



RAILTEL CORPORATION OF INDIA LIMITED

6A, 6th Floor, Gumidelli Towers, Opp: Shoppers Shop, Begumpet, Hyderabad - 16

ELECTRONIC TENDER DOCUMENT

Tender No: RCIL-e-Tender-23-24-SC-55 to 58

Dt.18-03-2024

Name of the Work

“TRENCHING, LAYING OF HDPE DUCT, OFC,12Core POWERCABLE and other associated works for COMPREHENSIVE GROUND INFRASTRUCTURE WORKS FOR PROVISION OF 4G LTE-R IN 523 RKM OF SECUNDERABAD DIVISION IN SOUTH CENTRAL RAILWAY.”



Download of Tender document and submission of offer at e-tender portal: <https://www.ireps.gov.in>

Submission of offers

- 1) Submission of offers - Online along with all scanned copies (as per tenderer data sheet).**
- 2) Submission of documents as per tender document – Online only (as per tenderer data sheet). (EMD, Technical & Financial Eligibility documents, other details and Affidavit submission)**



RailTel Corporation of India Limited

A Government of India (Ministry of Railways) Undertaking

Southern Region Head Quarters, 6A, 6th Floor, Gumidelli Towers, Opp: Shoppers Shop, Begumpet, Hyderabad – 16, visit www.railtelindia.com, Tel: 040-27821134 Fax: 27820682

OPEN TENDER NOTICE / खुली निवदा सूचना

E-SLT Notice No: **RCIL-e-Tender-23-24-SC-55 to 58**

Date.18-03-2024

RailTel Corporation of India Ltd., Secunderabad invites sealed e-tenders from established contractors with proven experience for the work of "LAYING OF HDPE DUCT, OFC, 12 CORE POWER CABLE ALONG WITH ALL ASSOCIATED WORKS COMPREHENSIVE GROUND INFRASTRUCTURE WORKS FOR PROVISION OF 4G LTE-R IN 523 RKM OF SECUNDERABAD DIVISION IN SOUTH CENTRAL RAILWAY" as detailed below.

रेलटेल कॉर्पोरेशन ऑफ इंडिया लिमिटेड, सिकंदरबाद "दक्षिण मध्य रेलवे मंडल सिकंदरबाद डिवीजन के 523 आरकेएम सीएलटी-आर के प्रावधान के लिए सभी संबद्ध कार्यों के साथ एचडीपीई डक्ट, ओएफसी, 12 कोर पावर केबल रखने का व्यापक हाइड्रोप्लेक्सर कार्यों के लिए इस अनुभव वाले स्थापित ठेकेदारों से ई-

विशेष सीमित निवदा आमंत्रित करता है जिसका विवरण नीचे दिया गया है

a)	Tender Document available for download / निवदा दस्तावेज डाउनलोड के लिए उपलब्ध	From 18-03-2024
b)	Closing date for Submission of E-Bids / ई-बोली जमा करने की अंतिम तिथि	on or before 08-04-2024 at 15.00 hrs.
c)	Date of opening of E-Bids. / ई-बोली खोलने की तिथि।	08-04-2024 at 15.30 hrs.
d)	Details of Tender estimated cost and EMD for each tender/section:	
	Section	Tender number
	Estimated Cost (all inclusive)	EMD
	SC-Raghunathpalley and Lingampalley-Vikarabad	RCIL-e-Tender-23-24-SC-55
	Vikarabad - Wadi and Vikarabad-Sadashivpet	RCIL-e-Tender-23-24-SC-56
	Sadashivpet-Bidar	RCIL-e-Tender-23-24-SC-57
	Bidar-Parli	RCIL-e-Tender-23-24-SC-58
e)	Validity of offer	30 days from the date of opening of tender
f)	Completion period for each section/tender	300 days from the date of issue of LOA

Earnest Money (EMD) shall be submitted through online in IREPS e-procurement portal.
निविदा की लागत और बयाना राशि (ईएमडी) आईआरईपीएस ई-प्रोक्योरमेंट पोर्टल में ऑनलाइन के माध्यम से जमा की जाएगी।

Note: This notice is being published for participation, open to all.

Eligibility Criteria / पाठ्यता मापदंड:

For detailed qualifying criteria, please refer Para 15 of Section II chapter I of tender document. / विस्तृत योग्यता मानदंड के लिए, कृपया निविदा दस्तावेज के खंड II अध्याय I के पैरा 15 को देखें।

**** Note / ध्यान दें:**

1. Works contracts are not covered under purview of Public Procurement Policy for MSEs order 2012 and instant tender is works contract tender. Accordingly, exemption is not applicable to MSEs for submission of EMD. **Hence, tenderers should submit EMD along with bid failing which their bid will not be considered for evaluation and summarily rejected.**
2. The bidder shall bear all costs associated with the preparation, submission/participation in the bid. Purchaser in no way will be responsible or liable for these costs regardless of the conduct or outcome of the bidding process. / बोलीदाता को बोली तैयार करने, प्रस्तुत करने/बोली में भाग लेने से संबंधित सभी लागतों को वहन करना होगा। बोली प्रक्रिया के आचरण या परिणाम की परवाह किए बिना इन लागतों के लिए खरीदार किसी भी तरह से जिम्मेदार या उत्तरदायी नहीं होगा

Tender Notice and Tender Document are available on RailTel's website and can be downloaded from www.railtelindia.com or from the e-Tendering portal <https://www.ireps.gov.in>. **For online bid submission the tenderer will have to necessarily download an official online copy of the tender documents from IREPS's e-portal.** All future Information viz. corrigendum /addendum/ amendments etc. for this Tender shall be posted on the e-Tendering Portal & RailTel website.

निविदा सूचना और निविदा दस्तावेज रेलटेल की वेबसाइट पर उपलब्ध हैं और इसे www.railtelindia.com या ई-निविदा पोर्टल <https://www.ireps.gov.in> से डाउनलोड किया जा सकता है। ऑनलाइन बोली जमा करने के लिए निविदाकार को आईआरईपीएस के ई-पोर्टल से निविदा दस्तावेजों की एक आधिकारिक ऑनलाइन प्रति अनिवार्य रूप से डाउनलोड करनी होगी। सभी भविष्य की जानकारी अर्थात्। इस निविदा के लिए शुद्धिपत्र / परिशिष्ट / संशोधन आदि ई-निविदा पोर्टल और रेलटेल वेबसाइट पर पोस्ट किए जाएंगे।

Printed copy of Tender document will not be sold from RailTel office / रेलटेल कार्यालय से निविदा दस्तावेज की मुद्रित प्रति नहीं बेची जाएगी

The offers shall be opened on above said date in the presence of those bidders who choose to be present online (refer section: e-Tendering/Bid Receipt (Online)). If the above said date happens to be a holiday the same shall be opened on the next working day.

प्रस्ताव उपरोक्त तिथि को उन बोलीदाताओं की उपस्थिति में खोले जाएंगे जो ऑनलाइन उपस्थित होना चाहते हैं (देखें अनुभाग: ई-निविदा/ बोली रसीद (ऑनलाइन))। यदि उक्त तिथि को अवकाश होता है तो उसे अगले कार्य दिवस में खोला जायेगा।

The tender offers are deemed to be valid for acceptance for a period of 30 days from the date of opening of the tender. Late/delayed/ incomplete tenders and tender bids without submission of EMD /with insufficient EMD will be summarily rejected.

Sd/-

GGM/RCIL/SC

RailTel Corporation of India Limited, Begumpet, Hyderabad

रेलटेल कॉर्पोरेशन ऑफ इंडिया लिमिटेड

INDEX SHEET

SECTION	CHAPTER	SUBJECT
Online	1	E-TENDERING INSTRUCTIONS TO TENDERERS
I	1	PREAMBLE
	2	SCHEDULE OF REQUIREMENTS
II	1	INSTRUCTIONS TO TENDERERS AND CONDITIONS OF TENDERING
	2	SPECIAL CONDITIONS OF CONTRACT
	3	FORMS OF TENDERS, ETC
III	1	OFC SYSTEM ON 25KV AC TRACTION AND GENERAL SCHEME OF OFC SYSTEM
	2	ROUTE SURVEY FOR OPTICAL FIBRE CABLE & SPECIFICATION FOR STABILIZER: Deleted
	3	TECHNICAL SPECIFICATION AND INSTRUCTIONS FOR TRENCHING & LAYING
IV	1	DRAWINGS



e-Tendering/Bid Receipt (Online/Offline Activities Explained)

Section Online

Chapter -1

1. This tender is processed as E-Tender

2. Submission of Bids only through online process is mandatory for this Tender

E-Tendering is a new methodology for conducting Public Procurement in a transparent and secured manner. Now, the Government of India has made e-tendering mandatory. Suppliers/ Vendors will be the biggest beneficiaries of this new system of procurement. For conducting electronic tendering, RailTel has decided to use the portal <https://www.ireps.gov.in>, Indian Railways E-procurement system (IREPS).

Benefits to Suppliers are outlined on the Home-page of the portal. Bidders are advised to visit the IREPS Portal for details related to E-Tender i.e. Registration, FAQ, Helpdesk, Learning Center etc

3. Tender Bidding Methodology:

Sealed Bid System - 'Single Stage - Single Envelope': In this, bidder has to submit the Technical as well as financial bid / Price Bid in single envelope "**ONLINE**".

IREPS Helpdesk

Please visit Helpdesk section on IREPS Portal.

RailTel's Contact Person & Designation

Mr. K.N Gupta,
Project Manager
Mobile : 9704562158
E-Mail Id: kngupta@railtelindia.com

The entire bid-submission would be online on IREPS Portal.

4. Broad outline of submissions are as follows:

- I. Submission of Earnest Money Deposit (EMD) through IREPS portal
- II. Submission of digitally signed copy of Tender Documents/Addenda
- III. Tenderer has to upload both Technical and Financial bid as Single Packet on IREPS
- IV. Online response to Terms & Conditions of Tender.

NOTE: Bidder must ensure that the bid must be successfully submitted online as per instructions of IREPS Portal.

5. Submission of POA & Affidavit:

The bidder is required to submit the following documents through IREPS

- a) **Power of Attorney** in favour of the signatory duly authorizing the signatory shall be submitted in a separate envelope to the tendering authority before the due date and time of submission of the e-Tender.
- b) **Notarized Affidavit** in original to be submitted as per clause No. 16.1 (ii) instructions to tenderers section II chapter I

NOTE: The Bidder has to upload the Scanned copy of all above original documents as Bid-Annexures during Online Bid-Submission.

6. Submission of Eligibility Criteria related documents

Eligibility criteria related documents viz. Technical & Financial Credential certificates and other documents as applicable shall be **scanned and submitted ONLINE. Bids Uploaded without mandatory documents like eligibility criteria and other supporting documents on IREPS Portal will be summarily rejected.**

NOTE: In case of internet related problem at a bidder's end, especially during 'critical events' such as - a short period before bid-submission deadline, during online public tender opening event, during e-auction, it is the bidder's responsibility to have backup internet connections.

In case there is a problem at the e-procurement/ e-auction service provider's end (in the server, leased line, etc) due to which all the bidders face a problem during critical events, and this is brought to the notice of RailTel by the bidders in time, then RailTel will promptly re-schedule the affected event(s). All the tenderers are advised to upload the bids well in advance before the tender closing time.

7. Instructions for Tender Document TO THE BIDDERS

The RailTel Tenders are published on www.railtelindia.com and on IREPS Portal <https://www.ireps.gov.in/> and CPP Portal. However tenderers should submit their bid through IREPS Portal only.

NOTE: For online bid submission the bidder will have to necessarily download an official online copy of the tender documents from IREPS portal, and this should be done well before the deadline for bid-submission.

8. Submission of Offers and Filling of Tender:

This e-tender should be duly submitted online using the e-Procurement Portal <https://www.ireps.gov.in/>. For detailed instructions please refer to IREPS Portal.

9. Fax Quotations & Late Tenders: Fax Tender documents, Offline Tender Bids and Late/Delayed tenders would not be considered.

10. Attendance of Representatives for Tender Opening: Representatives of bidders desirous to attend the tender opening can do so, on production of a proper letter of authority from the respective firm, failing which they may not be allowed to attend the tender opening. Authorized representatives of those firms who have submitted the tender documents alone shall be allowed to attend the tender opening.

11. Addenda / Corrigenda: Addenda / Corrigenda to the tender documents may be issued by RailTel prior to the date of opening of the tenders, to clarify or reflect modifications in the contract terms and conditions or in the design. Such addendum/corrigendum shall be available on IREPS Portal only. Bidders who are unable or unwilling to bring their tenders to conform to the requirements of the RailTel are liable to be rejected. The information of Corrigendum/Addenda shall be published on RailTel website and CPP Portal also. Prospective bidders are advised to check the website periodically for updates.

12. Ambiguity/ Pre- Bid Clarification Requests:

If there is any ambiguity or doubt as to the meaning of any of the tender clauses/ conditions or if any additional information required, the matter should immediately be referred to the RailTel in writing through emails to RailTel Contacts defined above. All clarification shall be responded through email.

13. Bid submission and Opening date

13.1 The bid should be submitted online along with Credential/Techno commercial & Price bid document (all documents).

13.2 Power of attorney in favor of the signatory duly authorizing the signatory shall be submitted in a separate envelope to the tendering authority before the due date and time of submission of the e-Tender.

13.3 The bidder's bids will be opened at the time & date of opening of the tender given in the Bid Data Sheet (BDS) online simultaneous in presence of such Bidders/ Representatives who choose to be present online. The Tenders/Representatives can also choose to be physically present in the office of RailTel for the Online Public Tender Opening Event.

14. Other Instructions

For further instructions, the vendor should visit the home-page of the portal (<https://www.ireps.gov.in>), and go to the User-Guidance Center.

15. Additional Instructions: Please note

For E-Tendering bids /information by bidders is to be submitted "Online" on IREPS's e-Procurement Portal. Any document / information pertaining to this chapter will have to be submitted by the bidder on line. The digital signature of the tenderer on the e-tender form will be considered as confirmation that the tenderer has read, understood and accepted all the documents.

All columns should be filled and blank columns if any should be marked as NIL.

Please read the Schedule of Requirements, Instructions to the tenderers, General and Special Conditions including Technical Specifications before filling up the Tender Form carefully.

SECTION – I
Chapter -1
Preamble

Tender No. RCIL-e-Tender-23-24-SC-55 to 58

Dated 18-03-2024

1. **Name of work:** Trenching, Laying of HDPE duct, OFC and Power Cable including supply and installation of Location boxes and commissioning as mentioned in the scope and schedule of work for COMPREHENSIVE GROUND INFRASTRUCTURE WORKS FOR PROVISION OF 4G LTE-R IN 523 RKM OF SECUNDERABAD DIVISION IN SOUTH CENTRAL RAILWAY as per schedule of requirement.
2. **Scope of work: There are 4 sections for execution of Ground infrastructure for 4G LTE works in SC division of SCR mentioned as in below table.**

Sl. No	Section	Tender number:
1	SC-Raghunathpalley and Lingampalley-Vikarabad	RCIL-e-Tender-23-24-SC-55
2	Vikarabad - Wadi and Vikarabad-Sadashivpet	RCIL-e-Tender-23-24-SC-56
3	Sadashivpet-Bidar	RCIL-e-Tender-23-24-SC-57
4	Bidar-Parli	RCIL-e-Tender-23-24-SC-58

3. **For multiple Tenders/Locations: Cumulative eligibility will be applied:** Tenderer can quote for one tender / all tenders as the case may be. If tenderer quotes in more than one tender then for to be qualified for more than one tender, he must meet the financial and technical criterion given below and will have to be cumulatively met for all tenders being quoted, as per details tabulated below:

Tender no. RCIL-e-Tender-	Estimated Cost incl.GST	Technical Eligibility			Financial Eligibility
		One Similar Work (60%)	Two Similar Works (each 40%)	Three Similar Works (each 30%)	150% Turnover
23-24-SC-55	34197865	20518719	13679146	10259360	51296798
23-24-SC-56	23185715	13911429	9274286	6955715	34778573
23-24-SC-57	25205756	15123454	10082302	7561727	37808634
23-24-SC-58	29623412	17774047	11849365	8887024	44435118

Example: if a tenderer quotes for tender no- 55 and 56, then above technical and financial eligibility should be added accordingly and it is tenderer's responsibility to provide summary of tender(s) participated and user certificates in Form-2 for fulfilling the eligibility criteria as per submitted credentials against the same.

Similarly, in order to be qualified for 02 sections as mentioned above on the basis of experience in maintenance of OFC, the tenderer should have experience in maintenance of 2 stretch of 150 kms for 6 months each.

Example: if a bidder participated in 2 tenders, then:

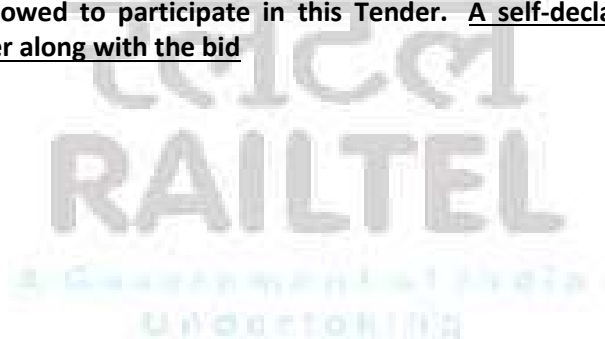
- (a) For Financial capability
 - (i) his turnover should be 150% of the total of tendered values of those 2 tenders i.e. all participated 2 sections tendered value will be added and 150% of the total value will be calculated to arrive the required turnover eligibility value.
- (b) For Technical capability
He must have executed similar work of either "Underground Optical Fibre cable laying work including Trenching, Blowing of OFC through HDPE Duct, splicing and testing of OFC" Or "Laying of Quad/Power Cable/signal cable, Jointing and Testing" works of one/two/three similar works or

Should have performed OFC route maintenance for a continuous stretch of more than 150kms for a minimum period of 6 months in the past three financial years including current year before the date of opening of tender.

Note: Maximum sections/tenders that can be awarded to a single bidder are restricted to 02 (two) nos. In case a tenderer becomes lowest eligible bidder for more than 2 tenders, highest valued offers of 2 tenders quoted by him will be considered and for remaining tender(s), next eligible bidder will be considered for evaluation for finalization.

4. **Tender offers:** The tenderers are required to quote **percentage rate** for the complete work. The quote shall be in figures and words. If there is any discrepancy in the quoted rate between figures and words, the rate quoted in words will be taken as final.
5. **Cost of Tender Book per Section: not applicable .**
6. **Qualifying Criteria** For participating in the tender, the contractor shall be required to meet the eligibility requirements as given in **Para 15 of Chapter-1 of Section-II** (Instructions to Tenderers and Conditions of Tendering) of the tender document.
7. **Last date of Submission:** The tender shall be received up to 15.00 hrs of 08-04-2024 through IREPS (online)
8. **Date of Opening of Tender:** The tender will be opened at 15.30 hrs on 08-04-2024 through IREPS (online).
9. **Completion Period of Work:** The work should complete within 300 days from the date of issue of Letter of Acceptance/PO.
10. **Address to which correspondence and documents relating to the Contract should be sent:** Executive Director / Regional General Manager (Southern Region), RailTel Corporation of India Ltd, 6A, 6th Floor, Gumidelli Towers, Opp: Shoppers Shop, Begumpet, Hyderabad – 16
11. **Earnest Money:** Tenderer shall deposit Earnest Money as detailed in a manner prescribed in **Para 5 Chapter I Section II**
12. **Security Deposit: @6% of contract value will be deducted from on account bills as per Para-3 of Special Conditions of Contract (Section II Chapter 2)** for due fulfillment of contract.
13. **PBG:** On receipt of Letter of Acceptance of Tender from the RailTel, the successful tenderer shall, within a period of 30 days, deposit in favour of RailTel Corporation of India Limited, Secunderabad an amount in terms of **Para-3 of Special Conditions of Contract (Section II Chapter 2)** towards Performance Bank Guarantee for due fulfillment of contract.
14. **Specifications:** Reference of specifications of the important equipments and materials required for execution of the contract is given in the Technical Specification (Section III chapter 3 of tender document). The work shall be executed in compliance with all the technical requirements given therein.
15. **Schedule of Requirement:** The various items to be supplied and works/services to be provided by the tenderer are indicated in Schedule of Requirement as enclosed to this preamble (Section I Chapter 2). The tenderer is advised to quote for all the items. The make and model of all the equipments proposed to e supplied must be indicated by the tenderer/s in the Schedule of Requirement.
16. **As made drawings:** shall be submitted after completion of testing and commissioning of section as per specification (section III chapter 3)
17. Deleted

18. **Materials to be supplied by RailTel: OFC, HDPE Duct and Power cable required for the work will be issued to the contractor, from the nearest stores of RailTel in standard drum lengths. Contractor shall handle all materials carefully while transporting to a site and laying there without causing any damage to OFC. Duct and 12 core Power cable. The balance unused OFC , Duct and Power cable should be utilized at other site OR returned to the closest designated stores of RailTel as per instructions of RailTel Manager. The contractor has to make his own arrangements to transport OFC 12 core cable & Duct and no payment shall be made on this account.**
19. **Materials to be supplied by Contractor:** All materials including the materials covered under the Schedule of Requirement and those required to achieve the end objective as required are to be supplied by the contractor.
20. As a good tender practice, the tenderer is expected to submit giving all the information in the relevant forms attached as Annexure to this document and suitably numbering each page of the bid documents with a content list indicating availability of various documents with their serial numbers. In the absence of numbering of pages and the content list, there is a likelihood of any important document going unnoticed for which the tenderer shall be solely responsible.
21. **Maintenance Support:** The tenderer should submit their strategy for providing maintenance support during maintenance, warranty and post warranty period.
22. **Video Recording:** Video Recording of Trench: Video recording of trench to indicate the depth (1.0) of the trench to be recorded and soft copy in PENDRIVE/DVD format to be submitted to RailTel for approval by the concerned Manager. Only after obtaining approval of concerned Manager RailTel, HDPE duct to be laid and then the trench can be closed. a. Video recording should be taken in such a way that it should be possible to deduce the depth of trench from the video itself. For e.g. A long stick with a clear legible mark at 1.0m should be made and a person should walk with the stick in the trench and the recording should be done as the person walks along the trench. However, the physical inspection of the trench by RailTel engineer at site will be done as per RailTel's discretion.
23. In all matters, decision of Executive Director/Regional General Manager (Southern Region), RailTel Corporation of India Ltd, Secunderabad, will be final.
24. **The Bidder should not be blacklisted/debarred/banned/Terminated by any Central Govt./Union Govt./State Govt. / any PSU as on date of submission of the Bid. Further, Contractors defaulting in one section (for OFC Maintenance) and having their contract terminated in any of the Regions of RailTel, will not be allowed to participate in this Tender. A self-declaration to this effect to be submitted by the bidder along with the bid**



TENDERER DATA SHEET**For**

“TRENCHING, LAYING OF HDPE DUCT, OFC,12Core POWERCABLE and other associated works for COMPREHENSIVE GROUND INFRASTRUCTURE WORKS FOR PROVISION OF 4G LTE-R IN 523 RKM OF SECUNDERABAD DIVISION IN SOUTH CENTRAL RAILWAY.” (Tender No: RCIL-e-Tender-23-24-SC-55 to 58)

S No	clause reference	Description	Remarks (Yes/No)	Page no
Cost of Tender & EMD Particulars				
1	EMD as per NIT/ Preamble	Whether EMD submitted online in IREPS portal?		
2	should not be blacklisted/debarred/banned/Terminated or defaulted in one section (for OFC Maintenance) and having their contract terminated in any of the Regions of RailTel	should not be blacklisted/debarred/banned/Terminated by any Central Govt./Union Govt./State Govt./PSU or defaulted in one section (for OFC Maintenance) and having their contract terminated in any of the Regions of RailTel as per cl.no.24 of Preamble. Declaration to this effect submitted?		
Technical Eligibility Criteria				
3	cl.no. 15 & 15.2 section II chapter I for similar work execution of 30%/40%/60% (as the case may be) of tender advertised value or OFC route maintenance continuous stretch of more than 150Km for 6-months period	Whether work completion certificate as per Form no 2 has following information.	submitted certificate Yes / No	
(a)		please specify eligibility as per submission of single/ two/three similar works?, Contract Agreement No/ Work /Purchase order No & Date may be mentioned, as the case may be, including summary of eligibility		
(b)		Name and scope of Work executed under single contract /as the case may be agreement(s)		
(c)		Executed / Paid Value of work mentioned or not? If mentioned specify the value for each work		
(d)		Is Value of work executed 1. Three similar work each costing not less than 30% of advertised value? or 2. Two Similar work each costing not less than 40% of advertised value? or 3. One Similar work each costing not less than 60% of advertised value? Or OFC maintenance of 150Km continuous stretch for 6 months period		

(e)		Whether work executed in user form no.2 is for OFC route maintenance work experience as mentioned in clause no 15.2.2 instructions to tenderer section II Chapter I of tender document) if yes following information is required. 1. Name of section with kms. 2. Maintenance undertaken from date to date.		
Financial eligibility criteria				
5	cl.no.15 & 15.3 section II chapter I for turnover of 150% of tender advertised value	Audited Balance sheets along with P&L A/c or Turn over certificate with UDIN Number signed by Chartered accountant for the year (2020-21),(2021-22) and (2022-23) and current year (2023-24) are enclosed ?		
5.1		Whether Copy of PAN, GST Registration certificate submitted?		
Notarized Affidavit				
6		Whether Affidavit is submitted in Original and Notarized?		
6.1		Whether Submission of Affidavit is as per format as enclosed in form no 11 /Annexure-A of tender document?		
6.2	cl.no.16.1 (ii) section II Chapter I	Whether the signature of deponent in the affidavit is the same person whose name is mentioned the first sentence of affidavit giving the undertaking?		
6.3		Whether Deponent has signed both affirmation and verification statement of affidavit?		
Power of attorney, constitution of Firm and Memorandum of Association				
7		Whether Power of attorney in non-judicial stamp paper worth of Rs 100/- enclosed with Tender is in proper format and notarized?		
8		Whether Power of attorney is mentioning "the position of person giving power of attorney and the position of person in the company in favour of whom the Power of Attorney is being given?"		

9	cl.no.7 instructions to tenderers section II chapter I	Whether Partnership deed, Memorandum of Joint Venture as the case may be if applicable is enclosed for partnership firm? If not applicable, then it should be mentioned as " NOT APPLICABLE " under remarks column.		
10		In case, clause no 7 regarding partnership firm, is not applicable, whether relevant document regarding Proprietary firm is enclosed?		
11		Whether Constitution of Firm and article of association document enclosed with Offer?		
Signing of Tender document and supporting document in all pages				
12	Vide Clause no. 16.1(i) instructions to tenderers section II chapter I of the tender document	Whether authorised person Signed all pages of tender document including all supporting documents in the tender? Whether documents supporting the claim of qualifying the laid down eligibility criteria are declared explicitly		
Clause wise compliance and deviation statement				
13		Whether clause wise compliance to the tender condition and statement of deviation Form- No. 5 enclosed?		

Note:

1. All scan copies of documents listed above shall be submitted online
2. Copy of experience certificate issued by client along with concerned PO/WO/LOA for technical eligibility and Audited Balance sheet with P&L A/c / Turn over certificate issue by CA with UDIN number to be submitted along with online bid to establish credentials
3. The above Tenderer data sheet / Check List is indicative and does not purport to be the entire requirement. Tenderer are advised to go through the entire tender document carefully before submitting their offers

Bidder Organization data:

1	Name of the Organization	:
2	Name of the Authorized Person Submitting the Tender Documents (Submit the proof of authorizing the person to sign the tenders by the company on its behalf)	
3	Main line of Business	
4	Years of Experience	
5	Location (indicate address, tel.no., fax and the year from which they are operating in that location)	
6	Contact person	
7	Address	
8	Tel. No.	
9	E-mail ID	

Place

Date

(Signature of the Tenderer with Seal)

SECTION I
Chapter 2
SCHEDULE OF REQUIREMENT

Tender No: RCIL-e-Tender-23-24-SC-55

Name of the work: - Trenching, laying/blowing, splicing/jointing of HDPE duct, OFC and 12 core power cable including supply and installation of Location Boxes and earthing in connection with Ground COMPREHENSIVE GROUND INFRASTRUCTURE WORKS FOR PROVISION OF 4G LTE-R IN 523 RKM OF SECUNDERABAD DIVISION IN SOUTH CENTRAL RAILWAY (**Sec: RGPL and Lpi-VKB**)

S No	Description (SAC code for all line items is 995423)	Unit	Rate exclusive of GST@18%	Qty	Total Amount exclusive of GST@18%
A	B	C		E	F (D*E)
1	Excavation of trench to a depth of 1000mm and width of 300m at bottom in all types of soil (Normal soil / soft soil / sandy/ except in rocky soils / bridges / level crossings / track crossings / coil pits) including marking of cable alignment, clearing of jungle, bushes, trial pits if required, refilling with excavated soil, ramming and consolidation after laying of cables as per RDSO/SI/G/2010 version 1.1 or latest complete to the finished item of work as directed by supervisor in-charge. In case 1000 mm depth not achieved, the work is to be carried out as mentioned in Sl. No 3	METERS	112.50	38558.10	4337786.25
2	Excavation of trench to a depth of 1000mm and width of 300m at bottom in all types of soil (Normal soil / soft soil / sandy/Morrum soil except in rocky soils / bridges / level crossings / track crossings / coil pits) including marking of cable alignment, clearing of jungle, bushes, trial pits if required, supply and laying of 120 mm /103mm splitt DWC pipe in station yard (HOME TO HOME) refilling with excavated soil, ramming and consolidation after laying of cables as per RDSO/SI/G/2010 version 1.1 or latest complete to the finished item of work as directed by supervisor in-charge. In case 1000 mm depth not achieved, the work is to be carried out.	METERS	173.15	16524.90	2861286.44

3	Excavation of trench up to a depth of 600mm and width of 300mm for the locations where 1 meter depth cannot be achieved . The work is to be carried out as per drg no 5771 including concreting, curing refilling after marking of cable alignment, clearing, bushes, trial pits if required. Refilling with excavated soil after concreting and curing, ramming and consolidation after laying of cables complete to the finished item of work as directed by supervisor in-charge. All materials to be supplied by the tenderer	METERS	247.50	13959.00	3454852.50
4	Excavation of trench up to a depth of 600mm and width of 300mm for locations where 1 meter depth cannot be achieved. the work is to be carried as per drg no 5771 including concreting, curing refilling after marking of cable alignment, clearing, bushes, trial pits if required & supply and laying of 120 mm /103mm splitt DWC pipe in station yard (HOME TO HOME). Refilling with excavated soil after concreting and curing , ramming and consolidation after laying of cables complete to the finished item of work as directed by supervisor in-charge. All materials to be supplied by the tenderer	METERS	308.15	1551.00	477940.65
5	Digging of cable trench to a depth of not less than 30 cms in rocky terrain, Concreting the trench with 300 mm thick concrete with 1 cement: 2 sand: 4 graded stone aggregate 20mm nominal size. All the material is to be arranged by contractor. The work is to be executed as per drg no.15- D2(sheet 1/3 or sheet 2/3 or sheet 3/3) as per site condition.	METERS	605.00	2790.00	1687950.00
6	Breaking of metal / tar road and refilling after laying the cables as per drawing no 5768. The surface of the road shall be concreted to match with the old surface. This includes supply and placing of 120 mm DWC pipe	METERS	535.50	2790.00	1494045.00
7	Track crossing by horizontal boring method based on the drawing no.5770 and as advised by the engineer at site. This includes the supply and placing of HDPE Duct dia of 110 mm ,specfn no PE 80(IS 4984).	METERS	945.00	1566.00	1479870.00

8	Trenching under Rails for crossing the track (Track crossing) and refilling of trenches as per RDSO drawing No: 5768. The track crossing shall be done at right angles. The depth of cable trench shall be 1.2 Mtr. below the rail flange. The depth between top cable and the level of rail flange of the rail shall never be less than 1.2 Mtr. The OFC/Power cable to be laid through 120mm outer dia/103 mm inner dia DWC Pipe. The ballast shall be Stored separately while making the trench and the earth soil shall be stored separately. while re-filling the trench, the earth soil has to be filled first to the ground level and the ballast has to be properly put in the track. this work has to be done under supervision of S&T Representative and Representative of P.Way.	METERS	535.50	261.00	139765.50
9	Laying of 12core cable in the trench / duct/GI pipe etc	METERS	15.00	69000.00	1035000.00
10	Power Cable termination including fixing terminals, fuses, LDs etc,. Meggering the cables and recording the readings. 12 core Power cable will be supplied by RailTel. All other materials Wooden board/ Hylum sheet and ARA terminals to be supplied by the tenderer at his own cost after Inspection of materials by inspecting authority as per procedure mentioned in the tender document. This work also includes submission of station wise/tower wise Power cable termination as built diagram.	Per Conductor	72.57	1260	91438.20
11	Laying of HDPE duct 40/33 mm dia in the trenches and in protective works already provided.	km	12000.00	78	936000.00
12	Blowing of armoured optic fiber cable into the duct supplied elsewhere by using blowing machine and associated works. Before blowing the duct integrity shall be tested. If any defect is found during duct integrity test, the entire length of HDPE duct from one chamber to another chamber is to be replaced by the contractor at free of cost.	km	15000.00	85.50	1282500.00

13	Supply and Installation of OFC joint enclosure and splicing of Optic fiber cable (24 fibres) and testing. Supply of Splice Enclosure (24 fiber) shall be of as per as per technical specification No. RDSO/SPN/TC/68/2014 revision 1.0 Amendment -1 or latest. All materials including Fusion splicing machine used for fiber splicing and, OTDR for testing and other testing materials if any shall be arranged by the contractor. is to be inspected by RDSO/RITES.	No.	7000.00	120	840000.00
14	Supply & Laying of G.I Pipes 50 mm dia. medium quality to specification IS.1239 (part-I) 1990 and galvanised to specification IS.4736-1986 On bridges, culverts trench with channel ramps on either end of the culvert/bridges. Clamping arrangement with MS brackets for fixing of GI pipes on bridges/culverts, small holes of 5mm are to be drilled on the pipe before laying of the pipes.The work is to be carried out in girder bridges//RCC bridges as per drg. no 15-D6/15-D7 as the case may be in terms of technical specification vide cl no 14(a)/14(b)/14(C) of section III, Chapter I.	METERS	1051.00	3090	3247590.00
15	Supply Transportation and installation of RCC cable Route Markers as per drg. No 15-D1. They shall be painted with "Green" when placed at joint chamber, "Yellow" Placed at loop chamber and "RED" at all other places the length is 1000mm width is 300mm and thickness 80 mm with reinforcement as per DRG.No: Dwg.no.15- D1 The material will be inspected by inspecting authority and procedure as laid down in this tender document vide cl. No 31 of	No.	490.00	1710	837900.00
16	Supply and installation and of rack mounted 24F FMS fiber part no.fms-1u 24FS 24FP Raychem make including 24Nos 0.2db LC adaptors and 24numbers 900 micron 1.5 meter FCPC pigtails and termination of 24 fiber on termination box.. RDSO Spec No.: RDSO/ SPN/TC-037-2000 (Ver.3) or latest. This work also includes termination of 24 fibers and providing 4 nos of 1.5/3 Meters LC to LC patch cords as required. Materials are to be inspected by Inspecting Authority as mentioned in per cl. No 31 of Technical specification section III, Chapter I.	No.	9677.50	107	1035492.50

17	Strengthening of foundations of Full/Half location boxes, by carrying out the earth work around the foundation, ramming of the earth, caring out masonry work from bottom of earth work using country stones and cement masonry to prevent the earth from slipping down the bank.	No.	3854.76	9	34692.84
18	Supply ,Excavation of pit, casting concrete foundation and erection of apparatus case full size as per Technical specification and fixing of 1 No.of 'E' type lock for the front door, fixing of one hylam sheet of and painting the apparatus case inside and outside with one coat of red oxide and two coats of aluminum paints (foundation bolts and nuts,' E' type lock, cement, river sand, stone jelly of size 20/20mm, hylam sheet of size 1000mm X 940mm X 10mm, paints, varnish, fixing bolts and nuts and all other miscellaneous material required for the work shall be supplied by the contractor).Materials are to be inspected by Inspecting Authority as mentioned in per cl. No 31 of Technical specification.	No.	24307.03	34	826439.02
19	Fabrication, supply and erection of conventional Earth to location box - Excavation of earth and providing earth pipe of size 50mm dia, 3.5mm thick 2.0 m. long G.I. pipe with masonry tub constructed around at earth locations as specified by site Engineer. Alternate layers of 30kgs-chrcoal and 30kgs-common salt to be filled in the pit while closing. The pipe perforation etc., to be carried out as per drawing No. SK 10/10.. The earth pipe to be connected to the function with cable as supplied by Railways. The reading should be painted on the masonry tub. The masonry tub of 400X400X450mm should be covered with cement slab. Materisla are to be inspected by Inspecting Authority as mentioned in per cl. No 31 of Technical specification (All materials to be transported and supplied by the contractor.)	No.	6418.22	34	218219.48

20	<p>Provision MS flat connection from Earth pit to LBs/Signals including</p> <p>a) Supply and laying of MS Flat of size 40X6mm at site</p> <p>b) Supply of GI bolt of size M12X40mm with two Nuts along with two plain washers and one spring washer</p> <p>c) Drilling of holes in MS flat of different sizes at site</p> <p>d) Cutting with bending and twisting of MS flat at site</p> <p>e) Painting of MS Flat with one coating of red oxide as primary and two coats of anti-corrosive black paint and</p> <p>f) Drilling of holes in Location Boxes at site.</p>	METERS	1521.12	136.8	208089.22
21	<p>Welding for jointing MS flat 6mm thick X 40mm width of different lengths strips connecting from Earth to location boxes/Signal post/Signal Unit for better continuity. Prior approval of welding material to be taken from Engineer Incharge</p>	Each weld	439.01	34	14926.34
22	<p>Supply and installation of Basic material to construct unit maintenance free earth as per RDSO Spec no: RDSO/SPN/197/2008 consisting of:</p> <p>(I)Copper bonded steel electrodes of 3.0 mtr long,17.0 mm dia with Copper bonding thickness of Min 250 microns and UL listed and marked- 1nos.</p> <p>II) Earth enhancing compound of RDSO approved brand supplied in sealed bags of min 10kg pack- 3 nos</p> <p>III) Copper strip of 150mmx25mmx6mm to terminate earth rod--1nos.</p> <p>IV) Copper strip of 300mmx25mmx6mm - 1nos.</p> <p>Cadmium bronze cable of size 3/16" Earth electrode and coupler along with earth enhancing compound material(10kg pack)</p> <p>VI) Supply of 35 sqmm Multi strand single core PVC insulated copper cable as per IS:694 for connecting main electrode to the equipment room in duplicate:20mtrs</p> <p>VII) Supply of 10 sq.mm multi strand single core PVC insulated copper cable as per IS:694 for connecting various equipments--20mtrs</p>	Nos	14858.38	10	148583.80
23	<p>Excavation of jointing pit of size 1.2 m dia 1.2 m depth, supply and prrovision of FRP joint / loop chamber of 90 cm inner dia, 60 cm depth and 3mm thickness with two pieces top cover with two hooks each and bottom covered with hole drainage ancd</p>	Nos	4279.00	144	616176.00

	cable entry as per DRG.No RAILTEL/SR/OFC/2009/12 and as directed by Railway Engineer to be provided at every joint location and at every km loop etc. The chamber shall be filled with sand mixed with anti-termite powder, back filling and ramming of trench after HDPE duct laying, splicing and consolidation of soil.				
24	Supply and fixing of 19"42U Racks with vero president,Rittal ,AEW, Bestnet or similar make in stations as advised by representative of authority Engineer.	Nos	35314.00	07	247198.00
25	Installation and commissioning of entire AC and DC Electrical system which includes supplying and fixing of aluminium ladder as per SCR drg no 5769,AC(10Sqmm 3core)and DC power cable of 16 sqmm(single core) Red and Black,01 no AC DB for AC power tapping with 2 circuit breaker (i.e. 32A for SMPS and 20 A for UPS/Power socket/power strip) with 01 SPD as advised by the authority engineer or his representative	Nos	30000.00	07	210000.00
26	Splicing charges of laid fibre from Tower location to the Mid section RCIL OFC joint.	No.	3500.00	53	185500.00
27	Provision of Stores space of area 4000 square feet with fencing at Hyderabad. Out of 4000 square feet, 2000 sq feet should be covered and another 2000 sq feet should be open. The clearance between ground to ceiling for covered space should be 12-15 feet. Security guard services to be provided round the clock at	Months	86000.00	12	1032000.00
	Total Basic Amount				28981241.73
	Add: GST@18%				5216623.51
	Total amount including GST@18% (rounded off)				34197865
Bidder's quoted percentage (in figures & words) Below/At Par/Above (Including GST @18%)					Shall be filled online in IREPS online portal only
Grand Total Amount after Bidder's quoted percentage In figures:					

Note:

- The tenderer has to quote Below/At Par/Above (Including GST @18%) in the below box. The percentage rate quoted on RailTel's total estimated cost of work as per schedule of work mentioned above, should be inclusive of all taxes, duties and freight etc. Break-up of taxes to be specified in a separate sheet showing Basic Price, GST@ and others if any etc. Please refer clause no 22 of preamble for video recording of trench.

Signature of Tenderer with Seal

SECTION I
Chapter 2
SCHEDULE OF REQUIREMENT

Tender No: RCIL-e-Tender-23-24-SC-56

Name of the work: - Trenching, laying/blowing, splicing/jointing of HDPE duct, OFC and 12 core power cable including supply and installation of Location Boxes and earthing in connection with Ground COMPREHENSIVE GROUND INFRASTRUCTURE WORKS FOR PROVISION OF 4G LTE-R IN 523 RKM OF SECUNDERABAD DIVISION IN SOUTH CENTRAL RAILWAY (VKB-WD and VKB -Sadasivpet Rd)

S No	Description (SAC code for all line items is 995423)	Unit	Rate exclusive of GST@18%	Qty	Total Amount exclusive of GST@18%
A	B	C		E	F (D*E)
1	Excavation of trench to a depth of 1000mm and width of 300m at bottom in all types of soil (Normal soil / soft soil / sandy/ except in rocky soils / bridges / level crossings / track crossings / coil pits) including marking of cable alignment, clearing of jungle, bushes, trial pits if required, refilling with excavated soil, ramming and consolidation after laying of cables as per RDSO/SI/G/2010 version 1.1 or latest complete to the finished item of work as directed by supervisor in-charge. In case 1000 mm depth not achieved, the work is to be carried out as mentioned in Sl. No 3	METERS	112.50	25705.4	2891857.50
2	Excavation of trench to a depth of 1000mm and width of 300m at bottom in all types of soil (Normal soil / soft soil / sandy/Morrum soil except in rocky soils / bridges / level crossings / track crossings / coil pits) including marking of cable alignment, clearing of jungle, bushes, trial pits if required, supply and laying of 120 mm /103mm split DWC pipe in station yard (HOME TO HOME) refilling with excavated soil, ramming and consolidation after laying of cables as per RDSO/SI/G/2010 version 1.1 or latest complete to the finished item of work as directed by supervisor in-charge. In case 1000 mm depth not achieved, the work is to be carried out.	METERS	173.15	11016.6	1907524.29

3	Excavation of trench up to a depth of 600mm and width of 300mm for the locations where 1 meter depth cannot be achieved . The work is to be carried out as per drg no 5771 including concreting, curing refilling after marking of cable alignment, clearing, bushes, trial pits if required. Refilling with excavated soil after concreting and curing, ramming and consolidation after laying of cables complete to the finished item of work as directed by supervisor in-charge.All materials to be supplied by the tenderer	METERS	247.50	9306	2303235.00
4	Excavation of trench up to a depth of 600mm and width of 300mm for locations where 1 meter depth cannot be achieved. the work is to be carried as per drg no 5771 including concreting, curing refilling after marking of cable alignment, clearing, bushes, trial pits if required & supply and laying of 120 mm /103mm splitt DWC pipe in station yard (HOME TO HOME) . Refilling with excavated soil after concretinmg and curing , ramming and consolidation after laying of cables complete to the finished item of work as directed by supervisor in-charge.All materials to be supplied by the tenderer	METERS	308.15	1034	318627.10
5	Digging of cable trench to a depth of not less than 30 cms in rocky terrain, Concreting the trench with 300 mm thick concrete with 1 cement: 2 sand: 4 graded stone aggregate 20mm nominal size. All the material is to be arranged by contractor. The work is to be executed as per drg no.15-D2(sheet 1/3 or sheet 2/3 or sheet 3/3) as per site condition.	METERS	605.00	1860	1125300.00
6	Breaking of metal / tar road and refilling after laying the cables as per drawing no 5768. The surface of the road shall be concreted to match with the old surface. This includes supply and placing of 120 mm DWC pipe	METERS	535.50	1860	996030.00
7	Track crossing by horizontal boring method based on the drawing no.5770 and as advised by the engineer at site. This includes the supply and placing of HDPE Duct dia of 110 mm ,specfn no PE 80(IS 4984).	METERS	945.00	1044	986580.00

8	Trenching under Rails for crossing the track (Track crossing) and refilling of trenches as per RDSO drawing No: 5768. The track crossing shall be done at right angles. The depth of cable trench shall be 1.2 Mtr. below the rail flange. The depth between top cable and the level of rail flange of the rail shall never be less than 1.2 Mtr. The OFC/Power cable to be laid through 120mm outer dia/103 mm inner dia DWC Pipe. The ballast shall be Stored separately while making the trench and the earth soil shall be stored separately. while re-filling the trench, the earth soil has to be filled first to the ground level and the ballast has to be properly put in the track. this work has to be done under supervision of S&T Representative and Representative of P.Way.	METERS	535.50	174	93177.00
9	Laying of 12core cable in the trench / duct/GI pipe etc	METERS	15.00	46000	690000.00
10	Power Cable termination including fixing terminals, fuses, LDs etc., Meggering the cables and recording the readings. 12 core Power cable will be supplied by RailTel. All other materials Wooden board/ Hylum sheet and ARA terminals to be supplied by the tenderer at his own cost after Inspection of materials by inspecting authority as per procedure mentioned in the tender document. This work also includes submission of stationwise/towerwise Power cable termination as built diagram.	Per Conductor	72.57	840	60958.80
11	Laying of HDPE duct 40/33 mm dia in the trenches and in protective works already provided.	Km	12000.00	52	624000.00
12	Blowing of armoured optic fiber cable into the duct supplied elsewhere by using blowing machine and associated works. Before blowing the duct integrity shall be tested. If any defect is found during duct integrity test, the entire length of HDPE duct from one chamber to another chamber is to be replaced by the contractor at free of cost.	Km	15000.00	57	855000.00

13	Supply and Installation of OFC joint enclosure and splicing of Optic fiber cable (24 fibres) and testing. Supply of Splice Enclosure (24 fiber) shall be of as per as per technical specification No. RDSO/SPN/TC/68/2014 revision 1.0 Amendment -1 or latest. All materials including Fusion splicing machine used for fiber splicing and, OTDR for testing and other testing materials if any shall be arranged by the contractor. is to be inspected by RDSO/RITES.	No.	7000.00	81	567000.00
14	Supply & Laying of G.I Pipes 50 mm dia. medium quality to specification IS.1239 (part-I) 1990 and galvanised to specification IS.4736-1986 On bridges, culverts trench with channel ramps on either end of the culvert/bridges. Clamping arrangement with MS brackets for fixing of GI pipes on bridges/culverts, small holes of 5mm are to be drilled on the pipe before laying of the pipes.The work is to be carried out in girder bridges//RCC bridges as per drg. no 15-D6/15- D7 as the case may be in terms of technical specification vide cl no 14(a)/14(b)/14(C) of section III, Chapter I.	METERS	1051.00	2060	2165060.00
15	Supply Transportation and installation of RCC cable Route Markers as per drg. No 15-D1. They shall be painted with "Green" when placed at joint chamber, "Yellow" Placed at loop chamber and "RED" at all other places the length is 1000mm width is 300mm and thickness 80 mm with reinforcement as per DRG.No: Dwg.no.15-D1 The material will be inspected by inspecting authority and procedure as laid down in this tender document vide cl. No 31 of Technical specification section III,Chapter I.	No.	490.00	1140	558600.00
16	Supply and installation and of rack mounted 24F FMS fiber part no.fms-1u 24FS 24FP Raychem make including 24Nos 0.2db LC adaptors and 24numbers 900 micron 1.5 meter FCPC pigtailed and termination of 24 fiber on termination box.. RDSO Spec No.: RDSO/SPN/TC-037-2000 (Ver.3) or latest. This work also includes termination of 24 fibers and providing 4 nos of 1.5/3 Meters LC to LC patch cords as required. Materials are to be inspected by Inspecting Authority as mentioned in per cl. No 31 of Technical specification section III, Chapter I.	No.	9677.50	72	696780.00

17	Strengthening of foundations of Full/Half location boxes, by carrying out the earth work around the foundation, ramming of the earth, caring out masonry work from bottom of earth work using country stones and cement masonry to prevent the earth from slipping down the bank.	No.	3854.76	6	23128.56
18	Supply ,Excavation of pit, casting concrete foundation and erection of apparatus case full size as per Technical specification and fixing of 1 No.of 'E' type lock for the front door, fixing of one hylam sheet of and painting the apparatus case inside and outside with one coat of redoxide and two coats of aluminium paints (foundation bolts and nuts,' E' type lock, cement, river sand, stone jelly of size 20/20mm, hylam sheet of size 1000mm X 940mm X 10mm, paints, varnish, fixing bolts and nuts and all other miscellaneous material required for the work shall be supplied by the contractor).Materisla are to be inspected by Inspecting Authority as mentioned in per cl. No 31 of Technical specification, Section III, Chapgter I.	No.	24307.03	23	559061.69
19	Fabrication,supply and erection of conventional Earth to locvation box - Excavation of earth and providing earth pipe of size 50mm dia, 3.5mm thick 2.0 m. long G.I. pipe with masonry tub constructed around at earth locations as specified by site Engineer. Alternate layers of 30kgs-chrcoal and 30kgs-common salt to be filled in the pit while closing. The pipe perforation etc., to be carried out as per drawing No. SK 10/10.. The earth pipe to be connected to the function with cable as supplied by Railways. The reading should be painted on the masonry tub. The masonry tub of 400X400X450mm should be covered with cement slab. Materisla are to be inspected by Inspecting Authority as mentioned in per cl. No 31 of Technical specification section III chapter I (All materials to be transported and supplied by the contractor except cable.)	No.	6418.22	23	147619.06

20	<p>Provision MS flat connection from Earth pit to LBs/Signals including</p> <p>a) Supply and laying of MS Flat of size 40X6mm at site</p> <p>b) Supply of GI bolt of size M12X40mm with two Nuts along with two plain washers and one spring washer</p> <p>c) Drilling of holes in MS flat of different sizes at site</p> <p>d) Cutting with bending and twisting of MS flat at site</p> <p>e) Painting of MS Flat with one coating of red oxide as primary and two coats of anti-corrosive black paint and</p> <p>f) Drilling of holes in Location Boxes at site.</p>	METERS	1521.12	91.2	138726.14
21	<p>Welding for jointing MS flat 6mm thick X 40mm width of different lengths strips connecting from Earth to location boxes/Signal post/Signal Unit for better continuity. Prior approval of welding material to be taken from Engineer Incharge</p>	Each weld	439.01	23	10097.23
22	<p>Supply and installation of Basic material to construct unit maintenance free earth as per RDSO Spec no: RDSO/SPN/197/2008 consisting of:</p> <p>(I)Copper bonded steel electrodes of 3.0 mtr long,17.0 mm dia with Copper bonding thickness of Min 250 microns and UL listed and marked- 1nos.</p> <p>II) Earth enhancing compound of RDSO approved brand supplied in sealed bags of min 10kg pack- 3 nos</p> <p>III) Copper strip of 150mmx25mmx6mm to terminate earth rod--1nos.</p> <p>IV) Copper strip of 300mmx25mmx6mm - 1nos.</p> <p>Cadmium bronze cable of size 3/16" Earth electrode and coupler along with earth enhancing compound material(10kg pack)</p> <p>VI) Supply of 35 sqmm Multi strand single core PVC insulated copper cable as per IS:694 for connecting main electrode to the equipment room in duplicate:20mtrs</p> <p>VII) Supply of 10 sq.mm multi strand single core PVC insulated copper cable as per IS:694 for connecting various equipments--20mtrs</p>	Nos	14858.38	7	104008.66

23	Excavation of jointing pit of size 1.2 m dia an 1.2 m depth, supply and provision of FRP joint / loop chamber of 90 cm inner dia, 60 cm depth and 3mm thickness with two pieces top cover with two hooks each and bottom covered with hole drainage and cable entry as per DDRG.NoRAILTEL/SR/OFC/2009/12 and as directed by Railway Engineer to be provided at every joint location and at every km loop etc. The chamber shall be filled with sand mixed with anti-termite powder, back filling and ramming of trench after HDPE duct laying, splicing and consolidation of soil.	Nos	4279.00	96	410784.00
24	Splicing charges of laid fibre from Tower location to the Mid section RCIL OFC joint.	No.	3500.00	35	122500.00
25	Supply and fixing of 19"42U Racks with vero president, Rittal ,AEW, Bestnet or similar make in stations as advised by representative of authority Engineer.	Nos	35314.00	4	141256.00
26	Installation and commissioning of entire AC and DC Electrical system which includes supplying and fixing of aluminums ladder as per SCR drg no 5769, AC power cable (10Sqmm 3core) and DC power cable of 16 sqmm(single core) Red and Black with AC db with circuit breakers and SPD as per advise of representative of authority engineer.	Nos	30000.00	4	120000.00
27	Provision of Stores space of area 4000 square feet with fencing at Vikarabad.. Out of 4000 square feet, 2000 sq feet should be covered and another 2000 sq feet should be open. The clearance between ground to ceiling for covered space should be 12-15 feet. Security guard services to be provided round the clock .	Months	86000.00	12	1032000.00
	Total Basic Amount				19648911.03
	Add: GST@18%				3536803.99
	Total amount including GST@18% (rounded off)				23185715
	Tenderer's quoted percentage Below/At Par/Above (Including GST @18%)				Shall be filled online in IREPS online portal only
	Grand Total Amount after Tenderer quoted percentage				

Note:

1.The tenderer has to quote Below/At Par/Above (Including GST @18%) in the below box. The percentage rate quoted on RailTel's total estimated cost of work as per schedule of work mentioned above, should be inclusive of all taxes, duties and freight etc. Break-up of taxes to be specified in a separate sheet showing Basic Price, GST@ and others if any etc. Please refer clause no 22 of preamble for video recording of trench.

Signature of Tenderer with Seal

SECTION I
Chapter 2
SCHEDULE OF REQUIREMENT

Tender No: RCIL-e-Tender-23-24-SC-57

Name of the work: - Trenching, laying/blowing, splicing/jointing of HDPE duct, OFC and 12 core power cable including supply and installation of Location Boxes and earthing in connection with Ground COMPREHENSIVE GROUND INFRASTRUCTURE WORKS FOR PROVISION OF 4G LTE-R IN 523 RKM OF SECUNDERABAD DIVISION IN SOUTH CENTRAL RAILWAY (Sadasivapet Rd -BIDR)

S No	Description (SAC code for all line items is 995423)	Unit	Rate exclusive of GST@18%	Qty	Total Amount exclusive of GST@18%
A	B	C		E	F (D*E)
1	Excavation of trench to a depth of 1000mm and width of 300mm at bottom in all types of soil (Normal soil / soft soil / sandy/ except in rocky soils / bridges / level crossings / track crossings / coil pits) including marking of cable alignment, clearing of jungle, bushes, trial pits if required, refilling with excavated soil, ramming and consolidation after laying of cables as per RDSO/SI/G/2010 version 1.1 or latest complete to the finished item of work as directed by supervisor in-charge.In case 1000 mm depth not achieved, the work is to be carried out as mentioned in Sl. No 3	METERS	112.50	29561.21	3325636.13
2	Excavation of trench to a depth of 1000mm and width of 300mm at bottom in all types of soil (Normal soil / soft soil / sandy/Morrum soil except in rocky soils / bridges / level crossings / track crossings / coil pits) including marking of cable alignment, clearing of jungle, bushes, trial pits if required, supply and laying of 120 mm /103mm split DWV pipe in station yard (HOME TO HOME) refilling with excavated soil, ramming and consolidation after laying of cables as per RDSO/SI/G/2010 version 1.1 or latest complete to the finished item of work as directed by supervisor in-charge.In case 1000 mm depth not achieved, the work is to be carried out.	METERS	173.15	12669.09	2193652.93
3	Excavation of trench up to a depth of 600mm and width of 300mm for the locations where 1 meter depth cannot be achieved . The work is to be carried out as per drg no 5771 including concreting, curing refilling after marking of cable alignment, clearing, bushes, trial pits if required. Refilling with excavated soil after concreting and curing, ramming and consolidation after laying of cables complete to the finished item of work as directed by supervisor in-charge.All materials to be supplied by the tenderer	METERS	247.50	10701.9	2648720.25

4	Excavation of trench up to a depth of 600mm and width of 300mm for locations where 1 meter depth cannot be achieved. the work is to be carried as per drg no 5771 including concreting, curing refilling after marking of cable alignment, clearing, bushes, trial pits if required & supply and laying of 120 mm /103mm splitt DWC pipe in station yard (HOME TO HOME) . Refilling with excavated soil after concretinmg and curing , ramming and consolidation after laying of cables complete to the finished item of work as directed by supervisor in-charge.All materials to be supplied by the tenderer	METERS	308.15	1189.1	366421.17
5	Digging of cable trench to a depth of not less than 30 cms in rocky terrain, Concreting the trench with 300 mm thick concrete with 1 cement: 2 sand: 4 graded stone aggregate 20mm nominal size. All the material is to be arranged by contractor. The work is to be executed as per drg no.15-D2(sheet 1/3 or sheet 2/3 or sheet 3/3) as per site condition.	METERS	605.00	2139	1294095.00
6	Breaking of metal / tar road and refilling after laying the cables as per drawing no 5768. The surface of the road shall be concreted to match with the old surface. This includes supply and placing of 120 mm DWC pipe	METERS	535.50	2139	1145434.50
7	Track crossing by horizontal boring method based on the drawing no.5770 and as advised by the engineer at site. This includes the supply and placing of HDPE Duct dia of 110 mm ,specfn no PE 80(IS 4984).	METERS	945.00	1200.6	1134567.00
8	Trenching under Rails for crossing the track (Track crossing) and refilling of trenches as per RDSO drawing No: 5768. The track crossing shall be done at right angles. The depth of cable trench shall be 1.2 Mtr. below the rail flange. The depth between top cable and the level of rail flange of the rail shall never be less than 1.2 Mtr. The OFC/Power cable to be laid through 120mm outer dia/103 mm inner dia DWC Pipe. The ballast shall be Stored separately while making the trench and the earth soil shall be stored separately. while re-filling the trench, the earth soil has to be filled first to the ground level and the ballast has to be properly put in the track. this work has to be done under supervision of S&T Representative and Representative of P.Way.	METERS	535.50	200	107100.00

8	Trenching under Rails for crossing the track (Track crossing) and refilling of trenches as per RDSO drawing No: 5768. The track crossing shall be done at right angles. The depth of cable trench shall be 1.2 Mtr. below the rail flange. The depth between top cable and the level of rail flange of the rail shall never be less than 1.2 Mtr. The OFC/Power cable to be laid through 120mm outer dia/103 mm inner dia DWC Pipe. The ballast shall be Stored separately while making the trench and the earth soil shall be stored separately. while refilling the trench, the earth soil has to be filled first to the ground level and the ballast has to be properly put in the track. this work has to be done under supervision of S&T Representative and Representative of P.Way.	METERS	535.50	200	107100.00
9	Laying of 12core cable in the trench / duct/GI pipe etc	METERS	15.00	52900	793500.00
10	Power Cable termination including fixing terminals, fuses, LDs etc., Meggering the cables and recording the readings. 12 core Power cable will be supplied by RailTel. All other materials Wooden board/ Hylum sheet and ARA terminals to be supplied by the tenderer at his own cost after Inspection of materials by inspecting authority as per procedure mentioned in the tender document. This work also includes submission of stationwise/towerwise Power cable termination as built diagram.	Per Conductor	72.57	966	70102.62
11	Laying of HDPE duct 40/33 mm dia in the trenches and in protective works already provided.	km	12000.00	60	720000.00
12	Blowing of armoured optic fiber cable into the duct supplied elsewhere by using blowing machine and associated works. Before blowing the duct integrity shall be tested. If any defect is found during duct integrity test, the entire length of HDPE duct from one chamber to another chamber is to be replaced by the contractor at free of cost.	km	15000.00	65.55	983250.00
13	Supply and Installation of OFC joint enclosure and splicing of Optic fiber cable (24 fibres) and testing. Supply of Splice Enclosure (24 fiber) shall be of as per as per technical specification No. RDSO/SPN/TC/68/2014 revision 1.0 Amendment -1 or latest. All materials including Fusion splicing machine used for fiber splicing and, OTDR for testing and other testing materials if any shall be arranged by the contractor. is to be inspected by RDSO/RITES.	No.	7000.00	93	651000.00

14	Supply & Laying of G.I Pipes 50 mm dia. medium quality to specification IS.1239 (part-I) 1990 and galvanised to specification IS.4736- 1986 On bridges, culverts trench with channel ramps on either end of the culvert/bridges. Clamping arrangement with MS brackets for fixing of GI pipes on bridges/culverts, small holes of 5mm are to be drilled on the pipe before laying of the pipes.The work is to be carried out in girder bridges//RCC bridges as per drg. no 15- D6/15-D7 as the case may be in terms of technical specification vide cl no 14(a)/14(b)/14(C) of section III, Chapter I.	METERS	1051.00	2369	2489819.00
15	Supply Transportation and installation of RCC cable Route Markers as per drg. No 15-D1. They shall be painted with "Green" when placed at joint chamber, "Yellow" Placed at loop chamber and "RED" at all other places the length is 1000mm width is 300mm and thickness 80 mm with reinforcement as per DRG.No: Dwg.no.15- D1 The material will be inspected by inspecting authority and procedure as laid down in this tender document vide cl. No 31 of section III chapter I.	No.	490.00	1311	642390.00
16	Supply and installation and of rack mounted 24F FMS fiber part no.fms-1u 24FS 24FP Raychem make including 24Nos 0.2db LC adaptors and 24numbers 900 micron 1.5 meter FCPC pigtails and termination of 24 fiber on termination box.. RDSO Spec No.: RDSO/ SPN/TC-037-2000 (Ver.3) or latest. This work also includes termination of 24 fibers and providing 4 nos of 1.5/3 Meters LC to LC patch cords as required. Materials are to be inspected by Inspecting Authority as mentioned in per cl. No 31 of Technical specification section III, Chapter I.	No.	9677.50	83	803232.50
17	Strengthening of foundations of Full/Half location boxes, by carrying out the earth work around the foundation, ramming of the earth, caring out masonry work from bottom of earth work using country stones and cement masonry to prevent the earth from slipping down the bank.	No.	3854.76	7	26983.32
18	Supply ,Excavation of pit, casting concrete foundation and erection of apparatus case full size as per Technical specification and fixing of 1 No.of 'E' type lock for the front door, fixing of one hylam sheet of and painting the apparatus case inside and outside with one coat of redoxide and two coats of aluminium paints (foundation bolts and nuts,' E' type lock, cement, river sand, stone jelly of size 20/20mm, hylam sheet of size 1000mm X 940mm X 10mm, paints, varnish, fixing bolts and nuts and all other miscellaneous material required for the work shall be supplied by the contractor).Materials are to be inspected by Inspecting Authority as mentioned in per cl. No 31 of Technical specification.	No.	24,307.33	26	631990.58

19	Fabrication, supply and erection of conventional Earth to location box -Excavation of earth and providing earth pipe of size 50mm dia, 3.5mm thick 2.0 m. long G.I. pipe with masonry tub constructed around at earth locations as specified by site Engineer. Alternate layers of 30kgs-chrcoal and 30kgs-common salt to be filled in the pit while closing. The pipe perforation etc., to be carried out as per drawing No. SK 10/10.. The earth pipe to be connected to the function with cable as supplied by Railways. The reading should be painted on the masonry tub. The masonry tub of 400X400X450mm should be covered with cement slab. Materisla are to be inspected by Inspecting Authority as mentioned in per cl. No 31 of Technical specification (All materials to be transported and supplied by the contractor except cable.)	No.	6418.22	26	166873.72
20	Provision MS flat connection from Earth pit to LBs/Signals including a) Supply and laying of MS Flat of size 40X6mm at site b) Supply of GI bolt of size M12X40mm with two Nuts along with two plain washers and one spring washer c) Drilling of holes in MS flat of different sizes at site d) Cutting with bending and twisting of MS flat at site e) Painting of MS Flat with one coating of red oxide as primary and two coats of anti-corrosive black paint and f) Drilling of holes in Location Boxes at site.	METERS	1521.12	104.88	159535.07
21	Welding for jointing MS flat 6mm thick X 40mm width of different lengths strips connecting from Earth to location boxes/Signal post/Signal Unit for better continuity. Prior approval of welding material to be taken from Engineer Incharge	Each weld	439.01	26	11414.26

22	<p>Supply and installation of Basic material to construct unit maintenance free earth as per RDSO Spec no: RDSO/SPN/197/2008 consisting of:</p> <p>(I)Copper bonded steel electrodes of 3.0 mtr long,17.0 mm dia with Copper bonding thickness of Min 250 microns and UL listed and marked- 1nos.</p> <p>II) Earth enhancing compound of RDSO approved brand supplied in sealed bags of min 10kg pack-3 nos</p> <p>III) Copper strip of 150mmx25mmx6mm to terminate earth rod--1nos.</p> <p>IV) Copper strip of 300mmx25mmx6mm - 1nos. Cadmium bronze cable of size 3/16" Earth electrode and coupler along with earth enhancing compound material(10kg pack)</p> <p>VI) Supply of 35 sqmm Multi strand single core PVC insulated copper cable as per IS:694 for connecting main electrode to the equipment room in duplicate:20mtrs</p> <p>VII) Supply of 10 sq.mm multi strand single core PVC insulated copper cable as per IS:694 for connecting various equipments--20mtrs</p>	Nos	14858.38	8	118867.04
23	<p>Excavation of jointing pit of size 1.2 m dia an 1.2 m depth, supply and provision of FRP joint / loop chamber of 90 cm inner dia, 60 cm depth and 3mm thickness with two pieces top cover with two hooks each and bottom covered with hole drainage and cable entry as per DRG.NoRAILTEL/SR/OFC/2009/12 and as directed by Railway Engineer to be provided at every joint location and at every km loop etc. The chamber shall be filled with sand mixed with anti-termite powder, back filling and ramming of trench after HDPE duct laying, splicing and consolidation of soil.</p>	Nos	4279.00	111	474969.00
24	<p>Supply and fixing of 19"42U Racks with vero president,Rittal ,AEW, Bestnet or similar make in stations as advised by representative of authority Engineer.</p>	Nos	35314.00	4	141256.00
25	<p>Installation and commissioning of entire AC and DC Electrical system which includes supplying and fixing of aluminium ladder as per SCR drg no 5769,AC (10Sqmm 3core)and DC power cable of 16 sqmm(single core) Red and Black,01 no AC db with 2 circuit breaker (i.e. 32A for SMPS and 20 A for UPS/Power socket) with 01 SPD</p>	Nos	30000.00	4	120000.00

26	Splicing charges of laid fibre from Tower location to the Mid section RCIL OFC joint.	No.	3500.00	40	140000.00
Total Basic Amount					21360810.08
Add: GST@18%					3844945.81
Total amount including GST@18% (rounded off)					25205756
Tenderer's quoted percentage Below/At Par/Above (Including GST @18%)					Shall be filled online in IREPS online portal only
Grand Total Amount after Tenderer quoted percentage					

Note:

1.The tenderer has to quote Below/At Par/Above (Including GST @18%) in the below box. The percentage rate quoted on RailTel's total estimated cost of work as per schedule of work mentioned above, should be inclusive of all taxes, duties and freight etc. Break-up of taxes to be specified in a separate sheet showing Basic Price, GST@ and others if any etc. Please refer clause no 22 of preamble for video recording of trench.

Signature of Tenderer with Seal



SECTION I
Chapter 2
SCHEDULE OF REQUIREMENT

Tender No: RCIL-e-Tender-23-24-SC-58

Name of the work: - Trenching, laying/blowing, splicing/jointing of HDPE duct, OFC and 12 core power cable including supply and installation of Location Boxes and earthing in connection with Ground COMPREHENSIVE GROUND INFRASTRUCTURE WORKS FOR PROVISION OF 4G LTE-R IN 523 RKM OF SECUNDERABAD DIVISION IN SOUTH CENTRAL RAILWAY (Sec: Bidadi-Parli)

S No	Description (SAC code for all line items is 995423)	Unit	Rate exclusive of GST@18%	Qty	Total Amount exclusive of GST@18%
A	B	C		E	F (D*E)
1	Excavation of trench to a depth of 1000mm and width of 300m at bottom in all types of soil (Normal soil / soft soil / sandy/ except in rocky soils / bridges / level crossings / track crossings / coil pits) including marking of cable alignment, clearing of jungle, bushes, trial pits if required, refilling with excavated soil, ramming and consolidation after laying of cables as per RDSO/SI/G/2010 version 1.1 or latest complete to the finished item of work as directed by supervisor in-charge. In case 1000 mm depth not achieved, the work is to be carried out as mentioned in Sl. No 3	METERS	112.50	34702.29	3904007.63
2	Excavation of trench to a depth of 1000mm and width of 300m at bottom in all types of soil (Normal soil / soft soil / sandy/Morrum soil except in rocky soils / bridges / level crossings / track crossings / coil pits) including marking of cable alignment, clearing of jungle, bushes, trial pits if required, supply and laying of 120 mm /103mm splitt DWC pipe in station yard (HOME TO HOME) refilling with excavated soil, ramming and consolidation after laying of cables as per RDSO/SI/G/2010 version 1.1 or latest complete to the finished item of work as directed by supervisor in-charge. In case 1000 mm depth not achieved, the work is to be carried out.	METERS	173.15	14872.41	2575157.79

3	Excavation of trench up to a depth of 600mm and width of 300mm for the locations where 1 meter depth cannot be achieved . The work is to be carried out as per drg no 5771 including concreting, curing refilling after marking of cable alignment, clearing, bushes, trial pits if required. Refilling with excavated soil after concreting and curing, ramming and consolidation after laying of cables complete to the finished item of work as directed by supervisor in-charge.All materials to be supplied by the tenderer	METERS	247.50	12563.1	3109367.25
4	Excavation of trench up to a depth of 600mm and width of 300mm for locations where 1 meter depth cannot be achieved. the work is to be carried as per drg no 5771 including concreting, curing refilling after marking of cable alignment, clearing, bushes, trial pits if required & supply and laying of 120 mm /103mm splitt DWC pipe in station yard (HOME TO HOME) . Refilling with excavated soil after concretinmg and curing , ramming and consolidation after laying of cables complete to the finished item of work as directed by supervisor in-charge.All materials to be supplied by the tenderer	METERS	308.15	1395.9	430146.59
5	Digging of cable trench to a depth of not less than 30 cms in rocky terrain, Concreting the trench with 300 mm thick concrete with 1 cement: 2 sand: 4 graded stone aggregate 20mm nominal size. All the material is to be arranged by contractor. The work is to be executed as per drg no.15-D2(sheet 1/3 or sheet 2/3 or sheet 3/3) as per site condition.	METERS	605.00	2511	1519155.00
6	Breaking of metal / tar road and refilling after laying the cables as per drawing no 5768. The surface of the road shall be concreted to match with the old surface. This includes supply and placing of 120 mm DWC pipe	METERS	535.50	2511	1344640.50
7	Track crossing by horizontal boring method based on the drawing no.5770 and as advised by the engineer at site. This includes the supply and placing of HDPE Duct dia of 110 mm ,specfn no PE 80(IS 4984).	METERS	945.00	1409.4	1331883.00

8	Trenching under Rails for crossing the track (Track crossing) and refilling of trenches as per RDSO drawing No: 5768. The track crossing shall be done at right angles. The depth of cable trench shall be 1.2 Mtr. below the rail flange. The depth between top cable and the level of rail flange of the rail shall never be less than 1.2 Mtr. The OFC/Power cable to be laid through 120mm outer dia/103 mm inner dia DWC Pipe. The ballast shall be Stored separately while making the trench and the earth soil shall be stored separately. while re-filling the trench, the earth soil has to be filled first to the ground level and the ballast has to be properly put in the track. this work has to be done under supervision of S&T Representative and Representative of P.Way.	METERS	535.50	235	125842.50
9	Laying of 12core cable in the trench / duct/GI pipe etc	METERS	15.00	62100	931500.00
10	Power Cable termination including fixing terminals, fuses, LDs etc., Meggering the cables and recording the readings. 12 core Power cable will be supplied by RailTel. All other materials Wooden board/ Hylum sheet and ARA terminals to be supplied by the tenderer at his own cost after Inspection of materials by inspecting authority as per procedure mentioned in the tender document. This work also includes submission of stationwise/towerwise Power cable termination as built diagram.	Per Conductor	72.57	1134	82294.38
11	Laying of HDPE duct 40/33 mm dia in the trenches and in protective works already provided.	km	12000.00	70	840000.00
12	Blowing of armoured optic fiber cable into the duct supplied elsewhere by using blowing machine and associated works. Before blowing the duct integrity shall be tested. If any defect is found during duct integrity test, the entire length of HDPE duct from one chamber to another chamber is to be replaced by the contractor at free of cost.	Km	15000.00	76.95	1154250.00
13	Supply and Installation of OFC joint enclosure and splicing of Optic fiber cable (24 fibres) and testing. Supply of Splice Enclosure (24 fiber) shall be of as per as per technical specification No.RDSO/SPN/TC/68/2014 revision 1.0 Amendment -1 or latest. All materials including Fusion splicing machine used for fiber splicing and, OTDR for testing and other testing materials if any shall be arranged by the contractor. is to be inspected by RDSO/RITES.	No.	7000.00	110	770000.00

14	Supply & Laying of G.I Pipes 50 mm dia. medium quality to specification IS.1239 (part-I) 1990 and galvanised to specification IS.4736-1986 On bridges, culverts trench with channel ramps on either end of the culvert/bridges. Clamping arrangement with MS brackets for fixing of GI pipes on bridges/culverts, small holes of 5mm are to be drilled on the pipe before laying of the pipes. The work is to be carried out in girder bridges//RCC bridges as per drg. no 15-D6/15-D7 as the case may be in terms of technical specification vide cl no 14(a)/14(b)/14(C) of section III, Chapter I.	METERS	1051.00	2781	2922831.00
15	Supply Transportation and installation of RCC cable Route Markers as per drg. No 15-D1. They shall be painted with "Green" when placed at joint chamber, "Yellow" Placed at loop chamber and "RED" at all other places the length is 1000mm width is 300mm and thickness 80 mm with reinforcement as per DRG.No: Dwg.no.15-D1 The material will be inspected by inspecting authority and procedure as laid down in this tender document vide cl. No 31 of	No.	490.00	1539	754110.00
16	Supply and installation and of rack mounted 24F FMS fiber part no.fms-1u 24FS 24FP Raychem make including 24Nos 0.2db LC adaptors and 24numbers 900 micron 1.5 meter FCPC pigtails and termination of 24 fiber on termination box.. RDSO Spec No.: RDSO/SPN/TC-037-2000 (Ver.3) or latest. This work also includes termination of 24 fibers and providing 4 nos of 1.5/3 Meters LC to LC patch cords as required. Materials are to be inspected by Inspecting Authority as mentioned in per cl. No 31 of Technical specification section III, Chapter I.	No.	9677.50	98	948395.00
17	Strengthening of foundations of Full/Half location boxes, by carrying out the earth work around the foundation, ramming of the earth, caring out masonry work from bottom of earth work using country stones and cement masonry to prevent the earth from slipping down the bank.	No.	3854.76	8	30838.08

18	Supply ,Excavation of pit, casting concrete foundation and erection of apparatus case full size as per Technical specification and fixing of 1 No.of 'E' type lock for the front door, fixing of one hylam sheet of and painting the apparatus case inside and outside with one coat of redoxide and two coats of aluminium paints (foundation bolts and nuts,' E' type lock, cement, river sand, stone jelly of size 20/20mm, hylam sheet of size 1000mm X 940mm X 10mm, paints, varnish, fixing bolts and nuts and all other miscellaneous material required for the work shall be supplied by the contractor).Materials are to be inspected by Inspecting Authority as mentioned in per cl. No 31 of technical specification.	No.	24,307.33	31	753527.23
19	Fabrication, Supply and erection of conventional Earth to location box - Excavation of earth and providing earth pipe of size 50mm dia, 3.5mm thick 2.0 m. long G.I. pipe with masonry tub constructed around at earth locations as specified by site Engineer. Alternate layers of 30kgs-chrcoal and 30kgs-common salt to be filled in the pit while closing. The pipe perforation etc., to be carried out as per drawing No. SK 10/10.. The earth pipe to be connected to the function with cable as supplied by Railways. The reading should be painted on the masonry tub. The masonry tub of 400X400X450mm should be covered with cement slab. Materisla are to be inspected by Inspecting Authority as mentioned in per cl. No 31 of Technical specification (All materials to be transported and supplied by the contractor except cable.)	No.	6418.22	31	198964.82
20	Provision MS flat connection from Earth pit to LBs/Signals including a) Supply and laying of MS Flat of size 40X6mm at site b) Supply of GI bolt of size M12X40mm with two Nuts along with two plain washers and one spring washer c) Drilling of holes in MS flat of different sizes at site d) Cutting with bending and twisting of MS flat at site e) Painting of MS Flat with one coating of red oxide as primary and two coats of anti-corrosive black paint and f) Drilling of holes in Location Boxes at site.	METERS	1521.12	123.12	187280.29

21	Welding for jointing MS flat 6mm thick X 40mm width of different lengths strips connecting from Earth to location boxes/Signal post/Signal Unit for better continuity. Prior approval of welding material to be taken from Engineer Incharge	Each weld	439.01	31	13609.19
22	Supply and installation of Basic material to construct unit maintenance free earth as per RDSO Spec no: RDSO/SPN/197/2008 consisting of: (I)Copper bonded steel electrodes of 3.0 mtr long,17.0 mm dia with Copper bonding thickness of Min 250 microns and UL listed and marked- 1nos. II) Earth enhancing compound of RDSO approved brand supplied in sealed bags of min 10kg pack- 3 nos III) Copper strip of 150mmx25mmx6mm to terminate earth rod--1nos. IV) Copper strip of 300mmx25mmx6mm - 1nos. Cadmium bronze cable of size 3/16" Earth electrode and coupler along with earth enhancing compound material(10kg pack) VI) Supply of 35 sqmm Multi strand single core PVC insulated copper cable as per IS:694 for connecting main electrode to the equipment room in duplicate:20mtrs VII) Supply of 10 sq.mm multi strand single core PVC insulated copper cable as per IS:694 for connecting various equipments-- 20mtrs	Nos	14858.38	9	133725.42
23	Excavation of jointing pit of size 1.2 m dia an 1.2 m depth, supply and prrovision of FRP joint / loop chamber of 90 cm inner dia, 60 cm depth and 3mm thickness with two pieces top cover with two hooks each and bottom covered with hole drainage ancd cable entry as per DRG.No RAILTEL/SR/OFC/2009/12 and as directed by Railway Engineer to be provided at every joint location and at every km loop etc. The chamber shall be filled with sand mixed with anti-termite powder, back filling and ramming of trench after HDPE duct laying, splicing and consolidation of soil.	Nos	4279.00	129	551991.00
24	Supply and fixing of 19"42U Racks with vero president,Rittal ,AEW, Bestnet or similar make in stations as advised by representative of authority Engineer.	Nos	35314.00	5	176570.00

25	Installation and commissioning of entire AC and DC Electrical system which includes supplying and fixing of aluminium ladder as per SCR drg no 5769,AC (10Sqmm 3core)and DC power cable of 16 sqmm(single core) Red and Black,01 no ACdb with 2 circuit breaker (i.e. 32A for SMPS and 20 A for UPS/Power socket) with 01 SPD as advised by authority engineer	Nos	30000.00	5	150000.00
26	Splicing charges of laid fibre from Tower location to the Mid-section RCIL OFC joint.	No.	3500.00	47	164500.00
Total Basic Amount					25104586.79
Add: GST@18%					4518825.62
Total amount including GST@18% (rounded off)					29623412
Tenderer's quoted percentage Below/At Par/Above (Including GST @18%)					Shall be filled online in IREPS online portal only
Grand Total Amount after Tenderer quoted percentage					

Note:

1.The tenderer has to quote Below/At Par/Above (Including GST @18%) in the below box. The percentage rate quoted on RailTel's total estimated cost of work as per schedule of work mentioned above, should be inclusive of all taxes, duties and freight etc. Break-up of taxes to be specified in a separate sheet showing Basic Price, GST@ and others if any etc. Please refer clause no 22 of preamble for video recording of trench.

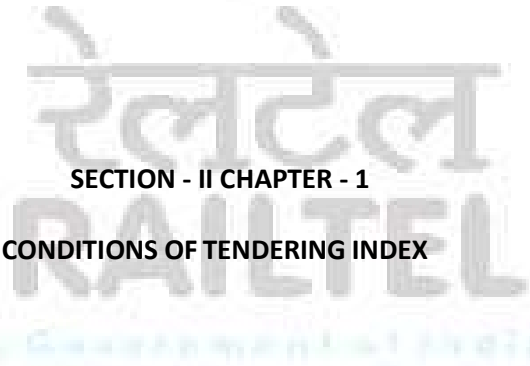
Signature of Tenderer with Seal



Chapter 1. Instructions to Tenderers and Conditions of Tendering

Chapter 2. Special Conditions of Contract

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SECTION - II CHAPTER - 1

INSTRUCTIONS TO TENDERERS AND CONDITIONS OF TENDERING INDEX

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SECTION - II
CHAPTER-1

INSTRUCTIONS TO TENDERERS AND CONDITIONS OF TENDERING

1. GENERAL INSTRUCTIONS

Tenders are invited on behalf of M/s. RailTel Corporation of India Limited, Begumpet-500016 from established and reliable contractors for the work of “TRENCHING, LAYING OF HDPE DUCT, OFC,12Core POWERCABLE and other associated works for COMPREHENSIVE GROUND INFRASTRUCTURE WORKS FOR PROVISION OF 4G LTE-R IN 523 RKM OF SECUNDERABAD DIVISION IN SOUTH CENTRAL RAILWAY.”

The Special Conditions of Contract, Instructions to Tenderers and Conditions of Tendering, Technical Specifications & Supplement, Preamble including Schedule of Requirements and all Annexure & Forms etc. shall, hereafter, be collectively referred to as the "**Tender Papers**".

1.1 Tender offer: The tenderer(s) are required to quote percentage Plus or Minus over the final schedule value both in figures and words as indicated in the schedule. If there is any discrepancy in the rate quoted between figures and words, the rates quoted in words will be taken as final.

2. INTERPRETATIONS

The following terms wherever occurring in the tender papers and wherever used throughout the execution of the work, shall, unless excluded by or repugnant to the context, have the meaning attributed thereto as follows:

"**CONTRACT**" Means the Contract resulting from the acceptance by the Purchaser of this Tender whether in whole or in part.

"**CONTRACTOR**" Means the successful Tenderer, i.e., the Tenderer whose Tender has been accepted either in whole or in part.

"**CONTRACTOR'S REPRESENTATIVE**" Shall mean a person in supervisory capacity who shall be so declared by the Contractor and who shall be authorized under a duly executed power of attorney to receive materials issued by the Purchaser to the Contractor for the works. He shall be responsible for proper execution of works at each or all places and shall take orders from Purchaser's Engineers and carry out the same.

"**ENGINEER / ENGINEER-IN-CHARGE**" Shall mean an executive of RailTel In-charge of works and shall include the superior executives of RailTel. He is responsible for ensuring that all field works covered by the contract are carried out in accordance with approved designs, drawings & specifications and conditions of contract as agreed to.

"**ENGINEER'S REPRESENTATIVE**" Shall mean the supervisor of RailTel in direct charge of the works.

"**EQUIPMENT**" Means all or any equipment considered necessary by the Purchaser's Engineers for satisfactory operation, as a whole, of the installations.

"**MONTH**" Means any consecutive period of thirty days.

"**MATERIALS**" Means all equipments, components, fittings and other materials including raw materials required to complete the work..

"**PURCHASER**" Means M/S RailTel Corporation of India Limited, 6A, 6th Floor, Gumidelli Towers, Opp: Shoppers Shop, Begumpet, Hyderabad - 16.

"**PURCHASER'S ENGINEER**" Means the Regional General Manager of RailTel or successor who will decide all matters relating to design, manufacture, installation and commissioning of the plant and equipment at site.

"**SUB-CONTRACTOR**" Means an individual or a firm of Contractor or a Company registered under Indian Company Act or an approved supplier of materials to whom the Contractor sublets portions of the contract.

"**CONSIGNEE**" Means the person specified in the Acceptance of Tender to whom Stores are to be delivered at the destination.

"**INSPECTING OFFICER**" Means the person, or organization specified in the contract for the purpose of inspection of stores of work under the contract and includes his/their-authorized representative.

"**RailTel**" Means M/s. RailTel Corporation of India Limited, Southern Region, 6A, 6th Floor, Gumidelli Towers, Opp: Shoppers Shop, Begumpet, Hyderabad - 16.

"SITE" Means the areas to be taken up by the permanent works, together with any other area or areas as shall be determined by the Purchaser's Engineer, which may be placed at the disposal of the Contractor for the purpose of the contract and also such area or areas used for store yards, works yards or workshop in proximity of the works as the Purchaser's Engineer may have authorized as an extension of the site, irrespective of the terms and conditions under which they are occupied by the Contractor.

"BLOCK SECTION" Means the distance along the railway track between two consecutive Railway Block stations.

"TENDERER" Means and includes any firm of engineers or Contractors or any company or body, corporate or otherwise, who submit the Tender which has been invited.

"WORK OR WORKS" Means all or any of the items of the work for which the Tenderer /Contractor has Tendered/contracted according to the specifications, drawings and Annexure hereto annexed or to be implied there from, or incidental thereto or to be hereafter specified or required in such explanatory instructions and drawings, being in conformity with the original specifications, drawings, Annexure and schedules and also such instructions and drawings additional to the aforementioned as may from time to time be issued by the Purchaser's Engineer during the progress of the contracted work.

"WRITING" Includes all matters written, typewritten or printed either in whole or in part.

3. LOCAL CONDITIONS

- 3.1 It will be imperative on each tenderer to fully acquaint himself with all the local conditions and factors, which would have any effect on the performance of the contract and cost of the stores. The purchaser shall not entertain any request for clarifications from the tenderer regarding such local conditions. No request for the change of price or time schedule of delivery of stores shall be entertained after the offer is accepted by the purchase on account of any local condition or factor.
- 3.2 The intending tenderer is advised to study the tender papers carefully. Any submission of a quotation by the tenderer shall be deemed to have been done after a careful study and examination of these documents with full understanding of the implication thereof. These conditions and specifications shall be deemed to have been accepted unless otherwise, specifically commented upon by the Tenderer in his quotation. Failure to adhere to anyone or all these instructions may render his offer liable to be ignored without any reference.
- 3.3 Should a tenderer find discrepancies in, or omission from, the drawings or any of the Tender papers or he has any doubt to their meaning, he should at once notify the RailTel who may send a written clarification to all tenderers.

4. COMPLIANCE TO TENDER CONDITIONS, SPECIFICATIONS & DRAWINGS

- 4.1 The tenderer shall indicate paragraph by paragraph for each section of the tender document that either his tender complies in every respect with the requirements of each clause and sub clause or if not, precisely how they differ from the requirements of the tender. In later case, the tenderer shall enclose a separate statement as per proforma given, indicating only the deviations for any clause or sub clause of Special Conditions of Contract, Instructions to Tenderers and Conditions of Tendering, Technical Specifications, Preamble etc. which he proposes with justifications for deviations proposed. The purchaser reserves the right to accept or reject these deviations and his decision thereon shall be final (see Form 5).
- 4.2 The equipment offered shall be in accordance with the drawings and specifications. Details of variation from the drawings and specifications, if any, should be clearly indicated separately for each annexure with justification for deviations proposed. The Purchaser reserves the right to accept or reject these deviations and his decision thereon shall be final.
- 4.3 Firms should give details of similar works carried out giving details of the name of the project, date of award, length of the section, value of the contract, the original execution period and the actual execution time taken.

5 EARNEST MONEY/ BID GUARANTEE

5.1 The tenderer shall submit an amount mentioned as below as earnest money in favour of RailTel Corporation of India Limited, Secunderabad, payable at Secunderabad through IREPS portal online only.

Tender No RCIL-e-Tender-	Name of the Work	Tender Estimated Cost rounded off All Inclusive (In Rs)	EMD (In Rs)
23-24-SC-55	TRENCHING, LAYING OF HDPE DUCT, OFC,12Core POWERCABLE and other associated works for COMPREHENSIVE GROUND INFRASTRUCTURE WORKS FOR PROVISION OF 4G LTE-R IN SC-RGPL&lpi-vkb SECTION	34197865.00	684000.00
23-24-SC-56	TRENCHING, LAYING OF HDPE DUCT, OFC,12Core POWERCABLE and other associated works for COMPREHENSIVE GROUND INFRASTRUCTURE WORKS FOR PROVISION OF 4G LTE-R IN VKB-WD,VKB-SPD SECTION	23185715.00	463800.00
23-24-SC-57	TRENCHING, LAYING OF HDPE DUCT, OFC,12Core POWERCABLE and other associated works for COMPREHENSIVE GROUND INFRASTRUCTURE WORKS FOR PROVISION OF 4G LTE-R IN SPD-BID SECTION	25205756.00	504200.00
23-24-SC-58	TRENCHING, LAYING OF HDPE DUCT, OFC,12Core POWERCABLE and other associated works for COMPREHENSIVE GROUND INFRASTRUCTURE WORKS FOR PROVISION OF 4G LTE-R IN BID-PRLI SECTION	29623412.00	592500.00

5.2 The tenderers shall hold the offer open till such date as specified in Para 9 of this chapter. It being understood that the tender documents have been sold/issued to the tenderer and the tenderer has been permitted to tender in consideration of the stipulation on his part that after submitting his tender he will not rescind from his offer or modify the terms and conditions thereof in a manner not acceptable to RailTel. If the tenderer fails to observe or comply with the foregoing stipulation, the aforesaid amount deposited as Earnest Money shall be liable to be forfeited by the RailTel.

5.3 The earnest money may be forfeited:

- 5.3.1 If a tenderer withdraws its tender during the period of tenders validity specified in Clause 9 of Instructions to Tenderers and Conditions of Tendering.
- 5.3.2 In the case of successful tenderer, if the tenderer fails to Sign the contract in accordance with clause 2 of Special Conditions of Contract.
- 5.3.3 To furnish performance guarantee in accordance with clause 3.1 of Special Conditions of Contract.
- 5.4 The earnest money of unsuccessful tenderer will be returned within reasonable time to the unsuccessful tenderer but the RailTel shall not be responsible for any loss or depreciation that may happen to the security for the due performance of the above stipulation to keep offer open for the period specified in the tender documents or to the Earnest Money while in their possession nor be liable to pay interest thereon.
- 5.5 If the tender is accepted, the amount of Earnest Money will be held as security deposit for due and faithful fulfillment of contract. The Earnest Money of successful tenderer will be returned after the Contract Performance Guarantee (Security Deposit) as required under para 3 of Special Conditions of Contract is furnished and formal contract duly signed is received by the purchaser.
- 5.6 If the tenderer deliberately gives wrong information in his/her tender or creates such circumstances for the acceptance of his/her tender, then RailTel reserves the right to reject such tender at any stage. In case credential certificate(s) submitted by the contractor are found to be incorrect, the EMD deposited shall be forfeited in respective tenders he has quoted and he will be barred from quoting in RailTel tenders for a period of 5 years.
- 5.7 If a Tenderer expires after the submission of his tender or after the acceptance of his tender, the RailTel shall deem such tender as cancelled. If a partner of a firm expires after the submission of their tender or after the acceptance of their tender, the RailTel shall deem such tender as cancelled, unless the firm retains its character

5.8 For UDYAM registered firm- Not applicable as instant tender is works contract

6 SUBMISSION OF OFFERS

- 6.1 All offers in the prescribed forms should be submitted before the time and date fixed for the receipt of the offers. Offers received after the stipulated time and date will be summarily rejected.
- 6.2 In case the date of opening happens to be a holiday, the tender will be received and opened at the same time on the **next working day**.
- 6.3 All offers shall be either type written or written neatly in indelible ink in English. Each page of the offer must be numbered consecutively. A reference to total number of pages comprising the offer must be made at the top right-hand corner of the top page. The supporting documents should be submitted either in original or duly signed by the authorized signatory of the tenderer. The original documents shall be produced for verification when called for.
- 6.4 All copies of the tender papers shall be signed by the tenderer, on each page including closing page in token of his having studied the tender papers carefully.
- 6.5 **RATES IN FIGURES & WORDS: -**
- 6.5.1 All prices and other information like discounts etc., having a bearing on the price shall be written both in figures and in words in the prescribed offer form. In case of difference in words and figures the amount written in words will be taken in to consideration.
- 6.5.2 In the event of any discrepancy between unit rate and total cost, the value shown in unit rate will be taken for evaluation purpose.
- 6.5.3 In case the schedule of requirement quoted by tenderer is incomplete with reference to tender document, the offer is liable to be rejected.
- 6.6 **ATTESTATION OF ALTERATION:** No scribbling is permissible in the tender documents. Tender containing erasures and alterations in the tender documents are liable to be rejected. Any correction made by the tenderer/tenderers in his/their entries must be signed (not initialed) by him/them.

6.7 The bid shall consist of the following:

- i) Offer letter complete. (Form No.1)
- ii) Schedule of works (i.e., Schedule of Requirements) with rate and total amount duly signed (digitally) by the tenderer in figures and words as applicable on IREPS portal.
- iii) Earnest Money to be submitted online in IREPS portal only
- iv) Constitution of Firm and Power of Attorney (refer below clause no 7)
- v) Clause wise compliance to tender conditions & statement of deviations (Para 4). Form No.5
- vi) Similar works executed or under execution. Form No. 10
- vii) User's Certificate Form No. 2
- viii) Any other information desired to be submitted by the tenderer.
- ix) Complete tender document duly signed (digitally sign) in all pages including above
- x) Power of attorney in favour of the signatory duly authorizing the signatory shall be enclosed in the bid
- xi) Notarized affidavit
- xii) Self-declaration

7. CONSTITUTION OF FIRM AND POWER OF ATTORNEY

- 7.1 Any individual(s) signing the tender or other documents connected therewith should specify whether he is signing: -
 - (a) As sole proprietor of the concern or as attorney of the sole proprietor;
 - (b) As a partner or partners of the firm;
 - (c) As a Director, Manager or Secretary in the case of Limited Company duly authorized by a resolution passed by the Board of Directors or in pursuance of the authority conferred by Memorandum of Association
- 7.2 In the case of a firm not registered under the Indian Partnership Act, all the partners or the attorney duly authorized by all of them should sign the tender and all other connected documents. The original Power of Attorney or other documents empowering the individual or individuals to sign should be furnished to the Purchaser for verification, if required.
- 7.3 The RailTel will not be bound by Power of Attorney granted by the tenderer or by the changes in the composition of the firm made subsequent to the execution of the contract agreement.
- 7.4 In case where the Power of Attorney partnership deed has not been executed in English, the true and authenticated copies of the translation of the same by Advocate, authorized translators of Courts and Licensed Petition Writers should be supplied by the Contractor(s) while tendering for the work.
- 7.5 The duly notarized Power of Attorney, Partnership Deed, Memorandum of Joint Venture as the case may be in original or duly signed.
8. **UNIT PRICES:** The unit prices should be quoted by the Contractor after taking all the relevant factors into consideration and these should be Firm and all-inclusive without any variation clauses. The prices shall be quoted in rupees for the units under metric system. Reference may be made Special Conditions of Contract (Chapter II Section II). The prices shall be inclusive of all taxes and statutory payments.
9. **VALIDITY OF OFFER:** The tenderer shall keep the offer open for a minimum period of 30 (Twenty) days, from the date of opening of tender. Within that period the tenderer cannot withdraw his offer subject to the period being extended further, if required, by mutual agreement from time to time. Any contravention of the above condition will make the tenderer liable for forfeiture of his Earnest Money.
10. **RATES DURING NEGOTIATION:** The tenderer/s shall not increase his/their quoted rates in case the RailTel Administration negotiates for reduction of rates. Such negotiations shall not amount to cancellation or withdrawal of the original offer and the rates originally quoted will be binding on the tenderer/s.
11. **PERIOD OF COMPLETION AND TIME PROGRESS GRAPH:** The works/work are/is to be completed within a period as mentioned in preamble at para 9.
12. **NON-TRANSFERABILITY AND NON-REFUNDABILITY:** The tender documents are not transferable. The cost of tender document is not refundable.
13. **ERRORS, OMISSIONS & DISCREPANCIES:** The Contractor(s) shall not take any advantage of any

misinterpretation of the conditions due to typing or any other error and if in doubt shall bring it to the notice of the Engineer without delay. In case of any contradiction only the printed rules, and books should be followed and no claim for the misinterpretation shall be entertained.

14. WRONG INFORMATION BY TENDERER: If the tenderer/s deliberately gives/give wrong information in his/their tender which creates/create circumstances for the acceptance of his/their tender the RailTel reserves the right to reject such tender at any stage.

15. QUALIFYING CRITERIA:

15.1 General: all the supporting documents shall be self attested by Tenderer for their consideration.

15.1.1 Qualifying criteria under this para lays down minimum acceptable qualifications in various areas to ensure that qualified bidder has necessary experience, technical expertise, equipments and financial and human resources to successfully complete the project.

15.1.2 If the tenderer proposes to buy any equipment from other suppliers/ sources, documents indicating the willingness to supply the equipment and provide technical support to the tenderer that may be required during installation, commissioning and warranty period and later on directly to the RailTel, shall be included in the tender.

15.1.3 The tenderer should submit the details of experience of similar works or services in the projects executed / under execution which should clearly bring out expertise in the equipment manufacture or installation etc. as per form no. 10.

15.1.4 For supply of critical materials, the contractor, if he is not a manufacturer, shall submit a certificate from the manufacturer, whose material he intends to supply, to the effect that the manufacturer is willing and capable to supply the material in time so as to enable the contractor to complete the work within the time frame mentioned in the contract.

15.1.5 The tenderer/s must submit along with his/their tender, certificates from the original user for whom the project was undertaken certifying the date of award of contract, date of completion, date of commissioning and the present working state of the system so established. The tenderer shall submit these certificates for all the projects that he has executed which only satisfy the minimum requirements in each case. The certificates are to be submitted in original or their true copies duly signed by the tenderer to contain the information as per form no. 2.

15.2 Technical Capability: Tenderer must have completed works of similar nature, as indicated in para 16 below, successfully and satisfactorily of values as indicated below:

15.2.1 The tenderer must have successfully completed any of the following during last 07 (seven) years, ending last day of month previous to the one in which tender is invited:

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

or

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

or

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

Or

1.4 Should have performed OFC route maintenance for a continuous stretch of more than 150kms for a minimum period of 6 months in the past three financial years including current year before the date of opening of tender.

Note: Work experience certificate from private individual shall not be considered. However, in addition to work experience certificates issued by any Govt. Organization, PSU, any reputed TELCO, work experience certificate issued by Public listed company having average annual turnover of Rs 500 crore and above in last 3 financial years excluding the current financial year, listed on National Stock Exchange or Bombay Stock Exchange, incorporated/registered at least 5 years prior to the date of opening of tender, shall also be considered provided the work experience certificate has been issued by a person authorized by the Public listed company to issue such certificates. In case tenderer submits work experience certificate issued by public listed company, the tenderer shall also submit along with work experience certificate, the relevant copy of work order, bill of quantities, bill wise details of payment received duly certified by Chartered Accountant, TDS certificates for all payments received and copy of final/last bill paid by company in support of above work experience certificate). Offers not accompanied by user certificates as per Form no 2 to establish technical eligibility, will not be considered.

15.3 Financial:

15.3.1 The tenderer must have received contractual payments in the previous three financial years and the current financial year up to the date of inviting of tender, at least 150% of the advertised value of the tender. The tenderers shall submit Certificates to this effect which may be an attested Certificate from the concerned department / client or Audited Balance Sheet duly certified by the Chartered Accountant/ Certificate from Chartered Accountant duly supported by Audited Balance Sheet.
(Note: Client certificate from other than Govt. Organization should be duly supported by Form 16A/26AS generated through TRACES of Income Tax Department of India). Offers not accompanied by supporting documents as mentioned above to establish financial eligibility will not be considered.

16. MEANING OF SIMILAR WORKS: Works similar to the scope of work as contained in this tender shall mean that

“Underground Optical Fibre cable laying work including Trenching, Blowing of OFC through HDPE Duct, splicing and testing of OFC”

Or

“Laying of Quad/Power Cable/signal cable, Jointing and Testing”

Or

“Should have performed OFC route maintenance for a continuous stretch of more than 150kms for a minimum period of 6 months in the past three financial years including current year before the date of opening of tender.”

16.1 System of Verification of Tenderer’s Credentials:

- i. The tenderer shall submit along with the tender document, documents in support of his/their claim to fulfil the eligibility criteria as mentioned in the tender document. Each page of the copy of documents/certificates in support of credentials, submitted by the tenderer, shall be self- attested/digitally signed by the tenderer or authorized representative of the tendering firm. Self- attestation shall include signature, stamp and date (on each page). Only those documents which are declared explicitly by the tenderer as “documents supporting the claim of qualifying the laid down eligibility criteria”, will be considered for evaluating his/their tender
- ii. **The tenderers shall submit a notarized affidavit** on a non-judicial stamp paper stating that they are not liable to be disqualified and all their statements/documents submitted along with bid are true and factual. Standard format of the affidavit to be submitted by the bidder is enclosed as Annexure-A (Form 11). Non submission of an affidavit by the bidder shall result in summary rejection of his/their bid. And It shall be mandatorily incumbent upon the tenderer to identify, state and submit the supporting documents duly self attested by which they/he is qualifying the Qualifying Criteria mentioned in the Tender Document. It will not be obligatory on the part of the RailTel to scrutinize beyond the submitted document of tenderer as far as his qualification for the tender is concerned.

- a) **The RailTel reserves the right to verify all statements, information and documents submitted by the bidder in his tender offer, and the bidder shall, when so required by the RailTel, make available all such information, evidence and documents as may be necessary for such verification. Any such verification or lack of such verification, by the RailTel shall not relieve the bidder of its obligations or liabilities here under nor will it affect any rights of the RailTel thereunder.**
- b) **In case of any wrong information submitted by the tenderer, the contract shall be terminated, Earnest Money Deposit (EMD), Performance Guarantee (PG) and Security Deposit (SD) of contract forfeited and agency barred for doing business on entire RailTel for 5 (five) years.**
- 17. SYSTEM PERFORMANCE GUARANTEE:** The tenderer shall give unqualified and unconditional guarantee that when the equipment / material supplied by him is installed and commissioned at site, it shall achieve the desired objective and that in the event of performance of the system when installed not complying with the end objective or with the specifications, he shall provide further inputs to enable the RailTel to realize the end objectives with full compliance of the specifications contained in these documents. No additional payment will be made to the contractor for supply of any additional goods and service required in this regard.
- 18. AUTHORITY OF ACCEPTANCE:** The authority for the acceptance of the tender rests with the Purchaser. The tenders received will be evaluated by the Purchaser to ascertain the best acceptable tender in the interest of the Purchaser.
However, the purchaser shall not be bound to accept the lowest or any tender or to assign any reason for non-acceptance or rejection of a tender. The purchaser reserves the right to accept any tender in respect of the whole or any portion of the work specified in the tender paper or to sub-divide the work among different Tenderers or to reduce the work or to accept any tender for less than the tendered quantities without assigning any reason whatsoever.
- 19. AGREEMENT:** The successful tenderer/s shall be required to execute an agreement with the representative of RailTel for carrying out the work according to the tender documents as indicated in para 2 of Special Conditions of Contract (Section II Chapter II).
- 20. TENDERER'S ADDRESS:** Tenderer shall state in the tender his postal address fully and clearly. Any communication sent to the tenderers by post at his said address shall be deemed to have reached the tenderer duly & timely, notwithstanding the fact that the communication could not reach the tenderer at all or in time for whatever reason. Important documents shall be sent by Registered Post.
- 21. EVALUATION OF OFFER**
The authority for the acceptance of the tender rests with the Purchaser. The tenders received will be evaluated by the Purchaser to ascertain the best acceptable tender in the interest of the Purchaser. However, the purchaser shall not be bound to accept the lowest or any tender or to assign any reason for non-acceptance or rejection of a tender. The purchaser reserves the right to accept any tender in respect of the whole or any portion of the work specified in the tender paper or to sub-divide the work among different tenderers or to reduce the work or to accept any tender for less than the tendered quantities without assigning any reason whatsoever.
- 22. AMENDMENT OF TENDER DOCUMENT**
- 22.1 RailTel may modify the Tender Document by issuing ADDENDA/CORRIGENDA
- 22.2 Tenderers are advised to submit the tender well in advance before the stipulated time. It is the responsibility of the Tenderer to check any correction or any modifications (addenda/corrigenda) published subsequently Web site and the same shall be taken into account while submitting the tender.
- 22.3 To give prospective bidders a reasonable time to take ADDENDUM/CORRIGENDUM into account in preparing their bids, the RailTel may at their discretion extend as necessary, the deadline for submission of Tender document.
- 22.4 The materials that shall be handed over to the Contractor at any time for execution of work shall depend upon the particular item of work in the schedules to be done at a particular time and also the progress of work. The contractor shall furnish Indemnity Bond for a sum equal to the cost of materials proposed

to be taken by him. The quantity of materials that shall be given by the RailTel at any time shall not exceed the value of Indemnity Bond that is furnished by the Contractor.

- 22.5 Materials issued to the contractor shall be used solely and economically for the purpose of work covered by this contract only. The materials shall be used in such quantities and proportions as are indicated in Schedule or in the relevant specifications or drawings or as approved by the Engineer whose decision thereon shall be final. Wastage or damage to such materials in any manner shall be avoided.
- 22.6 The contractor shall be liable to render fully accountable for all the materials issued by the RailTel. If any quantity of RailTel materials is consumed in excess or wasted or damaged or lost or otherwise not satisfactorily accounted for, recovery shall be made from the contractor at twice the issued rate prevailing at the time of last issue of the materials consumed in excess or wasted or damaged or lost or not satisfactorily accounted for.
- 22.7 If at any time any materials which the contractor would normally have to arrange for himself is supplied by the RailTel either at the contractor's request or suo-moto in order to prevent possible delay in the execution of the work due to contractor's inability to make adequate arrangements for the supply therefore or otherwise, such materials will be made available to the contractor in the RailTel's Stores Depot at Secunderabad as required for the work. All handling, subsequent thereof will be at the contractors responsibility. Recovery of the cost of such supply will be made from the contractor's bills, as per extant rules of the RailTel. Any demurrage or other charges due on account of detention of wagons in loading or unloading will also be recovered from the Contractor.
- 22.8 If the materials mentioned in schedules, however not available in RailTel and /or decide not to supply the same, whatever be the reason, the RailTel shall not be bound to arrange for the supply nor will this fact be accepted as an excuse for delay in the execution of the work by the contractor.
- 22.9 The quantities indicated in the schedules are approximate and will only support to convey to the contractor an idea of the magnitude of the work. The rates mentioned in Schedules are deemed to hold good for any increase in quantities up to 25%. The description of items is given as a guide and approximately only and is subject to variation according to the needs of the RailTel. The RailTel accepts no responsibility for their accuracy. Further, the RailTel does not guarantee work under each item of the Schedule.
- 22.10 Materials shall be issued to the contractor or his representative at specific depot of the stores on Production of identity card with photograph or authorization letter issued by this office. Also indemnity bond on non-judicial stamp paper of Rs 100/- as per Performa given in Form No-6 of Chapter V will be executed and submitted to the Section Engineer in charge.

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RAILTEL

A Government of India
UNDERTAKING

SECTION- II
CHAPTER - 2

Special Conditions of Contract I N D E X

Para Subject

1. Tender Document
2. Agreement
3. Security Deposit
4. Contractor's Office & Stores depot
5. Use of Railway Land
6. Program of work.
7. Competent Supervisors
8. Test & Measuring Instruments, Special tools & Installation Material
9. Stores to be supplied by contractor
10. Supply of Technical Literatures, Documentation Drawings & Completion Plan etc.
11. Quality assurance
12. Inspection of materials
13. Inspection of works
14. Quantum of work and variation in Quantities
15. Subletting and assignment
16. Execution of works
17. Maintenance of works
18. Clearance of site
19. Provisional Acceptance
20. Placing in Service & Maintenance Supervision
21. Final Acceptance
22. Warranty
23. Infringement of Patents
24. License as per Govt. of India Contract Labour Act
25. Defaults and Delays
26. Loss Sustained Due to Default and Delay
27. Penalty for Delay in Completion
28. Adherence of time schedule
29. Contractors liabilities for Costs and Damages
30. Unit prices
31. Measurement of works
32. meaning and interpretation by RailTel to be final
33. Terms of Payments
34. On account payment
35. Final Payments
36. Final Settlement
37. Certificate for MODVAT BENEFITS on bills
38. Deductions from On Account Payment Bills
39. Taxes
40. Insurance
41. Force Majeure Clause
42. Settlement of dispute and Arbitration
43. Termination of Contract

SPECIAL CONDITIONS OF CONTRACT

1. TENDER DOCUMENTS

1.1 The goods and works/services required, bidding procedure and contract terms are prescribed in the tender documents. The set of tender documents issued for the purpose of bidding includes the following together with any addendum and corrigendum thereto.

Section-I: Preamble along with schedule of requirements, annexure etc.

Section-II: I) Instructions to tenderers and conditions of tendering.

II) Special conditions of contract.

III) Forms of Tender and annexure etc.

Section-III: Technical specifications and drawings etc.

1.2 If the Tender submitted by a Tenderer is accepted and the contract awarded to the Tenderer the various works coming under the purview of the contract shall be governed by tender documents mentioned above.

1.3 Any special conditions stated by the Tenderer in the covering letter submitted along with the tender shall be deemed to be a part of the Contract to such extent only as have been explicitly accepted by the RailTel.

2. AGREEMENT

The successful Tenderer shall within 30 days after having been called upon by notice to do so be bound to execute an agreement based on accepted rates and conditions, in such form as the RailTel may prescribe, and lodge the same with the RailTel together with the conditions of contract, specifications and Schedule of prices referred to therein duly complete. The form for agreement is included in Section II, Chapter III (Form No.3).

3. SECURITY DEPOSIT

3.1.1 The security deposit amount will be equal to 5% of contract value for due fulfillment of the contract.

3.2 The Earnest Money already paid by the successful Tenderer (see Clause 5 Chapter-I Section-II Instructions to Tenderers and Conditions of Tendering) will be adjusted towards payment of this Security deposit

3.3 Balance amount towards SD shall be recovered from the contractor's "on account" bills as under:

(a) The rate of recovery should be at the rate of 6% of the bill amount till 5 % contract value is achieved.

(b) Security Deposit shall be released after satisfactory completion of the warranty period (clause no 22) and on issue of Final acceptance certificate (FAC).

(c) No interest will be payable upon the Earnest Money and Security Deposit

(d) Submission of Security deposit as 5% of total contract value in terms of irrevocable bank Guarantee/Fixed Deposits before first on account bill will enable the authority to not to recover in terms of 3.3(a). The bank Guarantee/FD should be valid till completion period. It need to be extended time to time in case of extension of contract till the date of issue of Final Acceptance certificate..

3.4 CONTRACT PERFORMANCE GUARANTEE (PBG)

3.4.1 On receipt of the Letter of Acceptance/PO of Tender from the RailTel, the successful Tenderer should give a Performance Guarantee in the form of irrevocable bank guarantee from any Nationalized Bank or Scheduled Bank in the Form given in Tender document amounting to **5% of the contract value**.

3.5 The Instruments for Performance Guarantee should be valid for One year beyond the Completion period.

- 3.6** Note: A separate advice of the BG will invariably be sent by the BG issuing bank to the RailTel's bank through SFMS and only after this the BG will become acceptable to RailTel. It is therefore in own interest of bidder to obtain RailTel's bank IFSC code, its branch and address and advise these particulars to the BG issuing bank and request them to send advice of BG through SFMS to the RailTel's Bank
- 3.7** The successful tenderer shall have to submit a Performance Guarantee (PG) within 30 (thirty) days from the date of issue of Letter of Acceptance (LOA).
- 3.8** **Delay in submission of PBG:** The successful tenderer shall have to submit a Performance Guarantee (PBG) within 30 (thirty) days from the date of issue of Letter of Acceptance (LOA)/PO. Extension of time for submission of PG beyond 30 (thirty) days and up to 60 days from the date of issue of LOA may be given by the Authority who is competent to sign the contract agreement. However, a penal interest of 15% per annum shall be charged for the delay beyond 30 (thirty) days, i.e. from 31st day after the date of issue of LOA, a notice shall be served to the contractor to deposit the PG immediately (however not exceeding 60 days from the date issue of LOA). In case the contractor fails to submit the requisite PBG even after 60 days from the date of issue of LOA, the contract shall be terminated duly forfeiting EMD and other dues, if any payable against that contract. The failed contractor shall be debarred from participating in re-tender for that work
- 3.9** Performance Guarantee shall be released after satisfactory completion of the completion period. On completion of work and issue of Provisional Acceptance Certificate, the PBG submitted in the form of BG / Demand Draft/Fixed deposit receipt will be returned / refunded to the contractor after adjustment of any dues payable by the contractor.
- 3.10** Wherever the contracts are rescinded, the security deposit should be forfeited and the Performance Guarantee shall be en-cashed by RailTel.
- 3.11** The balance work shall be got done independently by RailTel.
- 3.12** The original contractor shall be debarred from participating in the tender for executing the balance work. If the failed contractor is a Joint Venture (JV) or a partnership firm, then every member/partner of such a firm would be debarred from participating in the tender for the balance work either in his/her individual capacity or as a partner of any other JV/partnership firm.
- 4. CONTRACTOR'S OFFICE & STORES DEPOT:** The Contractor shall within ten days of issue of letter of acceptance of tender establish an office and store depot at a convenient place for receiving and storing equipments and materials and progressing field work expeditiously in consultation and with the approval of the purchaser's Engineer. He shall intimate the purchaser's Engineer address thereof to which all correspondence should be sent. Any communication sent to the contractor by post at his said address shall be deemed to have reached the contractor duly and in time. Important documents shall be sent by Registered post.
- 5. USE OF RAILWAY LAND:** Use of Railway land required by the Contractor for construction of temporary offices, quarter(s), hutments etc. for the staff and for storing materials etc., will be permitted to him/them subject to approval by Railways, if available at the charges prescribed by the Railways. The land will be restored to Railways by the Contractor(s) in the same condition as when taken over or in vacant condition as desired by the Engineer after completion of the work or at any earlier day as specified by the Engineer. Failure to do so will make the Contractor(s) liable to pay the cost incurred by the Railway for getting possession of land.
- 6. PROGRAMME OF WORK**
- 6.1** The Contractor shall have necessary resources to execute the work so that the entire work is completed within a period as mentioned in the preamble from the date of issue of Letter of Acceptance of the tender. He shall also have necessary resources to take up the work simultaneously at more than one

independent place in order to expedite the completion of work.

6.2 Within a period of 7 days beginning from the date of issue of Letter of Acceptance/PO of Tender the Contractor shall submit the detailed time Schedule for the execution of work based on the conditions in consultation with RailTel to the authority mentioned in the Preamble and approved by the later in writing before commencement of the work.

6.3 The Contractor shall be held responsible for the execution of the work according to the Program given above in full compliance of the various clauses of the Technical specifications, instructions / drawings etc. Failure to comply with any of these will be dealt with as per provision laid down in Conditions of Tendering.

6.4 Approach roads, where ever available can be used for carting materials. While RailTel may facilitate the contractor for getting approval from the Railways, if required, for carting the material to the site, the responsibility for ensuring that the material reaches the site in time, lies entirely with the contractor. The contractor has to bear the necessary expenses for carting the material to the site.

6.5 The contractor will program his work in such a manner so as not to interfere in the working and movement of trains.

7. **COMPETENT SUPERVISORS:** The Contractor shall place and keep competent representatives/Supervisors /Engineers as his representative on the works who will be authorized to receive and acknowledge materials issued by the RailTel and take all orders issued by the RailTel. The said representatives shall be present at site during working hours and any written orders or instructions which the purchaser's Engineer may give to the said representatives of the contractor shall be deemed to have been duly given or communicated to the contractor.

8. **TEST & MEASURING INSTRUMENTS AND SPECIAL TOOLS ETC.**

8.1 Special tools & instruments required for installation and commissioning of the work as detailed in preamble shall be arranged by contractor at his own cost.

8.2 All tests and measuring instruments and other arrangements required for carrying out all the acceptance tests etc shall be provided by the contractor at his own cost.

9. **STORES TO BE SUPPLIED BY CONTRACTOR:** All materials required for the execution of the contract shall be arranged and supplied by the Contractor as detailed in the scope (Preamble) so as to realize the end objective. The supply of equipments and materials shall also include required installation and other materials and documents etc which may not be specifically mentioned herein but which are usually necessary for completing the work in all respects.

10. **SUPPLY OF TECHNICAL LITERATURES, DOCUMENTATION, DRAWINGS, INSTRUCTION BOOK & COMPLETION PLANS ETC:** The supply of equipment and materials shall include supply of two sets of printed documents from original equipment manufacturers for each equipment.

11 **QUALITY ASSURANCE:** In the event of RailTel waving off the inspection, the quality assurance department of the manufacturer shall carry out all the tests as per the specification

12 and issue a certificate indicating clearly the test results and the adherence to the technical specifications. This is without prejudice to the purchaser's right to accept or reject the supplies if not found in conformity to its requirement

13 **INSPECTION OF MATERIALS**

12.1 All equipments materials fittings and components will be subject to inspection by the authority mentioned cl.no 31 of Technical specification Section III chapter I. No factory/tenderer works before dispatch and no materials shall be dispatched until these are inspected and/or approved. The materials may also be inspected by the purchaser or his representative again at the contractor's depot.

12.2 All materials shall be procured from the manufacturers of repute/their-authorized dealers. Such materials which are to be inspected by Consignee, are to be accepted by the representative of Authority engineer. The Contractor may be required to produce test certificate from the manufacturer wherever called for by the representative of authority engineer.

12.3 The cost of equipment and materials, all tests and/or analysis performed for inspection shall be borne by the Contractor.

13. INSPECTION OF WORKS: The Authority Engineer or his representative may inspect and test the various portions of the work at all stages and shall have full power to reject all or any portion of the work that he may consider to be defective or inferior in quality of materials, workmanship or design in comparison to what is called for in the specification. In the event of rejection of any work already executed and not in accordance with specification as in this tender and/or as determined by the Engineer or which the Contractor has been apprised, the Contractor shall carry out alterations/ replacements to such works to the satisfaction of the Engineer for which no additional expenses will be borne by the RailTel.

14. QUANTUM OF WORK AND VARIATION IN QUANTITIES

- (i) The quantities indicated in Schedule of Requirements are approximate and purport to convey the tenderer an idea of the magnitude of the work. The quantities may vary within + 50% of grand total of schedule of requirements (contract value) as included in the Letter of Acceptance to tender as per site requirement. The Purchaser reserves the right to increase up to 25% of the of the quantity of goods and services specified in the Schedule of Requirement without any change in unit price of the ordered quantity.
- (ii) The tenderer/contractor will be bound to execute the additional quantities on the following terms and conditions.
 - (a) Quantity may also vary beyond 25% as per the following
 - Rates for Quantity variation (i) beyond 25% up to 40% with 2% rebate, (ii) above 40% to 50% with 4% rebate and (iii) beyond 50%, rates will be negotiated by RailTel with Contractor.

15. SUBLETTING AND ASSIGNMENT: No sub-contracts are permitted

- a.** The **Contractor** shall not sub-contract any part or the whole of the work, without the prior consent of RAILTEL. The **Contractor** may sub-contract parts of the contract, if necessary and in the interest of the project and only to sub- Contractors approved in advance in writing by RAILTEL. The **Contractor** shall be responsible for transmitting specifications and pertinent data to sub- Contractors and ensuring full compliance by them. In such cases even if written permission is given, it shall not relieve the **Contractor** from his obligations under the contract and he shall be fully responsible for all supplies / work done by his sub-Contractors. The **Contractor** shall also be exclusively responsible for the effective planning and co-ordination of the work from sub-Contractors. to ensure proper integration with all works.
- b.** It shall be as per the specifications of **RAILTEL** and **RAILTEL** shall have sole discretion to withdraw its consent and have the remaining part performed or executed by any other party of RAILTEL's choice.
- c.** Notwithstanding anything contained herein, RAILTEL shall have sole discretion to nominate sub-contractors for specialized activities/works or even for part of specified works, before or during the course of Work, wherever required in the opinion of RAILTEL on account of slow progress, poor quality or Contractor's lack of sufficient mobilization.

16. EXECUTION OF WORK: All the works shall be executed in strict conformity to the provisions of the contract document and with such explanatory detailed drawings, specifications and instructions as may be approved from time to time based on detailed design and engineering carried out by contractor in line with requirements as per contract document. The contractor shall be responsible for ensuring that the work throughout are executed in the most substantial, proper and workmanlike manner with the quality of material and workmanship in strict accordance with the specifications and as per sound industrial practices and to the satisfaction of the RailTel.

17. MAINTENANCE OF WORKS: The contractor shall at all times during the progress and continuance of the works and also for the period of maintenance specified in the tender form and after the date of passing of the certificate of completion by the RailTel's representative or any other earlier date subsequent to the completion of the works that may be fixed by RailTel's representative be responsible for and effectively maintain and uphold in good, substantial, sound and perfect condition all and every part of the works and shall make good from time to time and at all times, as often as the RailTel's representative shall require, any damage or defect that may, during the above period, arise in or be discovered or be in any way connected with the works provided that such damage or defect is not directly caused by errors in the contract documents, act of providence or insurrection or civil riot and the contractor shall be liable for and shall pay and make good to the RailTel or other persons legally entitled thereto whenever required by the RailTel's representative so to do, all losses, damages, costs and expenses they or any of them may incur or be put or be liable to, by reason or inconsequence of the operations of the contractor or his failure in any respect.

18. CLEARANCE OF SITE: At the end of the work at each location the Contractor shall as a part of his Contractual obligation leave the area completely neat and clean.

19. PROVISIONAL ACCEPTANCE

19.1 Immediately after the completion of the work at each block section, the contractor shall certify and advise the purchaser in writing that the installation is (i) complete (ii) ready for satisfactory commercial service and (iii) ready to be handed over.

19.2 The test or tests specified in Technical supplement (section III) will be conducted jointly by purchaser and contractor as soon as possible after receipt of advice of completion of one sub - section by purchaser from the contractor. The test schedule shall be finalized by mutual discussion between the contractor and M/S RailTel Corporation of India Limited, Secunderabad. Any component, modules, sub assemblies or equipment failing during the commissioning test shall be replaced/repared free of cost by tenderer.

19.3 Purchaser's Engineer shall issue a **Provisional Acceptance certificate** for successful commissioning of entire section in the tender covering all materials and works/services included in the Schedule of works after the final acceptance test as per the approved test procedures enumerated under para 3.26 of chapter 3 i.e. specification, 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 shall be signed by both the parties. The period of maintenance of works shall commence from the date of issue of last Provisional Acceptance Certificate.

20. PLACING IN SERVICE & MAINTENANCE SUPERVISION

20.1 After the work has been completed & placed in service and Provisional Acceptance certificate issued by Purchaser's Engineer, the contractor shall be responsible for proper maintenance supervision of the work for a **period of twelve months** from the date of commissioning.

For this purpose, the shall prepare a maintenance plan and make available the works/services of qualified maintenance engineer stationed at the location approved by Purchaser's Engineer who will guide and supervise the work of RailTel maintenance staff. The maintenance engineer of the tenderer will visit the total installation at least once in a month.

20.2 The Contractor shall inspect all trenches after first monsoon and shrinkage etc. shall be refilled and rammed & trench surface brought to the original. No extra charge shall be payable for the same.

20.3 During this period of maintenance supervision if any lacuna is noticed in the functioning, as a result of any work, the contractor free of cost will rectify the same. During such rectification if any faulty materials need replacement or repair, they shall be provided by the contractor from the set of materials that the contractor should bring to the site of installation in addition to all the materials to be supplied against this contract.

21. FINAL ACCEPTANCE

21.1 The final acceptance of the works completed shall take effect from the date of expiry of the period of maintenance supervision as defined above or the expiry of the last of the respective period of maintenance supervision of various sub-sections for which Provisional Acceptance Certificates are issued provided in any case that the contractor has complied fully with his obligations in respect of each item under the contract.

21.2 Notwithstanding the issue of Final Acceptance Certificate, the contractor 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.

22. WARRANTY

22.1 The work carried out and equipment supplied by the Contractor shall be guaranteed against the defects for a period of **One Year** from the date of issue of Provisional Acceptance Certificate. The contractor shall provide comprehensive warranty maintenance for all the items supplied and work carried out by him against this tender.

22.2 The replacement of defective materials supplied by contractor at site shall be undertaken by RailTel. However, incase RailTel representative is unable to rectify the defects, maintenance engineers of the contractor shall go to the site immediately on receipt of the intimation to assist RailTel representative for diagnostic and rectification of the fault. RailTel shall not bear any expenditure for any such traveling or during the maintenance and warranty period.

22.4 During the free warranty maintenance period contractor should stabilize the working of the system. RailTel has the right to extend the period of supervision of the maintenance free of cost till the system stabilizes and works satisfactorily for a reasonable period of time. If during the time any equipment etc. is to be added or deficiencies are to be rectified to make the system work trouble free the same also will have to be done by the contractor free of cost as to make good all the deficiencies.

23. INFRINGEMENTS OF PATENTS:

(a) The Contractor is forbidden to use any patents or registered drawings, processes or patterns in fulfilling his contract without prior consent in writing of the owner of such patents, drawings, patterns or trade marks except where these are specified by the Purchaser himself. Royalties where payable for the use of such patented processes, registered drawings or patterns shall be borne exclusively by the Contractor. The Contractor shall advise the Purchaser of any proprietary rights that may exist on such processes, drawings or patterns, which he may use of his own accord.

(b) In the case of patents taken out by the Contractor of the drawings or patterns registered by him or of those patents, drawings or patterns for which he holds a license, the signing of the contract automatically gives the Purchaser the right to repair by himself the purchased articles covered by the patent or by any person or body chosen by him and to obtain from any sources he desires the component parts required by him for carrying out the repair work. In the event of infringement of any patent rights due to above action of the Purchaser he shall be entitled to claim damages from the Contractor on the grounds of any loss of any nature which he may suffer e.g. in the case of attachment because of counterfeiting.

24. LICENSE AS PER GOVT. OF INDIA CONTRACT LABOUR ACT: The Contractors are required to produce license as enjoined in the Government of India Contract Labour (Regulation and Abolition) Act (1978) with latest amendments, if any. They shall not be allowed to undertake or execute any work through contract Labour except under and in accordance with a license issued under the said Act in that behalf by the authorized licensing Officer.

24.1 Labour Cess: The tenderers, for carrying out any construction work, must get themselves registered with the Registrar Officer under section-7 of the Building and other Construction workers Act 1996 and rules made thereto by the concerned State Govt. and submit certificate of Registration issued from the Registering officer of the concerned State Govt. (Labour Dept). **As per this act, the tenderer shall be levied a cess@1% of cost of construction work, would be deducted from each bill. Cost of material when supplied under a separate schedule item, shall be outside the purview of cess**

25. DEFAULTS AND DELAYS: The Contractor shall execute the work with due diligence and expedition, keeping to the approved time schedule. Should he refuse or neglect to comply with any reasonable orders given to him in writing by the Purchaser's Engineers in connection with the work or contravene the provision of the Contract or the progress of work lags persistently behind the time schedule due to his neglect, the Purchaser shall be at liberty to give seven days notice in writing to the Contractor requiring him to make good the neglect or contravention complained of and should the Contractor fail to comply with the requisitions made in the notice within seven days from the receipt thereof, it shall be lawful for the purchaser to take the work wholly or in part out of the Contractor's hands without any further reference and get the work or any part thereof, as the case may be, completed by other agencies at the expense of the Contractor without prejudice to any other right or remedy of the Purchaser.

26. LOSS SUSTAINED DUE TO DEFAULTS AND DELAYS: In the event of any loss to the purchaser on account of execution and/or completion of the work or any part thereof by agencies other than the contractor, in terms of para above the contractor shall be liable to reimburse the loss to purchaser without prejudice to the other rights and remedies of the purchaser and the reimbursement in full or in part, as the case may be, shall be met at the option of the purchaser from out of all or any of the following sources viz:

- (a) i) Any amount due and payable to the contractor by the purchaser on any account whatsoever;
- ii) The Contractor's security deposit in the hands of the purchaser as far as available, and;
- iii) Any other assets whatsoever of the contractor;

(b) In the event of re-imburement from out of sources (i) and/or (ii) above mentioned, the purchaser shall have the right of appropriation suomoto.

27. PENALTY FOR DELAY IN COMPLETION

27.1 In the event that the Contractor fails to achieve any of the Project Milestones, the Authority Engineer shall undertake a review of the progress of construction and identify potential delays, if any. If the Authority Engineer shall determine that completion of the Railway Project is not feasible within the time specified in the Agreement, it shall require the Contractor to indicate within 15 (fifteen) days the steps proposed to be taken to expedite progress, and the period within which the Project Completion Date shall be achieved. Upon receipt of a report from the Contractor, the Authority Engineer shall review the same and send its comments to the Authority and the Contractor forthwith.

The contractor fails to execute and complete the work within the time specified in the Agreement or within the period of extension granted the contractor shall accept reduction in the total amount payable to him by the purchaser at the rate of **0.5% per week or part thereof** (rounded off to the nearest whole number) of the total value of the contract for the actual delay occasioned beyond the appointed time by which the work shall have been completed under the contract.

27.2 The total value of penalty on account of above shall be **limited to maximum of 10% (Ten percent)** of the total contract value.

27.3 Such reduction shall be accepted by the purchaser in full satisfaction of the contractor's liability arising

from delay only. This penalty for delay in completion will be applicable separately for each stage of completion of work when two or more stage of completion, are specified in the contract. The purchaser's engineer shall at his sole discretion specify a time limit within which the unfinished portion of the work shall be completed after serving on the contractor a notice of Purchaser's intention to recover the said penalty in Form 11. In the event of failure of the contractor, the purchaser shall be at liberty to take action in accordance with provisions in Para 33 to 35.

NOTE: For purpose of this para the value of work shall be calculated on the basis of unit prices included in schedule of requirements.

27.4 Penalty for damaging the Railway Cable: For each case of damaging the Railway cable a lump sum amount of Rs.1.50 lakh (Rupees one lakh and fifty thousand) shall be imposed in the case of any cable cut/damage to railway cable that happens without information to railways or coordination. The penalty shall be multiple if it happens in multiples i.e. if cable is cut 2 times by the contractor, then the penalty imposed shall be Rs.3.00 lakh.

28 ADHERENCE OF TIME SCHEDULE

28.1 Timely completion of the work is the essence of the contract. Delay in execution will attract penalty in accordance with the provisions in above para 27.

28.2 If any delay as aforesaid shall have arisen from any cause which the Purchaser may agree as being a reasonable ground for extension of time the purchaser's engineer or his representative may allow such additional time as he may in his absolute discretion consider to be reasonably justified by the circumstances of the case. Such extensions shall be granted, on request from contractor, with liquidated damages in the Form No.11.

29 CONTRACTOR'S LIABILITIES FOR COSTS AND DAMAGES

29.1 WITHHOLDING AND LIEN IN RESPECT OF SUMS CLAIMED

a) Whenever any claim or claims for payment of a sum of money arises out of or under the contract against the contractor, the Purchaser shall be entitled to withhold and also have lien to retain such sum or sums in whole or in part from the security, if any, deposited by the contractor and for the purpose aforesaid the purchaser shall be entitled to withhold the said cash security deposit or the security, if any, furnished as the case may be and also have lien over the sum pending finalization or adjudication of any such claim.

b) In the event of the security being insufficient to cover the claimed amount or amounts or if no security has been taken from the Contractor, the Purchaser shall be entitled to withhold and have lien to retain to the extent of such claim amount or amounts referred to from any sum or sums found payable or which at any time thereafter may become payable to the Contractor under the same contract or any other department of the Central Government pending finalization or adjudication of any such claims.

c) It is an agreed term of the contract that the sum of money or moneys so withheld or retained under the lien referred to by the purchaser till the claim arising out of or under the contract is determined by the Arbitrator (if the contract is governed by the Arbitration clause) or by the competent court, as the case may be, and that the contractor will have no claim for interest of damages whatsoever on any account in respect of such withholding or retention under the lien referred to supra and duly notified as such to the Contractor.

d) For the purpose of this clause, where contractor is a partnership firm or a limited company, the purchaser shall be entitled to withhold and also have a lien to retain towards such claimed amount or amounts in whole or in part from any sum found payable to any partner/limited company, as the case may be, whether in his individual company or otherwise.

30 UNIT PRICES**30.1 Rate, Taxes & Duties**

- i. The price quoted in the offer should be firm, fixed indicating the breakup and inclusive of all taxes & duties like import, custom, Anti Dumping, CGST,SGST, IGST, UTGST etc. The offer should be inclusive of packing, forwarding, freight up to destination, insurance charges.
- ii. Bidder shall issue a valid tax invoice to RailTel for availing proper credit of CGST,SGST, IGST, UTGST in case of award of contract. GST will not be reimbursed in the absence of valid tax invoice.
- iii. For all the taxable supplies made by the vendor, the vendor shall furnish all the details of such taxable supplies in the relevant returns to be filed under GST Act.
- iv. If the vendor fails to comply with any of the above, the vendor shall pay to purchaser any expense, interest, penalty as applicable under the GST Act.
- v. In case of incorrect reporting of the supply made by the vendor in the relevant return, leading to disallowance of input credit to purchaser, the vendor shall be liable to pay applicable interest under the GST Act to the credit of purchaser. The same provisions shall be applicable in case of debit/credit notes.
- vi. Tenderer shall quote all inclusive rates, but there shall be break up of basic price and all type of applicable taxes such as SGST,CGST, IGST, UT GST along with respective HSN/SAC code under GST Law (including tax under reverse charges payable by the recipient)
- vii. Wherever the law makes it Statutory for the purchaser to deduct any amount towards GST at sources, the same will be deducted and remitted to the concerned authority.
- viii. In regards to works contract, the tenderer should have registration no for GST in respective State where work is to be executed and shall furnish GST registration certificate along with Tender.
- ix. The imposition of any new tax and /or increase in the aforesaid taxes, duties levies after the last stipulated date for the receipt of tender including extensions if any and the bidder thereupon necessarily and properly pays such taxes/ levies / cess, the bidder shall be reimbursed the amount so paid, provided such payments, if any, is not, in the opinion of RailTel attributable to delay in execution of work within the control of bidder. The bidder shall, within a period of 30 days of the imposition of any such tax or levy or cess, give a written notice thereof to RailTel that the same is given pursuant to this condition, together with all necessary information including details of input credit relating thereto. In the event of non-payment/ default in payment of any of the above taxes, RailTel reserves the right to with-hold the dues / payments of bidder and make payment to State / Central Government authorities as may be applicable. However, if the rates are reduced after the last stipulated date of tender, bidder has to pass on the benefits to RailTel.
- x. In case of imported equipment: Anti dumping duty if applicable on the equipment proposed to be supplied by OEM/Tenderer as per extant instructions of Ministry of Commerce/Finance Government of India has to be borne by the tenderer and shall be deducted from the amount payable to the bidder at the time of making payment to the firm, if this duty amount is paid to Custom Authority by RailTel.
- xi. Evaluation Criteria: inter se position of the offers will be determined on total unit rate on CIP destination basis which will include basic rate, custom duty GSST, SGST, IGST, GST, freight, insurance and any other charge or cost quoted by the tenderer, including GST payable.
On reverse charge by RailTel, wherever applicable.

- XII. However, if the extension of contract period is on account of failure of contractor, no compensation shall be made towards upward revision or imposition of any new taxes. Any benefit on account of downward revision of duty either in original contract period or during the extended contract period shall be passed on by the contractor to RailTel**

Note: "In case the successful tenderer is not liable to be registered under CGST/IGST/UTGST/SGST Act, the RailTel shall deduct the applicable GST from his/their bills under reverse charge mechanism (RCM) and deposit the same to the concerned tax authority."

31 MEASUREMENT OF WORKS: Payments for the works shall be made in accordance with approved designs & drawings and measured in relevant units except where provided or otherwise. The measurements will be made generally in accordance with standard engineering practices.

32 MEANING AND INTERPRETATION BY RAILTEL TO BE FINAL: All measurement, method of measurement, meaning intent of specifications and interpretation of Special Conditions of Contract, given and made by the Purchaser or by the Purchaser's Engineer shall be final and binding.

33 TERMS OF PAYMENT:

33.1 All bills shall be submitted to the authority mentioned in Preamble.

33.2 Subject to any deductions or recovery which the RailTel may be entitled to make under contract, the Contractor will be entitled to be paid from time to time by way of 'on account payment' for supply of goods and 'progress payment' for works as in the opinion of the Engineer he has executed in terms of Contract.

33.3 ALL Payments will be processed on back -to- back arrangement on receiving payment from South Central Railway Project

34 PROGRESS PAYMENT FOR EXECUTION OF WORK

'Progress payment can be made block section wise after completion of all works required to be done.' Payments will be made after completion of all works in one block section and schedule is as follows as follows:

- 34.1 **On Account Payment: 90%(Ninety percent)** progress payment of the work/services indicated in the Schedule shall be made after successful completion in, joint measurement and testing to the satisfaction of Engineer-in-charge and submitting the required Documentation i.e. OTDR trace reports before and after execution of work. ABD i.e. and with issue of Part-PAC for a block section.
- 34.2 10% (Ten percent) payment shall be made after the issue of Part/Full Provisional Acceptance Certificate by Authority engineer of SCR after successful completion of all works including submission of As Built Drawing duly mapped with GPS etc (for OFC portion, acceptance of final as- built drawings by RailTel engineer-in-charge) .
- a. The Contractor shall remedy any and all loss or damage to the Railway Project, occurring on or after the Appointed Date and until the date of Provisional Certificate, with respect to the Works completed prior to the issuance of the Provisional Certificate and / or Completion Certificate, with respect to the Works referred to in the Punch List, at its own cost, save and except to the extent that any such loss or damage shall have arisen from any default of the Authority or on account of a Force Majeure Event in which case the provisions of Article 19 shall apply.
- b. The Contractor shall remedy any and all loss or damage to the Railway Project during the Defects Liability Period at its own cost, to the extent that such loss or damage shall have arisen out of the reasons specified in Clause 15.3.
- 34.2.1 3.1.6 The Contractor shall, at its own cost and expense, in addition to and not in derogation of its obligations elsewhere set out in this Agreement: make, or cause to be made, necessary applications to the relevant Government Instrumentalities with such particulars and details as may be required for obtaining Applicable Permits set forth in Schedule-E and obtain and keep in force and effect such Applicable Permits in conformity with Applicable Laws;
- 34.2.2 procure, as required, the appropriate proprietary rights, licences, agreements and permissions for Materials, methods, processes, know-how and systems used or incorporated into the Railway Project;
- 34.2.3 make reasonable efforts to maintain harmony and good industrial relations among the personnel employed by it or its Sub-contractors in connection with the performance of its obligations under this Agreement;

- 34.2.4 ensure that its Sub-contractors comply with all Applicable Permits and Applicable Laws in the performance by them of any of the Contractor's obligations under this Agreement;
- 34.2.5 always act in a manner consistent with the provisions of this Agreement and not cause or fail to do any act, deed or thing, whether intentionally or otherwise, which may in any manner be in violation of any of the provisions of this Agreement;
- 34.2.6 support, cooperate with and facilitate the Authority in the implementation and operation of the Project in accordance with the provisions of this Agreement;
- 34.2.7 ensure that the Contractor and its Sub-contractors comply with the safety and welfare measures for labour in accordance with Applicable Laws and Good Industry Practice;
- 34.2.8 keep, on the Site, a copy of this Agreement, publications named in this Agreement, the Drawings, Documents relating to the Project, Change of Scope Orders and other communications sent under this Agreement, and provide access to all these documents at all reasonable times to the Authority Engineer and its authorized personnel;
- 34.2.9 cooperate with other contractors employed by the Authority and with personnel of any other public authority; and
- 34.2.10 not interfere unnecessarily or improperly with the convenience of the public, or the access to and use and occupation of all the existing facilities within the Right of Way, irrespective of whether they are public or in the possession of the Authority or of others.
- 34.2.11 to provide reasoned comments on any information relating to the contractor's activities under or pursuant to the agreement, which the Authority may publish.

35. FINAL SETTLEMENT

On expiry of the defect liability period of 01 years and issue of the certificate of final acceptance of the entire installations, the SD (Para 3) will be released to the Contractor after receipt of any dues payable by the contractor. (Else the PBG/SD will be forfeited to settle any amount due) and the balance amount shall be paid.

36. CERTIFICATE FOR MODVAT /VAT BENEFITS ON BILLS - deleted

38 DEDUCTION FROM ON ACCOUNT PAYMENT BILLS

(i) All costs, damages or expenses, which RailTel may have been paid or incurred which under the provisions of contract are Contractor's obligations will be deducted by RailTel from progress payment Bills/Invoice of Contractor, as and when it is understood that such an expense has been incurred or paid for. For occurrence of each cable cut that happened without coordination will attract penalty of Rs 1.5 lakhs per cut which will be deducted from the contractor's invoice.

(ii) All such claims of RailTel shall, however, be duly supported by appropriate and certified vouchers, receipts or explanations as are available to enable the Contractor to identify such claims.

39 TAXES

39.1 The Contractor and all personnel employed by him shall pay such taxes like Income Tax as are payable under statutory laws of India and the Purchaser **WILL NOT ACCEPT** any liability for the same.

39.2 Deduction of Income Tax at source as per provisions of Finance Act and Income Tax in force shall be

made from the Contractor/Sub-Contractor and the amount so deducted may be credited to the Central Government.

39.3 Wherever the law makes it statutory for the Purchaser to deduct any amount towards Sales Tax on Works Contract, the same will be deducted and remitted to the concerned authority.

40 INSURANCE: deleted

40.1&40.2**INSURANCE OF MATERIALS & INSTALLATIONS: deleted**

41 FORCE MAJEURE CLAUSE: If at any time, during the continuance of this Contract, the performance, in whole or part, by either party, of any obligation under this contract shall be prevented or delayed by reason of any war, hostility, act of the public enemy, Civil Commotion, Sabotage, Fires, Floods, Earth quakes, explosions, strikes, epidemics, quarantine restrictions, lockouts, any statute, statutory rules/ regulations, order of requisitions issued by any Government Department or Competent Authority of acts of God here-in-after referred to as event) then provided notice of the happening of any such event is give by either party to the other within twenty one days from the date of occurrence thereof, neither party shall, by reason of such event, be entitled to terminate this Contract nor shall either party have any claim for damage against the other in respect of such non-performance or delay in performance, and the obligations under the Contract shall be resumed as soon as practicable after such event has come to an end or ceased to exist, PROVIDED FURTHER that if the performance in whole or part of any obligation under this Contract is prevented or delayed by reason of any such event beyond a period as mutually agreed to by the RailTel and the Contractor after any event or 60 days in the absence of such an agreement whichever is more, either party may at its option terminate the Contract provided also that if the contract is so terminated under this clause the RailTel may at the time of such termination take over from the Contractor at prices as provided for in the contract, all works executed or works under execution.

42 SETTLEMENT OF DISPUTE AND ARBITRATION

The parties through respective signatories shall settle any dispute or disagreement with respect to performance, non-performance, or defective performance of respective obligation amicably in accordance with provisions contained in Arbitration and Conciliation Act, 1996 as amended. In the event of disputes remaining unresolved, the parties shall refer the matter to a single arbitrator under arbitration law that may be applicable, whose appointment shall be done by CMD, RailTel Corporation of India Limited. The place of arbitration shall be New Delhi and the language used shall be English.

43 TERMINATION OF CONTRACT OWING TO DEFAULT OF CONTRACTOR

43.1 If the Contractor should:

- (i) Become bankrupt or insolvent or
- (ii) Make an arrangement with or assignment in favour of his creditors, or agree to carry out the contract under a committee of inspection of his creditors, or
- (iii) Being a Company or Corporation, go into liquidation (other than voluntary Liquidation for the purpose of amalgamation or reconstruction) , or
- (iv) Have an execution levied on his goods or property on the works, or
- (v) Assign the contract or any part thereof otherwise than as provided in clause-15 of SCC, or
- (vi) Abandon the contract, or
- (vii) Persistently disregard the instructions of the RailTel's Engineer or contravene any provision of the contract, or
- (viii) Fail to adhere to the agreed programme of work by a margin of 10% of the Stipulated period, or
- (ix) Fail to remove materials from the site or to pull down and replace the work after receiving from the Engineer's notice to the effect that the said materials or works have been condemned or rejected, or
- (x) Fail to take steps to employ competent or additional staff and labour as required under clause 7 of SCC, or
- (xi) Fail to supply material and/or carry out the works as per contractual specifications, or

- (xii) Promise offer or give any bribe, commission, gift or advantage either himself or through his partner, agent or servant to any officer or employee of RailTel or any person on his or on their behalf in relation to the execution of this or any other contract with the RailTel,
- (xiii) then and in any of these said cases, the Engineer on behalf of the RailTel may serve the Contractor with a notice in writing to that effect and if the Contractor does not, within 7 days after the delivery to him of such notice, proceed to make good his default in so far as the same is capable of being made good and carry on the work or comply with such directions as aforesaid to the entire satisfaction of the Engineer, the RailTel shall be entitled after giving 48 hours notice in writing under the hand of the Engineer to rescind the contract as a whole or in part or parts (as may be specified in such notice) and adopt either or both the following courses: A final termination notice will be issued by RailTel after expiry of 48 hrs, notice.
 - (a) To carry out the whole or part of the work from which Contractor has been removed by the employment of the required labour and materials, the cost of which shall include lead, lift, freight, supervision and all incidental charges.
 - (b) To measure up the whole or part of the work from which the Contractor has been removed and to get it completed by another contractor, the manner and method in which such work is completed shall be in the entire discretion of the Engineer whose decision shall be final; and in both cases (a) and (b) mentioned above the RailTel shall be entitled to forfeit the whole or such portion of the security deposit as it may consider fit,

43.2 Provided always that in any case in which any of the powers conferred upon the RailTel by Sub-clause above shall have become exercisable and the same shall not be exercised, the non-exercise thereof shall not constitute a waiver of any of the conditions thereof and such power shall notwithstanding be exercisable in the event of any future case of default by the Contractor for which his liability for past and future shall remain unaffected.

43.3 **RIGHT OF RAILTEL AFTER TERMINATION OF CONTRACT OWING TO DEFAULT OF CONTRACTOR:** In the event of any or several of the courses, referred in Sub-clause 43 above, being adopted:

- (a) The Contractor shall have no claim to compensation for any loss sustained by him by reason of his having purchased or procured any materials or entered into any commitments or made any advances on account of or with a view to the execution of the works or the performance of the contract and Contractor shall not be entitled to recover or be paid any sum for any works thereto not actually performed under the contract, unless or until the Engineer shall have certified the performance of such work and the value payable in respect thereof and the Contractor shall only be entitled to be paid the value so certified.
- (b) The Engineer or Engineer's Representative shall be entitled to take possession of any materials, tools, implements, machinery or buildings on the works or on the property on which these are being or ought to have been executed, and to retain and employ the same in the further execution of the works or any part thereof until the completion of the works without the Contractor being entitled to any compensation for the use and employment thereof or for wear and tear or destruction thereof.
- (c) The Engineer shall, as soon as may be practicable after removal of the Contractor fix and determine exparte or by or after reference to the parties or after such investigation or enquiries as he may consider fit to make or institute and shall certify what amount (if any) has at the time of termination of the contract been reasonably earned by or would reasonably assure to the Contractor in respect of the work then actually done by him under the contract what was the value of any unused or partially used materials, any constructional plants and any temporary works upon the site.
- (d) The RailTel shall not be liable to pay to the Contractor any moneys on account of the contract until the expiration of the period of maintenance and thereafter until the cost of completion and maintenance damages for delay in completion (if any) and all other expenses incurred by the RailTel have been ascertained and the amount thereof certified by the Engineer. The Contractor shall have no claim to any payment of compensation or otherwise howsoever on account of any profit or advantage which he might have derived from execution of the work in full but he did not derive in consequence of termination of the contract. The Contractor shall then be entitled to receive only such sum or sums (if any) as the Engineer may certify would have been due to him upon due completion by him after deduction of the said amount; but if such amount shall exceed the sum

which would have been payable to the Contractor, then the Contractor shall upon demand pay to the RailTel the amount of such excess and it shall be deemed a debt due by the Contractor to the RailTel and shall be recoverable accordingly.

44.1 Updation of Labour data:

- A.** Contractor is to abide by the provisions of Payment of Wages act & minimum Wages act in terms of clause 54 and 55 of Indian Railways General Condition of Contract. In order to ensure the same and application has been developed and hosted on website www.shramikkalyan.indianrailways.gov.in. Contractor shall register his firm/ company etc. and upload requisite details of labour and their payment in this portal. These details shall be available in public domain. The Registration/ updation of Portal shall be done as under:
- a) Contractor shall apply for onetime registration of his company/firm etc. in the Shramikkalyan portal with requisite details subsequent to issue of Letter of Acceptance. Engineer shall approve the contractor's registration on the portal within 7 days of receipt of such request.
 - b) Contractor once approved by an Engineer, can create password with login ID (PAN No.) for subsequent use of portal for all LOAs issued in his favour.
 - c) The contractor once registered on the portal, shall provide details of his Letter of Acceptance (LoA) / Contract Agreements on Shramikkalyan portal within 15 days of issue of any LOA for approval of concerned engineer. Engineer shall update (if required) and approve the details of LoA filled by contractor within 7 days of receipt of such request.
 - d) After approval of LoA by Engineer, contractor shall fill the salient details of contract labours engaged in the contract and ensure updating of each wage payment to them on Shramikkalyan portal on monthly basis.
 - e) It shall be mandatory upon the contractor to ensure correct and prompt uploading of all salient details of engaged contractual labour & payments made thereof after each wage period.
- B.** "While processing payment of any "On Account Bill" or "Final Bill" or release of "Advances" or "Performance Guarantee/Security Deposit", contractor shall submit a certificate to the Engineer or Engineer's representatives that "I have uploaded the correct details of contract labours engaged in connection with this contract and payments made to them during the wage period in Railway's Shramikkalyan portal at "www.shramikkalyan.indianrailways.gov.in" till ____Month ____Year."

RAILTEL

A Government of India
UNDERTAKING

Section -III
Chapter- I

TECHNICAL SPECIFICATION AND INSTRUCTIONS FOR TRENCHING, LAYING OF HDPE DUCT, OPTICAL FIBRE CABLE, 12C POWER CABLE, SPECIAL PROTECTIVE WORKS, DUCT INTEGRITY AND BLOWING OF OFC, INSTALLATION OF LOCATION BOX, ODC, OUTDOOR WIRING and EARTHING & all OTHER ASSOCIATED WORKS.

1. Cable shall be laid as per approved Cable Route Plan and Power Supply Termination Plan..
2. 12 Core underground signalling cables in a configuration of 6 + 6 conductors shall be used as per the extant practice of South Central Railway and instructions of the representatives of Authority Engineer.
3. Underground signalling cables shall be of 12 cores only.
4. Cable laying shall be done as per the practices specified in Indian Railway Telecom Manual, guidelines issued by RDSO for signal cable laying vide RDSO/SI/G/2010 Version 1.1 or latest, South Central Railway technical guidelines.
5. Precautions laid down in RDSO guidelines shall be followed in 25 kV Railway Electrified (RE) area.
6. All signal, telecom, power cables shall be buried in trenches at a depth of not less than 1 m. Wherever a depth of 1 m cannot be achieved due to site conditions, protection arrangements as per SCR Drawing No. 5771 shall be provided. A minimum depth of 600 mm shall be dug for the protection arrangements.
7. Requirements of micro-tunnelling / trenchless laying, laying of RCC duct / HDPE pipe / RCC pipes / GI Pipe and protection arrangements etc. shall be assessed based on site survey and shall be indicated in the cable route plan and submitted for approval of Authority Engineer.
8. Extra cable loop of 6 m to 8 m shall be kept at each end of the main cable / tail cable / power cables / 6 quad cable at location boxes, at signal foundations, OFC Huts, Telecom equipment rooms, Relay Rooms, ODCs near towers, major bridges and culverts.
9. A cable chamber as per SCR Drawing No. 5766 shall be constructed near Relay Rooms, OFC Huts, Telecom equipment rooms, , ODCs near towers, Level Crossing Gate and cable coil loops shall be kept in this chamber duly filled in with sand and sealed with RCC slab.
10. Work areas such as station area, circulating area involving breaking or cutting of concrete / road / platform / any other surface shall be restored to the original state after the cable laying.
11. In areas where continuous sheet rock is encountered, cable laying shall be done in GI pipes of adequate diameter and complete length of the GI pipe shall be clamped and concreted with 1:3:6 M10 concrete mix of cement, sand and aggregates upto a height / width of 300 mm above / adjacent to the GI pipe.
12. In areas where rock is encountered, cable laying shall be done as per IRSEM Drawing No. 15-D2 Sheets 1, 2 and 3 as applicable.
13. Track Crossing:
 - (a) Micro-tunnelling / trenchless laying shall be carried out at a depth of not less than 1.5 m from natural ground level.
 - (b) Track crossing, road crossing, platform crossing, trenching in circulating area shall be carried out by micro-tunnelling / trenchless laying to the extent possible.
 - (c) Micro-tunnelling / trenchless laying shall also be adopted in difficult terrains / marshy areas / water logged areas if it is found advantageous for quick delivery of this Project. Requirement of such micro-tunnelling / trenchless laying not envisaged during survey shall be decided by the Authority Engineer.
 - (d) Wherever micro-tunnelling / trenchless laying is not feasible for track crossing, road crossing, platform crossing, horizontal boring in accordance with SCR Drawing No. 5770 shall be done.

(e) Wherever both micro-tunnelling / trenchless laying and horizontal boring are not feasible for track crossing, road crossing, platform crossing, manual track crossing, road crossing, platform crossing in accordance with SCR Drawing No. 5768 shall be done.

(f) Wherever all three methods of track crossing micro-tunnelling / trenchless laying, horizontal boring and manual track crossing are not feasible for track crossing, track crossing shall be done as decided by Authority Engineer.

14. Cable Laying on Bridges:

(a) Cable laying on important / major bridges having steel girders shall be either through GI trough as per IRSEM Drawing No. 15-D6 (supporting channels shall be in accordance with Drawing No. S&T/RE/78/2/76 Page 1 galvanised in accordance with IS 2629-1985) or through medium class GI pipe conforming to IS 1239 (Part I) 1990 and galvanised in accordance with IS 4736-1986 of adequate diameter supported by 'C' channels of size not less than 100 mm x 50 mm x 1200 mm, thickness 5 mm galvanised in accordance with IS 2629-1985. GI pipe shall be perforated at regular intervals. Drilling of holes on girders shall not be permitted.

(b) Cable laying on important / major bridges with concrete girders and having built-in duct shall be done through HDPE pipe of diameter 110 mm in accordance with specification PE 80 (IS 4984). Blocks of masonry bricks of size 500 mm width x 500 mm height shall be provided at either end of the bridge to cover the exposed HDPE laid for the cable laying.

(c) Cable laying on important / major bridges with concrete girders not having built-in duct shall be done through GI pipes of adequate diameter. Concrete masonry of size 300 mm x 300 mm x 300 mm shall be provided at an interval of every 2 m above the GI pipes laid for the cable laying. The GI pipes shall be clamped at an interval of every 1 m. The GI pipes and concrete masonry shall not infringe the track as per IRSOD. Both ends of the GI pipes at the end of the bridge shall be closed with brick masonry.

(d) Cable laying on minor bridges / culverts shall be done as per IRSEM Drawing No. 15-D8. Medium class GI pipes conforming to IS 1239 (Part I) 1990 and galvanised in accordance with IS 4736-1986 of adequate diameter shall be used for cable laying. When cables are to be laid on the bed of the culverts or under the bridges, cable laying shall be done as per IRSEM Drawing No. 15-D7. This procedure shall be adopted for minor bridges / culverts where there is no perennial water flow. The pipes used for cable laying shall be of non- pressure NP2 class (light duty) of diameter 150 mm RCC with collars jointed with a stiff mixture of cement mortar in the proportion of 1:2.(1: cement : 2 : fine sand)

15. Cable Laying in station yards

(a) Cables laid in trenches in station yards (Home signal to home signal) shall be protected with DWC split pipe of 120 / 103 mm diameter, 2 m long.

(b) The cable shall be tied with DWC split pipe on top and bottom at an interval of every 1 m.

16. Cable shall be taken inside Relay rooms, Dy. ss rooms, level crossing huts, OFC huts, Telecom equipment room etc. and bunched over powder coated Mild steel (MS) ladder of appropriate width made of angles of size 38mm x38mm x3 mm. The base of the ladder should be properly concreted with 1:3:6 M10 concrete. The arrangement shall be protected by constructing a block of brick masonry.

17. Cable entries shall be properly closed using concrete to prevent rodent entry or cable theft.

18. Cables shall be taken inside location boxes, ODCs near towers from underneath the location box foundations. The inside of the location box, ODC shall be sand filled, plastered after taking the cables inside. Wherever there is a paucity of space in any existing location box, methodology suggested by representatives of the Authority Engineer, including installation of a new location box and jumpering of existing cables from the existing location box to the new location box, shall be adopted.

19. Cable entries shall be properly closed using concrete to prevent rodent entry or cable theft.

20. OFC Cable laying

(a) 24 Fibre OFC shall be used for this Project.

(b) Laying of HDPE duct and blowing of OFC shall be done as per guidelines specified in Section VIII, Chapter 13 of Indian Railway Telecom Manual.

(C) OFC shall be blown through HDPE duct conforming to RDSO specification RDSO/SPN/TC/45/2013. OFC shall be blown through HDPE duct using a blowing machine and no manual pulling is permitted after conducting Duct Integrity Test (DIT) as per the procedure laid down in Annexure I, Chapter 13 of Indian Railway Telecom Manual duly recording readings.

(d) OFC shall be jointed as per Section X, Chapter 13 of Indian Railway Telecom Manual.

(e) OFC shall be tested and readings shall be recorded as per format in para 13.10.23 of Indian Railway Telecom Manual or South Central Railway format.

(f) All the fibres of OFC shall be terminated in Fibre Distribution Management System (FDMS) with LC connectors at OFC Huts, Telecom equipment rooms, ODCs. At existing OFC Huts and Telecom equipment rooms, the OFC shall either be terminated in the existing U racks or new U rack of appropriate size and reputed make such as Vero President, Rittal, AEW, Bestnet etc. as per the instructions of representatives of the Authority Engineer. The FDMS shall be housed in a U rack of appropriate size and reputed make such as Vero President, Rittal, AEW, Bestnet etc. in OFC Huts and Telecom equipment rooms. New U racks provided shall have adequate number of cooling fans, power managers, cable managers, equipment trays.

(g) FRP loop chambers shall be provided at an interval of every one km, both ends of track crossing, major bridges, platform crossing, entry of OFC Huts / Telecom Equipment rooms, IB Huts, Relay Rooms, Level Crossing Gate Huts. Each loop chamber shall cater to a minimum OFC length of 30 m.

(h) FRP joint chambers shall generally be provided at an interval of every three km. Each joint chamber shall cater to a minimum OFC length of 30 m. The enclosures used for jointing shall conform to specification / Drawing No. RAILTEL/SR/OFC/2009/12.

21. RCC cable route markers as per IRSEM Drawing No. 15-D1 shall be installed at an interval of every 50 m and at locations of track crossing, Relay Rooms, OFC Huts / Telecom Equipment room, OFC loop chambers. RCC cable route marker at OFC loop chambers shall be of yellow colour, that at OFC joint chamber shall be of green colour and the rest shall be of red color. Two RCC cable route markers shall be provided at track crossing locations – one shall indicate the direction of cable laying and the other shall indicate the direction of track crossing.

22. RCC cable route markers shall be provided within two days of trench back filling.

23. Details such as cable drum number, total number of cores, to and from location details shall be laser printed, laminated and fixed in location boxes using 2 mm thick Perspex sheet cover.

24. The trench path shall be straight as far as possible. The trenching shall be carried out without causing damage to working cables. A qualified engineer shall be deployed at the work spot continuously. Telecom Circular No. 09/2023 issued vide Railway Board Letter No. 2021/Tele/5(2)/3-Part(1)(3425647) dated 12.06.2023 for taking up digging activity near S&T cables shall be followed. Necessary bushes / trees / jungle shall be cleared before taking up the trenching.

25. Location Boxes

1. Location boxes shall be installed in accordance to cable laying requirements.

2. Location boxes of full size (GKP type) with 'E' type lock and key fixed on one door as per Drawing No. S&T/MFT/2378 (Single) shall be installed.

3. 'E' type lock as per Drawing No. SA 3376/M of ward number 32 shall be used. Key as per Drawing No. S 3377/M shall be used.

4. Location boxes shall be installed by excavation of pit and casting of foundation as per South Central Railway Drawing No. 5781.

5. Location boxes shall be installed with the shorter edge (edge without door) parallel to the track without infringements as per IRSOD.

6. Top surface of the foundation of location boxes shall, normally, be matched to rail level in a plain area.

7. Stone pitching of location boxes shall be done wherever the location box foundation depth below the ground level is less than 40 cm and at locations instructed by representatives of the Authority Engineer.

8. Stone pitching of location boxes and tie bar fencing shall be done in miscreant prone locations / locations with improper drainage / locations with chronic garbage dumping problems as instructed by representatives of the Authority Engineer.

9. Foundation of the location box shall be lime washed with two coats after the completion of placement of location box on the foundation.
10. **Painting of Location Box before Placement on Foundation:** Location box shall be painted with one coat of red oxide metal primer after preparing the surfaces smooth by emery paper polishing. Primer shall of Berger / Asian Paints / British / JSW make.
11. **Painting of Location Box after Placement on Foundation:** The location box shall be painted with two coats of aluminium paint on outer surface and two coats of white paint on inner surfaces. Paint shall of Berger / Asian Paints / British / JSW make.
12. Cables shall be taken inside location boxes from underneath the location box foundations. The inside of the location box shall be sand filled, plastered after taking the cables inside. The cables shall be taken inside the existing location boxes, if required, and terminated in such a way that it is possible to change over without disconnection of working functions or with the barest minimum possible disconnection. Wherever there is a paucity of space in any existing location box, methodology suggested by representatives of the Authority Engineer, including installation of a new location box and jumpering of existing cables from the existing location box to the new location box, shall be adopted.
13. Cable termination shall be done on 6 way ARA terminals fixed on teak wood reapers / teak wood blocks / 10 mm hylam sheets as per the site requirements as instructed by representatives of the Authority Engineer. Two coats of wood primer shall be applied to teak wood reapers / teak wood blocks. The size of the teak wood reapers / teak wood blocks / 10 mm hylam sheets shall be as per the site requirements as instructed by representatives of the Authority Engineer.
14. Extra cable loop of 6 to 8 m shall be kept at each end of the main cable / tail cable / power cables / 6 quad cable at location boxes. A cable pit of size not less than 1 m and 1.5 m diameter shall be made near every location box to house the cable loop coil. Individual cable coils shall be tied with released / excess cable bits in the pit. Wherever multiple cables are to be terminated in the same location box, the cables shall be kept on top of one another in the pit. The cable loop pit shall be refilled with the excavated earth and rammed. Wherever, cable pits are not feasible, the cables shall be looped and buried as instructed by representatives of the Authority Engineer.
15. Gland plate shall be fixed as per South Central Railway Drawing No. 5774.
16. Earthing of location box and equipment shall be done.
17. Anti-tilting arrangement for equipment shall be done.
18. Details such as cable drum number, total number of cores, to and from location details, cable termination particulars shall be laser printed, laminated and fixed in location boxes using 2 mm thick Perspex sheet cover.
19. Location boxes shall be painted and numbered as per the extant practice of South Central Railway.
20. Implantation distance and earth resistance shall be painted on the track side of the location box as instructed by representatives of the Authority Engineer.
21. All associated works shall be done to make the system functional. **1.2.3 Outdoor Cabinets (ODCs)**
- 26. Power supply**
 1. Power supply extension required for the provision of 4G LTE-R shall be done over 12 core underground signalling cable.
 2. Power supply shall be extended to ODC from nearest Colour Light Signal (CLS) panel at all new tower locations.
 3. Power supply shall be extended to existing power cable termination near tower from nearest CLS panel at all existing tower locations.
 4. Appropriate Surge Protection as instructed by representatives of the Authority Engineer shall be used.
- 27. Outdoor Wiring**
 1. The contractor shall submit location box particulars with termination details and outdoor wiring diagrams for the approval of the Authority Engineer.
 2. The installation in location boxes and wiring shall be done as per the approved wiring diagrams.
 3. The cables shall be taken inside the existing location boxes, if required, and terminated in such a way that it is possible to change over without disconnection of working functions or with the barest minimum

possible disconnection. Wherever there is a paucity of space in any existing location box / signal post, methodology suggested by representatives of the Authority Engineer, including installation of a new location box / signal and jumpering of existing Cables from the existing location box to the new location box /signal, shall be adopted.

4. All wiring shall be terminated using lugs of suitable size. The lugs shall be crimped and soldered. Wire identification sleeves / ferrules of insulation made of insulated material shall be provided at both the ends of wires with termination particulars printed on them.
5. Cables shall be clamped properly using cable gland plates.
6. All new cables shall be tested before and after cable laying in the presence of representatives of Authority Engineer. The readings shall be recorded in Cable Testing Summary Register (S&T/R-10).
7. Details such as cable drum number, total number of cores, to and from location details, cable termination particulars shall be laser printed, laminated and fixed in location boxes using 2 mm thick Perspex sheet cover. The same details shall be recorded in the Cable Testing Summary Register (S&T/R-10).

Indoor Wiring

1. Wiring shall be done as per the extant practices and of South Central Railway compliant to the existing standards.
2. Wiring shall be properly bunched with lacing twine or cable ties.
3. All wiring shall be terminated using lugs of suitable size. The lugs shall be crimped and soldered. Wire identification sleeves / ferrules of insulation made of insulated material shall be provided at both the ends of wires with termination particulars printed on them.
4. Cables shall be clamped properly using cable gland plates.
5. Cable entries shall be properly closed using concrete / silica gel or any other compound to prevent rodent entry or cable theft.
6. Different types of cables shall be drawn in powder coated aluminium ladder as per South Central Railway Drawing No. 5769. Power cables and cables for function wiring shall be drawn in different ladders separated by a minimum distance of 50 mm.

28. Testing of Wiring:

- (a) Testing shall be first carried out by competent engineer of the contractor before offering for testing to railways.
- (b) Necessary manpower and equipment required for testing by railways shall be arranged by the contractor.

29. Earthing, Lightning and Surge Protection

1. Earthing of Location Boxes:

- (a)Earths as per South Central Railway Drawing No. 5775 shall be provided for all location boxes. All nuts / bolts used to connect MS flat to function and earth electrode shall be galvanised.
- (b) Resistance of earth achieved shall not exceed 10 Ω . Additional earth electrodes shall be provided and paralleled if required to achieve final earth resistance of less than 10 Ω .
- (c) Earth resistance value shall be painted on the earth electrode chamber with date of measurement.

Earthing of cables

- (a)Armour of signalling and telecom cables shall be earthed. Both sheath and armour of main cables shall be earthed.
- (b)All cable armours shall be soldered with released cable copper conductors of required length and the other end of the conductors shall be connected to a cable gland plate.
- (c) Armour of OFC shall be earthed at both the ends.

Earthing of telecom equipments

- (a)All telecom equipment shall be earthed as per OEM recommendations.

(b) Any additional telecom equipment installed adjacent to the existing telecom equipment, shall also be earthed as per OEM recommendations.

(c) Wherever the available earthing arrangements are found unsuitable as per OEM recommendations, earthing arrangements shall be provided as per OEM recommendations.

(d) Wherever the available earthing arrangements are found inadequate as per the representatives of Authority Engineer, earthing arrangements shall be provided / augmented as per the instructions of the representatives of Authority Engineer.

30. Summary of Specifications and Drawings

A non-exhaustive summary of specifications and drawings is produced below. In case of absence of specification / drawing, specification / drawing proposed by the contractor and reviewed by the Authority Engineer shall be followed. The decision of the Authority shall be final in case of any dispute between the contractor and the Authority Engineer.

S No	Description	Specification/ Drawing
1	Cable Protection arrangements where depth of 1.0 m cannot be achieved	SCR Drawing No. 5771
2	Cable Chamber	SCR Drawing No. 5766
3	Cable laying where rock is encountered	IRSEM Drawings No. 15-D2 Sheets 1, 2 and 3 as applicable
4	Micro-tunneling / Horizontal Boring	SCR Drawing No. 5770
5	Manual Track Crossing	SCR Drawing No. 5768
6	Cable Laying on major bridges having steel girders	IRSEM Drawing No. 15-D6 or as in Section 1.2.1
7	Cable Laying on minor bridges or culverts	IRSEM Drawing No. 15-D8
8	Cable Laying on bed of culverts or under bridges	IRSEM Drawing No. 15-D7
9	Optic Fibre Cable (OFC)	RDSO Specification No. IRS TC 55/2006 Revision 1 Amendment 1.1 or latest
10	Fibre Distribution Management System	RDSO Specification No. RDSO/SPN/TC/37/2020 Revision 4.0 or latest
11	OFC Joint Closure	RDSO Specification No. RDSO/SPN/TC/68/2014 Revision 1.0 Amendment 1 or latest
12	OFC Joint Chamber (FRP Type)	RCIL Drawing No. RAILTEL/SR/OFC/2009/12 or latest
13	OFC Patch Cords, Pig Tails	RDSO Specification No. RDSO/SPN/TC/69/2007 Revision 0 or latest
14	Switch Board Cable	TEC Specification No. GR/WIR-06/03 MAR 2002 or latest
15	ARA Terminals and Fuse Blocks	RDSO Specification No. IRS S 75/2006 or latest

16	Fuses	RDSO Specification No. IRS S 78/2006 or latest
17	HDPE Duct (To be supplied by RailTel)	RDSO Specification No. RDSO/SPN/TC/45/2013 or latest or IS 4984-1995 or latest
18	Duct Integrity Test	Procedure in Annexure I, Chapter 13 or Indian Railway Telecom Manual
19	OFC Jointing	Procedure in Section X, Chapter 13 of Indian Railway Telecom Manual
20	Full Location Boxes	Drawing No. S&T/MFT/2378
21	'E' Type Lock and Key	RDSO Drawings No. SA 3376/M, SA 3377/M or latest
22	Outdoor Cabinet (ODC)	SCR Drawing No. SK/BOX-FDN/01
23	Location Boxes Foundation	SCR Drawing No. 5781
24	Gland Plate in Location Box and Relay Room	SCR Drawing No. 5774
25	Underground Signalling Cable	RDSO Specification No. IRS S 63/2014 Revision 4.0 or latest
26	60 Core Indoor Cable	RDSO Specification No. IRS S 76/89 Amendment 3 or latest
27	Double Walled Corrugated (DWC) Pipes	RDSO Specification No. RDSO/SPN/2014/2011 Version 1.1 Amendment 1 or latest
28	GI Pipe	IS 1239 (Part I) 1990 with galvanisation as per IS 4736-1986 or latest
29	Hylam Sheet	IS 2036-1995 or latest
30	Conventional Earth	SCR Drawing No. 5775
31	Ladder for Indoor Wiring	SCR DrawingNo. 5769
32	GI Wire	IS 280-2006 or latest
33	RCC Cable Marker	IRSEM Drawing No. 15-D1

31. Supply of Material

4.1 Supply of all materials required for the completion of this Project fall under the scope of the work.

4.2 The critical items as per Railway Board Letter No. 74/RS(G)/379/2 Pt. dated 04.03.1991 and 18.06.1991 shall be supplied duly inspected by RDSO / RITES. The inspection clause mentioned in this section for each item shall be strictly adhered to irrespective of amount.

4.3 All inspection charges shall be borne by the contractor.

4.4 The inspection charges for material to be inspected by RITES shall be as per Railway Board Letter No. 2022/RS(G)779/9 dated 01.12.2022 or latest Railway Board guidelines.

4.5 A non-exhaustive summary of specifications and drawings is produced below. In case of absence of inspection agency, inspection agency proposed by the contractor and reviewed by the Authority Engineer shall be followed. The decision of the Authority shall be final in case of any dispute between the contractor and the Authority Engineer.

4.6 Normally, the inspecting agency shall not be changed. However, in case the nominated inspecting agency is

not in a position to carry out inspection due to policy changes / or any other reason, the inspection shall be carried out as per Authority's decision. In such a case, cost of inspection charges as applicable for RDSO / RITES shall be deducted from the contractor's bills.

4.7 Material with RDSO specifications shall be procured from RDSO approved vendors only. If no RDSO approved vendor is available, material shall be procured from other sources as approved by Authority.

4.8 Notwithstanding any approval which the inspecting officer may have given in respect of the stores or any materials or the work or workmanship involved in the performance of the contract (Whether with or without any test carried out by the contractor or the Inspecting officer or under the direction of the Inspecting officer) and notwithstanding delivery of the stores where so provided to the interim consignee, it shall be lawful for the consignee, on behalf of the purchaser, to reject the stores or any part, portion of consignment thereof within a reasonable time after actual delivery thereof to him at the place or destination specified in the contract if such stores or part, portion of consignment thereof is not in all respects in conformity with the terms and conditions of the contract whether on account of any loss, deterioration or damage before dispatch or delivery or during transit or otherwise whatsoever.

4.9 Once materials with value more than Rs.10 Lakh is received at designated store depot; the contractor has to inform the Authority Engineer in writing within Seven days of receipt of such material along with copies of inspection certificates and other documents. Within Fifteen days of receipt of information, Authority engineer shall depute his representative to inspect the material. In order to facilitate Authority engineer's representative inspection, Contractor shall produce all certificates, e-way bills and invoices in original during inspection. Contractor will also facilitate the Authority Engineer's representative with tools, measuring instruments, labour and skilled staff for sample testing of the material. Material, irrespective of value, which is not in conformity with the specifications, loss, defective or damaged will be rejected summarily.

S.No.	Description	Inspecting Agency
1	Optic Fibre Cable (OFC) (To be supplied by Railtel)	RDSO
2	Fibre Distribution Management System	RDSO
3	OFC Joint Closure	RDSO / RITES
4	OFC Joint Chamber (FRP Type)	RITES
5	OFC Patch Cords, Pig Tails	Consignee
6	Switch Board Cable	Consignee
7	ARA Terminals and Fuse Blocks	RDSO
8	Fuses	RDSO
9	HDPE Duct (To be supplied by Railtel)	RDSO
10	Full Location Boxes	RITES
11	'E' Type Lock and Key	RDSO
12	Underground Signalling Cable To be supplied by Railtel)	RDSO
13	60 Core Indoor Cable	RDSO

14	Double Walled Corrugated (DWC) Pipes	RITES
15	GI Pipe	RITES
16	Hylam Sheet	Consignee- SCR
17	Conventional Earth	Consignee -SCR
18	Maintenance Free Earth	RITES
19	Ladder for Indoor Wiring	Consignee -SCR
20	GI Wire	Consignee -SCR
21	RCC Cable Marker	RITES

3.6 Splicing:

3.6.1 STRAIGHT/BRANCH JOINT FOR FIBRE OPTIC CABLE:

There are various types of joint enclosures available in the market. The procedure for assembly of joint closure is described in the installation manual supplied with straight joint closure. This includes the following:

- a) Material inside joint closure kit.
- b) Installation tools required.
- c) Detailed procedure for cable jointing.
- d) Procedure for re-opening the closure

3.6.2 The Optic Fiber joint closure shall be of reputed make like TVSE, Raychem, 3M etc. and the same may be approved by RailTel before use. **Fiber no 1 to 4 which are to be terminated in the way stations have to be branch spliced and only tube no.1 to be cut for this purpose. Only the fibers required to be branched are to be cut. All the 24 fibers are required to be terminated at locations specified by RailTel engineer.** The joint shall be protected in concrete chamber.

3.6.3 However, generally, the following steps are involved for jointing of the cable.

- . Preparation of cable for jointing
- . Stripping/cutting the cable
- . Preparation of cable and joint closure for splicing
- . Fibre splicing
- . Organizing fibers and finishing joints
- . Sealing of joint closure and
- . Placing joint in pit.

3.7 PREPARATION OF CABLE FOR JOINTING

3.7.1 During the installation, a minimum of 10 Meters of cable of each end is coiled in the jointing pit to provide for jointing to be carried out at convenient location as well as spare length to be available for future use in case of failures.

3.7.2 The pit size must be chosen carefully to ensure the length of the way on which joint is mounted is greater than closure length plus twice the minimum bending radius of the cable. A pit length of 1 meter is sufficient for most of the cable and joint closures. Bracket to support the cable coil are also fixed on the wall of the pit.

3.7.3 The cable is then coiled on to the pit wall in the same position as required after the joint is complete. The marking is done on all the loops so that it will be easier to install it later.

3.7.4 The distance from the last centre to the end of the cable must be at least 1.8 meter. This is being the minimum to be stripped for preparation of joint.

- 3.7.5 Sufficient cable at each end up to the jointing vehicle/enclosure is then uncoiled from the pit for jointing.
- 3.8 **STRIPPING/CUTTING OF THE CABLE**
- 3.8.1 The cables are stripped of their outer and inner sheath with each sheath staggered approximately 10mm from the one above it.
- 3.8.2 Proper care must be taken when removing the inner sheath to ensure the fibers are not scratched or cut with the stripping knife or tool to prevent this, it is best to only score the inner sheath twice on opposite sides of the cable, rather than cut completely through it. The two scores marking on either side of the cable are then stripped of the inner sheath by hand quite easily.
- 3.8.3 The fibres are then removed from cable one by one and each fibre is cleaned individually using Kerosene to remove the jelly.
- 3.9 **PREPARATION OF CABLE JOINT CLOSURE FOR SPLICING** The type of preparation work performed on the cable prior to splicing differs on the type of joint closure and fiber organizer used. However, the following steps are usually common:
- 3.9.1 The strength member of each cable is joined to each other and/or the central frame of the joint closure.
- 3.9.2 The joint closure is assembled around the cable.
- 3.9.3 The sealing compound or heat shrink sleeve is applied to the cables and closure or prepared for application after splicing is complete.
- 3.9.4 The fibers are protected (usually with plastic tubing) in their run from the cable core to the fibre organizer trays (particularly if cable construction is slotted core type).
- 3.9.5 Tags which identify the fibers nos. are attached at suitable locations on the fibres
- 3.9.6 Splice protectors are slipped over each fiber in readiness for splicing over the bare fibre after splicing.
- 3.10 **STRIPPING AND CLEAVING OF FIBRE**
- 3.10.1 Prior to splicing each fiber must have approximately 50mm of its primary protective U.V. cured coating removed, using fibre stripper which are manufactured to fine tolerances and only score the coating without contacting the glass fibre.
- 3.10.2 The bare fiber is then wiped with a lint free tissue doused with ethyl alcohol.
- 3.10.3 Cleaving of the fiber is then performed to obtain as close as possible to a perfect 90 degrees face on the fibre.
- 3.11 **METHOD OF FUSION SPLICING OF THE FIBER** some of the general steps with full automatic microprocessor control splicing machine is as under:
- 3.11.1 Wash hands thoroughly before start of splicing.
- 3.11.2 Dip the clean bare fibre in the beaker of ethyl alcohol of the ultrasonic cleaver. Switch on ultrasonic cleaver for 5-10 seconds (some of the manufacturers does not prescribe the above *cleaning).
- 3.11.3 Place the bare fiber inside 'V' groove of the splicing machine by opening clamp handle such that the end of fiber is app.1 mm. over the end of the 'V' groove towards the electrodes.
- 3.11.4 Repeat the same procedure for other fibre, however first insert heat shrink splice protector.
- 3.11.5 Press the start button on the splice controller.
- 3.11.6 The machine will pre fuse, set align both in 'X' and 'Y' direction and then finally fuse the fiber.
- 3.11.7 Inspect the splice on monitor if provided on the fusion splicing machine and assure no nicking, bulging is there and cores appear to be adequately aligned if the splice does not visually look good repeat the above procedure.
- 3.11.8 Slide the heat shrink protector over the splice and place in tube heater. Heat is complete when soft inner layer is seen to be 'oozing' out of the ends of the outer layer of the protector.
- 3.11.9 Repeat the same procedure for all the other fibers
- 3.12 **ORGANISING FIBER AND FINISHING JOINTS**
- 3.12.1 After each fiber is spliced, the heat shrink protection sleeve must be slipped over the bare fiber before

any handling of fiber takes place, as uncoated fibers are very brittle and cannot withstand small radius bends without breaking.

- 3.12.2 The fiber is then organized into its tray by coiling the fibers on each side of the protection sleeve using the full tray side to ensure the maximum radius possible for fiber coils.
- 3.12.3 The tray is placed in the position.
- 3.12.4 **OTDR reading taken for all splices in this organized state and recorded on the test sheet to confirm that all fibers attenuation are within 0.02 dB per splice. This OTDR test confirms fibers were not subjected to excessive stress during the organizing process.**
- 3.12.5 After this the joint can be closed with necessary sealing etc and ready for placement in the pit.
- 3.13 **PLACING OF COMPLETED JOINT IN PIT**
- 3.13.1 Joint is taken out from the vehicle and placed on the tarpaulin provided near the pit.
- 3.13.2 The cable is laid on the ground, loop the cable such that pen mark previously place on the cable line up. Tape these loops together at the top of the coil.
- 3.13.3 The joint can now be permanently closed and sealed by heating heat shrinkable sleeve etc. However, before closing, silica gel to be kept inside for moisture protection.
- 3.13.4 Now the joint closure is fixed to the bracket on the pit wall and pit is closed.
- 3.14 **OPENING OF THE JOINT.** If required for attending to faults etc., manufacturers supply special kits for opening of the joint and the steps to be followed. However the general steps are as under:
 - 3.14.1 Using suitable knife cut heat shrink sleeve longitudinally along its entire length.
 - 3.14.2 Do not damage the smaller heat shrunk sleeve on the ends of the joint.
 - 3.14.3 Apply heat to the cut sleeve until it begins to separate.
 - 3.14.4 Gently remove the cut sleeve from the joint. Now the joint can be opened.
 - 3.14.5 Protective sleeve/cover can be removed for attending to faults etc.
- 3.15 **RCC joint/Loop Chambers.** RCC joint/loop chambers of 0.9 mts inner dia, 60cm depth and 3mm thickness with 2 piece top cover with two hooks each and bottom cover with holes for drainage and cable entry as per drawing No RAILTEL/SR/ OFC/2009/12.
and as directed of RailTel engineer to be provided at every KM for OFC joint/ loop. The Chamber shall be filled with sand mixed with anti termite powder .

Installation Specification:

- 1. A pit of Diameter 1200mm and of depth 1300mm has to be dug.
- 2. The bottom plate type cover has to be place first and the chamber to be inserted later.
- 3. Cable duct entry window to be opened at the semi closed circular cuts on the enclosure by hitting with hammer/screw driver as per no. of ducts.
- 4. Top cover should be place slowly in its position as shown in the drawing.
- 5. The soil has to be pulled back over the chamber buried 600mm below the ground level.
- 3.16 **Termination of OFC in FMS:** The OFC has to be terminated in the FDMS supplied by RailTel as directed by the RailTel Engineer-in-Charge as per site requirement. Fiber 1-4 has to be terminated in every Railway station in FDMS supplied by RailTel. Branch joint to be made in each station by cutting only tube no.1.All 24 fibers to be terminated at important stations specified by RailTel.
- 3.17 **Testing of fibers and submission of as made drawings:** The contractor has to do the testing and commissioning of OFC system from Cable hut to cable hut with proper lead in and lead out through G.I Pipe, splicing and termination as directed by RailTel engineer. Testing and commissioning after defect rectification if any defects located during the testing, obtaining the clearance from RailTel in the form of acceptance certificate, preparation of test reports, as build drawings of cable route plan and OFC jointing location schedules in CAD format and submission of 2 soft copies in Pendrive and 3 hard copies in A3 size etc., complete to the finished item of work and as directed by the RailTel Engineer-in-charge.
- 3.17.1 **Testing** consists of **OTDR** reading and **power meter** reading of all fibers. Station to station testing is required for fibers terminated at block stations. Run through fibers may be tested form end-to-end terminations only. OTDR readings are to be taken in 1310 nm and 1550nm windows and one set of readings to be recorded in soft as well as hard copy and submitted duly counter signed by contractor's

authorized representative and RailTel’s engineer – in - charge.

3.17.2 **Reports:** The reports consists of (a) tabulation of all events reported by OTDR of more than 0.2 db over the section for all fibers tested, (b) Tabulation of power loss from A-B & B-A direction, average and loss per km in both 1310 & 1550 nm. for all the fibers tested.

TEST PROTOCOL FOR OPTICAL FIBRE CABLE

SYSTEM TEST PROTOCOL OPTICAL FIBRE CABLE FIELD TEST

Route: -----

Date: -----

Station: -----

No. of mid- section splices: -----

Section: -----

Measured by: -----

Length
(by OTDR): -----

Length as per meter
marking on cable sheath-----

Optical measurements (On Line):

Measurement	Fibre – number	Accepted Value
	1 2 3 422 23 24	
1.1 Total attenuation at 1300/1550 nm with OTDR		
1.2 Total attenuation per Km at 1300/1550 nm:		<0.40 dB/Km at 1300 nm &<0.25 at 1550 nm
1.3 Splice Loss in dB with OTDR Location		Average splice loss
OHE Mast No. / Overhead alignment post no. A. B. C. D. E.		
Average Splice Loss		0.15 dB/Splice

NOTE: ALSO ATTACH OTDR RESULTS | --- |

2) Visual Inspection (On Line):

2.1 No. of Cable drum used in the section: -----

2.2 S.No. of cable and length of each drum:

<u>S.No.</u>	<u>LENGTH</u>
1. -----	Mtr
2. -----	Mtr
3. -----	Mtr
4. -----	Mtr
5. -----	Mtr

2.5 Location of Isolation Sleeves: 1. 2. 3.

Contractor's Representative

RailTel’s Representative

3.18 TOOLS AND EQUIPMENTS REQUIRED FOR JOINTING AND TERMINATION OF FIBRE OPTIC CABLE.

S.No. Tool’s Name

1. Branch Joint Closure
2. Termination Box
3. Rubber end Block
4. Sheath Clamp

5. Bushing
6. Strength Member holder
7. Heat Shrinkage tube
8. Arc fusion splicer machine.
9. Power cord AC/DC
10. Walkie-Talkie 12V DC source
11. Tube heater
12. Precision cleaver
13. Cable sheath stripper
14. Fibre stripper
15. Knife for HDPE cutting
16. Hexa for strength membrane
17. Isopropyl alcohol or methanol of high specific gravity
18. Johnson Buds
19. Tweezers
20. Gun heater Blower type
21. Sleeve for splice protection
22. O.T.D.R.
23. Stickers for numbering of splicers.
24. Portable k. oil generator
25. Umbrella 2 Nos.
26. Dust protection for splicing machine

Note:-Wherever cable has to be coiled/looped, the diameter of the coil/loop shall be greater than 50 times the diameter of the cable.

Replacement of Defective OFC: No defects like high loss events and fiber breaks are permitted and the contractor shall at his cost replace the entire drum length of cable of RAILTEL's specification and in any case not less than the length of the drum being re-laid. The contractor also at his cost blows the cable again including the splicing/Termination of the cable. No joints with pieces of OFC are permitted. In case of any deviation, specific approval from Competent Authority of RailTel should be obtained



SECTION-III

CHAPTER-2

FORMS OF TENDER

Form No. 1	:	Offer Letter
Form No. 2	:	Qualifying Criteria / User's Certificate
Form No. 3	:	Agreement
Form No. 4	:	Guarantee Bond for Security Deposit /PBG
Form No. 5	:	Statement of Deviations
Form No. 6	:	Standing Indemnity Bond for on Accounts Payments and Stores Supplied
Form No. 7	:	Bank Guarantee for Mobilization Advance - Deleted
Form No. 8	:	Acknowledgement for receiving materials from RailTel
Form No. 9	:	Extension of period of completion of work on account of contractor
Form No. 10	:	Qualification /Experience
Form No. 11	:	Notarized Affidavit

FORM –I

PARA 6.7 (i) Section-II Chapter –I

OFFER LETTER

To
Executive Director / Regional General Manager (Southern Region)
RailTel Corporation of India Limited.,
6A, 6th Floor, Gumidelli Towers, Opp: Shoppers Shop,
Begumpet, Hyderabad – 16

Ref: Tender no. RCIL-e-Tender-23-24-SC 55/56/57/58
Section: SC-Raghunathpalley and Lingampalley-Vikarabad / Vikarabad - Wadi and Vikarabad-Sadashivpet /
Sadashivpet-Bidar / Bidar-Parli

1. I/We _____ have read the various conditions to tender attached here to and hereby agree to ABIDE BY THE SAID CONDITIONS. I/We also agree to keep this tender open for acceptance for a period of 20 days from the date fixed for opening the same and in default thereof, I/We will be liable for forfeiture of my/our Earnest Money. I/We offer to do the work of “TRENCHING, LAYING OF HDPE DUCT, OFC,12Core POWERCABLE and other associated works for COMPREHENSIVE GROUND INFRASTRUCTURE WORKS FOR PROVISION OF 4G LTE-R IN 523 RKM OF SECUNDERABAD DIVISION IN SOUTH CENTRAL RAILWAY” in section ----- as detailed in para 1 of preamble for RailTel Corporation of India Limited at the rates quoted in the attached schedules and hereby bind myself/ourselves to complete the work for each section within specified period mentioned in the preamble from the date of issue of Letter of Acceptance of the tender. I/We also hereby agree to abide by the Various Conditions of Contract and to carry out the work according to the Specifications for materials and works laid down by the RailTel for the present contract.

2. A sum of Rs.-----/(Rupees----- only) is paid online towards “Earnest Money”. The full value of Earnest Money shall stand forfeited without prejudice to any other rights or remedies if,
a) I/We do not execute the contract agreement within 30 days after receipt of notice issued by the RailTel that such documents are ready or, b) I/We do not commence the work within 15 days after receipt of orders to that effect.

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

SIGNATURE OF CONTRACTOR (S) Date

CONTRACTOR (S) ADDRESS

SIGNATURE OF WITNESS

- 1.
- 2.

ACCEPTANCE OF TENDERS

I accept the tender as above and agree to pay the rate as entered in Schedule of requirements. WITNESS

- 1. for and on behalf of
- 2. RailTel Corporation of India Limited Southern Region, Secunderabad

Date

Form- 2 Para 15.1.5 Section-II Chapter - I

QUALIFYING CRITERIA USER'S CERTIFICATE

Name of the Firm Contract No. & date

Scope of Work

Contract Amount (in Indian Rupees)

Completion Period as per contract Data of Commencement

Actual date of Successful Completion

Whether work physically completed in all respect: Yes/No

Payment made till 31st January 2024 against the work :

Quality of work : Satisfactory / unsatisfactory

(Please specify)

Name:

Dated:

Designation:

Signature of the **User** with Company Seal



Para- 2 Section-II Chapter II

AGREEMENT

An agreement made this ---- day of ----- 2024, between RailTel Corporation of India Ltd, a company incorporated under the companies Act 1956 and having its Regional Office at 6th Floor, 6A, Gumidelli Towers, Begumpet – 16 (here in after referred as RailTel) of the One part; and M/s ----- (Hereinafter referred to as ‘contractor’) of the other part.

Whereas in response to a call for Tender TRENCHING, LAYING OF HDPE DUCT, OFC,12Core POWERCABLE and other associated works for COMPREHENSIVE GROUND INFRASTRUCTURE WORKS FOR PROVISION OF 4G LTE-R IN 523 RKM OF SECUNDERABAD DIVISION IN SOUTH CENTRAL RAILWAY in section -----as per Tender papers, the Contractor has submitted his offer.

Where as the Contractor has agreed with RailTel Corporation of India Ltd for carrying out the work of “TRENCHING, LAYING OF HDPE DUCT, OFC,12Core POWERCABLE and other associated works for COMPREHENSIVE GROUND INFRASTRUCTURE WORKS FOR PROVISION OF 4G LTE-R IN 523 RKM OF SECUNDERABAD DIVISION IN SOUTH CENTRAL RAILWAY in section -----as per the Tender document No. RCIL-e-Tender-23-24-SC-55 to 58 for Rs.----- (Rupees ----- only) as per copy of Letter of Acceptance (LOA)/PO of tender issued vide letter No. RCIL-e-Tender-2023-24-SC----- dt. ----- .2024 & PO No -----dt----- at accepted rates as contained in the said LOA (Annexure-2 hereto) issued by RailTel with schedule of requirement and terms and conditions.

Now this agreement witnesses that in consideration of the payment to be made by RailTel to the Contractor provided, the Contractor shall execute the work of “TRENCHING, LAYING OF HDPE DUCT, OFC,12Core POWERCABLE and other associated works for COMPREHENSIVE GROUND INFRASTRUCTURE WORKS FOR PROVISION OF 4G LTE-R IN 523 RKM OF SECUNDERABAD DIVISION IN SOUTH CENTRAL RAILWAY” in section----- ----- for which the said tender of Contractor has been accepted strictly according to the Annexure-1 and 2 hereto and upon such work of “TRENCHING, LAYING OF HDPE DUCT, OFC,12Core POWERCABLE and other associated works for COMPREHENSIVE GROUND INFRASTRUCTURE WORKS FOR PROVISION OF 4G LTE-R IN 523 RKM OF SECUNDERABAD DIVISION IN SOUTH CENTRAL RAILWAY in section -----& satisfactory completion of work and performance of the system to the satisfaction of the RailTel, the RailTel shall pay to the Contractor at the rates accepted as per the said Annexure and in terms of conditions contained in Annexure-1, 2 & 3.

Whereas Rs -----/- towards balance security deposit will be recovered from bills at the rate of 10% of bill amount, M/s ----- submitted ----- dt ----- for Rs ----- /- towards PBG respectively for due fulfillment of the contract.

In the witness where of the parties have hereinto set and subscribed their respective hands and/or seals day and year respectively mentioned against their respective signatures.

Signed and delivered at _____ by Shri _____ for and on behalf of M/s. _____

The contractor within named in the presence of:

- 1. Signatures Date Name in Block Capitals Address
- 2. Signatures

Date
Name in Block Capitals
Address

Signed and delivered at -----for and on behalf of RailTel by Shri ___{Regional General Manager (Southern Region) or his successor} in the presence of:

- 1. Signature Date Name in Block Capitals Address
- 2. Signature Date Name in Block Capitals Address

Annexure ‘1’: Tender Document., Annexure ‘2’: copy of Letter of Acceptance/PO, Annexure/3’ Schedule of works/requirement (Signature)_Dated: Complete with enclosures

Form -4

Para 3 / Section-II Chapter – II

PERFORMANCE BANK GURANTEE BOND
(On Stamp Paper of Rs. One Hundred)
(To be used by approved Scheduled Banks)

1. In consideration of the RailTel Corporation of India Limited: 6th Floor, Gumidelli Towers, Begumpet Airport Road, Begumpet, Hyderabad -500016 (Herein after called RailTel) having agreed to exempt (Hereinafter called “the said Contractor(s)”) from the demand, under the terms and conditions of an Agreement/LOA/PO No. dated made between and for (hereinafter called “ the said Agreement”) of security deposit for the due fulfillment by the said Contractor (s) of the terms and conditions contained in the said Agreement, or production of a Bank Guarantee for Rs. (Rs. only). We, (indicate the name of the Bank) hereinafter referred to as “ the Bank”) at the request of Contractor(s) do hereby undertake to pay the RailTel an amount not exceeding Rs. Against any loss or damage caused to or suffered or would be caused to or suffered by the RailTel by reason of any breach by the said Contractor(s) of any of the terms or conditions contained in the said Agreement.
2. We, Bank **and our local branch at -** ----(indicate detail address of local Branch with code no.)do hereby undertake to pay the amounts due and payable under this Guarantee without any demur, merely on demand from the RailTel stating that the amount is claimed is due by way of loss or damage caused to or would be caused to or suffered by the RailTel by reason of breach by the said Contractor(s) of any of terms or conditions contained in the said Agreement or by reason of the Contractor(s) failure to perform the said Agreement. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs.
3. We, bank undertake to pay to the RailTel any money so demanded notwithstanding any dispute or disputes raised by the Contractor(s) / Supplier(s) in any suit or proceedings pending before any court or Tribunal relating thereto our liability under this present being, absolute and unequivocal.
The payment so made by us under this Bond shall be a valid discharge of our liability for payment there under and the Contractor(s) / Supplier(s) shall have no claim against us for making such payment.
We, Bank further agree that the Guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Agreement and that it shall continue to be enforceable till all the dues of the RailTel under or by virtue of the said Agreement have been fully paid and its claims satisfied or discharged or till RailTel certifies that the terms and conditions of the said Agreement have been fully and properly carried out by the said Contractor(s) and accordingly

discharges this Guarantee. Unless a demand or claim under the Guarantee is made on us in writing on or before the (1) We shall be discharged from all liability under this Guarantee thereafter.

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

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

We, the Bank further agree that this guarantee shall be invocable at our place of business at..... (indicate detailed address of local Branch with code no.).The branch at----- is being advised accordingly.
(indicate the name of Bank) lastly undertaken not to revoke this Guarantee during its currency except with the previous consent of the RailTel in writing.

Dated the day of 2024
for
(Indicate the name of the Bank)

Witness

1. Signature
Name
2. Signature
Name



Para 4 Section-II Chapter I Statement of

Deviations

PROFORMA FOR STATEMENT OF DEVIATIONS

1. The following are the particulars of deviations from requirement of the Instructions to Tenderers and Conditions of Tendering, Preamble and Special conditions of Contract.

1.1 Instructions to Tenderers and Conditions of Tendering

Clause	Deviation (Including Justification)	Remarks
--------	----------------------------------------	---------

1.2 Preamble

Clause	Deviation	Remarks (Including Justification)
--------	-----------	--------------------------------------

1.3 Special conditions of Contract.
Clause Deviation Remarks

(Including Justification)

2. The following are the particulars of deviations from requirement of the technical specifications.

Annexure Clause Deviation Remarks (Including Justification)

Note:

Where there is no deviation, the statement should be returned duly signed with an endorsement indicated no deviations.



SIGNATURE AND SEAL OF THE MANUFACTURER / TENDERER

FORM – 6

Section-II Chapter –II

STANDING INDEMNITY BOND

(For on Account Payments and Stores supplied by RailTel)
(On Stamp paper of Requisite Value)

We, M/s _____ hereby undertake that we hold at our Stores Depot/s at _____ for and on behalf of RailTel Corporation of India Limited in the premises through RGM/RailTel/Southern Region or his successor hereinafter referred to as “the Purchaser” all materials for which ‘On Account’ payments have been made to us against the Contract for -----vide letter of Acceptance/PO of Tender No. RCIL-e-Tender-23-24-SC-55 to 58 section: ----- and the materials handed over to us by the Purchaser for all purpose of execution of the said Contract, until such time the materials are duly erected or otherwise handed over to him.

We shall be entirely responsible for the safe custody and protection of said materials against all risk till they are duly delivered as erected equipment to the purchaser or as he may direct otherwise and shall indemnify the Purchaser against any loss, damage or deterioration whatsoever in respect of the said materials while in our possession and against disposal of surplus materials. The said materials shall at all times be open to inspection by any engineer authorized by the Regional General Manager/Southern Region (whose address will be intimated in due course).

Should any loss, damage or deterioration of materials occur or surplus materials disposed off and refund becomes due, the purchaser shall be entitled to recover from us the full cost as per prices included in the Contract (as applicable) and also compensation for such loss or damage, if any, along with the amount to be refunded without prejudice to any other remedies available to him by deduction from any sum due or any sum which at any time hereafter becomes due to us under the said or any other Contract.

In the event of any loss, damage or deterioration as aforesaid the assessment of such loss or damage and the assessment of such compensation therefore would be made by the RGM/RailTel/SR, or his authorized nominee and the said assessments shall be final and binding upon us.

Dated this _____ day of _____
for and on behalf of M/s _____
(Contractor)

Signature of witness
Name and witness in Block letters
Address

ACKNOWLEDGMENT FOR RECEIVING MATERIALS FROM RAILTEL

Station: Date:

Sub: Receipt of Material from RailTel

It is hereby acknowledged that the following materials have been received in full and good condition by me on -----at----- for the work under the Agreement no.----- dated-----

Sl. No.

Description of Material

Quantity Remarks (Meter/No.) if any

Witnessed by:

(Signature of Engineer's Representative)

(Signature of Contractor Representative with or Contractor's Designation)



FORM - 9

Para - 35 Section-II Chapter - I I

EXTENSION OF PERIOD OF COMPLETION OF WORK ON CONTRACTOR'S ACCOUNT

No. Date:

To,

.....

Sub: (i) Name of Work:

(ii) Acceptance Letter No.

(iii) Undertaking / Agreement No.

Ref..... (Quote specific application of the Contractor for extension to date, if received).

Dear Sir,

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

Expecting that you may be able to complete the work if some time is given the Regional General Manager (Southern Region), RailTel Corporation of India Limited, Secunderabad although not bound to do so, hereby extends the time for completion from to

Please note that an amount equal to 0.5% of the total value of the contract per week or part thereof (rounded off to the nearest whole number) subject to a maximum of 10% of the total contract value of the works as a recovery for delay in the completion of the work after the expiry of (1)..... will be recovered from as mentioned in para 35 chapter II, section II of the special conditions of contract for the extended period notwithstanding the grant of this extension. You may proceed with the work accordingly.

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

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

Please note that in the event of declining to accept the extension on the above said conditions or, in the event of your failure after accepting or acting up to this extension to complete the work by (2) here mention the extended date), further action will be taken in terms of relevant para of special conditions of contract.

Yours faithfully, for & on
behalf of RailTel Corporation of India Limited

Note:

1. Give here the stipulated date for completion without any penalty fixed earlier.
2. Here mention the extended date.

QUALIFICATION / EXPERIENCE

Details of works executed and under execution during the last 3 financial years and the current financial year should be furnished in the following format.

S.No.	Name of Project and description of work.	Party's Address of whom the work was done	Total value (in Indian Rupees)	Year of completion and schedule period of execution (in months)	Year of completion and actual period of execution (in months)	Remarks

Note: A certificate from the organization, for which the work was executed, should preferably be enclosed to indicate that the contract was satisfactorily performed.

Signature and Seal of the Tenderer



FORMAT FOR AFFIDAVIT TO BE SUBMITTED BY TENDERER ALONG WITH THE TENDER BID 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 tenderer)

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

M/s _____ (hereinafter called the tenderer) for the purpose of the Tender documents for the work of _____ as per the tender No. _____ of (RailTel), do hereby solemnly affirm and state on the behalf of the tenderer including its constituents as under:

1. I/we the tenderer (s), am/are signing this document after carefully reading the contents.
2. I/we the tenderer(s) also accept all the conditions of the tender and have signed all the pages in confirmation thereof.
3. I/we hereby declare that I/we have downloaded the tender documents from RailTel website www.railtelindia.com/ <https://www.ireps.gov.in>. I/we have verified the content of the document from the website and there is no addition, no deletion or no alternation to the content of the tender document. In case of any discrepancy noticed at any stage i.e. evaluation of tenders, execution of work or final payment of the contract, the master copy available with the 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/credentials submitted along with the offer and same shall be binding upon me/us.**
6. **I/we declare that the information and documents submitted along with the tender by me/us are correct and I/we are fully responsible for the correctness of the information and documents, submitted by us.**
7. I/we undersigned that if the certificates regarding eligibility criteria submitted by us are found to be forged/false or incorrect at any time during process for evaluation of tenders, it shall lead to forfeiture of the tender EMD besides banning of business for five years on entire RailTel. Further, I/we (insert name of the tenderer)** _____ and all my/our constituents understand that my/our constituents understand that my/our offer shall be summarily rejected.
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.

DEPONENT
SEAL AND SIGNATURE OF THE TENDERER
VERIFICATION

I/we above named tender 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 TENDERER

Place:
Date:

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

SECTION III

CHAPTER 1

OFC system on 25 KV AC Traction

And

General scheme of OFC system.

Para No. Subject.

1.1 General.

SECTION III
CHAPTER 1

OFC SYSTEM ON 25 KV AC TRACTION AND GENERAL SCHEME OF OFC SYSTEM.

1.1 GENERAL

1.1.1 Any Telecommunication circuits in the vicinity of AC Traction running parallel to 25 KV lines are liable to be affected by AC induced voltage. Therefore precautions should be taken to eliminate the possibility of induced voltage affecting equipment and humans.

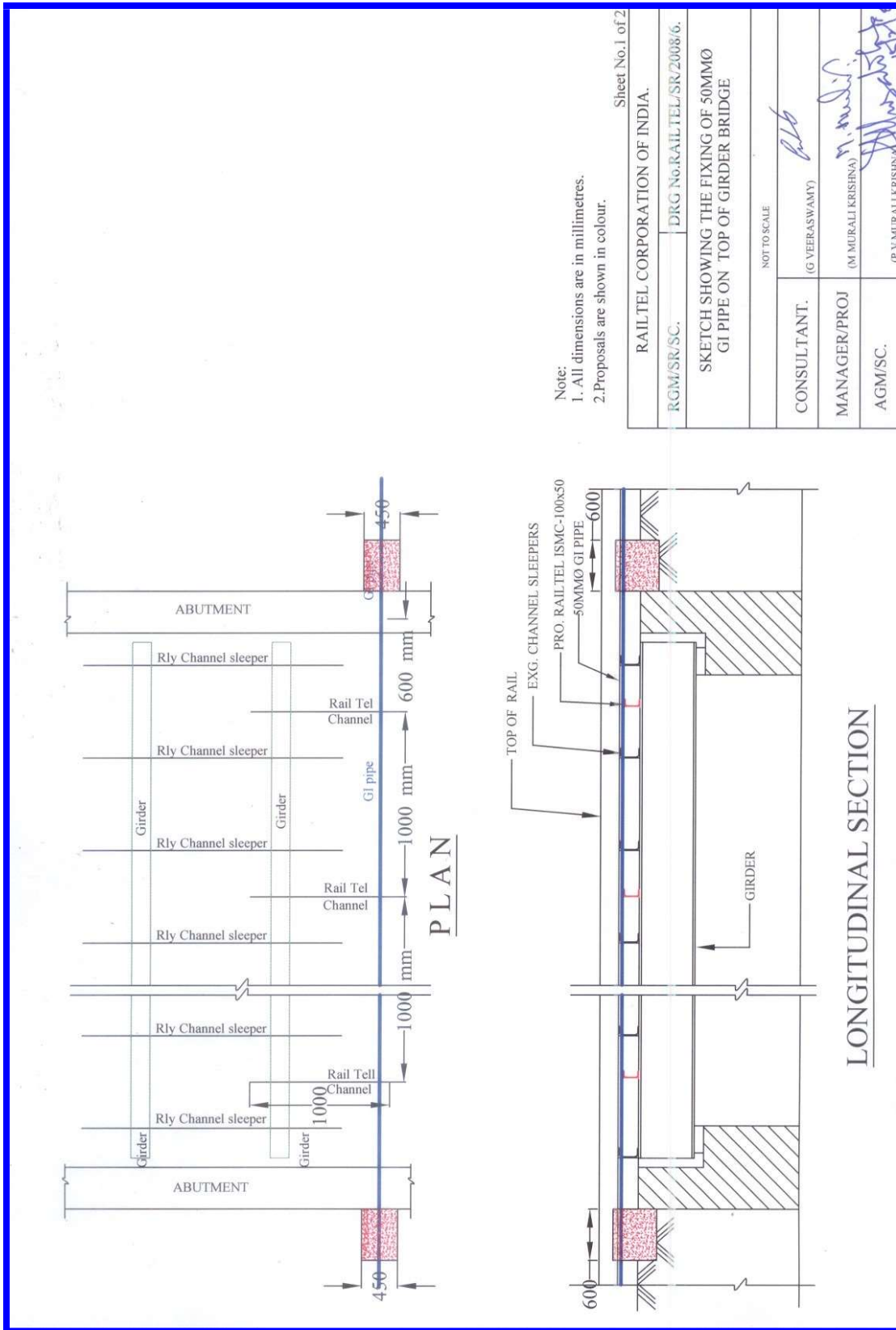
1.1.2 Crossing of track, if any, should be negotiated by underground cables running at right angles to the track as far as practicable.

1.1.3 Special protective measures (viz. provision of G.D tubes, fuses and earthing etc) are required to be taken for telecommunication lines entering 25 KV sub station /switching posts.

1.1.4 For the human safety considerations the safe working voltages should be 60 V under normal conditions and 150 V with special precautions and 430 V under fault conditions.

1.1.5 Instructions for protection of railway staff/working personals on signaling and telecommunications installations on 25 KV AC traction shall be strictly adhered to. Precautions are required to be taken on account of following,

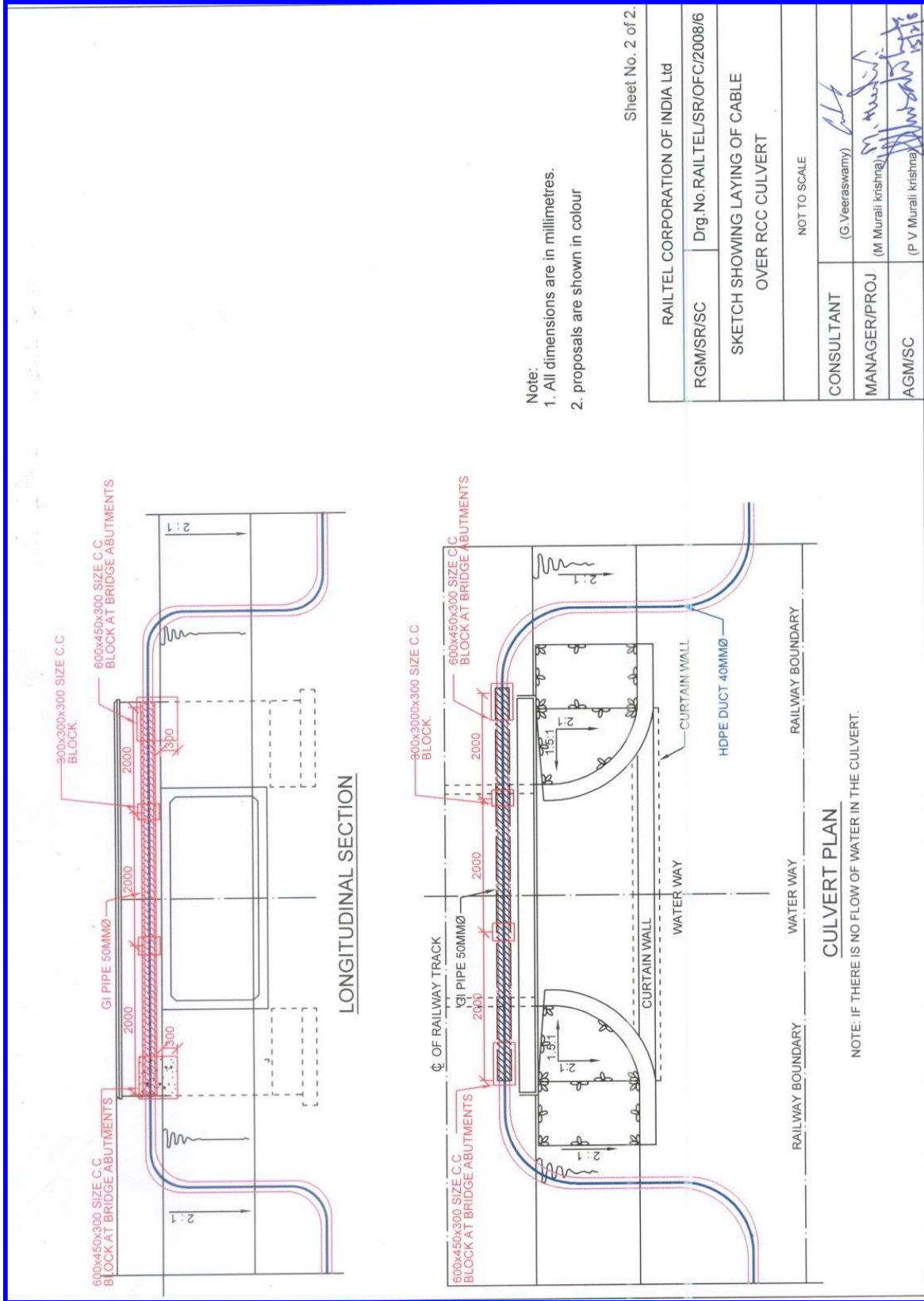
- i) Proximity of live conductor.
- ii) Pressure of return current in Rails.
- iii) Induction in all metallic bodies situated closed to over head equipment.



Note:
 1. All dimensions are in millimetres.
 2. Proposals are shown in colour.

Sheet No.1 of 2

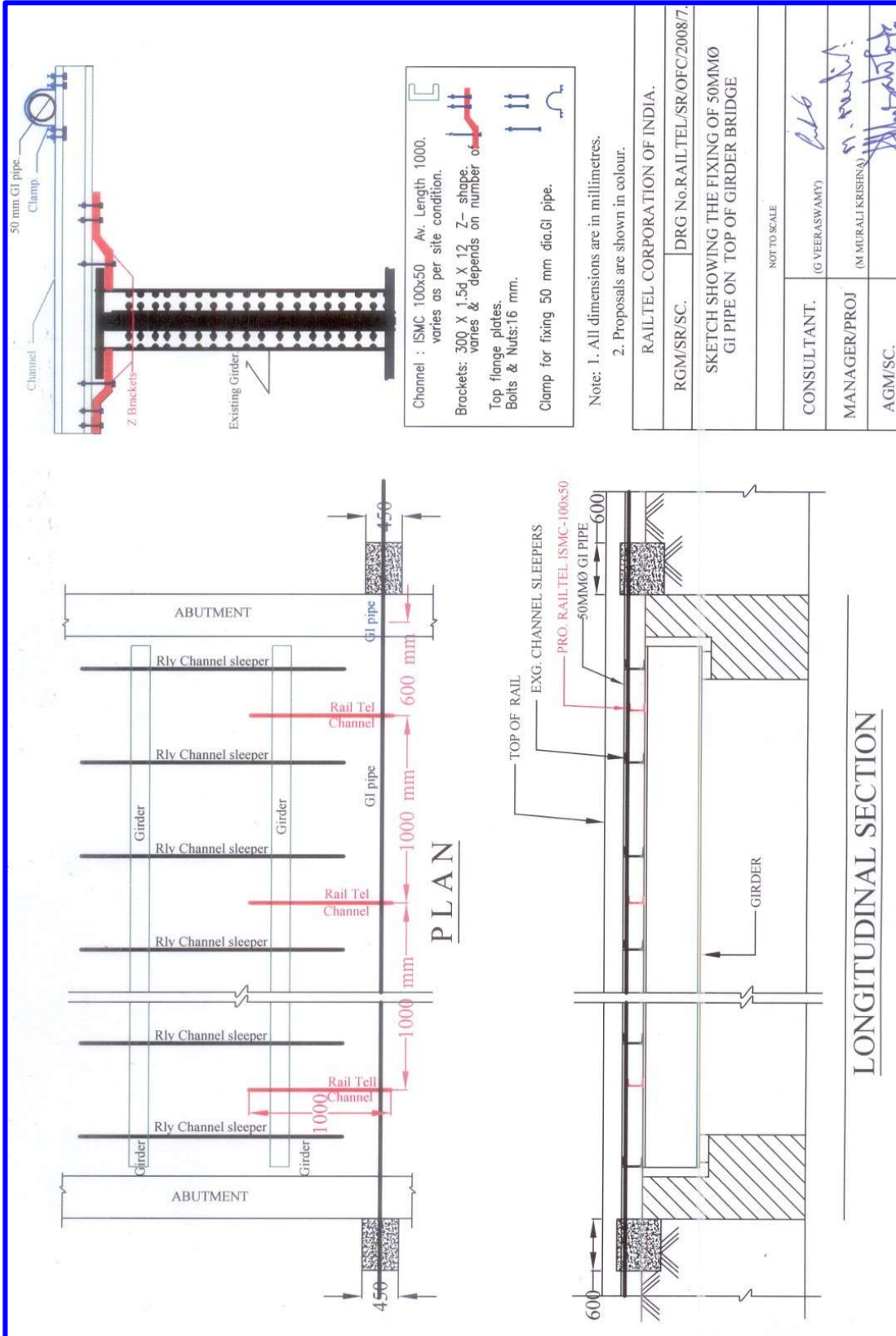
RAILTEL CORPORATION OF INDIA.	
RGM/SR/SC.	DRG No.RAILTEL/SR/2008/6.
SKETCH SHOWING THE FIXING OF 50MMØ GI PIPE ON TOP OF GIRDER BRIDGE	
NOT TO SCALE	
CONSULTANT.	(G.VEERASWAMY)
MANAGER/PROJ	(M.MURALI KRISHNA)
AGM/SC.	

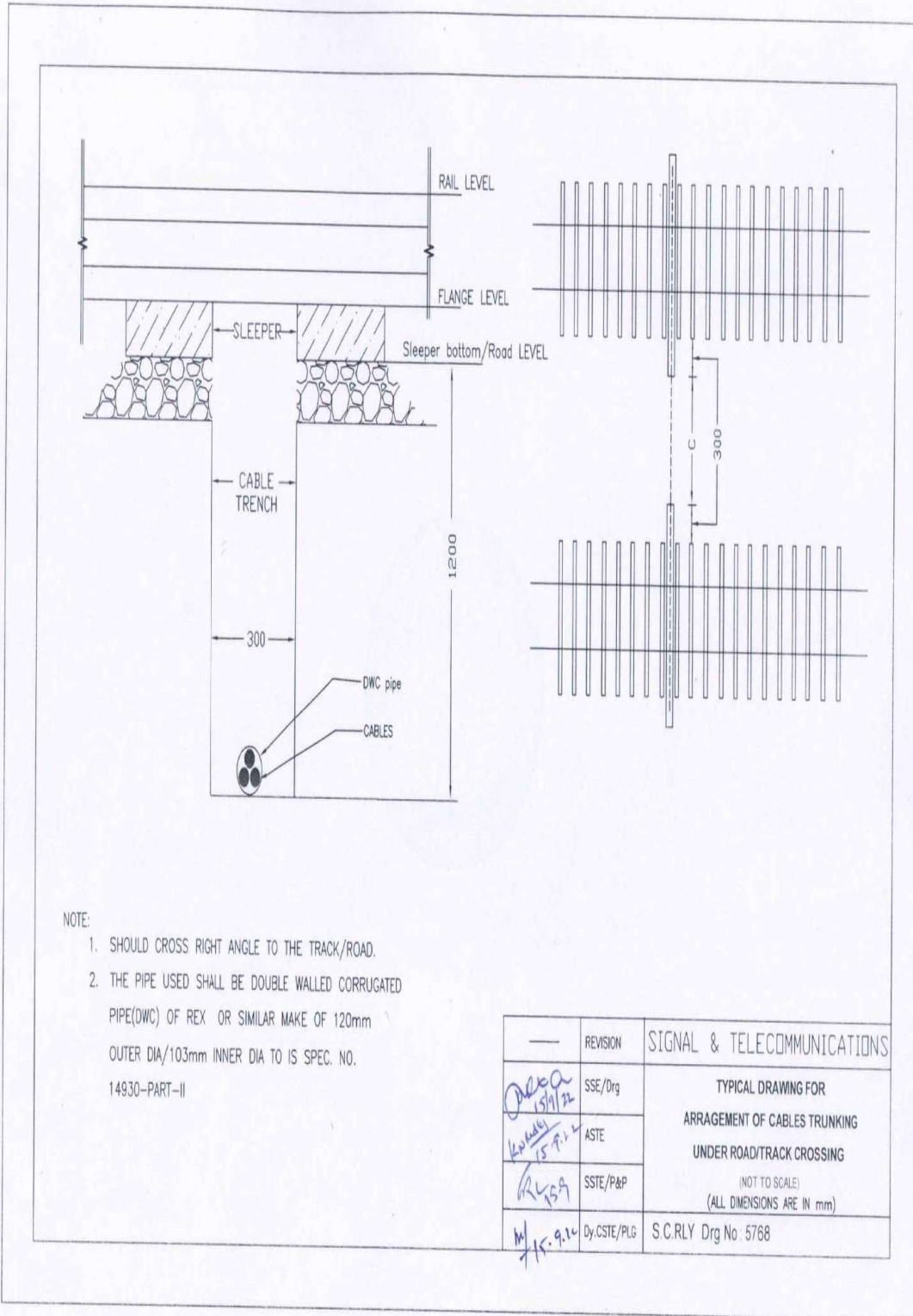


Note:
 1. All dimensions are in millimetres.
 2. proposals are shown in colour

Sheet No. 2 of 2.

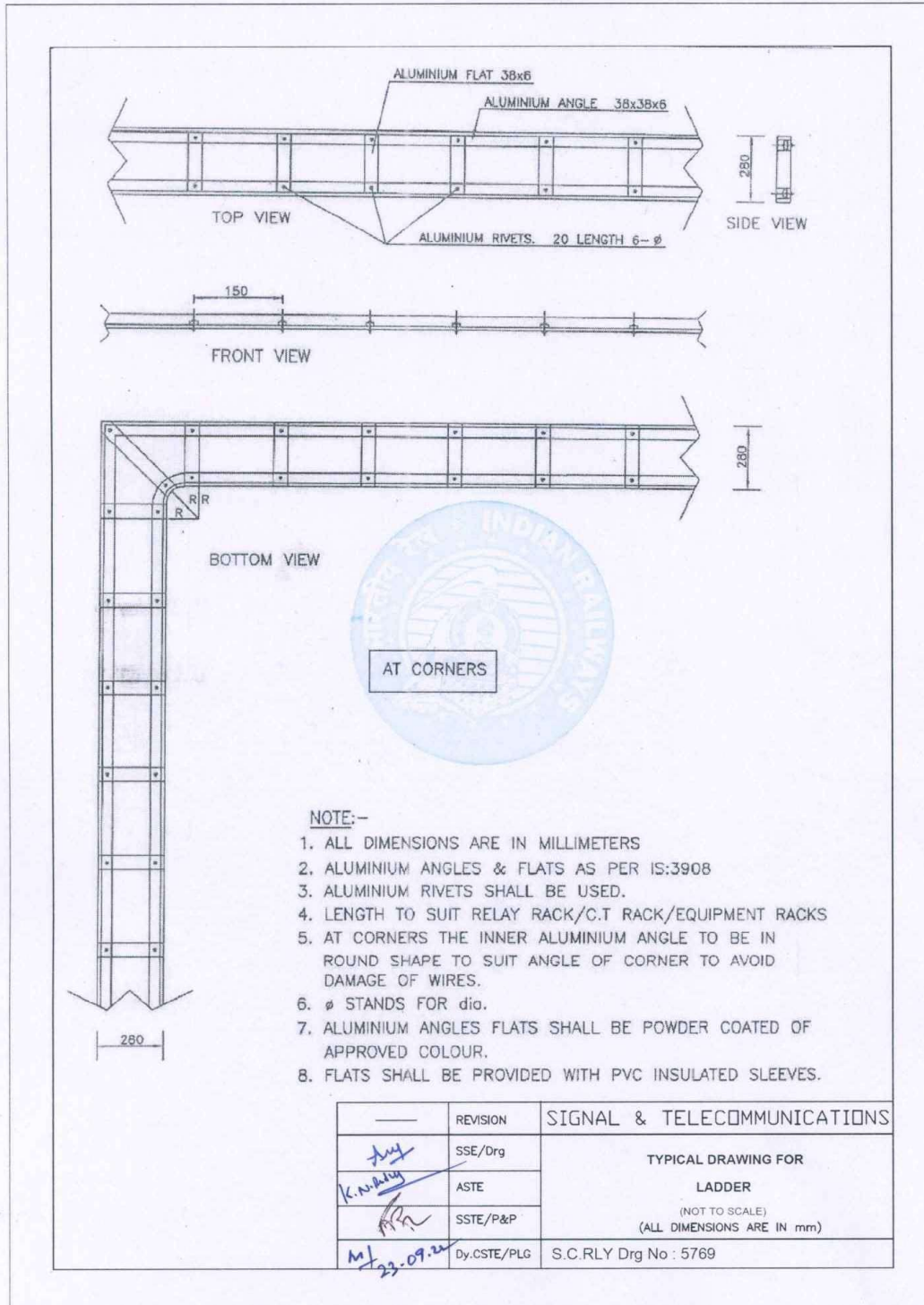
RAILTEL CORPORATION OF INDIA Ltd	
RGM/SR/SC	Drg.No.RAILTEL/SR/OFC/2008/6
SKETCH SHOWING LAYING OF CABLE OVER RCC CULVERT	
NOT TO SCALE	
CONSULTANT	(G.Veeraravamy)
MANAGER/PROJ	(M Murali Krishna)
AGM/SC	(P V Murali Krishna)

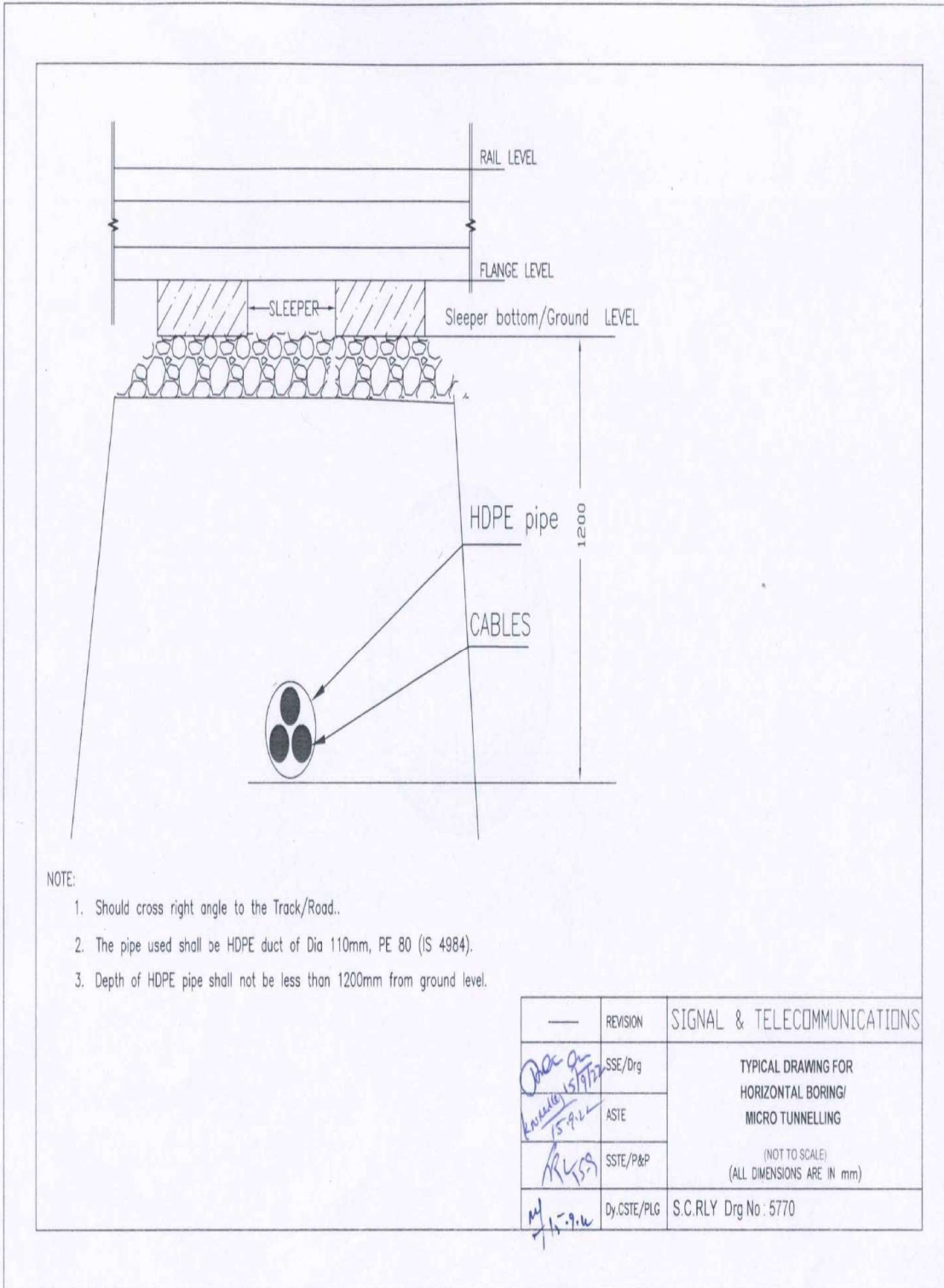




NOTE:
 1. SHOULD CROSS RIGHT ANGLE TO THE TRACK/ROAD.
 2. THE PIPE USED SHALL BE DOUBLE WALLED CORRUGATED
 PIPE(DWC) OF REX OR SIMILAR MAKE OF 120mm
 OUTER DIA/103mm INNER DIA TO IS SPEC. NO.
 14930-PART-II

REVISION	SIGNAL & TELECOMMUNICATIONS
<i>DRG</i> 15/9/22 SSE/Drg	TYPICAL DRAWING FOR ARRANGEMENT OF CABLES TRUNKING UNDER ROAD/TRACK CROSSING (NOT TO SCALE) (ALL DIMENSIONS ARE IN mm)
<i>K...</i> 15/9/22 ASTE	
<i>R...</i> 15/9 SSTE/P&P	
<i>M...</i> 15.9.22 Dy.CSTE/PLG	S.C.RLY Drg No. 5768

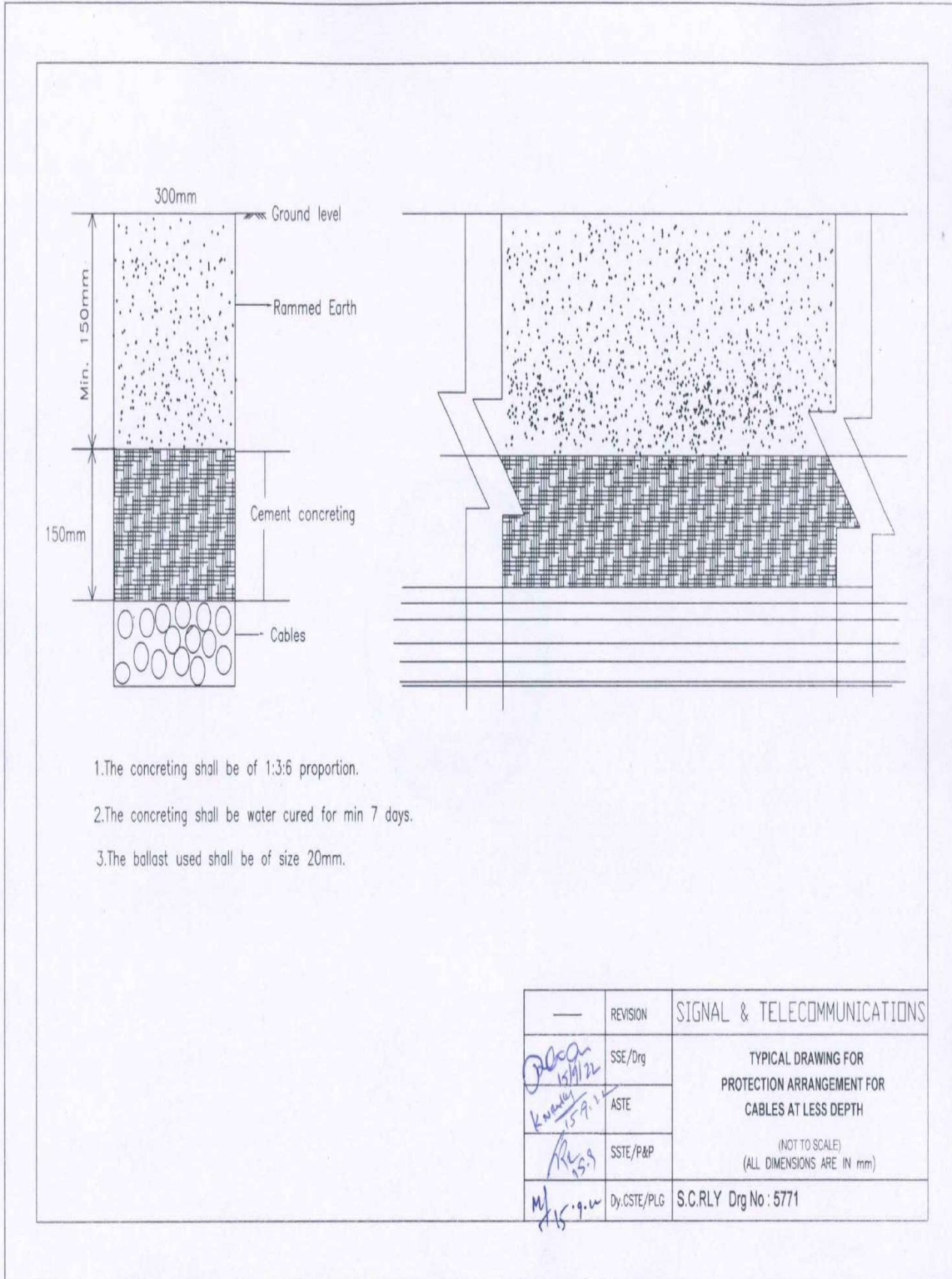


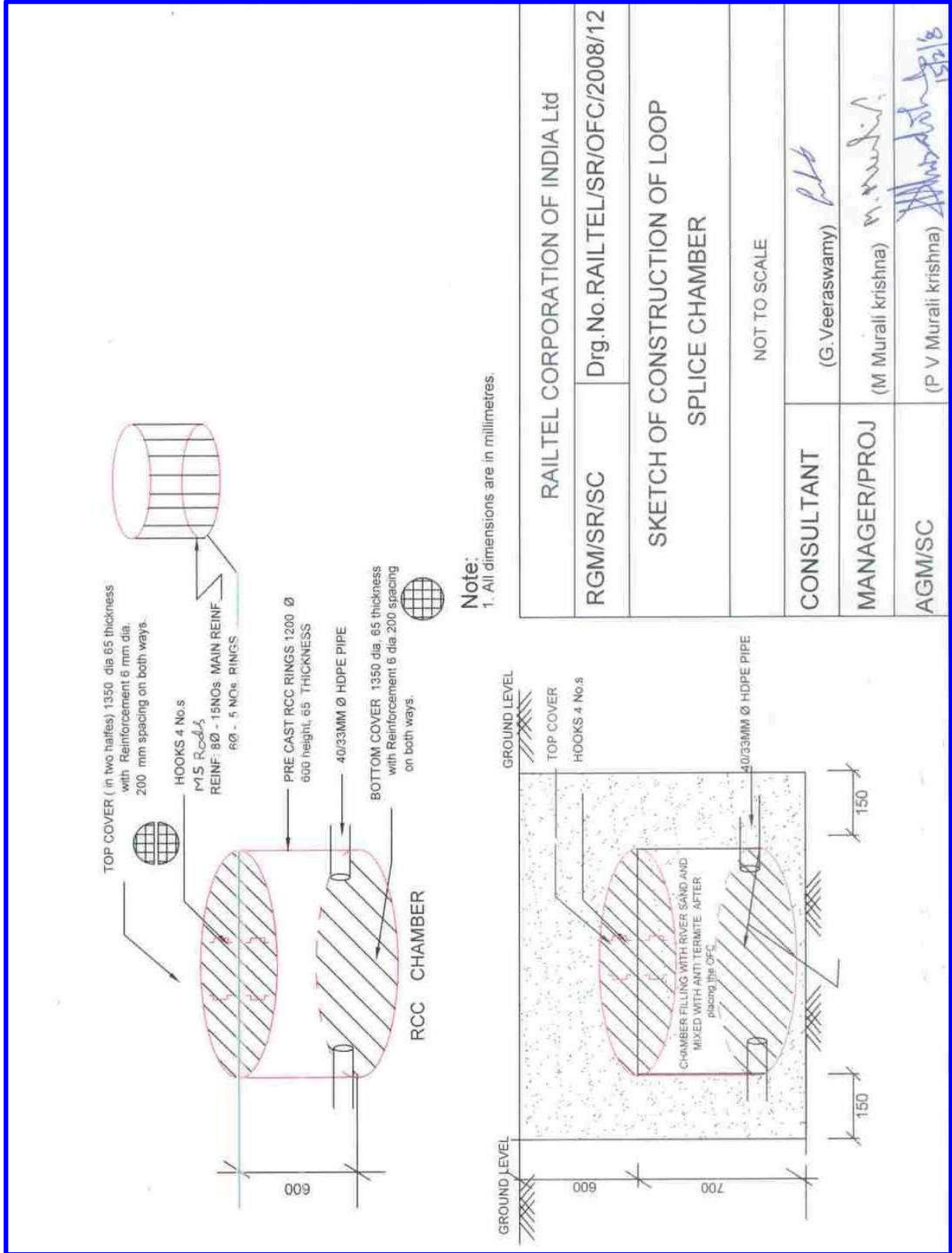


NOTE:

1. Should cross right angle to the Track/Road..
2. The pipe used shall be HDPE duct of Dia 110mm, PE 80 (IS 4984).
3. Depth of HDPE pipe shall not be less than 1200mm from ground level.

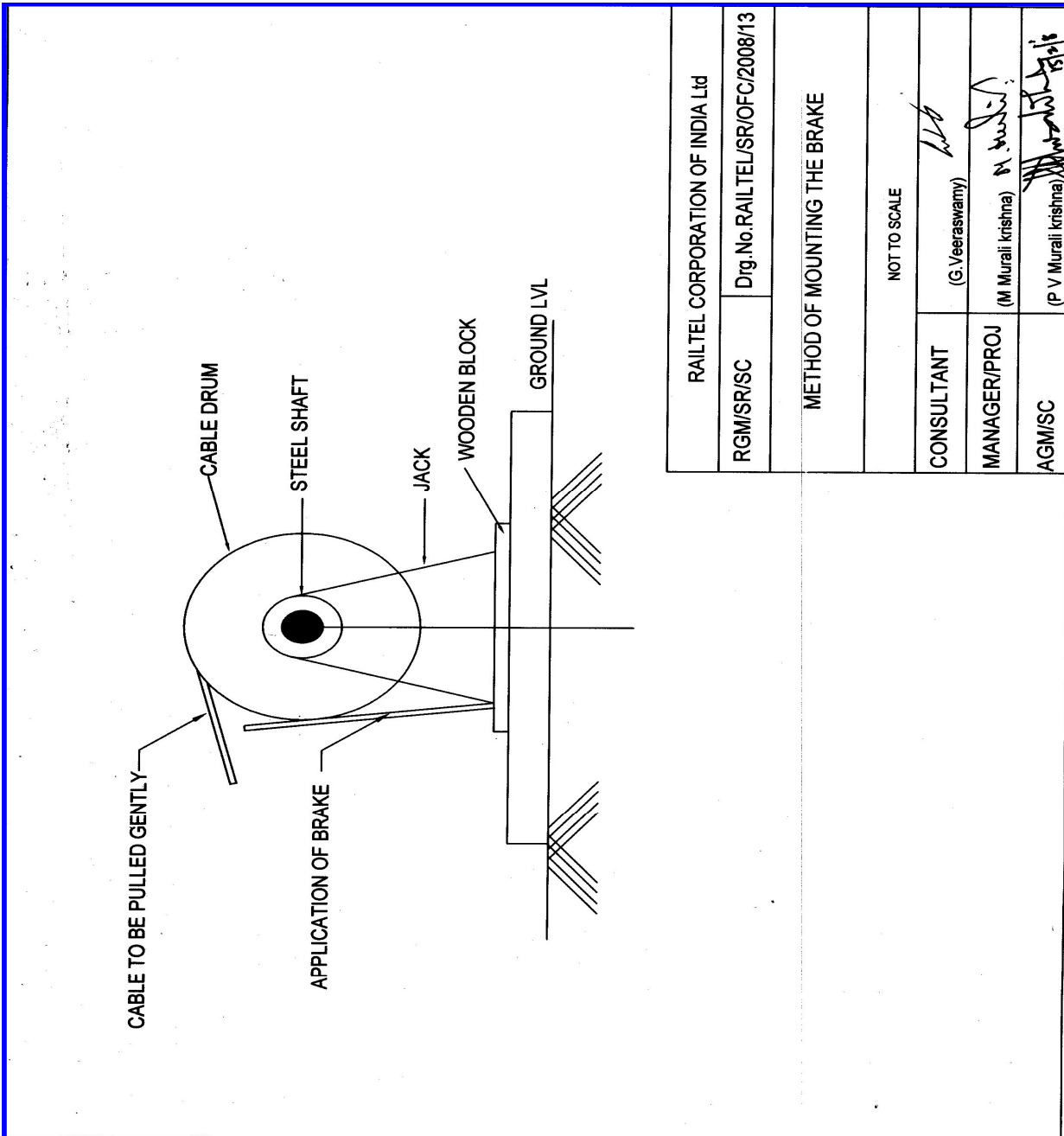
REVISION	SIGNAL & TELECOMMUNICATIONS	
<i>Done on 15/9/22</i> SSE/Drg	TYPICAL DRAWING FOR HORIZONTAL BORING/ MICRO TUNNELLING (NOT TO SCALE) (ALL DIMENSIONS ARE IN mm)	
ASIE		
<i>RKS</i> SSTE/P&P		
<i>MJ</i> 15-9-22 Dy.CSTE/PLG	S.C.RLY	Drg No : 5770



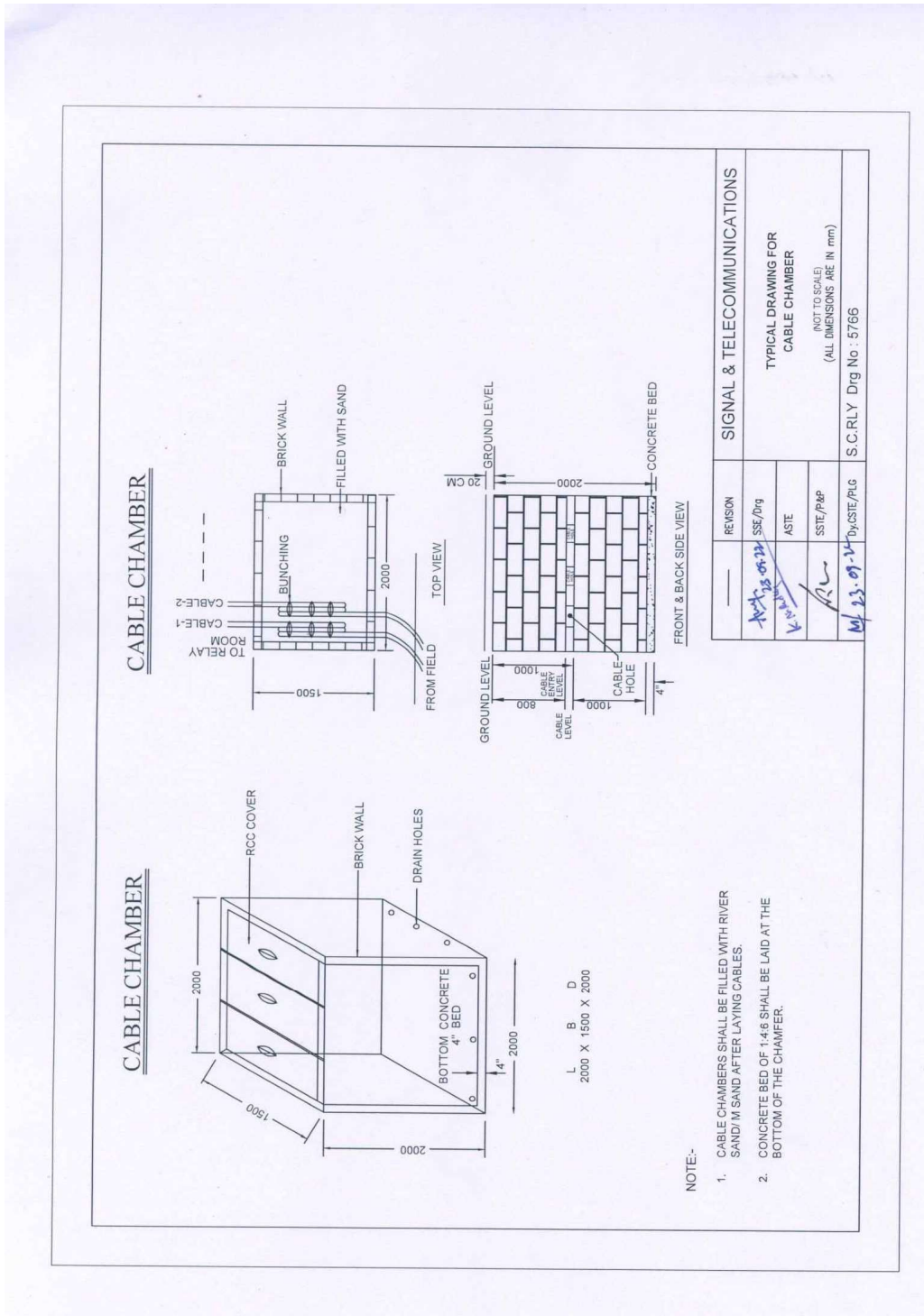


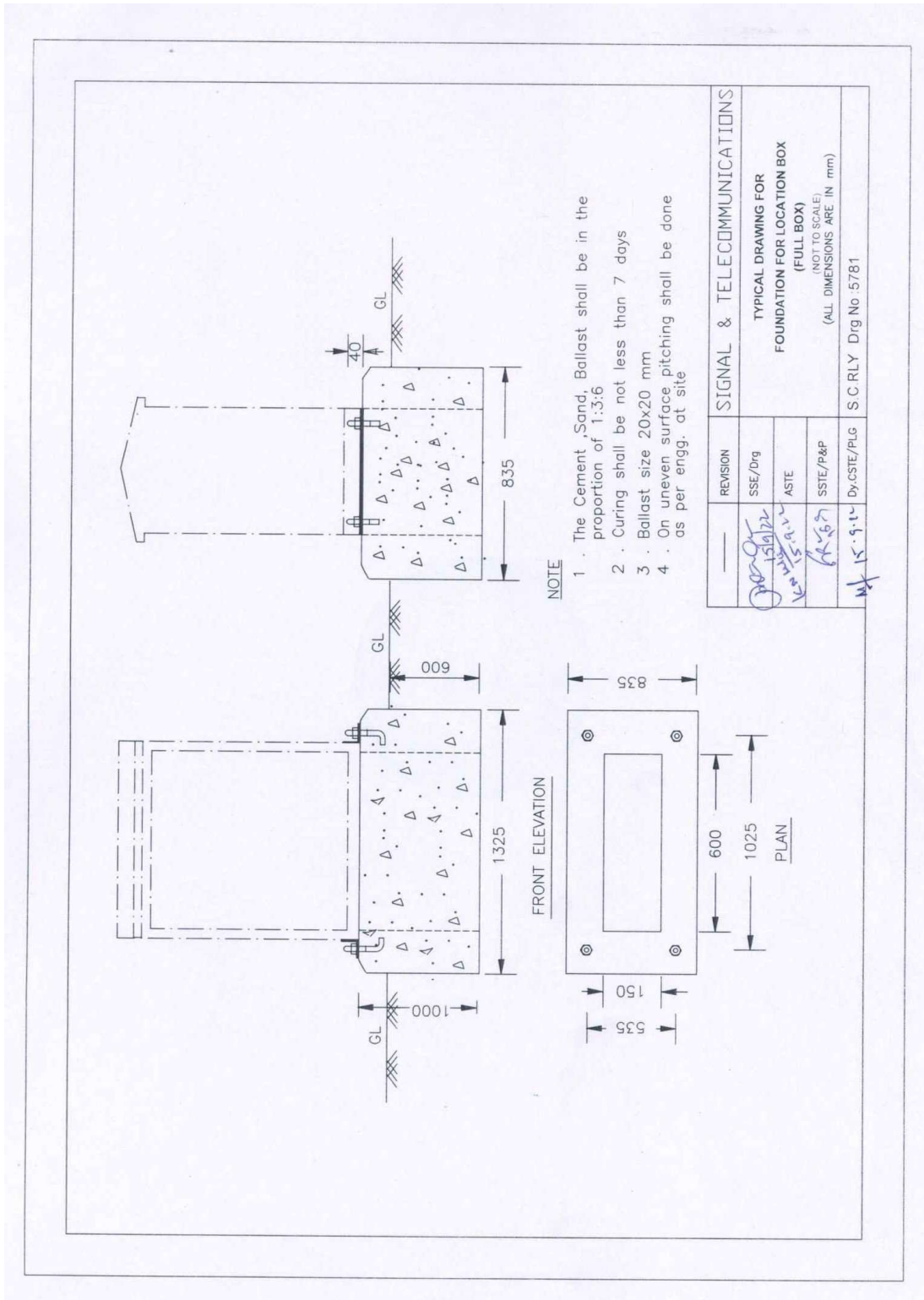
Note:
1. All dimensions are in millimetres.

RAILTEL CORPORATION OF INDIA Ltd	
RGM/SR/SC	Drg.No.RAILTEL/SR/OFC/2008/12
SKETCH OF CONSTRUCTION OF LOOP SPLICE CHAMBER	
NOT TO SCALE	
CONSULTANT	(G.Veerawamy) <i>GV</i>
MANAGER/PROJ	(M Murali krishna) <i>M.Murali</i>
AGM/SC	(P V Murali krishna) <i>P.V.Murali</i> 15/2/18



RAILTEL CORPORATION OF INDIA Ltd	
RGM/SR/SC	Drg.No.RAIL TEL/SR/OFC/2008/13
METHOD OF MOUNTING THE BRAKE	
NOT TO SCALE	
CONSULTANT	(G.Veeraswamy)
MANAGER/PROJ	(M Murali Krishna) M. Murali
AGM/SC	(P V Murali Krishna) P.V. Murali Krishna





1. The length of Gland plate is 940 mm with 40X40X5 mm angular size.

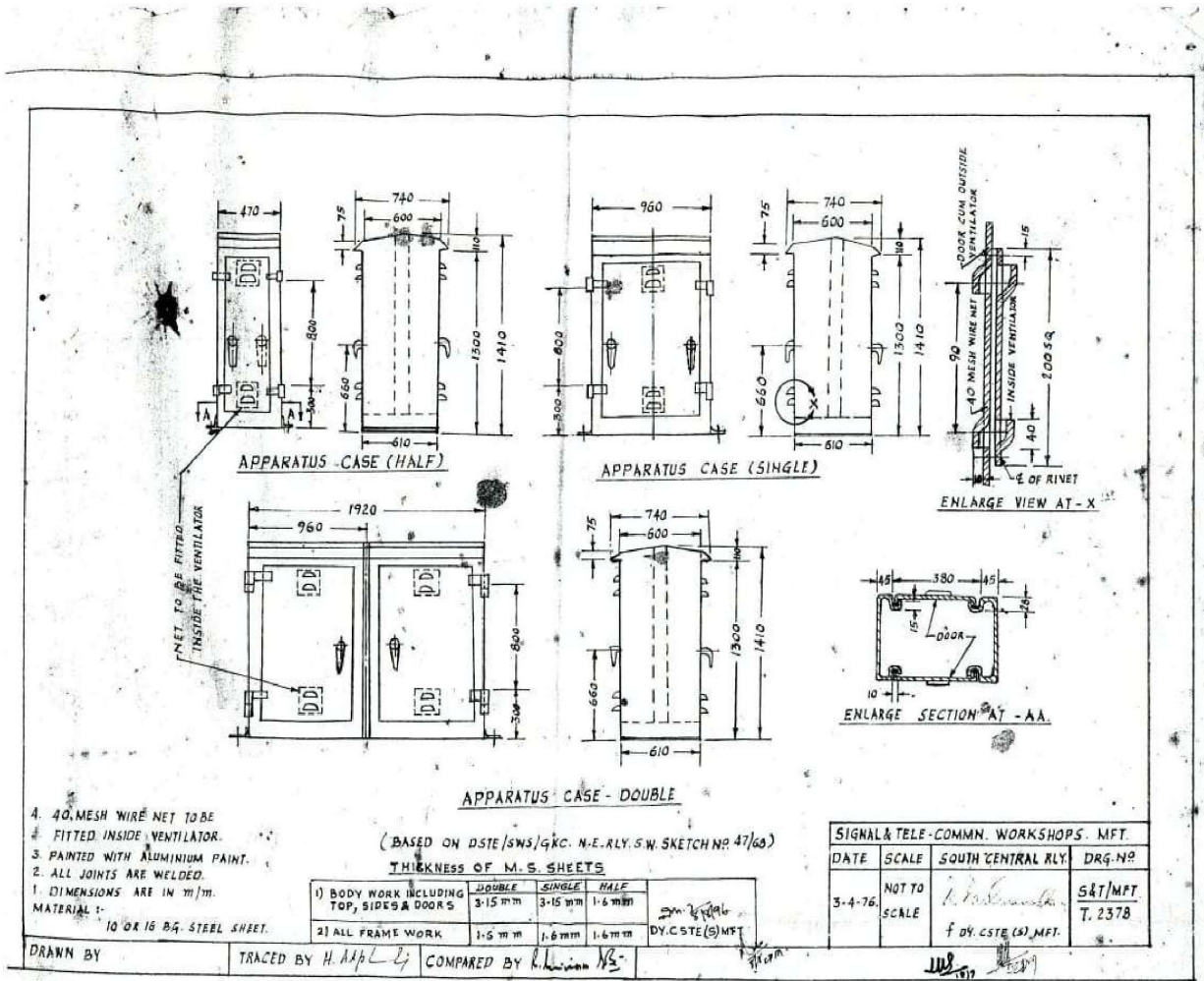
2. 12 nos of Holes of size 25 mm shall be drilled in the angular.

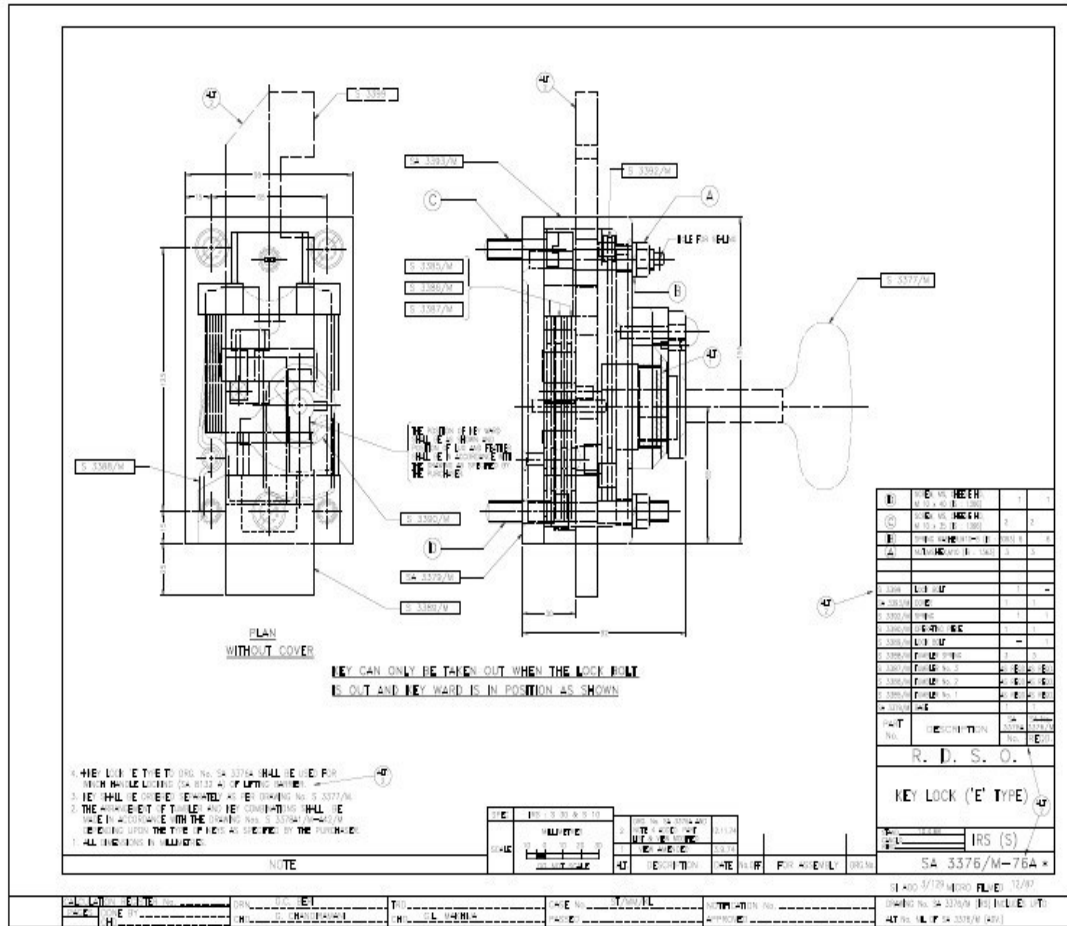
3. suitable sized holes to fix washer shall be drilled on both sides of cable entry hole

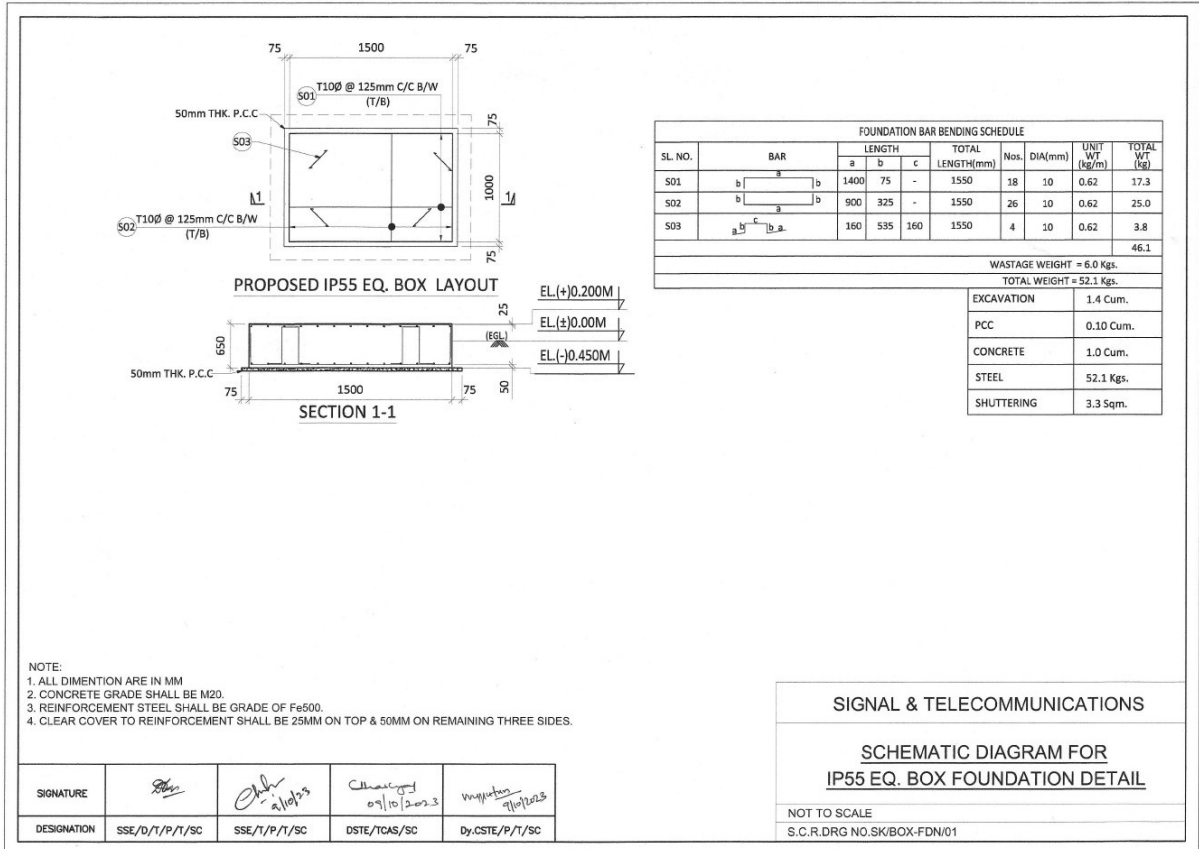
4. The gland plate shall be supplied with washer with suitable holes,screw&bolt to fix cable armours

5. The gland plate shall be of M.S

REVISION		SIGNAL & TELECOMMUNICATIONS	
—		TYPICAL DRAWING FOR GLAND PLATE FOR FULL LOCATION BOX (NOT TO SCALE) (ALL DIMENSIONS ARE IN mm)	
	SSE/D/g		S.C.R.LY D/g No : 5774
	ASTE		
	SSTE/P&P		
	Dy:GSTE/PLG		







Signature Not Verified
 Digitally signed by
 UPPU T. R. V. S. M.
 SWAMY
 Date: 2023.10.09
 12:27:30 IST
 Reason: IIS-CRIS
 Location: New Delhi

Any other drawings not available in tender document can be obtained from RailTel Engineer-In-Charge