm internal/external, length 1 Metre, produced of POLYOLEFIN with fire protection class K1 in accordance with DIN53438 Pt.II for laying signing/telecom cables, channel attachable to each other with male/female swallow tail connectors and having suitable detachable cover. The plastic cable trays/ducts, technical specifications and testing procedures as per RDSO Letter No.-STS/E/Cable-Laying Practices Vol-IV d dated 09.05.2018 and material should be procured only through RDSO approved firm as per RB's Policy Circular No. 02/2023 dt.07.08.23. Inspection: RITES	3500.00	Metre		
51	Description:- Installation, Testing and Commissioning of the Display arrangements at Non-Vital Mux modules (supplied against Item No. 58 above) at the SM's Room/Cabin of Station with drawing, as per the instruction of Railway site engineer.	12.00	Set		
52	Description:- Supply and installation 55-inch UHD Monitor 4K with following specifications: Display Size: 55 inch Screen Type: LED, Smart TV: YES, Resolution Standard: 4K (UHD), Resolution (pixels): 3840x2160, No of HDMI Port: 2 or more, No of USB Port: 2 latest or more, Built in Wi-Fi: YES, Ethernet (RJ45): 1 or more, Analog Audio Input: YES, Speaker Output RMS: 20 W or higher, Remote: YES, Android App support - YES, Operating System Present: Android, Screen Mirroring: YES, Supported Video Formats:MPEG1/ MPEG2TS/AVCHD/MP4/AVI/ WMV/LPCM/MP3/WMA/JPEG or any other.	2.00	Numbers		

53	<p>Description:- Supply and installation 32-inch UHD Monitor 4K with following specifications: Display Size: 32 inch Screen Type: LED, Smart TV: YES, Resolution Standard: 4K (UHD), Resolution (pixels): 3840x2160, No of HDMI Port: 2 or more, No of USB Port: 2 latest or more, Built in Wi-Fi: YES, Ethernet (RJ45): 1 or more, Analog Audio Input: YES, Speaker Output RMS: 20 W or higher, Remote: YES, Android App support - YES, Operating System Present: Android, Screen Mirroring: YES, Supported Video Formats:MPEG1/MPEG2TS/AVCHD/MP4/AVI/WMV/LPCM/MP3/WMA/JPEG or any other.</p>	4.00	Numbers		
54	<p>Description:- Modification and alteration to Existing Inter connection wiring with ladder arrangement from power supply of equipment to relay rack. IPS, Data Logger, Control Panel, Block instrument, CTR etc. It also includes interconnection wiring with ladder arrangement between relay rack, CTR, indication board and block intruments. Its also includes termination of cables/wires on all the above and dressing buntching etd. as required at site wire shall be 16/0.02 mm for relays, 3/0.737 mm for MCBs 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 supplied by firm. wires shall be procured from RDSO approved firm and inspected by RDSO. all above material will be supplied by firm.</p>	4.00	Numbers		
55	<p>Description:- Earthing of SSI equipments , relay racks , power equipments etc. to be done along with the supply of all requisite stores as per latest Guidelines of RDSO & Railway Board.</p>	2.00	Station		
56	<p>Description:- Round the clock maintenance of the entire system after commissioning of concern Auto Section (For Shift: 01 Supervisor, 02 Artisen staff along with Railway material for smooth maintenance of entire system)</p>	90.00	Man-Days		
57	<p>Description:- Relay AC Immune plug in type Style QNNA1 DC Neutral line, 24V, 2x6F, 2B contacts each for LH and RH, front and back contacts metal to carbon with plug board, retaining clip and connectors confirming to BRS:960, IRS: S 60-78, IRS:S-34 and IRS:S-23 [as applicable]. The interlocking code for this unit shall be CDEHX. Firm's offer:Relay, AC Immune, plug-in-type, Style 'QNNA1', Twin DC neutral line, 24V, 6F.2B contacts each for LH and RH front and back contacts metal to carbon, complete with plug-board retaining clip and connectors to BRS:960, IRS:S 60, IRS:S 34 & IRS:S 23 (as applicable). Inspection: RDSO</p>	40.00	Numbers		
58	<p>Description:- For Track Crossing:- Boring & trenchless cabling alongwith supply & insertion of HDPE self lubricated pipe as RDSO Spec.No.RDSO/SPN/204/2011 Version.1.1 of 110 mm outer Dia & 100 mm inner Dia with 10 mm wall thickness in Bore for laying of signalling/ Telecom/Power Cable under Track/Road/Culvert etc. Cable Laying convered. Inspection FOR PIPE: RITES .</p>	1300.00	Metre		

59	<p>Description:- Supply of OFC Hybrid Multi service 19" rack mountable device IPV6 ready with Auto Change Over feature V.21/V/23 interface device supporting OSPF / IS-IS/ BGP / LDP & L2 /L3 features for switch and PDH / El facility MPLS PDMUJX . LVCD/Digital Axle Counter /MSDAC purpose with four tributary slots & front panel Quad indication status vide LEDs, Optical support vide 4 SFP port supporting TDMoIP / IPMPLS in the unit supporting dual core OFC and Four 100/1000mbps Ethernet port (POE required at site supporting 802.3af / at) for surveillance/smoke detector,optical SFP ports provided distance support to be 20 KMs, unit to have two E&M card / module each card / module supporting four 2W/4W configurable & four quad port 2W/4W or each module without change over feature of 8 port E&M as per site condition. Each port configurable to support axle counter/UFSBI/control phone/EC/RTU and one telnet/SNMP port, unit to support 04 El ports in addition to 04 El ports for internal mapping of PDH time slots & SFP ports of TDMoIP/ IPMPLS dual DC power supply 48VDC VDC support , unit to support change over mechanism automatic between E&M (V.21) to El port & optical fiber TDMoIP (SFP) & quad path for E&M interface option, cable to be provided along with each E&M module . Equipment should be able integrate with direct optical fibre & STM El & IPMPLS 1Gbps ports FABIO 2CX+/OFC/ DC & module 2W/4W four port E&M(1+1) protection, the unit to be able to integrate on 1Gbps with IPMPLS devices and can be networked ; Voice Module 10 port FXO : 01 number , 10 port FXS unit to be capable to accommodate and map on El or 1Gbps as required Make:-FABIO 2CX + / RAD / CISCO / WAVES /TANSY or similar (Inspection by RITES)</p>	12.00	Set		
60	<p>Description:- Installation of Integrated Multiplexer supplied above (S.N./74).</p>	12.00	Numbers		
61	<p>Description:- Supply of Apparatus Case (Full) FRP type as per RDSO spec. no.RDSO/SPN/194/2006 and RDSO Drg. No.S 11500 or latest. Inspection: RITES</p>	18.00	Numbers		
62	<p>Description:- Modification in Domino type Control Cum Indication Panel of station in connection with conversion of UP & DN main line signals including supply of required nos. of Domino Units with Top cover plate, top plate with Buttons, Panel Indication LEDs of required colours as per approved Panel Diagram including panel wirings.</p>	3.00	Numbers		
63	<p>Description:- Supply of 'A'/AG' LED Signal lighting unit retrofittable in existing CLS housing and compatible with AC LED ECR (as per spec.no.RDSO/SPN/199/2010 Rev.1.1 or latest with Brackets & fixing accessories. Inspection: RDSO</p>	150.00	Job		
64	<p>Description:- Fixing of Calling on Signal/A-Sign/AG-Sign unit on signal post including guard repeater signal. The item includes fixing of calling on signal/A-Sign/AG-Sign unit on signal post with Bracket, Hood etc. Item includes supply of bracket & fixing materials etc. by the contractor. The item also includes termination of cable & wiring of inside Calling on/A-Sign/AG-Sign unit as per standard practice.</p>	150.00	Job		

65	Description:- Supply of Mini DCDP Box as per existing IPS available at concern stations containing 6 Nos. 24-40 V/05 Amp and 6 Nos. 24-32 V/05 Amp DC-DC Converter having Tech. Spec.No. RDSO/SPN/165/2012 or Latest. Note:- Supply to be made in such a way that output of 3 converter is connected at one terminals block. (Inspection: RDSO)	6.00	Numbers		
66	Description:- Supply of covered 19" Rack 42 U complete with all fittings for housing the telecom equipment's. The Components of Rack are Specified Below :-(i) Rack size 2200 HX 600 WX 600 D (ii) Fixed side panels 42U X 600 D (iii) Front glass door plain 42U X 600D (iv) Rear MS door plain 42 U X 600W (v) Levelling screws-4 Nos. (vi) Compact Fan Module working with 48 V DC- 2 Nos. (vii) Earth connecting kit- 1 No. (viii) Caster with breaks- 04 Nos Inspection: Consignee.	6.00	Numbers		
67	Description:- Relay Non AC immune plug in type Style QN1K DC Neutral line 1000 ohms, 24 V, (12F/4B) contacts, front and back contacts metal to carbon with plug Board, retaining clip and connectors confirming to BRS:930, IRS:S-34 and IRS:S-23 [as applicable]. The interlocking code for this unit shall be ABCDE. Inspection: RDSO.	200.00	Numbers		
68	Description:- Relay Non AC immune plug in type Style QN1K DC Neutral line 1000 ohms, 24 V, (8F/8B) contacts, front and back contacts metal to carbon with plug Board, retaining clip and connectors confirming to BRS:930, IRS:S-34 and IRS:S-23 [as applicable]. The interlocking code for this unit shall be ABCDF. Inspection: RDSO.	700.00	Numbers		
69	Description:- Supply of 24 port manageable Layer 3 MPLS switch with 4 Nos of dedicated 10G SFP ports and 24 Nos of SFP ports capable to support 12 nos. optical and 12 nos. electrical ; unit to support AC+DC with all accessories, as per Spec. No. :RDSO/SPN/TC/83/2020 Ver 2.0 or latest. As per TS-04. (Inspection by RITES)	10.00	Numbers		
70	Description:- Installation, Testing and Commissioning of 24 port manageable Layer 3 MPLS switch with 4 Nos of dedicated 10G SFP ports and 24 Nos of SFP ports capable to support 12 nos. optical and 12 nos. electrical; unit to support AC+DC with all accessories as per Spec.No.:RDSO/SPN/TC/83/2020 Ver 2.0 or latest. As per TS-22.	10.00	Numbers		
71	Description:- Cost of Service Building for Automatic signalling work in MKB-JAJ section as per Annexure 1. 1. Provision of Auto Hut (14.0x6.75M=94.50 M2) -7 Nos. 2.Provision of Room (4.0x4.0M=16 M2) - 10 Nos. 3.Supply and filling in plinth with sand under floors including watering, ramming consolidating and dressing complete. - 13 Nos. 4.Provision of C.C. Approach Road 3m wide - 7 Nos.				
72	Description:- Electrification of Service Building for Automatic signalling work in MKB-JAJ section as per Annexure. 1. Electrification of Auto Hut (14.0x6.75M)- 7 Nos. 2. Electrification of Additional Relay Room (4.0x4.0M)- 10 Nos.				

73	Description:- Major Relay base plate complete with amphanols, code pins, fixing screws etc.suitable for Metal to Metal K-50 mini groups/ECRs of Siemens Make or functional equivalent of other makes. Note : Relay base plates, are to be procured from Relay manufacturer(OEM). Manufacturer's Certificate for procurement and guarantee in this regard should be furnished. The payment to be released only after Manufacturer's Certificate is submitted. (Inspection by RDSO)	10.00	Numbers		
74	Description:- Supply of Signal Group, 4 Aspect Siemens make (No. A-RT-RG-A057) or functional equivalent without base plates.(Inspection by RDSO)	15.00	Numbers		
75	Description:- Supply of Plug In type Relay Metal to Metal type neutral relay mini groups (Non AC Immunised) Siemens make (No. RSSK 30/0011) (Ref. IRS:S46/74 with Amd. 1 & firms specification) or functional equivalent without base plates.Contact configuration 5F/3B or 6F/2B or 4F/4B to be specified by Engineer incharge. (Inspection by RDSO)	100.00	Numbers		
76	Excavation, trenching, earth work and reinstatement of track while track crossing.	200	Metre		
77	Reinstatement of platform and repairing to original state after cable laying work.	400	Metre		
78	Repair of PUCCA Roads to original state in level x-ing area after cable laying works.	400	Metre		
79	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. ii) 2 core to 12 core signalling cable. NOTE:- (I) Payment will be made as per actual work done on pro rata basis, if required depth is not available at site (II) If the depth of trench is not uniform in a span of 100 mtr. or shorter length, if site condition demands along the cable run minium depth will be taken for that particular stretch for payment.	450	Meter		
80	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. iii) Power Cable. NOTE:- (I) Payment will be made as per actual work done on pro rata basis, if required depth is not available at site (II) If the depth of trench is not uniform in a span of 100 mtr. or shorter length, if site condition demands along the cable run minium depth will be taken for that particular stretch for payment.	30	Metre		
81	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. iv) Telecom Cable 5 Prs./10 Prs./Quad NOTE:- (I) Payment will be made as per actual work done on pro rata basis, if required depth is not available at site (II) If the depth of trench is not uniform in a span of 100 mtr. or shorter length, if site condition demands along the cable run minium depth will be taken for that particular stretch for payment.	200	Metre		

82	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 metallised road/ L -Xing /Culvert as per technical specification of tender. a) Supply portion for the G. I. Pipe & collars. Inspection: RITES.	400	Metre		
83	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 metallised road/ L -Xing /Culvert as per technical specification of tender. b) Execution with remaining miscellaneous materials	400	Metre		
84	Supply of galvanised iron trunking with cover of same materials as ser DRG. No. SGW/MGS/C7/91 and fixing on girder bridges including supply of channel, angle iron, bracket units, nuts and bolts of proper size & fitting of support at an interval of 1mtr including laying of cables inside the trough & filling with bitumen compound as per spec. no. IRS-TC-25/76 after cable is laid. Bitumen compound and other materials as required for the work shall be supplied by the contractor. a) Supply portion Inspection: RITES.	700	Metre		
85	Supply of galvanised iron trunking with cover of same materials as ser DRG. No. SGW/MGS/C7/91 and fixing on girder bridges including supply of channel, angle iron, bracket units, nuts and bolts of proper size & fitting of support at an interval of 1mtr including laying of cables inside the trough & filling with bitumen compound as per spec. no. IRS-TC-25/76 after cable is laid. Bitumen compound and other materials as required for the work shall be supplied by the contractor. b) Execution Portion	700	Metre		
86	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. Inspection: RITES.	140	Numbers		
87	Supply of enamelled number plate of size 8" Dia (letter in black on white background with complete clamping arrangement - as per Drg. No. RDSO SA -23476 (ADV.). iii) A-Marker Inspection: Consignee	140	Numbers		
88	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.	140	Numbers		
89	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) Inspection: Consignee.	15	Numbers		
90	Supply of PBT ARA terminal block as per IRS Specn. No. IRS:S-75/2006 (Rev-2) i) 6 way (Drawing No. SA-23756 (Alt.-3) Inspection : Consignee.	220	Numbers		
91	Supply of PBT ARA terminal block as per IRS Specn. No. IRS:S-75/2006 (Rev-2) ii) 1 way(Small) (M6) (Drawing No. SA-23741 A) (Alt-4) Inspection : Consignee.	800	Numbers		

92	Supply of Bakelite Strip/Sheet of Size (950 x 75 x 12) mm. For fixing 30Nos. ARA terminals/Fuse base terminals/Fuse base. Inspection - Consignee.	1200	Numbers		
93	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.	255	Numbers		
94	Casting, Concreting and Curing of foundation and erection for Half 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 ii) Bottom of appratus cases should be filled with sand and the top surface covered with masonry work and neat cementing.	28	Numbers		
95	Casting, Concreting and Curing of foundation for Quarter Size apparatus case(GKP- type) includong 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 covered with masonry work and neat cementing.	31	Numbers		
96	Fixing, wiring of terminal strips, bakelite strip, transformers,relays fuses with base and supply and fixing of shelves for full appratus case with termination earthing of cable and wiring with lettering as required including supply of wires and miscellenous 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 spplied by the contractor.)	250	Numbers		
97	Fixing, wiring of terminal strips, bakelite strip, transformers, relays,fuses with base and supply and fixing of shelves for half apparatus case with termination, earthing of cables and wiring with lettering as required including supply of wires and miscellenous materials, sand filling and plastering over sand filling per location. (Materials other than transformers, relay, terminal strips, bakelite strip and fuses with base to be supplied by the contractor.)	20	Numbers		
98	Fixing of terminal strip, Bakelite strip for JN. Box/ Quarter location Box(GKP type) including all cable termination and earthing of cable complete with lettering as required including supply of miscellenous materials, sand filling and plastering over sand filling per location.(Materials other than terminal strips, bakelite strip to be supplied by the contractor.)	25	Numbers		
99	Supply of PBT fuse block with inserts cartridge type, to be mounted inside the location Box/Relay Rack. I) Fuses (2A, IRS : S-78/92) Inspection - RDSO.	1490	Numbers		

100	Supply of PBT fuse block with inserts cartridge type, to be mounted inside the location Box/Relay Rack. ii) Fuse Base (DRG No. SA - 23748, IRS: S-75/91) Inspection - RDSO.	1100	Numbers		
101	Supply of CT rack (DRG. N0. S&T/C-19/2001/ER) complete with all fittings including connect/disconnect terminal block (700 No) as per Spec. No. RDSO/SPN/189/2004. Note: Connect/Disconnect terminals to be inspected by RITES. Inspection : RITES.	12	Numbers		
102	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 . (Rate & Staion Wise Qty. to be specified by the tenderer.) i) Upto 4 to 5 Line Station	24	Station		
103	Preparation of cable route plan, cable core chart, power supply layout, cabletermination chart in relay room and location box.Location wiring plan, cable insulation chart, fuse analysis, equipment dispositionplan, track bonding plan, as per railwayspractice. NoteI) All the above plans to be submitted in polyester film tracing tothe railways along with 6 sets of ferro prints of the above.The diagrams/plans should also be submitted in CD. a) upto 4 line station	16	Job		
104	Preparation of cable route plan, cable core chart, power supply layout, cabletermination chart in relay room and location box.Location wiring plan, cable insulation chart, fuse analysis, equipment dispositionplan, track bonding plan, as per railwayspractice. NoteI) All the above plans to be submitted in polyester film tracing tothe railways along with 6 sets of ferro prints of the above.The diagrams/plans should also be submitted in CD. b) 5 to 8 line station.	2	Job		
105	Supply of . Materials to be procured as per E.RlySketch No. SGW/T/3/G/8/89. Inspection : RITES	450	Numbers		
106	Fixing of Earth electrode including earth wire as per DRG. No. S&T/C-41 (NKG) for aparatus cases, signal p o st 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.	450	Numbers		
107	Supply of electrical key transmitter for crank handle interlocking arrangement siding control, LC Gate control as per yard diagram,approved circuit diagram and IRS Spec.No.IRS-S-21/64.and IRS S-23 (latest) Inspection : RDSO.	40	Numbers		
108	Installation of electrical key transmitter on suitable bracket as per inspection of site engineer., wiring and testing of electrical key transmitter for crank handle arrangement, siding control, LC gate control as per yard diagram approved circuit diagram etc.	40	Numbers		
109	Testing & commissioning of station installed as a whole, Testing shall be carried out by the engineer in charge of work with the help of representative of contractor to ensure compliance of SEM, RE manual & Tender Specification. a) Upto 5 Line station	11	Job		

110	E-type lock (c) Miniature lock. Inspection : Consignee.	15	Numbers		
111	Supply of full size location box as per design of GKP signal workshop, Inspection : RITES.	240	Numbers		
112	Supply of half size location box as per design of GKP signal workshop, Inspection : Consignee.	20	Numbers		
113	Supply of quarter size steel apparatus case GKP type Inspection : Consignee.	25	Numbers		
114	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.	250	cum		
115	Supply of magneto telephones with all accessories including 3 nos. Primary cell, each telephone with wooden battery box. Spec.no.IRS-TC-36/97 for magneto telephone, for primary cell - Spec.no.IRS-S-95/96. Material to be procured from RDSO approved firm only. Inspection - Consignee.	12	Numbers		
116	Supply of Non deteriorating type low voltage cartridge fuse as per Spec. No. IRS/S/78/92. Round head type. 6 Amp. Capacity. Inspection - RDSO.	400	Numbers		
117	Supply of Non deteriorating type low voltage cartridge fuse as per Spec. No. IRS/S/78/92. Round head type. 16 Amp. Capacity Inspection - RDSO.	80	Numbers		
118	Supply of slotted angle (40 x 40 x 2 mm) Inspection - Consignee.	1500	Metre		
119	8Supply of operation aids for station staff a)Godrej Chair model PCH-7002 or better Inspection:Consignee	8	Numbers		
120	8Supply of operation aids for station staff b)Godrej Chair model KES - CH4 as supplied in ECR. Inspection: Consignee	26	Numbers		
121	8Supply of operation aids for station staff c)Godrej Office table model T-8 Inspection: Consignee	15	Numbers		
122	8Supply of operation aids for station staff d)Godrej Slimline storewell Plain of size 1950 mm(H)x 507 mm (D) Approx with four adjustable shelves. Inspection: Consignee	11	Numbers		
123	Painting and numbering of all equipments such as Signals, Shunt Signals/Calling-On Signals, Electric Point machines, Track circuit equipments, Apparatus cases, Rod. runs and its accessories, Junction boxes, Track lead junction boxes including existing gears. Painting shall consist of "2 coats" of "primer" and "3 coats" of "final paint". Note:- Paint should be ISI marked (a) Upto 8 lines stations	2	Station		
124	Painting of two coats of enamel paint over one coat of red oxide primer and there after numbering on the following items after scrapping and cleaning of the surface where ever necessary. Primer and paints both Asian paint make are to be supplied by the contractor. Numbering is as per practice of the ECR and directives of the site Engineer. Location boxes inside and outside surfaces with Aluminium paint. (a) Single case.	250	Numbers		

125	Painting of two coats of enamel paint over one coat of red oxide primer and there after numbering on the following items after scrapping and cleaning of the surface where ever necessary. Primer and paints both Asian paint make are to be supplied by the contractor. Numbering is as per practice of the ECR and directives of the site Engineer. Location boxes inside and outside surfaces with Aluminium paint. 9b) Half case.	10	Numbers		
126	Painting of two coats of enamel paint over one coat of red oxide primer and there after numbering on the following items after scrapping and cleaning of the surface where ever necessary. Primer and paints both Asian paint make are to be supplied by the contractor. Numbering is as per practice of the ECR and directives of the site Engineer. Location boxes inside and outside surfaces with Aluminium paint. (c) Quarter case.	10	Numbers		
127	Painting of two coats of enamel paint over one coat of red oxide primer and there after numbering on the following items after scrapping and cleaning of the surface where ever necessary. Primer and paints both Asian paint make are to be supplied by the contractor. Numbering is as per practice of the ECR and directives of the site Engineer. Location boxes inside and outside surfaces with Aluminium paint. Main signal post, signal unit, surface base and complete fitting as per ECRL standard practice.	120	Numbers		
128	Painting of two coats of enamel paint over one coat of red oxide primer and there after numbering on the following items after scrapping and cleaning of the surface where ever necessary. Primer and paints both Asian paint make are to be supplied by the contractor. Numbering is as per practice of the ECR and directives of the site Engineer. Location boxes inside and outside surfaces with Aluminium paint. Point machine with ground connections complete(Point machine with black enamel only outside and ground connection with red oxide)	10	Numbers		
129	Painting of two coats of enamel paint over one coat of red oxide primer and there after numbering on the following items after scrapping and cleaning of the surface where ever necessary. Primer and paints both Asian paint make are to be supplied by the contractor. Numbering is as per practice of the ECR and directives of the site Engineer. Location boxes inside and outside surfaces with Aluminium paint. Lifting barrier assembly complete.	5	Numbers		
130	Painting of two coats of enamel paint over one coat of red oxide primer and there after numbering on the following items after scrapping and cleaning of the surface where ever necessary. Primer and paints both Asian paint make are to be supplied by the contractor. Numbering is as per practice of the ECR and directives of the site Engineer. Location boxes inside and outside surfaces with Aluminium paint. Installation of magneto telephone with all accessories and rail road dry cells (3 nos.) for each phone with wooden battery box.	12	Numbers		

131	Supply of indoor signalling cable as per IRS-S-76/89. 40c x 0.6 mm Inspection - RDSO.	2500	Metre		
132	Supply of PVC Wire coil of size 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. a)16/0.02 mm (1 lot = 1 coil) Inspection - RDSO.	700	Lot		
133	5Supply of PVC Wire coil of size 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. c)7/0.75 mm (1 lot = 1 coil) Inspection - RDSO.	105	Lot		
134	Supply of prewired Relay Rack as per Drg No. S&T/C-20/2001 complete with fixing hardware and transformer, fuses with base and fitted with diode , resistance, condensers, terminal strips / tag blocks, bus bar and other equipments (Supplied by firm) required for the approved system design complete with scaffolding materials and required hardware and erection materials. Inspection - RITES. Inspection - RDSO for fuses and base & wires.	15	Numbers		
135	Supply of fail safe electronic time delay device mounted on Q series relay base & covered with fixed timing of 120 sec. As per RDSO Spec.no.IRS-S-61/2000, IRS-S-34 & IRS-S-23 (as applicable). Interlocking code for this relay shall be AFGKY. Inspection - RDSO.	10	Numbers		
136	Relay, AC Immune, plug -in type, Style 'QNA1', DC Neutral line, 24V, 12F/4B contacts front and back contacts metal to carbon with plug board, retaining clip & connectors conforming to BRS: 931A , IRS:S 60, IRS:S 34 & IRS :S 23 (as applicable). The interlocking code for this unit shall be ABDFH. Inspection - RDSO.	200	Numbers		
137	Relay, AC Immune, plug -in type, Style 'QNA1', DC Neutral line, 24V, 8F/8B contacts front and back contacts metal to carbon with plug board, retaining clip & connectors conforming to BRS: 931A , IRS:S 60, IRS:S 34 & IRS :S 23 (as applicable). The interlocking code for this unit shall be ABDGH. Inspection - RDSO.	400	Numbers		
138	Relay plug in type Style 'AC -LIT' All aspect AC lamp proving relay unit with in built current transformer type slow release neutral line relay, 4F.4B contacts, front and back contacts metal to carbon shall be suitable for working in series with 110V/AC LED signal lamp rated at 15 W confirming to RDSO Spec. STS/E/relay/AC lit LED Signal /09 - 2002, BRS:941A IRS:S 34 & IRS:S 23 (As applicable). Inspection - RDSO.	700	Numbers		

139	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 16/0.02mm for relays, 3/0.737 mm for MCB's and 7/0.75 mm for power wiring. Indoor cable 60x0.6mm/40x0.6mm as per IRS-S-76/89 or Latest for interconnection of indication board supplied by firm . Wires shall be procured from RDSO approved firm and inspected by RDSO. Upto 4 lines stations	5.00	Station		
140	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 16/0.02 mm copper. { Wire PVC 16/0.02 mm copper, paint, soldering materials and all other miscellaneous materials required for the work shall be supplied by the contractor.) Inspection - RDSO for PVC wire.	800.00	Numbers		
141	Installation of pre wired relay rack with scaffolding materials ladder as per drawing No. S&T/C/20/2001 fitted with transformer ,fuses, diode , resistance , condensers, terminal strips/ tag block, busbar and other component required for approved system design complete with scaffolding materials and required hardware and erection materials to accomodate 100 relays Note:- Alternate tag block terminals to be used. Ferules to be provided. Fuse blown indication to be provided.	15.00	Numbers		
142	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.	8000.00	CORE		
143	Supply of MS number plate (200mmx300mmx3 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. Inspection: consignee.	120.00	Numbers		
144	Installation, commissioning & testing of LED signals. (Per Function = Per Aspect)	700.00	Per function		
145	4Dismantling & Releasing of following S&T gears. The work includes transportation of the released material to the store of SSE/SIG/CON/MGS and properly stacking the same in the store.The rate shall cover the cost of tools and plants, ladders, scaffoldings, all other adjuncts required for the works. a)S&T gears in battery room / relay room. This includes all equipments & relays , relay racks , termination board, batteries, battery charger, angle iron etc.	2.00	Job		

146	4Dismantling & Releasing of following S&T gears. The work includes transportation of the released material to the store of SSE/SIG/CON/MGS and properly stacking the same in the store. The rate shall cover the cost of tools and plants, ladders, scaffoldings, all other adjuncts required for the works. c) Signal post which includes dismantalling of unit, ladder, post base, mounted shunt signals & fittings etc.	20.00	Per Signal		
147	4Dismantling & Releasing of following S&T gears. The work includes transportation of the released material to the store of SSE/SIG/CON/MGS and properly stacking the same in the store. The rate shall cover the cost of tools and plants, ladders, scaffoldings, all other adjuncts required for the works. f) Lifting barrier gate and its complete fittings.	2.00	Job		
148	4Dismantling & Releasing of following S&T gears. The work includes transportation of the released material to the store of SSE/SIG/CON/MGS and properly stacking the same in the store. The rate shall cover the cost of tools and plants, ladders, scaffoldings, all other adjuncts required for the works. g) Location boxes/ apparatus cases/ J.boxes which includes releasing of terminal board, relays, terminals, batteries, track feed charger and other concern fittings installed in the locations.	40.00	Numbers		
149	Supply of Thermo shrink joint kit for 2T joints as per RDSO spec no. IRS:TC-77 -2000 with latest amendment. 6 Quad Inspection-RDSO.	110	Numbers		
150	Installation of Thermo Shrink Jointing Kit as per DOT/Technical Specification with RDSO modification/Termination Joints with VF Transformer on 6 quad Telecom cable.	110	Numbers		
151	Supply and fixing of cable termination box. Spec.no.IRS- TC-18-75 with locking arrangements and termination of derivation cable as per the technical supplements. a) 20 Pairs Inspection: Consignee.	40	Numbers		

IF anything extra is required to complete the job, it will be the responsibility of the bidder.

***Price has to be quoted as per CoR RFP & corrigendum (if any).**

Authorized Signatory

Name:

Office Seal:

Date:

Designation:

Place:

For and on behalf of: (BIDDER NAME)

Note: -

- All the above price would be in INR only.

- The bidder has to compulsorily quote for all items mentioned in the Commercial-bid Tables. In case bidder fails to quote for any of this stage, the bid would be summarily rejected.
- Above is indicative, however the quantity may increase or decrease at the time of placing the purchase order as per actual.
- Tenderer shall quote rates inclusive of Taxes, but there should be break basic price and all type of applicable taxes and GST in a separate sheet (to be uploaded with Price-Bid)
- The bidder is expected to submit a separate sheet, which includes the details of tax-applicable for each component of the SOR, the breakup of price for each item of SOR in terms of Basic Unit Price, GST, Excise duty, Sales Tax, Freight, Forwarding, Packing, Insurance and any other Statuary Taxes/Levies/Charges already paid or payable by the supplier shall also be quoted separately.
- Detailed item description and its specification may be referred from CoR Tender as:

Tender Ref. No.	NIT No: SG-W-DNR-OT-05-2023-24 & SG-W-DNR-OT-06-2023-24 Dated: 15/03/2024 12:00
Date of floating	08/02/2024 11:39 & 08/02/2024 14:53
Floated on portal	www.ireps.gov.in

Annexure 14 – Integrity Pact

PROFORMA FOR “SIGNING THE INTEGRITY PACT”

RailTel Corporation of India Limited, hereinafter referred to as “The Principal”.

AND

....., hereinafter referred to as “The Bidder/ Contractor”

Preamble

The Principal intends to award, under laid down organizational procedures, contract/s forThe Principal values full compliance with all relevant laws of the land, rules, regulations, economic use of resources and of fairness/transparency in its relations with its Bidder(s) and /or Contractor(s).

In order to achieve these goals, the Principal will appoint an Independent External Monitor (IEM), who will monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

Section 1- Commitments of the Principal

1. The Principal commits itself to take all measures necessary to prevent corruption and to observe the following principles:-
 - a. No employee of the Principal, personally or through family members, will in connection with the tender for, or the execution of a contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.
 - b. The Principal will during the tender process treat all Bidder(s) with equity and reason. The Principal will in particular, before and during the tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential/additional information through which the Bidder(s) could obtain an advantage in relation to the process or the contract execution.
 - c. The Principal will exclude from the process all known prejudiced persons.
2. If the Principal obtains information on the conduct of any of its employees which is a criminal offence under the IPC/PC Act, or if there be a substantive suspicion in this regard, the Principal will inform the Chief Vigilance Officer and in addition can initiate disciplinary actions.

Section 2- Commitments of the Bidder(s) / Contractor(s)

1. The Bidder(s)/Contractor(s) commit himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the tender process and during the contract execution.
 - a. The Bidder(s)/contractor(s) will not, directly or through any other persons or firm, offer promise or give to any of the Principal's employees involved in the tender process or the execution of the contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage during tender process or during the execution of the contract.

- b. The Bidder(s)/Contractor(s) will not enter with other Bidders into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.
 - c. The Bidder(s)/Contractor(s) will not commit any offence under the relevant IPC/PC Act; further the Bidder(s) /Contractors will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
 - d. The Bidder(s)/Contractor(s) of foreign origin shall disclose the name and address of the Agents/representatives in India, if any. Similarly, the bidder(s)/contractor(s) of Indian Nationality shall furnish the name and address of the foreign principals, if any. Further details as mentioned in the "Guidelines on Indian Agents of Foreign Suppliers" shall be disclosed by the Bidder(s)/Contractor(s). Further, as mentioned in the Guidelines all the payments made to the Indian agent/representative have to be in Indian Rupees only. Copy of the "Guidelines on Indian Agents of Foreign Suppliers" as annexed and marked as **Annexure A**.
 - e. The Bidder(s)/Contractor(s) will, when presenting his bid, disclose any and all payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract.
2. The Bidder(s)/Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.

Section 3: Disqualification from tender process and exclusion from future contracts

If the Bidder(s)/Contractor(s), before award or during execution has committed a transgression through a violation of Section 2, above or in any other form such as to put his reliability or credibility in question, the Principal is entitled to disqualify the Bidder(s)/Contractor(s) from the tender process or take action as per the procedure mentioned in the "Guidelines on Banning of business dealings". Copy of the "Guidelines on Banning of business dealings" is annexed and marked as Annex-"B".

Section 4: Compensation for Damages

1. If the Principal has disqualified the Bidder(s) from the tender process prior to the award according to Section 3, the Principal is entitled to demand and recover the damages equivalent to Earnest Money Deposit/Bid Security.
2. If the Principal has terminated the contract according to Section 3, or if the Principal is entitled to be terminated the contract according to Section 3, the Principal shall be entitled to demand and recover from the Contractor liquidated damages of the Contract value or the amount equivalent to Performance Bank Guarantee.

Section 5: Previous Transgression

1. The Bidder declares that no previous transgressions occurred in the last three years with any other company in any country conforming to the anti-corruption approach or with any other public sector enterprise in India that could justify his exclusion from the tender process.
2. If the bidder makes incorrect statement on this subject, he can be disqualified from the tender process for action can be taken as per the procedure mentioned in "Guidelines on Banning of business dealings".

Section 6: Equal treatment of all Bidders / Contractors/Subcontractors.

1. The Bidder(s)/Contractor(s) undertake(s) to demand from all subcontractors a commitment in conformity with this Integrity Pact, and to submit it to the Principal before contract signing.
2. The Principal will enter into agreements with identical conditions as this one with all bidders, contractors and subcontractors.
3. The Principal will disqualify from the tender process all bidders who do not sign this Pact or violate its provisions.

Section 7: Criminal charges against violation by Bidder(s) / Contractor(s) / Sub contractor(s)

If the Principal obtains knowledge of conduct of a Bidder, Contractor or Subcontractor, or of an employee or a representative or an associate of a Bidder, Contractor or Subcontractor which constitutes corruption, or if the Principal has substantive suspicion in this regard, the Principal will inform the same to the Chief Vigilance Officer.

Section 8: Independent External Monitor / Monitors

1. The Principal appoints competent and credible Independent External Monitor for this Pact. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.
2. The Monitor is not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the CMD, RailTel.
3. The Bidder(s)/Contractor(s) accepts that the Monitor has the right to access without restriction to all project documentation of the Principal including that provided by the Contractor. The Contractor will also grant the Monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his project documentation. The same is applicable to Subcontractors. The Monitor is under contractual obligation to treat the information and documents of the Bidder(s)/ Contractor(s)/Subcontractor(s) with confidentiality.
4. The Principal will provide to the Monitor sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the contractual relations between the Principal and the Contractor. The parties offer to the Monitor the option to participate in such meetings.
5. As soon as the Monitor notices, or believes to notice, a violation of this agreement, he will so inform the Management of the Principal and request the Management to discontinue or take corrective action, or to take other relevant action. The monitor can in this regard submit non-binding recommendations. Beyond this, the Monitor has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action.
6. The Monitor will submit a written report to the CMD, RailTel within 8 to 10 weeks from the date of reference or intimation to **him** by the Principal and, should the occasion arise, submit proposals for correcting problematic situations.
7. Monitor shall be entitled to compensation on the same terms as being extended to provided to Independent Directors on the RailTel Board.
8. If the Monitor has reported to the CMD, RailTel, a substantiated suspicion of an offence under relevant IPC/PC Act, and the CMD, RailTel has not, within the reasonable time taken visible action to proceed against such offence or reported it to the Chief Vigilance Officer, the Monitor may also transmit this information directly to the Central Vigilance Commissioner.
9. The word 'Monitor' would include both singular and plural.

Section 9: Pact Duration

This pact begins when both parties have legally signed it. It expires for the Contractor 10 months after the last payment under the contract, and for all other Bidders 6 months after the contract has been awarded.

If any claim is made / lodged by either party during this time, the same shall be binding and continue to be valid despite the lapse of this pact as specified above, unless it is discharged / determined by CMD of RailTel.

Section 10: Other Provisions

1. This agreement is subject to Indian Law, Place of performance and jurisdiction is the Registered Office of the Principal, i.e. New Delhi.
2. Changes and supplements as well as termination notices need to be made in writing.
3. If the Contractor is a partnership or a consortium, this agreement must be signed by all partners or consortium members.
4. Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement remains valid. In this case, the parties will strive to come to an agreement to their original intentions.

(For & on behalf of the Principal)
(Office Seal)

(For & On behalf of Bidder/Contractor)
(Office Seal)

Place _____

Date _____

Witness 1:
(Name & Address)

Witness 2:

(Name & Address)

End of Document

-----XXXX-----