RAILTEL CORPORATION OF INDIA LIMITED (A Govt. of India Undertaking) (Ministry of Railways)

e-TENDER DOCUMENT

FOR

Supply, Fabrication, Erection, Earthing, Testing and Commissioning and Maintenance of Tubular Tower at various Railway sites in the states of RailTel Western Region.

e-Tender No. RailTel /e-Tender/OT/WR/GBT/2019-20/16
Date: 17/08/2019

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TENDER NOTICE

No. RailTel / e-Tender/OT/WR/GBT/ 2019-20/16

Date 17.08.2019

RailTel Corporation of India Ltd, Western Region, Western Railway Microwave Complex, Senapati Bapat Marg, Mahalaxmi- Mumbai- 400 013, invites open e-tenders from the established and reliable contractors with proven experience for the following works: -

Supply, Fabrication, Erection, Earthing, Testing and Commissioning and Maintenance of Tubular Tower at various Railway sites in the states of RailTel Western Region.

Appx. Estimated Cost:- Rs. 6,21,35,092.44 (Rupees Six Crore Twenty One Lakh Thirty Five Thousand and Ninety Two and Forty Four Paise Only).

EMD:- Rs. 4,60,700.00(Rupees Four Lakh Sixty Thousand and Seven Hundred only).

a)	Sale of e-Tender Documents	From 18.08.2019		
b)	Online Receipt of tender documents.	up to 15:00 Hrs. 09.09.2019		
c)	Opening of tender documents.	at 15:30 Hrs. 09.09.2019		
d)	Validity of offer	60 days from the date of opening of tender.		
e)	Completion period	3 months for each work order. Contract validity for one year.		
f)	Address for availability of tender document	Executive Director, RailTel Corporation of India Ltd., Western Railway Microwave Complex, Senapati Bapat Marg, Mahalaxmi, Mumbai - 400 013		
	e-Tender Opening venue			
g)	Web address for availability of tender document	www.railtelindia.com, www.ireps.gov.in		
h)	Cost of e-Tender document	Rs. 11,800		
j)	If the tender document is downloaded from the website then the cost of e-tender document as stated above has to be submitted through net banking or payment gate way only on website www.ireps.gov.in .			

- 1. The offers shall be opened on above said date in the presence of those bidders who choose to be present. 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.
- 2. All future information viz. corrigendum/addendum/amendments etc. for this tender shall be posted on e-tender portal only. The amendments shall be posted on website only. All bidders should download from website. These amendments will be binding on all bidders. Those who are downloading tender document from website should download the clarification also and submit with the tender document.
- 3. Tender can be viewed and submitted through website www.ireps.gov.in only. Printed copy of tender document will not be sold from RailTel Office. Tender document can be seen on RailTel's website www.railtelindia.com, www.ireps.gov.in.
- 4. Payment of Earnest Money Deposit (EMD) and Tender Document Cost (TDC), in respect of e-tendering, will be accepted through net banking or payment gate way only. Fixed Deposit Receipt (FDR) will not be accepted as EMD for tender invited on IREPS (e-tender portal).
- 5. The tenderer shall submit documents in support of his/their claim to fulfil the eligibility criteria as mentioned in the tender document. Each page of copy of documents /

certificates in support of credentials, submitted by 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.

6. RailTel's Bank account details for Tender Document Cost & Earnest money Deposit are as below:-

Name of the Branch & Address	State Bank of India, churchgate, Branch,		
	Maharshi Karve Marg, Mumbai-400020.		
Name of Account Holder	RailTel Corporation of India Limited		
Account No.	110373 <mark>2130</mark> 7		
IFSC Code	SBIN00001821		
Branch Code	001821		

7. Further information is available at RailTel's website www.ireps.gov.in or from the office of Executive Director- RailTel /Mumbai.

General Manager/NOFN & TM/ADI For RailTel Corporation of India Limited, Mumbai



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Preamble

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Preamble

Tender No. RailTel/e-Tender/OT/WR/GBT/2019-20/16

1.0 Name of work: Supply, Fabrication, Erection, Earthing, Testing and Commissioning and Maintenance of Tubular Tower at various Railway sites in the states of RailTel Western Region.

1.1 Scope of work:

The Engineering instructions spelt out in this tender document deal with the methods to be adopted for Supply, Fabrication, Erection, Earthing, Testing and Commissioning and Maintenance of Tubular Tower at various Railway sites in the states of RailTel Western Region.

The broad responsibility of the contractor under the scope of work for this tender shall be as under:

2.1 Survey of site:

Site Inspection of each tower location to take soil sample for determining the safe bearing capacity of soil. Involves detailed study of Railway site building/premises/POP(point of presence), available space and resources, planning of GBT and outdoor cabinet (ODC) & DG set locations, location of earth pits and planning of all electrical wirings, documentation of planning and approval of the same by Engineer-in-charge and concerned Railway Authority.

Before start of work, taking structure stability certificate/site plan from authorised consultant firm and taking approval of respective Railways authorities on Structure stability Certificate/Site plan.

- ii) Preparation of site for erection of GBT including removal debris, vegetation etc.,
- iii) Fabrication, Transportation and erection of GBT and associated infrastructure for colocation of minimum three cellular operators in Railway approved Space and drawing. Each BTS site shall be capable of hosting including antennas as per details mentioned in drawings of chapter-8.
- iv) At each site, the Towers should be erected as per technical specifications. For more details chapter-02(Schedule of Rates) & chapter-07 (Technical Specification) should be referred.
- v) All electrical and allied works like earthling, cabling/wiring, cable termination at required locations like Towers/cabinets/DCDB/ACDB etc.
- vi) All necessary Testing & Submission of test results, planning diagrams of site.
- vii) Getting the necessary permission/ ROW and other permissions to execute the

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- viii) For further details chapter-02 (Schedule of Rates) & chapter-07 (Technical Specification) should be referred.
- ix) RailTel will have the right to change/modify the locations and numbers of sites, prioritize the site location for works and change the planning of installations as per site conditions.
- x) Annual Maintenance of erected poles as per terms & condition of Chapter-9.
- xi) After completion of work at a site, the contractor will produce a certificate from authorized engineer/consultant that the work at the site has been carried out as per technical specifications and designs as per contract.

1.2 Tender Bid

The e-tender can be viewed and submitted through web site www.ireps.gov.in only. The tenderer / bidder must have Class-III Digital signature Certificate and must be registered on IREPS portal. Only registered tenderer/bidder can participate in e-tendering. All relevant documents must be uploaded at the time of participating in e-tendering. Manual offers are not allowed for e-tender and any such manual offer received shall not be opened/accepted.

Last date of submission of queries/clarifications: one week before the Bid start date. It is requested that any queries/clarifications regarding the tender may be sent to the RailTel's office latest by one week before the opening date schedule through e-mail to rakesh.shrivastava@railtelindia.com with copy to girish_joshi@railtelindia.com (in word format) by authorized person only.

Tenderer should ensure submission of necessary and relevant documents as per para no. 3.6.6 of tender document.

1.3. Qualifying Criteria

For qualifying in the tender, the tenderer shall be required to meet the eligibility requirements as given in Para 3.16 of tender document.

1.4 Last date of Submission

The tender shall be received up to **15:00 hrs on** 09.09.2019 online only.

1.5 Date of Opening of Tender

The tenders will be opened at **15:30 hrs on** 09.09.2019 at the same address as mentioned in Para 1.10.

1.6 RailTel reserves the right:-

- a) To verify, if so desired, the correctness of documentary evidence furnished by the tenderer.
- b) To verify the successful operation and performance of qualifying projects and tenderer shall arrange permission for the same.

- c) To carry out capability assessment of the bidder(s) including referral to inhouse information.
- d) RailTel shall not be responsible for any delay in the receipt of tenders and reserves the right to accept/reject any or all tenders.

1.7 Work Load

The tenderer to submit the present work load of the telecom contracts in hand as per the format (Form No 9). The performance of the tenderer with regard to satisfactory execution of more than one contract simultaneously in the past shall be taken into account.

1.8 Validity of Offer

The tenderer shall keep the offer open for **60 days** from the date of opening of tender. Within that period, the tenderer can not withdraw his offer. This period can be 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.

1.9 Completion Period of Work:

- The work to be executed and completed (For Schedule-A of SOR of Chapter-2) within 3 months from the date of issue of "Letter of Acceptance "of the tender. Work limit will be given in different PO and overall validity of tender will be 1 year, that can be extended to another one year with same term and conditions.
- The Work order for Annual Maintenance (For Schedule-B of SOR of Chapter-2) will also be issued in part for the requisite nos. of sites.
- The Annual Maintenance of work for each Work order be valid for 3 years which can be extended up to 1 more year.
- For time limit extension of contract, decision of RailTel shall be final.
- The accepted rates of work order will remain valid throughout the period of validity of contract.

1.10 The List of Address to which correspondence and documents relating to the Contract should be sent:

Exeutive Director, RailTel Corporation of India Limited, Western Region, Western Railway Microwave Complex, Senapati Bapat Marg, Mahalaxmi-Mumbai- 400 013.

Phone: 91 (22) 24923907. Fax 91 (22) 24923913

1.11 Earnest Money

Tenderer shall deposit an Earnest Money (in online mode only) of amount as mentioned below in a manner prescribed in Para 3.5 of tender document.

NO	Tender No.	Name of state	EMD in Rs.
A ₁ (RailTel/Tender/OT/WR/GBT/ 2019-20/16	Maharashtra, Madhya Pradesh & Gujarat	4,60,700.00

Any other mode of payment except online mode on website www.ireps.gov.in, will not be accepted.

1.12 Security Deposit

Security deposit shall be 5% of the contract value as detailed in Para 4.16 of tender document.

1.13 Performance Bank Guarantee

Performance Bank Guarantee shall be 5% of the contract value for successful completion of the work as detailed in para 3.17 of tender document.

In case of AMC, the tenderer is also required to submit PBG of 10% value of the annual maintenance charges towards fulfillment of obligation for the maintenance support as detailed in para 3.17 of tender document.

1.14 Specifications

Reference of specifications of the important equipments and materials required for execution of the contract is given in the Technical Specification (of tender document). The work shall be executed in compliance with all the technical requirements given therein.

The work shall be carried out as per Engineering Instructions issued by RailTel.

Drawings are indicative. In case of any mismatch or confusion between drawings and technical specifications, technical specifications shall be final. Drawings are enclosed at Chapter 8. In any case of dispute, the decisions of RailTel competent authority will be final.

1.15 Schedule of Requirement

The various items to be supplied and execution of the work by the tenderer for the section are indicated in Schedule of Requirement as in chapter 2 of this tender document. Payment of supplied items shall be done along with the payment of execution after the measurement. The tenderer is advised to quote single percentage at Par/ above/below of the RailTel's total estimated cost of schedule of work.

1.16 Work to be done by RailTel

- Availability of site spaces for erection of poles, installation of all electrical and allied works.
- ii. RailTel shall facilitate requisite letters etc. for ROW & other permissions as required. The contractor shall get the necessary permission etc. as required.

1.17 Deleted

1.18 Materials to be supplied by Contractor

Contractor shall supply & install the materials as mentioned in Schedule of rates and of the specification and quality mentioned in Chapter-7&8 & Schedule of rates. The left over materials if any shall be the property of the contractor. Contractor should make arrangement to lift the materials from the

Site. The payment shall be done to the contractor as per actual installation at the site.

All other materials including the materials not specifically covered in the Schedule of Requirement but required to achieve the end objective are required to be supplied by the contractor.

1.19 Submission:

The tenderer shall submit all the required information in the relevant forms attached 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.

1.20 Warranty Support

The tenderer should submit their strategy for providing maintenance support during maintenance, warranty and post warranty as per Para 5.29 and 5.15 of tender document.



Chapter 2

SCHEDULE

OF

REQUIREMENTS

Please refer Page No.151-155



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CHAPTER - 3

INSTRUCTIONS TO TENDERERS

AND

CONDITIONS OF TENDERING



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	RAILTEL

CHAPTER-3

INSTRUCTIONS TO TENDERERS AND CONDITIONS OF TENDERING

3.1 GENERAL INSTRUCTIONS

- 3.1.1 Tender is invited by RailTel, Western Region Mumbai, from established and reliable contractors for the work detailed in chapter 1.
- 3.1.2 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 documents". These regulations for Tender and Contracts shall be read in conjunction with the General Conditions of contract and shall be subject to modifications, additions or suppression, overwrite by Special conditions of contract and/or special specifications, if any, annexed to the tender document.

3.2 INTERPRETATIONS

The following terms wherever occurring in the tender document 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:

- a) "CONTRACT" Means the Contract resulting from the acceptance by the Purchaser of this Tender whether in whole or in part.
- b) "CONTRACTOR" Means the successful Tenderer, i.e., the Tenderer whose Tender has been accepted either in whole or in part.
- c) "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.
- d) **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.
- e) "ENGINEER" Shall mean the supervisor of RailTel in direct charge of the works.
- f) "EQUIPMENT" Means all or any equipment considered necessary by the Purchaser's Engineers for satisfactory operation, as a whole, of the installations.
- g) "MONTH" Means any consecutive period of thirty days.

- h) **"MATERIALS**" Means all equipments, components, fittings and other materials including raw materials required to complete the work..
- i) "PURCHASER" Means RailTel Corporation of India Limited, Western Railway Microwave Compound, Senapati Bapat Marg, Mahalaxmi-Mumbai- 400 013
- j) "PURCHASER'S ENGINEER" Means the Executive Director of RailTel or successor who will decide all matters relating to design, manufacture, and installation and commissioning of the plant and equipment at site.
- k) "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.
- m) "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.
- m) "RailTel" Means RailTel Corporation of India Limited, Western Region, Western Railway Microwave Complex, Senapati Bapat Marg, Mahalaxmi- Mumbai- 400 013.
- "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.
- p) "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.
- q) "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.
- r) "Railways"- The Offices/premises/Buildings/areas/location under the direct administration of establishment of Indian Railways.

- s) "Expected risk": DELETED.
- t). "Near Relative": -

The near relatives of all RailTel Employees either directly recruited or on deputation are prohibited from participation in tenders and execution of works in the different units of RailTel. The detailed guidelines in this regard are given in the following paragraphs: -

- i) The near relatives for this purpose are defined as:
 - * Members of a Hindu Undivided family,
 - * They are husband and wife,
 - * The one is related to the other in the manner as father, mother, son (s) & son's wife (daughter-in-law),daughter(s), & daughter's husband (son-in-law), brother(s) & brother's wife, sister(s) & sister'(s)husband (brother-in-law).
- servant shall in the discharge of his official duties deal with any matter or sanction any contract to any company or for any other person if any member of his family is employed in that company or firm or under that person or if he or any member of his family is interested in such matter or contract in any other manner and the Govt. Servant shall refer every such matter or contract to his official superior. This clause is applicable to all RailTel employees in view of this as soon as any RailTel employee becomes aware of the above aspect, he must intimate this to the prescribed authority.
- iii) The Company or firm or any other person is not permitted to tender for works in RailTel Unit in which his near relative(s) is (are) posted. the tender/work will be cancelled and earnest money/security deposit will be forfeited at any stage whenever it is so noticed. The department will not pay any damages to the company or firm or the concerned person. The company or firm or the person will also be debarred for further participation in the concerned unit.

* The format of the cer	tificate to be given is
"]	S/o
r/o	hereby certify that none of my relative(s)
as defined in the tende	er document is/ are employed in RailTel unit . In
case at any stage, it is	found that the information given by me is false/
incorrect, RailTel shall	have the absolute right to take any action as
deemed fit/without any	prior intimation to me".

- u) "WRITING" Includes all matters written, typewritten or printed either in whole or in part.
- v) "Constructional Plant" shall mean all appliances or things of whatsoever nature required for the execution, completion or maintenance of the works or the temporary works (as hereinafter defined) but do not include materials or other things intended to form or forming part of the permanent work. (i) "Temporary Works" shall mean all temporary works of every kind required for the execution, completion and/or maintenance of the works. (ii) "Period of maintenance" shall mean the specified period

of the maintenance from the date of completion of the work as certified by the Engineer.

- w) Singular and Plural: Works importing the singular number shall also include the plural and vice versa where the context requires.
- x) Headings & marginal headings: The headings and marginal headings in these general conditions are solely for the purpose of facilitating reference and shall not be deemed to be part thereof or be taken into consideration in the interpretation or construction thereof or the contract.

3.3 LOCAL CONDITIONS

- 3.3.1 It will be imperative on each tenderer to fully acquaint him with all the local conditions and factors which would have any effect on the performance of the contract and cost of the 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 works/stores shall be entertained after the offer is accepted on account of any local condition or factor.
- 3.3.2 The intending tenderer is advised to study the tender document 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.
- 3.3.3 Should a tenderer find discrepancies in, or omission from, the drawings or any of the Tender documents or he has any doubt to their meaning, he should at once notify the RailTel who may send a written clarification to all Tenderers.

3.4 COMPLIANCE TO TENDER CONDITIONS, SPECIFICATIONS & DRAWINGS

- 3.4.1 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).
- 3.4.2 The material offered and execution of work 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.

- 3.4.3 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.
- 3.4.4 The tenderer should serially number all the pages of the bid

3.5 EARNEST MONEY

- 3.5.1 The tenderer shall furnish an amount given in "Para-1.11 of tender document" online only.
- 3.5.2 The supporting documents should be submitted online duly digitally signed by the authorized signatory of the tenderer. The original documents shall be produced for verification when called for.
- 3.5.3 The tenderers shall hold the offer open till such date as specified in Para 1.8 of the tender document. 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 resile 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 RailTel.

3.5.4 The earnest money may be forfeited.

- a) If tenderer withdraws its tender during the period of tender validity specified in Para 1.8 of tender document.
- b) In the case of successful tenderer, If the tenderer fails to sign the contract in accordance with Para 5.2 of Special Conditions of Contract and to furnish Performance Bank Guarantee in accordance with Para 1.13 of tender document.
- 3.5.5 The Earnest money of unsuccessful tenderer will save as herein before provided, be returned within reasonable time to the unsuccessful tenderer but 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.
- 3.5.6 If the tender is accepted, the amount of Earnest Money will be held as security deposit for due and faithful fulfillment of contract.
- 3.5.7 The tender not accompanied by Earnest Money as mentioned in Para 3.5.1 of the tender document will be **summarily rejected**.

3.5.8 Deleted

3.6 SUBMISSION OF OFFERS

- 3.6.1 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.
- 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.

3.6.3 Deleted

3.6.4 Quote in Figures and Words

All information like discounts etc. having a bearing on the price shall be written both in figures and in words in the prescribed offer form. The tenderer is advised to quote single percentage rate At Par/below/above of the RailTel's total estimated cost for schedule of work. In case of difference in words and figures the amount written in words shall be taken into consideration. In the event of any discrepancy between percentage rate and total cost, the value shown in percentage rate will be taken for evaluation purpose. In case the schedule of work quoted by tenderer is incomplete with reference to tender document, the offer is liable to be rejected

Tenderer shall quote all inclusive rates, but there shall be break up of basic price and all type of applicable taxes such as CGST/IGST/UTGST/SGST etc.

(including tax under reverse charges payable by the recipient under GST Act).

3.6.5 Attestation of alterations

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.

3.6.6 Tender bid

The tenderer shall submit his tender online. The offer shall consist of the following:-

The tender documents down loaded from web site shall be duly digitally signed with digital signature class-III.

All necessary documents should be digitally signed and the same are to be submitted online on website www.ireps.gov.in only. Evaluation of offer will be as per the documents submitted online only.

- i) Offer letter complete. (Form No.1)
- ii) Schedule of Requirements (to be filled online only)
- iii) Earnest Money in prescribed form. (Para 3.5 of tender document)
- iv) Audited balance sheet for last three financial years
- v) Constitution of Firm and Power of Attorney (in case of partnership firm).
- vi) Clause wise compliance to tender conditions by digitally signing tender document & statement of deviations .(Form No.5)
- vii) Similar works executed . Form No. 13 (Para 3.16.2 of tender document)

- viii) User's Certificate Form No. 2 (Para 3.16.1.2 of tender document)
- ix) Any other information desired to be submitted by the tenderer.
- x) Copy of registration/exemption certificate for EPF.
- xi) Registration with labour commissioner
- xii) GST registration
- xiii) The present work load of the telecom contracts in hand as per the Format (Form 9) (Para 1.7 of tender document).
- xiv) Deleted
- xv) Relevant documents for JV Firms as per clause 3.7.6.
- xvi) Affidavit (Form-16)

Note: The rate quoted in the offer by the tenderer shall be inclusive of all the relevant factors taken into consideration and these should be firm and without any variation clauses.

3.6.7 System of verification of Tenderer's Credentials:

- 3.6.7.1 The Tenderer shall submit along with the tender document, documents in support of his/their claim to fulfill 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 singed 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.
- 3.6.7.2 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 Form No.16. Non submission of an affidavit by the bidder shall result in summarily 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.

With the submission of the affidavit as mentioned above, the practice of verification of tenderer's documents by the RailTel may be dispensed with.

- 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 there under.
- b. In case of any wrong information submitted by the tenderer, the contract shall be terminated , Earnest Money Deport (EMD), Performance

Guarantee (PG) and Security Deposit (SD) of contract forfeited and agency barred for doing business on entire RailTel for 5 (Five) years.

3.7 CONSTITUTION OF FIRM AND POWER OF ATTORNEY

- 3.7.1 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.
- 3.7.2 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.
- 3.7.3 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.
- 3.7.4 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.
- 3.7.5 The duly notarized Power of Attorney, Partnership Deed, Memorandum of Joint Venture as the case may be in original or duly signed.

3.7.6 Participation Of Joint Venture (JV) Firms In Works Tender:

- 1. Separate identity/name shall be given to the Joint Venture Firm.
- 2. Number of members in a JV Firm shall not be more than three.
- 3. A member of JV Firm shall not be permitted to participate either in individual capacity or as a member of another JV Firm in the same tender.
- 4. The tender form shall be purchased and submitted only in the name of the JV Firm and not in the name of any constituent member.
- Normally Earnest Money Deposit (EMD) shall be submitted only in the name of the JV Firm and not in the name of constituent member. However, in exceptional cases, EMD in the name of Lead Member can be accepted subject to submission of specific request letter from Lead Member stating the reasons for not submitting EMD in the name of JV Firm and giving written confirmation from JV members to the effect that EMD submitted by the Lead Member may be deemed as EMD submitted by JV Firm.

- 6. One of the members of the JV Firm shall be its Lead Member who shall have a majority (at least 51%) share of interest in the JV Firm and also, must have satisfactorily completed the work in accordance with the clause 3.16.2.1 (chapter 3) of the tender. The other members shall have a share of not less than 20% each. In case of JV Firm with foreign member(s), the Lead Member has to be an Indian Firm with a minimum share of 51%.
- 7. A copy of Memorandum of Understanding (MoU) executed by the JV members shall be submitted by the JV Firm alongwith the tender. The complete details of the members of the JV Firm, their share and responsibility in the JV Firm etc. particularly with reference to financial, technical and other obligations shall be furnished in the MoU. (MOU format at Appendix-I).
- 8. Once the tender is submitted, the MoU shall not be modified / altered / terminated during the validity of the tender. In case the tenderer fails to observe/comply with this stipulation, the full Earnest Money Deposit (EMD) shall be liable to be forfeited.
- 9. Approval for change of constitution of JV Firm shall be at the sole discretion of the RailTel. The constitution of the JV Firm shall not be allowed to be modified after submission of the tender bid by the JV Firm, except when modification becomes inevitable due to succession laws etc. and in any case the minimum eligibility criteria should not get vitiated. However, the Lead Member shall continue to be the Lead Member of the JV Firm. Failure to observe this requirement would render the offer invalid.
- Similarly, after the contract is awarded, the constitution of JV Firm shall not be allowed to be altered during the currency of contract except when modification become inevitable due to succession laws etc. and in any case the minimum eligibility criteria should not get vitiated. Failure to observe this stipulation shall be deemed to be breach of contract with all consequential penal action as per contract conditions.
- 11. On award of contract to a JV Firm, a single Performance Guarantee shall be submitted by the JV Firm as per tender conditions. All the Guarantees like Performance Guarantee, Bank Guarantee for Mobilization Advance, Machinery Advance etc. shall be accepted only in the name of the JV Firm and no splitting of guarantees amongst the members of the JV Firm shall be permitted.
- 12. On issue of LOA (Letter Of Acceptance), an agreement among the members of the JV Firm (to whom the work has been awarded) shall be executed and got registered before the Registrar of the Companies under Companies Act or before the Registrar/Sub-Registrar under the Registration Act, 1908. This JV Agreement shall be submitted by the JV Firm to the RailTel before signing the contract agreement for the work. In case the tenderer fails to observe/comply with this stipulation, the full Earnest Money Deposit (EMD) shall be forfeited and other penal actions due shall be taken against partners of the JV and the JV. This Joint Venture Agreement shall have, inter-alia, following Clauses:
- 12.1. Joint And Several Liability Members of the JV Firm to which the contract is awarded, shall be jointly and severally liable to the (RailTel) for execution of the project in accordance with General and Special Conditions of Contract. The JV members shall also be liable jointly and severally for the loss, damages

- caused to the RailTel during the course of execution of the contract or due to non-execution of the contract or part thereof.
- 12.2. Duration of the Joint Venture Agreement It shall be valid during the entire currency of the contract including the period of extension, if any and the maintenance period after the work is completed.
- 12.3. Governing Laws The Joint Venture Agreement shall in all respect be governed by and interpreted in accordance with Indian Laws.
- 13. Authorized Member Joint Venture members shall authorize one of the members on behalf of the Joint Venture Firm to deal with the tender, sign the agreement or enter into contract in respect of the said tender, to witness joint measurement of work done, to sign measurement books and similar such action in respect of the said tender/contract. All notices/correspondences with respect to the contract would be sent only to this authorized member of the JV Firm.
- 13.1 Any Payment shall be released to the Joint Venture and not to the one member and accordingly Joint Venture shall have PAN of the Joint Venture firm.
- 14. No member of the Joint Venture Firm shall have the right to assign or transfer the interest right or liability in the contract without the written consent of the other members and that of the RailTel in respect of the said tender/contract.
- 15. Documents to be enclosed by the JV Firm alongwith the tender :
- 15.1. In case one or more of the members of the JV Firm is/are partnership firm(s), following documents shall be submitted:
 - (a) Notary certified copy of the Partnership Deed,
 - (b) Consent of all the partners to enter into the Joint Venture Agreement on a stamp paper of appropriate value (in original).
 - (c) Power of Attorney (duly registered as per prevailing law) in favour of one of the partners of the partnership firm to sign the JV Agreement on behalf of the partnership firm and create liability against the firm.
- 15.2. In case one or more members is/are Proprietary Firm or HUF, the following documents shall be enclosed :
 - Affidavit on Stamp Paper of appropriate value declaring that his/her Concern is a Proprietary Concern and he/she is sole proprietor of the Concern OR he/she is in position of "KARTA" of Hindu Undivided Family (HUF) and he/she has the authority, power and consent given by other partners to act on behalf of HUF.
- 15.3. In case one or more members is/are limited companies, the following documents shall be submitted:
 - (a) Notary certified copy of resolutions of the Directors of the Company, permitting the company to enter into a JV agreement, authorizing MD or one of the Directors or Managers of the Company to sign JV Agreement, such other documents required to be signed on behalf of the Company and enter into liability against the company and/or do any other act on behalf of the company.
 - (b) Copy of Memorandum and Articles of Association of the Company.

- (c) Power of Attorney (duly registered as per prevailing law) by the Company authorizing the person to do/act mentioned in the para (a) above.
- 15.4. All the Members of JV shall certify that they are not black listed or debarred by RailTel, Railways or any other Ministry / Department / PSU (Public Sector Undertaking) of the Govt. of India/State Govt. from participation in tenders/contract on the date of opening of bids either in their individual capacity or as a member of the JV Firm in which they were/are members.
- 16. Credentials & Qualifying Criteria: Technical and financial eligibility of the JV Firm shall be adjudged based on satisfactory fulfillment of the following criteria:
- 16.1. Technical Eligibility Criteria:

Either the JV Firm or Lead Member of the JV Firm must comply clause 3.16.2.1 of Chapter-3.

Note: Value of a completed work done by a Member in an earlier JV Firm shall be reckoned only to the extent of the concerned member's share in that JV Firm for the purpose of satisfying his/her compliance to the above mentioned technical eligibility criteria in the tender under consideration.

16.2. Financial Eligibility Criteria: The contractual payments received by the JV Firm or the arithmetic sum of contractual payments received by all the members of JV Firm in the previous three financial years and the current financial year upto the date of opening of tender shall be at least 150% of the estimated value of the work as mentioned in the tender.

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



Appendix-1

Memorandum of Understanding (MOU) for Joint Venture Participation

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

JOINT VENTURE PARTICIPATION RETWEEN

BEIW	EEN				
M/shaving its registered office as					
Partner of the first part and M/shaving(hereafter referred to as '	its	registere	d	office	at
Partner of the other part. (If more than two partners include the details Now all the parties i.eas M/s (JV).	accordin _ and	ıgly).		_ will be	known
The expressions ofand mean and include their respective legal re assigns and shall collectively be referred to Party"	presenta	tives, succ	cessors-	-in-intere	est and
WHEREAS; RailTel Corporation Of India has invited bids for(insert name of wor		reinafter re	eferred	to as "F	≀ailTel")
NOW, THEREFORE, THE PARTIES AGREE	E AS FOL	LOWS:			
1. The 'Parties' have studied the documents Joint Venture (JV).	s and ha	ve agreed	to sub	mit their	bid as
2. M/sshall be the lead member of shall represent the Joint Venture in its deal submission of Tender proposals, the particle leader duly authorized to sign and submit all if any, to the RailTel.	lling with	the RailTo	el. For ate M/s	the purp	pose of as the
The 'Parties' have resolved that the distr under:					s is as
a) Lead Partner share%; Responsibilities.		i) ii) iii)			

(Technical, Financial & other obligations)

b)	Other Joint Venture Partner's share	%
	Name	
	Responsibilities.	i)
	(Technical, Financial & other obligations)	iĺ)
		iií)
c)	Other Joint Venture Partner's share	% ´
	Name	
	Responsibilities.	i)
	(Technical, Financial & other obligations)	ii)
	,	iii)

4. JOINT AND SEVERAL RESPONSIBILITY

The Parties undertake that they shall be jointly and severally liable to the RailTel for execution of the Project in accordance with General and Special Conditions of Contract. The JV members shall also be liable jointly and severally for the loss, damages caused to the RailTel during the course of execution of the contract or due to non-execution of the contract or part thereof.

5 ASSIGNMENT AND THIRD PARTIES

No member of the Joint Venture firm shall have the right to assign or transfer the interest, right or liability in the contract without the written consent of the other members and that of the RailTel in respect of the said tender/contract.

6 EXECUTIVE AUTHORITY

Joint Venture members shall authorize one of the members on behalf of the Joint Venture Firm to deal with the tender, sign the agreement or enter into contract in respect of the said tender, to witness joint measurement of work done, to sign measurement books and similar such action in respect of the said tender/contract. All notices/correspondences with respect to the contract would be sent only to this authorized member of the JV firm.

Any Payment shall be released to the Joint Venture and not to the one member and accordingly Joint Venture shall have PAN of the Joint Venture firm.

7. VALIDITY

This MOU shall remain in force till the occurrence of the earliest of the following, unless by mutual consent, the parties agree in writing to extend the validity for a further period.

- a. Tender submitted by the joint venture is declared unsuccessful, or
- b. Cancellation/shelving of the project by the RailTel for any reasons prior to award of work.

In case, the Tender submitted by the joint venture is declared successful; the validity of this MOU shall be extended till the JV agreement is signed and got ratified.

8. This MOU is drawn innumber of copies with equal legal strength and status. One copy is held by M/s..... and the other by M/s. &M/s...... and a copy submitted with the proposal.

10. NOTICES Notices shall be given in writing by Fax confirmed by courier to the following Fax numbers and addresses.	registered mail or commercial
11. JV Agreement. We are aware, that after issue of LOA by RailTel, and of the JV firm has to be executed and got reg Companies under the Companies Act or with the FRegistration Act. This agreement shall be submitted signing the contract agreement for the work. In observe/comply with stipulations, the Earnest Mor RailTel shall be forfeited and other penal actions due the JV and the JV by the RailTel.	gistered before the Registrar of Registrar/Sub-Registrar under the by the JV firm to RailTel before a case the JV partners fail to ney Deposit, deposited with the
12. We shall furnish along with the tender requisite para 15.1, 15.2, 15.3 (as the case may be) of the gui of J.V. firms in works tender.	
Declaration It is to certify that we have not been black li Railways or any other ministry/departments of the participation intenders/contract in the past either in of firm or partnership firm in which we were members/pa	Govt. of India/State Govt. from our individual capacity or the J.V.
Lead Partner	Other Partner(s).
(Name and Address) Name and Address of the J.V. firm	(Name and Address)
IN WITNESS WHEREOF THE PARTIES, have exe and year first before written. M/s	ecuted this MOU the day, month
M/sAGovernment	
(Seal) Undertak	(Seal)
Witness:	

9. This MOU shall in all respects be governed by and interpreted in accordance with

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Indian Laws.

1	(Name	& .	Address)
2	(Name	& .	Address)

3.8 VALIDITY OF OFFER

The tenderer should keep the offers valid for the period as mentioned in Para 1.8 of tender document.

3.9 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.

3.10 PERIOD OF COMPLETION AND TIME PROGRESS GRAPH

The works/work are/is to be completed within a period as mentioned in Para 1.9 of the tender document from the date of issue of Letter of Acceptance of the tender.

3.11 OPENING OF TENDER:

Tender shall be opened at the time & date of the tender given in the Para 1.5, in the presence of such Tenderers/Authorized representatives who choose to be present.

3.12 NON-TRANSFERABILITY AND NON-REFUNDABILITY

The tender documents are not transferable. The cost of tender documents is not refundable.

3.13 ERRORS, OMISSIONS & DISCREPANCIES

The Contractor(s) shall not take any advantage of any missinterpretation 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 miss-interpretation shall be entertained.

3.14 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.

3.15 AMENDMENT OF BID DOCUMENTS:

- **3.15.1** At any time, prior to the date for submission of bids, the RAILTEL may, for any reason whether suo motto or in response to clarification requested by a prospective Bidder, modify the bid documents by amendments.
- 3.15.2 The amendments shall be posted on website of RailTel and all bidders should download from website. These amendments will be binding on all bidders. RailTel shall make efforts to inform in writing or Fax to all prospective bidders on the address intimated at the time of purchase of bid documents from the RailTel. Those who are downloading tender

document from website should download the clarification also and submit with the tender document.

3.15.3 In order to afford prospective bidders reasonable time to take the amendments into account in preparing their bids, the RAILTEL may, at its discretion, extend the deadline for the submission/opening of bids suitably.

3.16 QUALIFYING CRITERIA

3.16.1 General

- 3.16.1.1 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 work as per Form no. 13.
- 3.16.1.2 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, preferably as per Form no. 2.

3.16.2 Technical Capability and meaning of similar single work:

- 3.16.2.1 Tenderer should have completed at the time of tender opening during the last three financial years i.e. current year & three previous financial years
 - a) At least one similar work for a minimum value of 35% of the advertised Tender Value.

OR

b) Two similar works for a minimum value of 20% of the advertised Tender Value each.

OR

c) Three similar works for a minimum value of 15% of the advertised Tender Value each

3.16.2.2 **Definition of similar single work is as under-**

Works similar to the scope of work as contained in this tender shall mean:

Supply, Fabrication, Erection, Earthing, Testing and Commissioning of 30 mtr Tower for same specification as per chapter-7&8"

The work should have been executed for Govt. /PSUs / Telecom Service Providers/Infrastructure Providers."

3.16.3 Financial:

i. Total contract amount received during the last 3 financial years and in the current financial year should be a minimum of 150% of advertised tender value. The certified copy of three years Audited Balance Sheet and Income statement of just concluded year should be submitted as evidence. ii. In case of JV company/Firm, Financial eligibility criteria should be fulfilled as indicated in Clause 3.7.6 Para 16.2.

The tenderer should have Registration No./GST ID for WCT/GST in respective state where work is to be executed and any other statutory registration that will be introduced by Govt.of India/State Govt.of India during the currency of the contract or the tenderer shall give the undertaking to submit the same on acceptance of tender in respective state where work is to be executed.

Declaration under GST Act to be furnished as per form no .14 & 15

3.16.4 Engineering Organization

The tenderer shall depute required number of Engineers and experienced supervisors for planning, supervision and execution of the work. The qualification and experience of these proposed personnel should be enclosed along with the bid.

3.16.5 Construction and Maintenance Machinery

The tenderer should furnish the details of the machinery and plants to be deployed, in case the tenderer plans to use mechanized trenching.

3.17 Refer para 5.3 of chapter 5 (Special Conditions of contract) of tender document.

3.18 EVALUATION OF OFFER

- 3.18.1 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.
- 3.18.2 However, the purchaser shall not be bound to accept the lowest or any 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.

3.19 AGREEMENT

The successful tenderer/s shall be required to execute an agreement with RailTel for carrying out the work as per the tender document.

In case of AMC, a separate agreement shall be executed for maintenance work.

3.20 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.



CHAPTER - 4

GENERAL CONDITIONS

OF

CONTRACT



A Government of India
Undertaking

CHAPTER - 4

GENERAL CONDITIONS OF CONTRACT

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Chapter - 4

GENERAL CONDITIONS OF CONTRACT

DEFINITIONS AND INTERPRETATION

4.1. Definitions:

4.1.1 The meaning of terms/interpretations shall be taken as defined in Chapter- 3

(INSTRUCTIONS TO TENDERERS AND CONDITIONS OF TENDERING).

4.2. GENERAL OBLIGATIONS

- 4.2.1 Execution Co-relation and intent of contract documents: The contract documents shall be signed in triplicate by the RailTel and the Contractor. The contract documents are complementary, and what is called for by any one shall be as binding as if called of try all; the intention of the documents is to include all labour and materials, equipments and transportation necessary for the proper execution of work. Materials or work not covered by or properly inferable from any heading or class of the specifications shall not be supplied by the RailTel to the contractors unless distinctly specified in the contract documents. Materials or works described in words, which so applied, have a well-known technical or trade meaning shall be held to refer to such recognized standards.
- 4.2.2 If a work is transferred from the jurisdiction of one region of RailTel to another region or to a Project authority or vice versa while the contract is in subsistence, the contract shall be binding on the Contractor and the other region in the same manner & take effect in all respects as if the Contractor and the other region were parties thereto from the inception and the corresponding officer or the competent authority in the other region will exercise the same powers and enjoy the same authority as conferred to the Predecessor RailTel/Project under the original contract/agreement entered into.
- 4.2.3 If for administrative or other reasons the contract is transferred to the other region of RailTel the contract shall notwithstanding anything contained herein contrary thereto, be binding on the Contractor and the other region in the same manner and take effect in all respects as if the contractor and the other region had been parties thereto from the date of this contract.

4.3. Law governing the contract

- 4.3.1 The Contract shall be governed by the law for the time being in force in the Republic of India.
- 4.3.2 Compliance to regulations and bye-laws The Contractor shall conform to the provision of any statute relating to the works and regulations and bye-laws of any local authority and of any water and lighting companies or undertakings, with whose system the work is proposed to be connected and shall before making any variation from the drawings or the specifications that may be necessitated by so confirming give to the Engineer notice specifying the variation proposed to be made and the reason for making the variation and shall not carry out such variation until he has received instructions from the

Engineer in respect thereof. The Contractor shall be bound to give all notices required by statue, regulations or by laws as aforesaid and to pay all fees and taxes payable to any authority in respect thereof.

- **4.4.** Communications to be in writing All notices, communications, references and complaints made by the RailTel or the Engineer or the Engineer's representative or the Contractor interest concerning the works shall be in writing and no notice, communication, references or complaint not in writing shall be recognized.
- 4.5. Service of Notices on Contractors The Contractor shall furnish to the Executive Director/RailTel the name, designation and address of his authorized agent and all complaints, notices, communications and references shall be deemed to have been duly given to the contract if delivered to the Contractor or his authorized agent or left at or posted to the address so given and shall be deemed to have been so given in the case of posting on day on which they would have reached such address in the ordinary course of post or on the day on which they were so delivered or left. In the case of contract by partners, any change in the constitution of the firm shall be forthwith notified by contractor to the Executive Director /RailTel.
- **4.6.** Occupation and use of land No land belonging to or in the possession of the Railway/RailTel shall be occupied by the contractor without the permission of the RailTel. The Contractor shall not use, or allow to be used, the site for any purposes other than that of executing the works.
- 4.7. Assignment or subletting of contract: The Contractor shall not assign or sublet the contract or any part thereof or allow any person to become interested therein in any manner whatsoever without the special permission in writing of the RailTel. Any breach of this condition shall entitle the RailTel to rescind the contract under Para 4.62 of these conditions and also render the contractor liable for payment to the RailTel in respect of any loss or damage arising or ensuring from such cancellation. Provided always that execution of the details of the work by petty contractor under the direct and personal supervision of the contractor or his agent shall not be deemed to be sub-letting under this clause. The permitted subletting of work by the contractor shall not establish any contractual relationship between the sub-contractor and the RailTel and shall not relieve the Contractor of any responsibility under the Contract.
- 4.8. Assistance by the RailTel for the stores to be obtained by the Contractor: Owing to difficulty in obtaining certain materials (including Tools & Plants) in the market, the RailTel may have agreed without any liability therefore, to endeavor to obtain or assist the Contractor in obtaining the required quantities of such materials as may be specified in the Tender. In the event of delay or failure in obtaining the required quantities of the aforesaid materials, the Contractor shall not be deemed absolved of his own responsibility and shall keep in touch with the day-to-day position regarding their availability and accordingly adjust progress of works including employment of labour and the RailTel shall not in any way be liable for the supply of materials or for the non supply thereof for any reasons whatsoever not for any loss or damage arising in consequence of such delay or non supply.
- **4.9.** Railway Passes No free Railway passes shall be issued by the RailTel to the Contractor or any of his employee/worker.

- **4.10.** Carriage of materials No forwarding orders shall be issued by the RailTel for the conveyance of Contractor's materials, tools and plant by Rail which may be required for use in the works and the contractor shall pay full freight at public tariff rates therefore.
- 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 given 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.
- 4.12. Representation on Works The Contractor shall, when he is not personally present on the site of the works place, keep a responsible agent at the works during working hours who shall, on receiving reasonable notice, present himself to the Regional General Manger/RailTel and orders given by the Engineer or the Engineer's Representative to the agent shall be deemed to have the same force as if they had been given to the Contractor. Before absenting himself, the Contractor shall furnish the name and address of his agent for the purpose of this clause and failure on the part of the Contractor to comply with this provision at any time will entitle the RailTel to rescind the contract under Para 4.62 of these conditions.
- **4.13.** Relics and Treasures All gold, silver, oil and other minerals of any description and all precious stones, coins, treasures, relics, antiquities and other similar things which shall be found in or upon the site shall be property of the RailTel and the Contractor shall duly preserve the same to the satisfaction of the RailTel and shall from time to time deliver the same to such person or persons as the RailTel may appoint to receive the same.
- 4.14. Excavated material The Contractor shall not sell or otherwise dispose of or remove except for the purpose of this contract, the sand, stone, clay ballast, earth, rock or other substances or materials which may be obtained from any excavation made for the purpose of the works or any building or produced upon the site at the time of delivery of the possession thereof but all the substances, materials, buildings, and produce shall be the property of the RailTel provided that the Contractor may, with the permission of the Regional

General Manger/RailTel, use the same for the purpose of the works either free of cost or pay the cost of the same at such rates as may be determined by the Engineer.

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

4.16 **Security Deposit**

Refer para 5.3 of chapter 5 (special conditions of contract) of tender document.

4.17. Completion Period

- 4.17.1 Subject to any requirement in the contract as to completion of any portion or portions of the works before completion of the whole, the contractor shall fully and finally complete the whole of the works comprised in the contract (with such modifications as may be directed under conditions of this contract) by the date entered in the contract or extended date in terms of the following clauses:
- 4.17.1.1 If any modifications have been ordered which in the opinion of the Engineer have materially increased the magnitude of the work, then such extension of the contracted date of completion may be granted as shall appear to the Engineer to be reasonable in the circumstances, provided moreover that the Contractor shall be responsible for requesting such extension of the date as may be considered necessary as soon as the clause thereof shall arise and in any case not less than one month before the expiry of the date fixed for completion of the works.
- 4.17.1.2 If in the opinion of the Engineer the progress of work has any time been delayed by any act or neglect of RailTel's employees or by other contractor employed by the RailTel under Para 4.20.4 of these conditions or in executing the work not forming part of the contract but on which contractor's performance necessarily depends or by reason of proceeding taken or threat-tended by or dispute with adjoining or neighboring owners or public authority arising otherwise through the Contractor's own default etc. or by the delay authorized by the Engineer pending arbitration or in consequences of the contractor not having received in due time necessary instructions from the RailTel for which he shall have specially applied in writing to the Engineer or his authorized representative then, upon happening of any such event causing delay, the contractor shall immediately give notice thereof in writing to the Engineer within 15 days of such happening but shall nevertheless make constantly his best endeavors to bring down or make good the delay and shall do all that may be reasonably required of him to the satisfaction of the Engineer to proceed with the works. The contractor may also indicate the period for which the work is likely to be delayed and shall be bound to ask for necessary extension of time. The engineer on receipt of such request from the contractor shall consider the same and shall grant such extension of time as in his opinion is reasonable having regard to the nature and period of delay and the type and quantum of work affected thereby. No other compensation shall be payable for works so

carried forwarded to the extended period of time, the same rates, terms and conditions of contract being applicable as if such extended period of time was originally in the original contract itself.

- 4.17.1.3 In the event of any failure or delay by the RailTel to hand over the Contractor possession of the lands necessary for the execution of the works or to give the necessary notice to commence the works or to provide the necessary drawings or instructions or any other delay caused by the RailTel due to any other cause whatsoever, then such failure or delay shall in no way affect or vitiate the contract or alter the character thereof or entitle the contractor to damages or compensation therefore but in any such case, the RailTel may grant such extension or extensions of the completion date as may be considered reasonable.
- 4.17.2 Extension of time for delay due to contractor The time for the execution of the work or part of the works specified in the contract documents shall be deemed to be the essence of the contract. If the contractor fails to complete the works within the time as specified in the contract for the reasons other than the reasons specified in Para 4.11 and 4.17.1 above, the RailTel may, if satisfied that the works can be completed by the contractor within reasonable short time thereafter, allow the contractor further extension of time as the Engineer may decide. On such extension the RailTel will be entitled without prejudice to any other right and remedy available on that behalf, to recover from the contractor as agreed damages and not by way of penalty a sum equivalent to 1/2% of the contract value of the works for each week or part of the week for a period up to ten weeks and thereafter at the rate of 0.7% for each week of delay or part thereof for another ten weeks subject to a maximum of 12% of the contract value.
- 4.17.2.1 For the purpose of this clause, the contract value of the works shall be taken as value of work as per contract agreement including any supplementary work order/contract agreement issued. Provided also, that the total amount of liquidated damages under this condition shall not exceed 12% of the total value of the contract. Provided further, that if the RailTel is not satisfied that the works can be completed by the Contractor and in the event of failure on the part of the contractor to complete the work within further extension of time allowed as aforesaid, the RailTel shall be entitled, without prejudice to any other right or remedy available in that behalf, to appropriate the contractor's security deposit and rescind the contract under Para 4.62 of these conditions, whether or not actual damage is caused by such default.

4.18. Illegal Gratification

4.18.1 Any bribe, commission, gift or advantage given, promised or offered by or on behalf to the Contractor or his partner, agent or servant or anyone on his behalf, to any officer or employees of the RailTel, or to any person on his behalf in relation to obtaining or the execution of this or any other contract with the RailTel shall, in addition to any criminal liability which he may incur, subject the contractor to the rescission of the contract and all other contracts with the RailTel and to the payment of any loss or damage resulting from such decision and the RailTel shall be entitled to deduct the amounts so payable from any moneys due to the Contractor (s) under this contract or any other contracts with the RailTel.

4.18.2 The Contractor shall not lend or borrow from or have or enter into any monitory dealings or transactions either directly or indirectly with any employee of the RailTel and if he shall do so, the RailTel shall be entitled forthwith to rescind the contract an all other contracts with the RailTel. Any question or dispute as to the commission or any shall offence or compensation payable to the RailTel under this clause shall be settled by the Executive Director of RailTel, in such a manner as shall consider fit and sufficient and his decision shall be final and conclusive. In the event of rescission of the contract under this clause, the Contractor will not be paid any compensation whatsoever except payments for the work done up-to-date of rescission.

4.19. Execution of Works

- 4.19.1 Contractor's understanding It is understood and agreed that the Contract has, by careful examination, satisfied himself as to the nature and location of the work, the conformation of the ground, the character, quality and quantity of the materials to be encountered, the character of equipment and facilities needed preliminary to and during the progress of the works, the general and local conditions, the labour conditions prevailing therein and all other matters which can in any way affect the works under the contract.
- 4.19.2 Commencement of works The Contractor shall commence the works within 15 days after the receipt by him of an order in writing to this effect from the RailTel and shall proceed with the same with due expedition and without delay. The work should be started with due intimation to RailTel.

4.19.3 Accepted programme of work

The Contractor who has been awarded the work shall as soon as possible but not later than 7 days from the date of receipt of the acceptance letter in respect of contracts with initial completion period of one year or less or not later than 15 days for other contracts have to submit the detailed programme of work indicating the time schedule of various items of works in the form of Bar Chart/PERT/CPM. He shall also submit the details of organization (in terms of labour and supervisors) plant and machinery that he intends to utilize (from time to time) for execution of the work within stipulated date of completion. The programme of work amended as necessary by discussions with the Engineer, shall be treated as the agreed programme of the work for the purpose of this contract and the contractor shall and endeavor to fulfill this programme of work. The progress of work will be watched accordingly and the liquidated damages will be with reference to the overall completion date. Nothing stated herein shall preclude the contractor in achieving earlier completion of item or whole of the works than indicated in the programme.

4.19.4 Setting out of works

The Contractor shall be responsible for the correct setting out of all works in relation to original reference at his cost. The Contractor shall execute the work true to specifications, drawings, plans and dimensions as mentioned in the contract document and as directed by the Engineer's representative and shall check these at frequent intervals. The Contractor shall provide all facilities like labour and instruments and shall cooperate with the Engineer's representative at all time, during the progress of the works. Any error shall appear or arise in any part of the work, the Contractor, on being required so to do by the Engineer's

representative shall, at his own rectify such errors, to the satisfaction of the Engineer's representative. Such checking shall not absolve the Contractor of his own responsibility of maintaining accuracy in the work.

4.20. Compliance to Engineer's Instructions

- 4.20.1 The Engineer shall direct the order in which the several parts of the works shall be executed and the Contractor shall execute without delay all orders given by the Engineer from time to time but the Contractor shall not be relieved thereby from responsibility for the due performance of the works in all respects.
- 4.20.2 Alterations to be authorized No alterations in or additions to or omissions or abandonment of any part of the works shall be deemed authorized, except under instructions from the Engineer, and the Contractor shall be responsible to obtain such instructions in each and every case in writing from the Engineer.

4.20.3 Extra Works

Should works over and above those included in the contract require to be executed at the site, the contractor shall have no right to be entrusted with the execution of such works, which may be carried out by another contractor or contractors or by other means at the sole discretion of the RailTel.

4.20.4 Separate Contracts in connection with works

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

4.21. Instructions of Engineer's Representative

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

- 4.21.1 Failure of the Engineer's representative to disapprove any work or materials shall not prejudice the power of the Engineer thereafter to disapprove such work or material and to order the removal or breaking up thereof.
- 4.21.2 If the Contractor shall be dissatisfied by reason of any decision of the Engineer's representative he shall be entitled to refer the matter to the Engineer who shall there upon confirm or vary such decision.

4.22. Adherence to specifications and drawings

4.22.1 The whole of the works shall be executed in perfect conformity with the specifications and drawings of the contract. If the Contractor performs any works in a manner contrary to the specifications or drawings or any of them and without such reference to the Engineer, he shall bear all the costs arising or ensuring there- from and shall be responsible for all loss to the RailTel.

4.22.2 Drawings and specifications on the works:

- 4.22.2.1 The contractor shall keep one copy of Drawings and specifications at the site, in good order, and such contract documents as may be necessary, available to the Engineer or the Engineer's Representative.
- 4.22.2.2 The supply of equipment and materials shall include supply of one set of printed documents from original equipment manufacturers with each equipment as given in technical supplement.
- 4.22.3 Ownership of Drawings and Specifications All drawings and Specifications and copies thereof furnished by the RailTel to the Contractor are deemed to be the property of the RailTel. They shall not be used in another works and with the exception of the signed contract set, shall be returned by the Contractor to the RailTel on completion of the work or termination of the Contract.
- 4.22.4 Compliance with Contractor's request for details The Engineer shall furnish with reasonable promptness, after receipt by him of the Contractor's request for the same, additional instructions by means of drawings of otherwise, necessary for the proper execution of the works or any part thereof. All such drawings and instructions shall be consistent with the Contract Documents and reasonably inferable there from.

4.22.5 Meaning and Intent of specification and drawings

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

4.23. Working during night

The Contractor shall not carry out any work between sunset and sunrise without the previous permission of the Engineer. Hence, no "night duty" shall be payable to the contractor for the portion/part of the works to be undertaken during the night.

4.24. Damage to Govt/RailTel property or private life and property

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

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

4.25. Sheds, Stores houses and Yards

The Contractor shall at his own expense provide himself with sheds, storehouses and yards in such situations and in such numbers as in the opinion of the Engineer is requisite for carrying on the works and the Contractor shall keep at each such sheds, store houses and yards a sufficient quantity of materials and plant in stock so as not to delay the carrying out of the works with due expedition and the Engineer and the Engineer's representative shall have free access to the said sheds, store houses and yards at any time for the purpose of inspecting the stock of materials or plant so kept in hand, and any materials or plant which the Engineer may object to shall not be brought upon or used in the works, but shall be forthwith removed from the sheds, store houses or yards by the contractor. The Contractor shall at his own expenses provide and maintain suitable mortar mills, soaking vats or any other equipments necessary for the execution of the works.

4.26. Provision of efficient and competent staff

The Contractor shall place and keep on the works at all times efficient and competent staff to give the necessary directions to his workmen and to see that they execute their work in sound and proper manner and shall employ only such supervisors, workmen and labourers in or about the execution of any of these works as are careful and skilled in various trades and callings. The Contractor shall at once remove from the works any agents, permitted sub -contractor, supervisor, workman or labourer who shall be objected to by the Engineer and if and whenever required by the Engineer, he shall submit a correct return showing the names of all staff and workmen employed by him. In the event of the Engineer being of the opinion that the Contractor is not employing on the works a sufficient number of staff and workmen as is necessary for the proper completion of the works within the time prescribed, the Contractor shall forthwith on receiving intimation to this effect take on the additional number of staff and labour specified by the Engineer within seven days of being so required and failure on the part of the Contractor to comply with such instructions will entitle the RailTel to rescind the contract under Para 4.62 of these conditions.

4.27. Workmanship and Testing

4.27.1 The whole of the works and/or supply of materials specified and provided in the contract or that may be necessary to be done in order to form and complete any part thereof shall be executed in the best and most substantial workman like manner with materials of the best and most approved quality of their respective kinds, agreeable to the particulars contained in or implied by the specifications and as referred to in and represented by the drawings or in such other additional particulars. Instructions and drawings may be found

requisite to be given during the carrying on of the works and to the entire satisfaction of the Engineer according to the instructions and directions, which the Contractors may from time to time receive from the Engineer. The materials may be subjected to tests by Mean of such machines, instruments and appliances as the Engineer may direct and wholly at the expense of the Contractor.

- 4.27.2 Removal of Improper work and materials The Engineer or the Engineer's representative shall be entitled to order from time to time.
- 4.27.2.1 The removal from the site within the time specified in the order of any materials, which in his opinion are not in accordance with the specifications or drawings.
- 4.27.2.2 The substitution of proper and suitable materials, and
- 4.27.2.3 The removal and proper re-execution, notwithstanding any previous tests thereof or "on account" payments therefore, of any work which in respect of materials or workmanship is not in his opinion in accordance with the specifications and in case of default on the part of the Contractor in carrying out such order the RailTel shall be entitled to rescind the contract under Para 4.62 of tender document of these conditions.

4.28. Facilities for Inspection

The Contractor shall afford the Engineer and the Engineer's Representative every facility for entering in and upon every portion of the work at all hours for the purpose of inspection or otherwise and shall provide all labour, materials, instruments, appliances and things of every kinds required for the purpose and the Engineer and the Engineer's representative shall at all time have free access to every part of the works and to all places at which materials for the work are stored or being prepared.

4.29. Examination of work before covering up

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

4.30. Temporary works

All Temporary works necessary for the proper execution of the works shall be provided and maintained by the Contractor and subject to the consent of the Engineer, shall be removed by him at his expenses when they are no longer required and in such manner as the Engineer shall direct. In the event of failure on the part of the Contractor to remove the temporary works, the Engineer will cause them to be removed and cost as increased by supervision and other incidental charge shall be recovered from the Contractor. If temporary huts are provided by the Contractor on the RailTel/Railway land for labour engaged by him and the work is completed but the contractor's labour

refused to vacate and have to be removed by the RailTel, necessary expenses incurred by the RailTel in connection therewith shall be borne by the Contractor.

4.31. Contractor to supply water for works

- 4.31.1 Unless otherwise provided in the contract, the contractor shall be responsible for arrangements to obtain supply of water for the works.
- 4.31.2 Contractor to arrange supply of Electric power for works.

4.31.3 Electric supply from the Railway system

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

- 4.32. Property in material and Plants: Deleted
- 4.33. Tools, Plant and Materials Supplied by the RailTel
- 4.33.1 Not used.
- 4.33.1 Hire of RailTel's Plant: Deleted.

4.34. Precaution during progress of work

- 4.34.1 During the execution of works, unless otherwise specified the Contractor shall at his own cost provide the materials for and execute all shoring, timbering and strutting works as is necessary for the stability and safety of all structures, excavations and works and shall ensure that no damage, injury, loss is caused or likely to be caused to any person or property.
- 4.34.2 Roads and water courses: Existing roads or water courses shall not be blocked, cut through, altered, diverted or obstructed in any way by the Contractor, except with the permission of the Engineer. All compensations claimed for any authorized closure, or his agent or his staff shall be recoverable from the Contractor by deduction from any sums which may become due to him in terms of contract or otherwise according to law.
- 4.34.3 Provision of access to premises: During progress of work in any street or thoroughfare, the Contractor shall make adequate provision of the passage of traffic, for securing safe access to all premises approached from such street or thoroughfare and for any drainage, water supply or meant for lightning which may be interrupted by reason of the execution of the works and shall react and maintain at his own cost barriers, lights and other safeguards as prescribed by the Engineer, for the regulation of the traffic, and provide watchmen necessary to prevent accidents. The works shall in such cases be executed night and day if so ordered by the Engineer and with such vigour so that the traffic way be impeded for as short a time as possible.

4.34.4 Safety of Public: The Contractor shall be responsible to take all precautions to ensure the safety of the public or Railway/RailTel's property and shall post such look out men as may in the opinion of the Engineer be required to comply with regulations pertaining to the work.

4.35 Use of Explosives

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

4.36 Suspension of works

- 4.36.1 The Contractor shall on the order of Engineer suspend the progress of the works or any part thereof for such time or times and in such manner as the Engineer may consider necessary and shall during such suspension properly protect and secure the work so far as is necessary in the opinion of the Engineer. If such suspension is: -
 - (a) Provided for in the contract, or
 - (b) Necessary for the proper execution of the works or by the reason of act of God or by some default on the part of the Contractor, and or
 - (c) Necessary for the safety of the works or any part thereof.
- 4.36.2 The Contractor shall not be entitled to the extra costs, if any, incurred by him during the period of suspension of the works; but in the event of any suspension ordered by the Engineer for reasons other than aforementioned and when each such period of suspension exceeds 14 days, the Contractor shall be entitled to such extension of time for completion of the works as the engineer may consider proper having regard to the period or periods of such suspensions and to such compensations as the Engineer may consider reasonable in respect of salaries or wages paid by the Contractor to his employees during the periods of such suspensions.
- 4.36.3 Suspension lasting more than 3 month If the progress of the works or any part thereof is suspended on the order of the Engineer for more than three months at a time, the Contractor may serve a written notice on the Engineer requiring permission within 15 days from the receipt thereof to proceed with the works or that part thereof in regard to which progress is suspended and if such permission is not granted within that time the Contractor by further written notice so served may, but is not bound to, elect to treat the suspension where it affects part only of the works as an omission of such part or where it affects the whole of the works, as an abandonment of the contract by the RailTel.

4.37 Rates for items of works

The rates entered in the accepted Schedule Of Requirements of the Contract are intended to provided for works duly and properly completed in accordance with the general and special conditions of the contract and the specifications and drawings together with such enlargements, extensions, diminutions,

reductions, alterations or additions as may be ordered in terms of Para 4.42 of these conditions and without prejudice to the generality thereof and shall be deemed to include and cover superintendence and labour, supply including full freight of materials, stores, tools and all apparatus and plant required on the works, except such tools, plant or materials as may be specified in the contract to be supplied to the Contractor by the RailTel, the erection, maintenance and removal of all temporary works and buildings, all arrangements for the safety of the public or of employees during the execution of works, all sanitary and medical arrangements for labour camps as may be prescribed by the RailTel, the setting of all work and of the construction, repair and upkeep of all center lines, bench marks and level pegs thereon, site clearance, all fees, duties, royalties, rent and compensation to owners for surface damage or taxes and impositions payable to local authorities in respect of land, structures and all material supplied for the work or other duties or expenses for which the Contractor may become liable or may be put to under any provision of law for the purpose of or in connection with the execution of the contract, and all such other incidental charges or contingencies as may have been specially provided for in the specifications.

4.38 Demurrage and wharfage dues

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

4.39 Rates for extra items of works

- Any item of work carried out by the Contractor on the instructions of the 4.39.1 Engineer which is not included in the accepted schedule of rates shall be executed at the rates set forth in the "Schedule Of Requirements' modified by the tender percentage and such items are not contained in the latter, at the rate agreed upon between the Engineer and the Contractor before the execution of such items of work and the contractors shall be bound to notify the Engineer at least seven days before the necessity arises for the execution of such items of works that the accepted Schedule Of Requirements does not include rate or rates for the extra work involved. The rates payable for such items shall be decided at the meeting to be held between the Engineer and Contractor, in as short a period as possible after the need for the special item has come to the notice. In case the Contractor fails to attend the meeting after being notified to do so or in the event of no settlement being arrived at, the RailTel shall be entitled to execute the extra works by other means and the contractor shall have no claim for loss or damage that may result from such procedure.
- 4.39.2 Provided that if the Contractor commences work or incurs any expenditure in regard thereto before the rates as determined and agreed upon as lastly hereunto fore mentioned, then and in such a case the Contractor shall only be entitled to be paid in respect of the work carried out or expenditure incurred by him prior to the date of determination of the rates as aforesaid according to the rates as shall be fixed by the Engineer. However if the contractor is not

satisfied with the decision of the Engineer in this respect he may appeal to the competent authority of RailTel within 30 days of getting the decision of the Engineer, supported by analysis of the rates claimed. The competent authority of RailTel's decision after hearing both the parties in the matter would be final and binding on the Contractor.

4.40 Handing over of works

- 4.40.1 The Contractor shall be bound to hand over the works executed under the contract to the RailTel complete in all respect to the satisfaction of the Engineer. The Engineer shall determine the date on which the work is considered to have been completed, in support of which his certificate shall be regarded as sufficient evidence for all purposes. The engineer shall determine from time to time, the date on which any particular section of the work shall have been completed, and the contractor shall be bound to observe any such determination of the Engineer.
- Clearance of Site on Completion: On completion of the works the contractor 4.40.2 shall clear away and remove from the site all constructional plant, surplus material, rubbish and temporary works of every kind and leave whole of the site and works clean and in a workman like condition to the satisfaction of the Engineer. No final payment in settlement of the accounts for the work shall be paid, held to be due or shall be made to the contractor till, in addition to any other condition necessary for such final payment, site clearance shall have been affected by him, and such clearance may be made by the Engineer at the expense of the Contractor in the event of his failure to comply with this provision within 7 days after receiving notice to that effect. It Should become necessary for the Engineer to have the site cleared at the expense of the Contractor, the RailTel shall not be held liable for any loss or damage to such of the Contractor's property as may be on the site and due to such removal there from which removal may be affected by means of public sales of such materials and property or in such a way as deemed for and convenient to the Engineer.

4.41 Variations in Extent of Contract

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

4.42 Powers of Modification to Contract

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

- Unless otherwise specified in the special conditions of the contract, the accepted variation in quantity for each individual item of the contract would be up to ±25% of the quantity originally contracted. The contractor shall be bound to carry out the work at the agreed rates and shall not be entitled to any claim or any compensation, whatsoever upto the limit of ±25% variation in quantity of individual items of works. In case of increase in quantity of an individual item by more than 25% of agreement quantity, for variation above 25% and up to 40%, the agreed SOR rate will be reduced by 2% and for variation beyond 40% and up to 50%, the agreed SOR rate will be reduced by 4%, For variation beyond 50%, the rate shall be negotiated for additional quantity in excess of 50% of agreement quantity.
- Valuation of Variations The enlargements, extensions, diminution, reduction, alterations or additions referred to in Para 4.42.2 this clause shall in no degree affect the validity of the contract but shall be performed by the Contractor as provided therein and be subject to the same conditions, stipulations and obligations as if they had been originally and expressively included and provided for in the specifications and drawings and the amounts to be paid therefore shall be calculated in accordance with the accepted Schedule Of Requirements. Any extra items/quantities of work falling outside the purview of the provisions of Para 4.42.2 above shall be paid for at the rates determined under Para 4.39 of these conditions.

4.43. Claims

- 4.43.1 **Monthly Statement of Claims** The contractor shall prepare and furnish to the Engineer once in every month an account giving full and detailed particulars of all claims for any additional expenses to which the Contractor may consider himself entitled to and of all extra or additional works ordered by the Engineer which he has executed during the preceding month and no claim for payment for and such work will be considered which has not been included in such particulars.
- 4.43.2 **Signing of "No Claim" Certificate** The Contractor shall not be entitled to make any claim whatsoever against the RailTel under or by virtue of or arising out of this contract, nor shall the RailTel entertain or consider any such claim, if made by the Contractor, after he shall have signed a 'No Claim' certificate in favour of the RailTel, in such form as shall be required by the RailTel, after the works are finally measured up. The Contractor shall be debarred from disputing the correctness of the items covered by "No Claim Certificate" or demanding a preference to arbitration in respect thereof.

4.44. MEASUREMENTS, CERTIFICATES AND PAYMENTS

Qualities in schedule annexed to Contract- The quantities set out in the accepted Schedule of Requirements with items of works quantified are the estimated quantities of the works and they shall not be taken as the actual and correct quantities of the works to be executed by the Contractor in fulfillments of his obligations under the contract.

Measurements of Works: The Contractor shall be paid for the works at the rates in the accepted Schedule Of Requirements and for extra works at rates determined under Para 4.39 of these conditions on the measurements taken by the Engineer or the Engineer's representative in accordance with the rules prescribed for the purpose by the RailTel. The quantities for items the

unit of which in the accepted Schedule Of Requirements is 100 or 1000 shall be calculated to the nearest whole number, any fraction below half being dropped and half and above being taken as one; for item the unit of which in the accepted Schedule Of Requirements is single, the quantities shall be calculated to places of decimals. Such measurements will be taken of the work in progress from time to time and at such intervals as in the opinion of the Engineer shall be proper having regard to the progress of works. The date and time on which "on account" or final measurements are to be made shall be communicated to the Contractor who shall represent at the site and shall sign the results of the measurements (which shall also be signed by the Engineer or the Engineer's representative) recorded in the official measurements book as an acknowledgement of his acceptance of the accuracy of the measurements. Failing the Contractor's attendance the work may be measured up in his absence and such measurements shall, notwithstanding such absence, be binding upon the Contractor whether or not he shall have signed the measurement book provided always that any objection made by him to measurement shall be duly investigated and considered in the manner set out below:

- (a) It shall be open to the Contractor to take specific objection to any recorded measurements or Classification on any ground within seven days of the date of such measurements. Any re-measurement taken by the Engineer or the Engineer's representative in the presence of the Contractor or in his absence after due notice has been given to him in consequences of objection made by the contractor shall be final and binding on the Contractor and no claim whatsoever shall thereafter be entertained regarding the accuracy and classification of the measurement.
- (b) If an objection raised by the Contractor is found by the Engineer to be incorrect, the Contractor shall be liable to pay the actual expenses incurred in measurements.

4.46 "On-Account" Payments

- 4.46.1 The Contractor shall be entitled to be paid from time to time by way of "On-Account" payment only for such works as in the opinion of the Engineer he has executed in terms of the contract. All payments due on the Engineer's or the Engineer's Representative's certificates of measurements shall be subject to any deductions which may be made under these presents and shall further be subject to, unless otherwise required by Para 4.16 of these conditions, a retention of ten percent by way of security deposits, until the amount of security deposit by way of retained earnest money and such retentions shall amount to 5% of the total value of the contract provided always that the Engineer may by any certificate make any correction or modification in any previous certificate which shall have been issued by him and that the Engineer may withhold any certificate if the works or any part thereof are not being carried out to his satisfaction.
- 4.46.2 Rounding off amounts: The total amount due shall be rounded off to the nearest rupee i.e. sums less than 50 paise shall be omitted and sums of 50 paise and more upto Rs. 1/- will be reckoned as Rs. 1/-.

- 4.46.3 On-Account Payments not prejudicial to final settlements: "On Account" payments made to the Contractor shall be without prejudice to the final making up of the accounts (except where measurement are specifically noted in the Measurement Book as "Final Measurements" and as such have been signed by the Contractor) and shall in no respect be considered or used as evidence of any facts stated in or to be inferred from such account not of any particular quantity of work having been executed not of the manner of its execution being satisfactory.
- 4.46.4 Manner of payment: Unless otherwise specified payments to the Contractor will be made through RTGS.

4.47. Maintenance of works:

The contractor shall at all times during the progress and continuance of the works and also for the period of warranty specified in the tender form and after the date of passing of the certificate of completion by the Engineer or any earlier date subsequent to the completion of the works that may be fixed by the Engineer be responsible for and effectively maintain and uphold in good substantial sound and perfect conditions all and every part of the work and shall make good from time to time and at all times as often as the Engineer shall require. Any damage or defect that may during the above period arise in or be discovered or be in any way connected with the works, provided that such damage or defect is not directly caused by errors in the contract documents, act of providence or insurrection or civil riot, and the Contractor shall be liable for and make good to the RailTel or other persons legally entitled thereto whenever required by the Engineer so to do, all losses, damage, costs and expenses they or any of them may incur or be put or be liable, by reason or in consequence of the operations of the contractor or of his failure in any respect. For this purpose the tenderer will submit their strategy for providing maintenance support including the staff that will be available along with the set of spares for attending to various faults/problems during maintenance period.

4.48 Certificate of Completion of works

- 4.48.1 As soon as in the opinion of the Engineer the works under contract (against work order) shall have been substantially completed and has satisfactorily passed any final test or tests that may be prescribed, the Engineer shall issue a Provisional Acceptance Certificate in respect of the works and period of warranty shall commence from the date of issue of Provisional Acceptance Certificate and completion of the work of Each work order. Minor defects pointed out while issuing PACs shall be attended by the contractor within reasonable period of time to the satisfaction of Engineer. PAC will be issued against each work order.
- 4.48.2 Contractor not absolved by Provisional completion Certificate (PAC): The Certificate of completion in respect of the works referred to in Para 4.48.1 of this clause shall not absolve the Contractor from his liability to make good any defect, imperfection, shrinkages or faults which may appear during the period of maintenance specified in the tender arising in the opinion of the Engineer from materials or workmanship not in accordance with the drawing or specifications or instructions of the Engineer, which defect, imperfections, shrinkages or faults hall upon the direction in writing of the Engineer, be amended and made good by the Contractor at his own cost; and in case of

default on the part of Contractor the Engineer may employ, labour and material or appoint another Contractor to amend and make good such defect, imperfections, shrinkages and faults and all expenses consequent thereon and incidental thereto shall be borne by the Contractor and shall be recoverable from any moneys due to him under the contract.

4.49. Approval only by Final Acceptance Certificate (FAC)

No certificate other than Final Acceptance Certificate referred to in Para 4.50 of the conditions shall be deemed to constitute approval of any work or other matter in respect of which it is issued or shall be taken as an admission of the due performance of the contract or any part thereof or of the accuracy of any demand made by the Contractor or of additional varied work having been ordered by the Engineer nor shall any other certificate conclude or prejudice any of the powers of the Engineers.

4.50. Final Acceptance Certificate:

- 4.50.1 The contract shall not be considered as completed until a Final Acceptance Certificate shall have been signed by the Engineer stating that the works have been completed and maintained to this satisfaction. The warranty certificate shall be given by the Engineer upon the expiration of the period of or as soon thereafter as any work ordered during such period pursuant to Para 4.48.2 of these conditions shall have been completed to the satisfaction of the Engineer and full effect shall be given to this Clause notwithstanding the taking possession of or using the works or any part thereof by the RailTel.
- 4.50.2 **Cessation of RailTel's Liability**: The RailTel shall not be liable to the Contractor for any matter arising of or in connection with the contract of the execution of the works unless the Contractor shall have made a claim in writing in respect thereof before the issue of the Maintenance Certificate (FAC) under this clause.
- 4.50.3 **Unfulfilled obligations** Notwithstanding the issue of the Maintenance Certificate the Contractor and (subject to Para 4.50.2) RailTel shall remain liable for the fulfillment of any obligation incurred under the provision of the contract prior to the issue of the maintenance Certificate which remains unperformed at the time such certificate is issued and for the purposes of determining the nature and extent of any such obligations the contract shall be deemed to remain in force between the parties thereto.

4.51. Final payment

4.51.1 On the Engineer's certificate of completion in respect of the works an adjustment shall be made and the balance of account based on the Engineer or the Engineer's representative's on the accepted schedule or rates and for extra works on rates determined under Para 4.39 of these conditions shall be paid to the Contractor subject always to any deduction which may be made under these presents and further subject to the Contractor having delivered to the Engineer either a full account in detail of all claims he may have on the RailTel in respect of the works or having delivered "No Claim" Certificate and the Engineer having after the receipt of such account given a certificate in writing that such claim are correct, that the whole of the works to be done under the provisions of the Contracts have been completed, that they have

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

4.51.2 **Post payment Audit** – It is an agreed term of contract that the RailTel reserves to itself the right to carry out a post-payment audit and or technical examination of the works and the final bill including all supporting vouchers, abstracts, etc., and to make a claim on the contractor for the refund any excess amount paid to him if as a result of such examination any over-payment to him is discovered to have been made in respect of any work done or alleged to have been done by him under the contract.

4.51.3 Refund of PBG -

The Performance bank Guarantee (PBG) shall be released after a period of 12 months & issue of Final Acceptance Certificate commencing immediately after completion of the work in all the schedules, which will be enforceable by RailTel provided that all the stipulations of the clause have been fulfilled by the Contractor and all claim and demands made against the RailTel for and in respect of damage or loss by, from or in consequence of the works have been finally satisfied, provided further that in the event of different maintenance periods having become applicable to different parts of the works pursuant to Para 4.48.1 of these condition, the expression "expiration of the period of warranty" shall for the purpose of this clause, be deemed to mean the expiry of the latest of such periods.

In case of AMC ,PBG for maintenance shall be released after "satisfactory completion of maintenance period of one year.

4.51.4 **Production of vouchers etc. by the Contractor**

- (i) For a contract of more than one crore of rupees, the contractor shall, whenever required, produce for examination by the Engineer any quotation, invoice, cost or other account, book of accounts, voucher, receipt letter, memorandum, paper of writing or any copy of or extract from any such document and also furnish information and returns verified in such manner as may be required in any way relating to the execution of this contract or relevant for verifying or ascertaining cost of execution of this contract (the decision of the Engineer on the question of relevancy of any documents, information or return being final and binding on the parties.) The contractor shall similarly produce vouchers, etc., if required to prove to the Engineer, that materials supplied by him, are in accordance with the specifications laid down in the contract.
- (i) If any portion of the work in a contract of value more than one crore of rupees be carried out by the a sub -contractor or any subsidiary or allied firm or company (as per Para 4.7 of the General Conditions of Contract), the Engineer shall have power to secure the book of such sub-contract or any

subsidiary or allied firm or company, through the contractor, and such book shall be open to his inspection.

(iii) The obligations imposed by Para 4.51.4 (i) and (ii) above is without prejudice to the obligations of the contractor under any statute rules or orders binding on the contractor.

4.52. Withholding and lien in respect of sums claimed

Whenever any claim or claims for payment of a sum of money arises out of or under the contract against the contractor, the RailTel shall be entitled to withhold and also have a lien to retain such sum or sums in whole or in part from the security, if any, deposited by the contractor and for the purpose aforesaid, the RailTel shall be entitled to withhold the said security deposit or the security if any, furnished as the case may be and also have a lien over the same pending finalization or adjudication of any such claim. In the event of the security being insufficient to cover the claimed amount or amounts or if no security has been taken from the contractor, the RailTel shall be entitled to withhold and have a lien to the extent of the such claimed amount or amounts referred to supra from any sum or sums found payable or which at any time thereafter may become payable to the contractor under the same contract or any other contract with this or any other RailTel or any Department of the Central Government pending finalization or adjudication of any such claim. It is an agreed term of the contract that the sum of money or moneys so withheld or retained under the lien referred to above, by the RailTel's will be kept withheld or retained as such by the RailTel till the claim arising out of or under the contract is determined by the arbitrator (if the Contract is covered by the arbitration clause) or by the competent court as the case may be and that the contractor will have no claim for interest or damages whatsoever on any account in respect of such withholding or retention under the lien referred to supra and duly notified as such to the contractor. For the purpose of this clause, where the contractor is a partnership firm or a limited company, the RailTel 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 capacity or otherwise.

4.52.1 Lien in respect of claims in Other Contracts – Any sum of money due and payable to the contractor (Including the security deposit returnable to him) under the contract may be withheld or retained by way of lien by the RailTel, against any claim of this or any other RailTel or any other Department of the Central Government in respect of payment of a sum of money arising out of or under any other contract made by the contractor with this or any other Department of Central Government. It is an agreed term of the contract that the sum of money so withheld or retained under this clause by the RailTel will be kept withheld or retained as such by the RailTel till the Claim arising out of or under any other contract is either mutually settled or determined by arbitration, if the other contract is governed by arbitration clause or by the competent court as the case may be and contractor shall have no claim for interest of money withheld or retained under this clause and duly notified as such to the contractor.

4.53. Signature on Receipts for Amounts

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

4.54. **LABOUR**

- Wages to Labour The Contractor shall be responsible to ensure 4.54.1 compliance with the provisions of the Minimum Wages Act, 1948 (hereinafter referred to as the "said Act") and the Rules made there-under in respect of any employees directly or through petty contractors or sub-contractors employed by him on road construction or in building operations or in stone breaking or stone crushing for the purpose of carrying out this contract. If in compliance with the terms of the contract, the contractor supplied any labour to be used wholly or partly under the direct orders and control of the RailTel whether in connection with any work being executed by the contractor or otherwise for the purpose of the RailTel such labour shall, for the purpose of this clause, still be deemed to be persons employed by the Contractor, If any moneys shall as a result of any claim or any claim or application made under the said Act be directed to be paid by the RailTel's, such moneys shall be deemed to be moneys payable to the RailTel by the Contractor and on failure by the Contractor to repay any moneys paid by it as aforesaid within seven days after the same shall have been demanded, the RailTel's shall be entitled to recover the same form any moneys due or accruing to the contractor under this or any other Contractor with the RailTel's.
- 4.54.2 Apprentices Act The Contractor shall be responsible to ensure compliance with the provisions of the Apprentices Act 1961 and the Rules and Orders issued there- under from time to time in respect of apprentices directly through petty contractors or sub-contractors employed by him for purpose of carrying out the contract. If the Contractor directly or through petty contractor or sub-contractors fails to do so, his failure will be a breach of the contract and the RailTel may, in its discretion, rescind the contract. The contractor shall also be liable for any pecuniary liability arising on account of any violation of the provisions of the Act.

4.55. Provisions of Payments of Wages Act

The Contractor shall comply with the provisions of the Payment of Wages Act, 1936 and the rules made there under in respect of all employees directly or through petty contractors or sub-contractors employed by him in the works. If in compliance with the terms of the contract, the contractor directly or through

petty contractors or sub -contractors shall supply any labour to be used wholly or partly under the direct orders and control of the Engineer whether in connection with the works to be executed hereunder or otherwise for the purpose of the Engineer such labour shall nevertheless be deemed to comprise persons employed by the contractor, and any moneys which may be ordered to be paid by the Engineer shall be deemed to be moneys payable by the Engineer on moneys due to the contractor in terms of the contract. The RailTel shall be entitled to deduct from any moneys due to the contractor (Whether under this contract or any other contract all moneys paid or payable by the RailTel by way of compensation of aforesaid or for costs of expenses in connection with any claim thereto and the decision of the Engineer upon any question arising out of the effect or force of this clause shall be final and binding upon the contractor.

- 4.55.1 Provision of Contract Labour (Regulation and Abolition) Act 1970 (1) The Contractor shall comply with the provision of the Contract Labour (Regulation and Abolition) Act 1970 and the Contract Labour (Regulation and Abolition) Act, Central Rules 1971 as modified from time to time, whenever applicable and shall also indemnify the RailTel from and against any claims under the aforesaid Act and the Rules
 - (2) The Contractor shall obtain a valid license under the aforesaid Act as modified from time to time before the commencement of the work and continue to have a valid license until the completion of the work. Any failure to fulfill this shall attract the penal provision of the Contract arising out of the resultant non- execution of the work.
 - (3) The Contractor shall pay to the labour employed by him directly or through sub- contractors the wages as per provisions of the aforesaid Act and the Rules wherever applicable. The Contractor shall notwithstanding the provisions of the contract to the contrary, because to be paid the wages to labour indirectly engaged on the work including any engaged by his sub-contractors in connection with the said work, as if the labour had been immediately employed by him.
 - (4) In respect of all labour directly or indirectly employed in the work for performance of the contractor's part of the contract the contractor shall comply with or cause to be complied with the provisions of the aforesaid Act and the Rules wherever applicable.
 - In every case in which, by virtue of the provisions of the aforesaid Act or the Rules, the RailTel is obliged to pay any amount of wages to a workmen employed by the contractor or his sub-contractor in execution of the work or to incur any expenditure in providing welfare and health amenities required to be provided under the aforesaid Act and the Rules or to incur any expenditure in providing welfare and health amenities required to be provided under the aforesaid Act the Rules or to incur any expenditure on account of the contingent liability of the RailTel due to contractor's failure to fulfill his statutory obligations under the aforesaid Act or the Rules the RailTel will recover from the contractor, the amount of wages so paid or the amount of expenditure so incurred, and without prejudice to the rights of the RailTel under section 20, sub-section (2) and section 2 sub section (4) of the aforesaid Act, the RailTel shall be at liberty to recover such amount or part thereof by deducting it from the security deposit and/or from any sum due by

the RailTel to the contractor whether under the contract or otherwise. The RailTel shall not be bound to contest any claim made against it under subsection (1) of section 20 and sub-section (4) of section 21 of the aforesaid Act except on the written request of the contractor and upon his giving to the RailTel full security for all costs for which the RailTel might become liable in contesting such claim. The decision of the RailTel regarding the amount actually recoverable from the contractor as stated above, shall be final and binding on the contractor.

4.56. Reporting of Accidents to Labour

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

4.57. Provisions of Workmen's Compensation Act

In every case in which by virtue of the provision of Section 12 sub-section (1) of the Workmen's Compensation Act, 1923, RailTel is obliged to pay compensation to a workman directly or through the petty Contractor employed by the Contractor or sub- contractor in executing the work, RailTel will recover from the contractor the amount of the compensation so paid, and, without prejudice to the right of RailTel under Section 12 sub-section (2) of the said Act. RailTel shall be at liberty to recover such amount or any part thereof by deducting it from the security deposit or from any sum due by RailTel to the Contractor whether under these conditions or otherwise, RailTel shall not be bound to contest any claim made against it under Section 12, sub-section (1) of the said Act except on the written request of the Contractor and upon his giving to RailTel full security for all costs for which RailTel might become liable in consequence of contesting such claim.

4.57.1 Provision of Mines Act – Deleted

4.58. RailTel not to provide quarters for Contractor

No quarters shall be provided by the RailTel for the accommodation of the contractor or any of his staff employed on the work.

4.59. Labour camps

(1) The Contractor shall at his own expense make adequate arrangements for the housing, supply of drinking water and provision of latrines and urinals for his staff and workman directly or through the petty contractors or subcontractors and for temporary crèche (Bal-Mandir) where 50 or more women are employed at a time. Suitable sites on Railway/RailTel land, if available, may be allotted to the Contractor for the erection of labour camps either free of charge or on such terms and conditions that may be prescribed by the RailTel. All camp sites shall be maintained in clean and sanitary conditions by the Contractor at his own cost.

(2) Compliance to Rules for Employment of Labour

The Contractor(s) shall conform to all laws, bye-laws, rules and regulations for the time being in force pertaining to the employment of local or imported labour and shall take all necessary precautions to ensure and preserve the

health and safety of all staff employed directly or through petty Contractors or sub-contractors on the works.

- (3) **Preservation of Peace** The Contractor shall take requisite precautions and use his best endeavors to prevent any riotous or unlawful behavior by or amongst his workmen and others employed directly or through petty contractor or sub- contractors on the works and preserve the health and safety of all staff employed directly or through petty Contractors or sub-contractors on the works.
- (4) Sanitary Arrangement The contractor shall obey all sanitary rules and carry out all sanitary measures that may time to time be prescribed by the RailTel Medical Authority and permit inspection of all sanitary arrangements at all times by the Engineer, the Engineer's Representative or the Medical Staff of the RailTel. Should the Contractor fail to make adequate sanitary arrangements, these will be provided by the RailTel and the cost therefore recovered from the contractor.
- Outbreak of Infectious Disease The Contractor shall remove from his camp such labour and their families as refuse protective inoculation and vaccination when called upon to do so by the Engineer or the Engineer's Representative on the advice of the Railway/RailTel Medical Authority. Should Cholera, Plague or other infectious disease break out, the Contractor shall burn the huts, beddings, clothes and other belongings of or used by the infected parties and promptly erect new huts on healthy sites as required by the engineer, failing which within the time specified in the Engineer's requisition, the work may be done by the RailTel and the cost therefore recovered from the Contractor.
- (6) Treatment of Contractor's staff in Railway Hospitals Deleted
- (7) **Medical facilities at site** The contractor shall provide medical facilities at the site as may be prescribed by the engineer on the advice of the medical authority in relation to the strength of the contractor's resident staff, and workmen.
- (8) **Use of Intoxicants** The sale of ardent spirits or other intoxicating beverages upon the work or in any of the buildings, encampments or tenements owned, occupied by or within the control of the Contractor or any of his employees shall be forbidden and the Contractor shall exercise his influence and authority to the utmost extent to secure strict compliance with this condition.
- (9) **Non-employment of Female Labour** The contractor shall see that the employment of female labour in cantonment areas, particularly in the neighborhood of soldier's barracks, should be avoided as far as possible.
- (10) Restrictions on the employment of retired Engineers of Railway/Govt. services within two years of their Retirement—The contractor shall not, if he is a retired government engineer of Gazetted rank, who has not completed two years from the date of retirement, in connection with his contract in any manner whatsoever without obtaining prior permission of the President and if the contractor is found to have contravened this provision, it will constitute a

breach of contract Administration will be entitled to terminate the contract at the risk and cost of the contractor and forfeit his security deposit.

4.60. Non-Employment of Labourers below the age of 15

- (1) The Contractor shall not employ children below the age of 15 as labourers directly or through petty contractors or sub-contractors for the execution of work. To be checked.
- Medical Certificate of Fitness for Labour It is agreed that the contractor shall not employ a person above 15 and below 19 years of age for the purpose of execution of work under this contract unless a medical certificate of fitness in the prescribed from granted to him by a certifying surgeon certifying that he is fit to work as an adult is obtained and kept in the custody of the contractor or a person nominated by him in this behalf and the person carries with him, while at work, a token giving a reference to such certificate. It is further agreed that the responsibility for having the adolescent examined medically at the time of appointment or periodically till he attains the age of 19 years shall devolve entirely on the contractor and all the expense to be incurred on this account shall be borne by him and no fee shall be charged from the adolescent or his parent for such medical examination.
- (3) **Period of Validity of Medical Fitness Certificate** A certificate of fitness granted or renewed for the above said purposes shall be valid only for a period of one year at a time. The certifying surgeon shall revoke a certificate granted or renewed if in his opinion the holder of it is, no longer fit for work in the capacity stated therein. Where a certifying surgeon refuses to grant or renew a certificate or revoke a certificate, he shall, if so required by the person concerned, stated his reasons in writing for doing so.
- (4) **Medical Re-examination of Labourer** Where any official appointed in this behalf by the Ministry of Labour is of the opinion that any person employed in connection with the execution of any work under this contract in the age group 15- 19 years is without a certificate of fitness or is having a certificate of fitness but no longer fit to work in the capacity stated in the certificate, he may serve on the Contractor, or on the person nominated by him in this regard, a notice requiring that such person shall be examined by a certifying surgeon and such person shall not, if the concerned official so directs, be employed or permitted to do any work under this contract unless he has been medically examined and certified that he has been granted a certificate of illness or a fresh certificate or a fresh certificate of illness, as the case may be.

4.61. Determination of Contract

- 4.61.1 Right of RailTel to determine the contract: The RailTel shall be entitled to determine and terminate the contract at any time, should in the RailTel's opinion, the cessation of work becomes necessary owing to paucity of funds or from any other cause whatever, in which case the value of approved materials at site and of work done to date by the Contractor will be paid for in full at the rate specified in the contract. Notice in writing from the RailTel of such determination and the reasons therefore shall be conclusive evidence thereof.
- 4.61.2 **Payment on determination of contract**: Should the contract be determined under Para 4.61.1 and the Contractor claims payment for expenditure

incurred by him in the expectation of completing the whole of the work, the RailTel shall admit and consider such claims as are deemed reasonable and are supported by vouchers to the satisfactions of the Engineer. The RailTel's decision on the necessity and propriety of such expenditure shall be final and conclusive.

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

4.62. TERMINATION OF CONTRACT OWING TO DEFAULT OF CONTRACTOR:

4.62.1(A) If the Contractor:

- (i) becomes bankrupt or insolvent, or
- (ii) make an arrangement with or assignment in favour 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 assign the contract or any part thereof otherwise than as provided in Para 5.21 of SCC, or
- (v) have an execution levied on his goods or property on the works, or assign the contract or any part thereof otherwise than as provided in Para 5.21 of SCC, or
- (vi) persistently disregard the instructions of the RailTel's Engineer with regard to work quality or progress during execution of work 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 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
- (ix) fail to take steps to employ competent or additional staff and labour as required under Para 4.26 of tender document.
- (x) fail to afford the Engineer or Engineer's representative proper facilities for inspecting the works or any part thereof as required under Para 4.28 of tender document, or
- (xi) 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,
- (xii) At any time after the tender relating to the contract has been signed and submitted by the contractor, being a partnership firm admit as one of its partners or employ under it or being an incorporated company elect or nominate or allow to act as one of its directors or employ under it in any capacity whatsoever any retired engineer of the gazetted rank or any other retired gazetted officer working before his retirement, whether in the executive or administrative capacity, or whether holding any pensionable post or not, in the Engineering Department of the Railways for the time being owned and administered by the President of India before the expiry of two years from the date of retirement from the said service of such Engineer or Officer unless such Engineer or Officer has obtained permission from the President of India

or any officer duly authorized by him in this behalf to become a partner or a director or to take employment under the contract as the case may be, or

- (B) Fail to give at time of submitting the said tender:
- (a) The correct information as to the date of retirement of such retired engineer or retired officer from the said service, or as to whether any such retired engineer or retired officer was under the employment of the contractor at the time of submitting the said tender, or
- (b) the correct information as to such engineers or officers obtaining permission to take employment under the contractor, or
- (c) being a partnership firm the correct information as to, whether any of its partners was such a retired engineer or retired officer, or
- (d) being an incorporated company, the correct information as to, whether any of its directors was such a retired engineer or retired officer, or
- being such a retired engineer or retired officer suppress and not disclose at (e) the time of submitting the said tender the fact of his being such a retired engineer or a retired officer or make at the time of submitting the said tender a wrong statement in relation to his obtaining permission to take the contract or if the contractor be a partnership firm or an incorporated company to be a partner of director of such firm or company as the case may be or to seek employment under the contractor. Then and in any of these said clauses, 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.

4.62.2 RIGHT OF RAILTEL AFTER TERMINATION OF CONTRACT OWING TO DEFAULT OF CONTRACTOR:

In the event of any or several of the courses, referred in Para 4.62.1 of tender document 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 the (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 expert 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 accrue 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. The legitimate amount due to the contractor after making necessary deductions and certified by the Engineer should be released expeditiously.
- 4.63. Matters finally determined by the RailTel: All disputes and differences of any kind whatsoever arising out of or in connection with the contract, whether during the progress of the work or after its completion and whether before or after the determination of the contract shall be referred by the contractor to the RailTel and the RailTel shall within 120 days receipt of the Contractor's representation make and notify decisions on all matters referred to by the contractor in writing provided that matters for which provision has been made in Para 4.8, 4.18, 4.22.5, 4.29, 4.43.2, 4.45(a), 4.55, 4.55.1(5), 4.57, 4.61.1, 4.61.2 and 4.62.1(A) of General Condition of Contract or in any clause of the Special Conditions of the Contract shall be deemed as 'excepted matters' and decisions of the RailTel's authority, thereon shall be final and binding on the contractor provided further that 'excepted matters' shall stand specifically excluded from the purview of the arbitration clause and not be referred to arbitration.

4.64. SETTLEMENT OF DISPUTE AND ARBITRATION

- 4.64.1 Any dispute or difference whatsoever arising between the parties out of or relating to the construction, meaning, scope, operation or effect of this contract or the validity or the breach thereof shall be settled by a sole arbitrator in accordance with provisions contained in Arbitration and Conciliation Act, 1996 as amended and the award made in pursuance thereof shall be binding on the parties. The venue of such arbitration or proceedings thereof shall be New Delhi.
- 4.64.2 All arbitration proceedings shall be conducted in English. Resources against any Arbitral award so rendered may be entered into court having jurisdiction or application may be made to such court for the order of enforcement as the case may be.
- 4.64.3 The Arbitral Tribunal shall consist of the sole Arbitrator if the value of claim is upto Rs. 10 Lakhs. The arbitrator will be appointed by the Chairman and Managing Director of RailTel Corporation of India Ltd. If the value of claim or amount under dispute is more than Rs. 10 Lakhs, the matter shall be referred to the adjudication of arbitral council. Chairman and Managing Director/RailTel shall furnish a panel of three names to the contractor, out of which the contractor will recommend one name to be his nominee and then Chairman and Managing Director/RailTel shall appoint out of the panel, one name as RailTel's nominee and these two arbitrators with mutual consent appoint a third arbitrator who shall act as deciding. The award of the sole

- arbitrator or the Arbitral council, as the case may be, shall be final and binding on both the parties, i.e. Contractor and RailTel Corporation of India Ltd.
- 4.64.4 Each of the parties agree that no withstanding that the matter may be referred to Arbitrator as provided therein, the parties shall nevertheless pending the resolution of the controversy or disagreement continue to fulfill their obligation under this Agreement so far as they are reasonably able to do so.

4.65: Mandatory updation of Labour data on Railway's shramikkalyan portal by Contractor.

- A. Contractor is to abide by the provisions of Payment of Wages act & Minimum Wages act in terms of clause 4.54 and 4.55 of RailTel General Condition of Contract. In order to ensure the same, an application has been developed and hosted on website www.shramikalyan.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 on time registration of his company/firm etc.in the Sharmikkalyan 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 any Engineer, can create password with login ID (PAN No.) for subsequent use of portal for all LoAs issued in his favour.
 - c) The Contractor one registered on the portal, shall provide details of his Letter of Acceptances (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 & payment mode thereof after each wage period.
- B. While processing payment of any "On Account Bill" or "Final Bill" or release of "Advance" 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 Railways Sharmikkalyan portal at 'www.shramikkalyan.indianrailways.gov.in till month, year."

CHAPTER - 5

SPECIAL CONDITIONS

OF

CONTRACT

RAILTEL

A Government of India
Undertaking

CHAPTER - 5

Special Conditions of Contract INDEX

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CHAPTER - 5 SPECIAL CONDITIONS OF CONTRACT

5.1. TENDER DOCUMENTS

- 5.1.1 The goods and 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 following together with any addendum and corrigendum thereto.
- 5.1.2 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.
- 5.1.3 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.

5.2. AGREEMENT

- 5.2.1 The successful Tenderer shall within 15 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 Requirements referred to therein duly completed. The form for agreement is included in , Chapter 6 (Form No.3).
- 5.2.2 In the event of any tenderer whose tender is accepted, refused to execute the Contract documents as herein before provided RailTel may determine that such tenderer has abandoned the contract and thereupon his tender and the acceptance thereof shall be treated and RailTel shall be entitled to forfeit the full amount of the earnest money and to recover the liquidated damage for such default.

5.3 SECURITY DEPOSIT & PERFORMANCE BANK GUARANTEE

5.3.1 **Security deposit:-**

The amount of EMD of the successful tenderer shall be adjusted against SD (5% of the contract value). The balance amount will be recovered from the Contractor's "on account" bills (10% of bill amount). The SD amount for Schedule-B of SOR of chapter-2 will be as per Clause 9.9 of chapter-9.

- i. Unless otherwise specified in the special conditions, if any, the rates for Deposit /rate of recovery/ mode of recovery shall be as under:
- (a) Security Deposit for work should be 5% of the contract value.

- (b) The rate of recovery should be at the rate of 10% of the bill amount till the full security deposit is recovered.
- (c) Security Deposits will be recovered only from the running bills of the contractor and no other mode of collecting SD such as SD in the form of instruments like BG, FD etc shall be accepted towards Security Deposit.
- i. Security Deposit shall be returned to the contractor after the complete physical completion of the work in all the sites of last work orders as certified by the competent authority & submission of PBG of 10% of annual maintenance cost in case of AMC. The competent authority shall normally be the authority who is competent to sign the contract.
- ii. No interest will be payable upon the Earnest Money and Security Deposit or amounts payable to the contractor under the Contract.

5.3.2 Performance Bank Guarantee:-

The successful bidder shall give a Performance Bank Guarantee in the form of an irrevocable bank Guarantee amounting to 5% of contract value for schedule as per form No.-4. The PBG amount for Schedule-B of SOR of chapter-2 will be as per Clause 9.10 of chapter-9.

- The successful bidder shall have to submit a Performance Bank Guarantee (PBG) within 15 (Fifteen) days from the date of issue of Letter Of Acceptance (LOA). Extension of time for submission of PBG beyond 15 (Fifteen) days and up to 30 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. 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.
- ii) A separate advice of Performance Bank Guarantee (PBG) will invariably be sent by PBG issuing bank to the RailTel's Bank through Structured Financial Messaging System (SFMS) and only after this, the PBG will become acceptable to RailTel. It is therefore in own interest of successful bidder to obtain RailTel's bank IFSC Code, its branch and address and advice these particulars to the PBG issuing bank and request them to send advice of PBG through SFMS to the RailTel's bank.
- to stipulated date of completion plus 60 days.

 The Performance Bank Guarantee shall be submitted by the successful bidder after the Letter of Acceptance (LOA) has been issued, but before signing of the contract agreement. This P.B.G shall be initially valid up to stipulated date of completion plus 60 days beyond that. In case, the time for completion of work gets extended, the contractor shall get the validity of P.G. extended to cover such time for completion of work plus 60 days.
- iii) The value of P.B.G. to be submitted by the contractor will not change for

variation up to 25% (either increase or decrease). In case during the course of execution, value of the contract increases by more than 25% of the original contract value, an additional Performance Bank Guarantee amounting to 5% (five percent) for the excess value over the original contract value shall be deposited by the contractor.

- iv). The Performance bank Guarantee (PBG) shall be released after a period of 12 months & issue of Final Acceptance Certificate of last work order commencing immediately after completion of the work of last work order, which will be enforceable by RailTel.
- 5.3.3 In case of Annual Maintenance contract, the successful bidder shall also give a performance bank guarantee in the form of an irrevocable bank guarantee amounting to as per instruction in chapter-9.
- i) PBG should be valid for 60 days beyond the mandate maintenance period of 3 year currency period. This PBG is to be submitted on issue of Last PAC to be eligible for being paid AMC charges.
- ii) PBG for maintenance shall be released after "satisfactory completion of maintenance period of Three year"
- 5.3.4 Whenever the contract is rescinded, the Security Deposit shall be forfeited and the Performance Bank Guarantee shall be encashed. The balance work shall be got done independently without risk and cost of the failed contractor. The failed contractor shall be debarred from participating in the tender for executing the balance work. If the failed contractor is a JV or a Partnership firm, then every member/partner of such a firm shall be debarred from participating in the tender for the balance work in his/her individual capacity or as a partner of any other JV/partnership firm.

5.4. CONTRACTOR'S OFFICE & STORES DEPOT

The Contractor shall within 10(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 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.

- 5.5 USE OF RAILWAY LAND :Deleted
- 5.6. PROGRAMME OF WORK
- 5.6.1 Refer Para 4.19,4.20,4.21,4.22,4.23 and 4.26 of chapter-4.
- 5.6.2. The contractor will program his work in such a manner so as not to interfere in the working and movement of traffic
- 5.7. COMPETENT SUPERVISORS

Refer Para 4.26 of chapter-4.

5.8. STORES TO BE SUPPLIED BY RAILTEL.

Refer Para 1.17 of chapter-1

5.9. Not used

5.10. TEST & MEASURING INSTRUMENTS AND SPECIAL TOOLS ETC.

- 5.10.1 Special tools & instruments required for installation and commissioning of the work as detailed in preamble shall be arranged by contractor at his own cost.
- 5.10.2 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.

5.11. STORES TO BE SUPPLIED BY CONTRACTOR Refer Para 1.18.

5.12 SUPPLY OF TECHNICAL LITERATURES, DOCUMENTATION DRAWINGS, INSTRUCTION BOOK & COMPLETION PLANS ETC.

The contractor shall supply complete documentation as per para 7.9 of chapter-7 of tender document.

5.13 SPARES

Deleted

5.14 LONG TERM AVAILABILITY OF SPARES AND SYSTEM SUPPORT

Deleted

5.15. QUALITY ASSURANCE

Quality Control through Acceptance Testing will be done by RailTel as per guidelines issued by RailTel/Railways/TRAI/DoT from time to time .RailTel will carry out sample checks. Shortcomings /deficiencies noted has to be attended with in 10(ten) days and intimation has to be given.

5.16. Not used

5.17 INSPECTION OF MATERIALS

- 5.17.1 All equipments materials fittings and components supplied by the contractor are required to be inspected as per the codes and specifications by the purchaser or his representative before accepting the delivery.
- 5.17.2 The materials which are procured/fabricated should comply TEC/RDSO Specifications or as directed by RailTel.
- 5.17.3 All materials shall be procured from the manufacturers of repute/their authorized dealers. Such materials are to be accepted by the Engineer.

The contractor may be required to produce test certificate from the manufacturer wherever called for by the Engineer.

- 5.17.4 The inspection charges, if any, payable to the purchaser's representative for carrying out the inspection shall be borne by the purchaser.
- 5.17.5 The cost of equipment and materials, all tests and / or analysis performed for inspection shall be borne by the contractor.

5.18. **INSPECTION OF WORKS**

The contractor shall sign all the measurement recorded in the measurement book. The contractor, of measurement recorded in the MB, will consider this as an acceptance. In case contractor fails to attend at the measurements or fails to countersign or to record the difference within a week, then in any such events the measurements taken by Engineer ex party shall be final and binding on the contractor.

The contractor shall facilitate resources for reopening of trench for test check. No additional payment shall be made to the contractor for excavation of such test checks.

5.19. QUANTUM OF WORK AND VARIATION IN QUANTITIES

- 5.19.1. **Modification to contract to be in writing :-** Please refer clause 4.41 of chapter 4.
- 5.19.2.1 **Powers of modification to contract :** Please refer clause 4.42 of chapter 4.

5.20. Not used

5.21. SUBLETTING AND ASSIGNMENT

- 5.21.1 The contractor may sublet a part of the work under this contract and enter into contract with suppliers for supply of materials. The credentials of subcontractors shall be subjected to scrutiny and approval of RailTel.
- 5.21.2 The contractor shall arrange for effective supervision of sub contractor's work and remain solely responsible for materials supplied and for works carried out on his behalf by the sub contractor.

5.22. **EXECUTION OF WORK**

All the works shall be executed in strict conformity to the provisions of the contract document and with such explanatory 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 workman like manner with the quality of material and workmanship in strict accordance with the specifications and as per sound industrial practices and to the entire satisfaction of the RailTel.

5.23. Not used

5.24. 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.

5.25. 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

5.26. PROVISIONAL ACCEPTANCE CERTIFICATE (PAC)

- 5.26.1 Immediately after the successful completion of the work at each site under the contract (against work order), the contractor shall certify and advise the purchaser in writing that the work is (i) complete (ii) ready for satisfactory commercial service and (iii) successfully handed over to RailTel/Railways.
- Purchaser's Engineer shall issue a Provisional Acceptance Certificate (PAC) for successfully completed work, of covering all materials and services included in the Schedule of works after the final acceptance test as per the approved test procedures have been completed and the performance has been found to meet the specifications. PAC shall not be held up for want of minor deficiency which shall be attended by the contractor within reasonable time to the satisfaction of Engineer. PAC will be issued for each work order under scope of work. A PAC for whole contract will be issued when work of last work order is completed as per schedule.

Note: RailTel reserves the right to increase/decrease the number of sites to work for and their locations too as per same terms and condition of contracts and at any course of time. Such addition and reduction of sites will be abide by contractor on same agreement of contract.

5.27 MAINTENANCE OF ALL CIVIL AND ELECTRICAL INSTALLATION AT EACH SITE TILL ISSUE OF PAC

The contractor shall be responsible for proper maintenance of all electrical and civil works and materials installed/erected at each site under contract (against work order) till the issue of PAC of the contract. For this purpose, necessary spare materials are to be kept reserved for replacements if required. Such maintenance cost will be bear by contractor itself.

5.28. FINAL ACCEPTANCE CERTIFICATE (FAC)

5.28.1 The final acceptance of the works shall take effect from the date of expiry of the period of warranty as defined in Para 5.29 i.e on expiry of the warranty period from the date of issue of Provisional Acceptance Certificate or brought into commercial operation, provided in any case that the contractor has complied fully with his obligations in respect of each item under the contract.

FAC against each work order will be issued separately.

An FAC of the whole contract will be issued after warranty period of last work order will be issued.

5.28.2 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.

5.29. WARRANTY

- 5.29.1 All equipment/material supplied and structures erected by the Contractor shall be guaranteed against the defects for a period of 12 months from the date of issue of Provisional Acceptance Certificate of the particular works order under scope of tender. The contractor shall provide comprehensive warranty maintenance for all the items supplied by him against this tender.
- 5.29.2 Contractor will ensure availability of adequate spares for providing replacement of faulty material, items during the warranty.
- 5.29.3 If any equipment/material supplied by the contractor becomes defective during the warranty ,the same shall be replaced by the contractor and total cost of such replacement shall be born by the contractor. The replaced material will also be guaranteed for the remaining period of original warranty.

5.29.4 DELETED Prnment of India

5.29.5 Maintenance cost of any damage/defect in installed/erected/build materials (both Civil & Electrical type) before and after issue of PAC, shall be borne by contractor.

5.30. Training

- 5.30.1 Deleted
- 5.30.2 The contractor shall at every stage of installation; testing and commissioning provide all facilities for adequate training of RailTel personnel who may be deputed to work on the project.

5.31. INFRINGEMENT 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 trademarks 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.

5.32. 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.

5.33. **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.

5.34. 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 5.33 of the tender document, 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 form out of all or any of the following sources via:

- (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-imbursement from out of sources (I) and/or (ii) above mentioned, the purchaser shall have the right of appropriation sue motto.

5.35. PENALTY FOR DELAY IN COMPLETION

5.35.1 The time for the execution of the work or part of the works specified in the contract documents shall be deemed to be the essence of the contract and the works must be completed not later than the date(s) as specified in the contract. If the contractor fails to complete the works within the time as specified in the contract for the reasons other than the reasons specified in Para 5.48 of tender document, Penalty for delay in execution of pending work/route @0.5% for each week of delay or part thereof for a period up to 10 weeks and thereafter at the rate of 0.7% for each week of delay or part thereof for another 10 weeks subject to a maximum of 12% will be applicable.

The competent Authority while granting extension of currency of the contract may also levy token penalty as deemed fit based on the merit of cases like delay in permission from Railways, changes in drawings, ROW from different agencies, changes in specifications and delay in partial way on account of contractors.

Provided further, that if the RailTel is not satisfied that the works can be completed by the Contractor and in the event of failure on the part of the contractor to complete the work in the time allowed as aforesaid, the RailTel shall be entitled without prejudice to any other right or remedy available in that behalf; to appropriate the contractor's security deposit and rescind the contract, whether or not actual damage is caused by such default.

Such penalty of delay will be on work order amount issued time to time.

5.35.2 Penalty for cutting/damaging the existing cables of RAILTEL and the existing underground facilities of third parties: -

(a) During excavation of trench utmost care is to be taken by the contractor so that the existing underground cables are not damaged or cut. In-case any damage/cut is done to the existing cables, a penalty as per the schedule given below will be charged from the contractor or the amount will be deducted from his running bills:-

Size of existing UG/ OFC cut/ damaged	Amount of penalty per cut/ damage
Up to 100 pairs cable	Rs 500.00 (Five Hundred)
Above 100 pairs & up to 400 pairs	Rs 1000.00 (One thousand)
Above 400 pairs	Rs 2000.00 (Two thousand)
OFC of any size	Rs 50000.00 (Fifty thousand)

Besides the above penalty, the contractor shall carry out such repairs for restoration of the damaged cable free of charge. The cost of jointing kit shall also be borne by the contractor. If contractor fails to repair the damage, the cost of repair (including cost of labour + jointing kit) shall be recovered from the contractor.

- (b) Contractor shall either pay to third parties all expenditure incurred for restoring services which are damaged by Contractor while carrying out the work or the same amount will be deducted from his bills. Such expenditure shall be intimated to Contractor either by Engineer-in-charge or concerned third parties in writing. The amount deducted by the Contractor from his bill shall be paid to concerned third parties by Engineer-in-charge.
- (c) Engineer-in-charge at his absolute discretion shall reserve the right to reject any bill submitted by the Contractor prior to making payment by him to third parties for the damages caused or to deduct same amount from his bill.
- (d) Penalty to damage stores/materials supplied by the RAILTEL while laying:

The contractor while taking delivery of materials supplied by the RAILTEL at the designated place shall thoroughly inspect all items before taking them over. In case of execution of the work, if any material is found damaged/working unsatisfactorily, then a

- penalty equivalent to the cost of material + 10% as penalty shall be recovered from the contractor's payments/securities.
- (e) However, contractor will not be penalized for any defect in workmanship of the materials, which are directly supplied by RailTel.
- 5.35.3. If M/s Indian Railways imposes any penalty on account of bad workmanship or delays, the same shall be charged to the contractor back to back.

5.36. ADHERENCE OF TIME SCHEDULE

- 5.36.1 Timely completion of the work is the essence of the contract. While delay in execution will attract penalty.
- If any delay as aforesaid in Para 5.35 of tender document 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.

5.37. CONTRACTOR'S LIABILITIES FOR COSTS AND DAMAGES

Please Refer Para 4.52 of the tender document.

5.38. PRICES

- 5.38.1 This tender consists of a percentage bidding system. The estimated cost of each and every item of the schedule of work and total estimated cost are indicated in the Schedule of work. The tenderer is expected to quote the single percentage, At Par/Below(-)/Above(+) the RailTel"s total estimated cost for all schedules of work. The single percentage, At par/below/above finalized for the entire work shall be firm and on all-inclusive basis (inclusive all incidental charges for transport, loading/unloading and handling of materials, commission for arranging dispatch by rail direct from manufacturer's factory and completing all necessary formalities in this respect, such as submission of forwarding notes, arranging placement of Wagon, collection of banker's charges for Bank guarantee, Indemnity Bonds inclusive of cost of Stamp etc., if any, levied by the RailTel.)
- 5.38.2 The prices shall include all taxes, duties, Royalty, GST and levies applicable on this Works Contract. Therefore, they should quote their rate taking into account the rate of GST on works contract as livable. It is clarified that required form applicable for this purpose will be supplied to the Contractor as applicable in the state where the Contract is being executed.
- 5.38.3 The rate quoted by the tenderer shall include cost of commissioning and testing and all costs of Administration of Contract, Insurance Premium, Banker's charges for guarantees, cost of storage,

loading-unloading and handling of materials and for any road transport which the contractor may use for carriage of materials to his depot and the site of work. The prices shall include the cost of works and adjustments necessary to be done by the contractor during or after tests carried out by the purchaser.

- The rate to be quoted by the Tenderers should take into account the credit availed on inputs under the CENVAT scheme. The tenderer should give a declaration that any set off in respect of duties on inputs as admissible under law is being totally and unconditionally passed on to the purchaser in the price quoted by him (see Para 5.43).
- 5.38.5 While the price quoted in the contract are inclusive of all taxes i.e. CGST, SGST, IGST, UTGST etc levied by any statutory authority, the purchaser shall make any deduction toward GST on works contract if statutorily required to do so. The deducted GST on works contract shall be remitted to the concerned tax authority and the purchaser shall in no way be responsible for any disputes between the tax authorities and the contractor in this regard.
- 5.38.6 All taxes, duties and levies (whether payable under reverse charge by the recipient or by the contractor) arising out of the transactions under the contract or between the contractor and his sub contractor/supplier for this work will be included in the rates quoted by the contractor in the relevant Schedule.

Any statutory revision/variation in taxes / duties shall be to the RailTel account and shall be admissible on production of valid documentary evidence. For this tenderer shall submit the taxes / duties structure considered by him while quoting the rates".

However, if the rates are reduced after the last stipulated date for receipt of tender, bidder has to pass on the benefits to RailTel.

- 5.38.7 Arrangement for permits/license for materials will not be made by the RailTel or any assistance given. The Contractor will have to make his own arrangement.
- 5.38.8 On implementation of GST, for all taxable supplies made by the vendor, vendor will issue valid tax invoice in accordance with GST Act in order to enable BBNL to avail input tax credit.

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.

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.

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 credit notes.

5.38.9 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.

5.39.	MEASUREMENT	OF WORKS
อ.งษ.	MEASUREMENT	OL MOUVS

- 5.39.1 Please Refer Para 5.18 of tender document.
- 5.39.2 MEANING AND INTERPRETATION BY RAILTEL TO BE FINAL

All measurement, method of measurement, meaning an intent of specifications provided by purchaser's Engineer shall be final and binding.

5.40. TERMS OF PAYMENT

- 5.40.1.1 On Account Payment:-Ref para 4.46 of chapter-4.
- 5.40.1.2 Rounding off amounts:-Ref para 4.46 of chapter-4.
- 5.40.1.3 On account payments not prejudicial to final settlement:- Ref para 4.46 of chapter-4.
- 5.40.2 Manner of payment:- Ref para 4.46 of chapter-4.

5.40.3 **Deleted**

5.40.4 PROGRESS PAYMENT FOR SUPPLY & EXECUTION OF WORK

On account progress payment shall be made as per following criteria.

- 5.40.4.1 80% (Eighty percent) of the On-Account/Progress payment against each site for SOR item No.A1 or A2 of schedule shall be made after successful completion of all required civil & electrical work for that site as specified in schedule of rates and Technical specification/drawings. After completion of work at a site, the contractor will produce a certificate from authorized engineer/consultant that the work at the site has been carried out as per technical specifications and designs as per contract. The same certificate with all drawings, structure stability certificate etc must be submitted along with bill.
- 5.40.4.2 Deleted
- 5.40.4.3 15% (Fifteen percent) of the On-Account/progress payment shall be made after successful AT of works and issue of PAC for work order.
- 5.40.4.4 Labour cess @ 1 % shall be deducted from Bills.
- 5.40.4.5 If M/s Indian Railways imposes any penalty on account of bad workmanship or delays, the same shall be charged to the contractor back to back.

5.41 FINAL PAYMENT

- 5.41.1 Final payment of 5% (Five percent) of the contract value shall be made after issue of Final Acceptance Certificate (FAC) against whole contract.(Please refer Clause 5.28.1).
- Post Payment Audit: It is an agreed term of contract that the RailTel reserves to itself the right to carry out a post-payment audit and or technical examination of the works and the final bill including all supporting vouchers, abstracts, etc., and to make a claim on the contractor for the refund any excess amount paid to him if as a result of such examination any over-payment to him is discovered to have been made in respect of any works done or alleged to have been done by him under the contract.

5.42 FINAL SETTLEMENT

On expiry of the warranty period and issue of the certificate of final acceptance of the entire installations, the Performance Bank Guarantee will be released to the Contractor after adjustment of any dues payable by the contractor.

5.43. CERTIFICATE FOR CENVAT BENEFITS ON BILLS

- a) The purchaser will not be responsible for payment of taxes and duties paid by the supplier under misapprehensions of law or misclassification and in such cases even if the suppliers bill contain an element of tax or duty which is not payable by the purchaser, such payment would be disallowed.
- b) The claim for ED, if any, on each bill should be supported by the following certificates:-
- i) Certified that the amount of Rs......claimed as ED in this bill is in accordance with the provision of the rules in all respects and the same has been actually paid to the excise authorities in respect of the stores covered by the bills.
- ii Quarterly certificate to the effect that no refund of ED already reimbursed against this contract has been obtained during the quarter ending. In the event of any such refund being obtained by the seller, the same should be passed on to the purchaser.
- iii) Certificate: The tenderers will have to give the following certificates in their offer:-

"We hereby declare that in quoting the above price, we have taken into effect, the full effect of the duty set-off on 'Central excise and counter veiling duties' available under the existing scheme. We further agree to pass on such additional duties and set off as may become available in future in respect of all the inputs used for the manufacture of the final product, on the date of the supply under

scheme, by way of reduction in price and advise the purchaser accordingly."

iv) Payment of excise duty will be released only after submission of excisable invoice to RailTel for availing CENVAT credit.

5.44. 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.
- (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.

5.45. TAXES

- 5.45.1 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.
- 5.45.2 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.
- 5.45.3 Wherever the law makes it statutory for the Purchaser to deduct any amount towards GST on Works Contract, the same will be deducted and remitted to the concerned authority.

5.46. MOBILIZATION ADVANCE Deleted

5.47. INSURANCE

5.47.1 The Contractor shall take out and keep in force a policy or policies of insurance against all liabilities of the Contractor or the Purchaser at common law or under any statute in respect of accidents to persons who shall be employed by the contractor in or about the site for the purpose of carrying out the works on the site. The Contractor shall also take out and keep in force a policy or policies of Insurance against all recognized risks to their offices and depots. Such insurance shall in all respects be to the approval of the Purchaser and if he so requires in his name.

5.47.2 **INSURANCE OF MATERIALS & INSTALLATIONS**

The Contractor shall take out and keep in force a Policy or policies of Insurance for all materials including RailTel supply materials/ equipments irrespective of whether used up in the portion of work already done or kept for the use in the balance portion of the

work until such works are provisionally handed over to the RailTel. For this purpose, the works are deemed to have been provisionally handed over when Last provisional acceptance certificate is issued for the locations.

- 5.47.3 The Contractor shall not be liable for losses/damages to the materials either used up in the portion of work done or his material kept for use at site, in consequence of Mutiny, or other similar causes over which the Contractor has no control and which cannot be insured. Such losses or damages shall be the liability of the Purchaser and if required by the Purchaser, be made good by the contractor at the cost of the Purchaser.
- 5.47.4 The Contractor should, however, insure the stores brought to site, against risks in consequence of war and invasion, as required under the Emergency Risk (Goods) Insurance Act enforce from time to time.
- It may be noted that the beneficiary of the insurance policy should be RailTel or the policies should be pledged in favour of RailTel. The contractor shall keep the policy/policies current till the installations are provisionally handed over to the purchaser. It may also be noted that in the event of contractor's failure to keep the policy current and alive, renewal of policy will be done by purchaser for which the cost of the premium plus 20% of premium shall be recovered from the contractor.
- 5.47.6 For the purpose of enabling the contractor to take the insurance cover in connection with this contract, the purchaser's Engineer will advise the approximate price of all the RailTel supply materials to the Contractor.
- FORCE MAJEURE CLAUSE
 Ref para 4.11 of chapter -4.
- 5.48.1 Please Ref para 4.17 of chapter-4.
- 5.49 SETTLEMENT OF DISPUTE AND ARBITRATION

Please Refer Para 4.64 of Chapter-4

- (1) Right of RailTel to determine the contract:- The RailTel shall be entitled to determine and terminate the contract at any time should, in the RailTel's opinion, the cessation of work becomes necessary owing to paucity of funds or from any other cause whatever, in which case the value of approved materials at site and of work done to date by the Contractor will be paid for in full at the rate specified in the contract. Notice in writing from the RailTel of such determination and the reasons therefore shall be conclusive evidence thereof.
- (2) Payment on determination of contract:- Should the contract be determined under sub Para 5.49(1) of tender document of this clause and the Contractor claims payment for expenditure incurred by him in

the expectation of completing the whole of the work, the RailTel shall admit and consider such claims as are deemed reasonable and are supported by vouchers to the satisfaction of the Engineer. The RailTel's decision on the necessity and propriety of such expenditure shall be final and conclusive.

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



CHAPTER - 6

FORMS

OF

TENDER



CHAPTER - 6

FORMS OF TENDER

Form No. 1

Offer Letter Form No. 2 Qualifying Criteria / User's Certificate Form No. 3 Agreement Proforma for Performance Guarantee Bond Form No. 4 Deposit Form No. 5 Statement of Deviations Form No. 6 Standing Indemnity Bond SYSTEM PERFORMANCE GUARANTEE PROFORMA FOR THE SYSTEM Form No. 7 PERFORMANCE GUARANTEE LIST OF STAFF / ORGANISATION /T&P Form No. 8 AVAIABLE

Form No. 9 Works in hand

Form No. 10 RTGS/NEFT Details

Form No. 11 Extension of period of completion of work

Form No. 12 Not used

Form No. 13 Qualification Experience

Form No. 14 Undertaking for compliance of Taxes/GST

Form No. 15 Vendor data sheet

Form No. 16 Format for Affidavit

Form No. 17 Certificate by tenderer

Form No.1 OFFER LETTER
From: Date:
To: Executive Director, RailTel Corporation of India Limited, Western Region, Mumbai.
Sub: Supply, Fabrication, Erection, Earthing, Testing and Commissioning and Maintenance of Tubular Tower at various Railway sites in the states of RailTel Western Region
Ref: Tender Notice No. RailTel/e-Tender/OT/WR/GBT/2019-20/16 Dated 17.08.2019
I/We the undersigned hereby offer to execute the agreement for the above work within seven days from the date of issue of letter of acceptance of the tender in strict compliance within the provision detailed in the tender paper attached.
I/We agree that this tender shall not be restricted or withdrawn and shall remain opened for acceptance for and during the period of 60 days from the date of opening of the tender.
I/We fully understand the terms and conditions as contained in the tender paper and we agree that the same shall apply to My/Our tender and I/We shall be bound by them.
Earnest money deposit online Transaction IDDated
The full value of the earnest money shall be forfeited without prejudice to any other right or remedies if:
(i) If we do not submit the Performance Bank Guarantee/Security Deposit in the event the LOA for tender is awarded to us.
(ii) I/We do not execute the contract document within 2 days after the receipt of notice by the RailTel Corporation that such documents are ready.
(iii) I/We do not commence work within 7 Days from the date of issue of letter of acceptance.
(iv) If we withdraw our offer after opening of the tender.

(v)If we do not accept the order in the event the same is awarded to us.

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

I/We hereby agree to execute the **Supply, Fabrication, Erection, Earthing, Testing and Commissioning and Maintenance of Tubular Tower at various Railway sites in the states of RailTel Western Region** and place our teams as required at the sites within the scheduled date mentioned above. In the event of shortcomings in the provision of equipment / placement of team within the stipulated date, RailTel shall be at liberty to impose penalty, if any, as has been stipulated in the tender document.

For AMC part of work, I enclosed herewith the following documents in support of my credential:-

- 1. Name and Qualification of supervisor, Technician and Mast riggers.
- 2. List of the Equipments, Make, and Model No in working condition required for each site as per scope of work

Description	Quantity	Make	Model no
Thedolite	1		
Binoculars	1		
Tool kit	1		
Magnetic compass military grade	1		
Torque wrench set as per krudos	1		
Nylon rope pulley	1		

3.	No of support staff, which will be kept for maintenance:
1	Details of the Telephone internet connections available:

Shortcomings in the above, if any, will be made good and section wise full details shall be furnished for each section to be awarded, before award of the contract by RailTel.

	,,	,					
Signa	ature & Sea	al of the	Tenderer	1			
Place): -			Ь			
Date	: -			A (TPI	
Witne	essed by:						
1. S	ignature:				2.	Signature:	
N	lame:					Name: of Ind	
Α	ddress:					Address:	

Yours Sincerely.

QUALIFYING CRITERIA

USER's CERTIFICATE

Name of the Firm				
Contract No. &				
date				10
Scope of Work				
Contract Amount	1		/	
(in Indian				
Rupees)				
Completion				
Period as per				
original contract				
Completion				
Period with extension				
Data of				
Commencement				
Actual date of				
Successful				
Completion				

Name Dated

Designation

Signature of the Contractor with Company Seal

Note: The relevant User's certificate to be attached.

<u>AG</u>	R	E	ΕĮ	М	E	N.	Ī

AGREEMENT
(CA No for "Supply, Fabrication, Erection, Earthing, Testing and Commissioning and Maintenance of Tubular Tower at various Railway sites in the states
of Western Region."
This AGREEMENT is made at Mumbai on this day of two thousand and, by and between RailTel Corporation of India Limited (A Govt. of India
Undertaking) having its Registered Corporate office at 6 th Floor, III Block, Delhi Technology Park, Shastri Park, Delhi-110053, and Western Railway Microwave Complex, opposite Ambika Mills, Senapati Bapat Marg, Mahalaxmi (West), Mumbai-400013 acting in the premises through Executive Director /Western Region (hereinafter referred to as 'RailTel', which expression should unless repugnant to the context or meaning thereof include its successors and permitted assigns) of the one part;
Andhaving its registered office at acting in the premises through (hereafter referred to as "Contractor", which expression should unless repugnant to the context or meaning thereof include its successor and permitted assigns) of the other part.
Whereas in response to a call for Tender by RailTel for the work of "Supply, Fabrication, Erection, Earthing, Testing and Commissioning and Maintenance of Tubular Tower at various Railway sites in the states of RailTel Western Region" as per tender papers at Annexure 'A' read with Corrigendum Issued by RailTel hereto, the Contractor has submitted a Tender as per Annexure 'B' hereto
AND WHEREAS the said Tender of the Contractor has been accepted for the work of "Supply, Fabrication, Erection, Earthing, Testing and Commissioning and Maintenance of Tubular Tower at various Railway sites in the states of RailTel Western Region ." as per copy of Letter of Acceptance of Tender No dated complete with enclosures at the accepted rates and agreed deviations from tender papers as per Annexure-C hereto at contract value of Rs (Rupees Only) duly accepted by the contractor.

Now this agreement witnesses that in consideration of the premises and the payment to be made by the Purchaser (RailTel) to the Contractor provided for herein, the Contractor shall supply all equipment and materials and execute and perform all works for which the said Tender of the Contractor has been accepted strictly according to the various provisions in Annexure 'B' and 'C' hereto and upon such supply, execute and performance to the satisfaction of the purchaser (RailTel) and the purchaser (RailTel) shall pay to the Contractor at the rates accepted as per the said Annexure 'C' and in terms of the provisions therein.

	TNESS whereof seals on the da		-						-		
	and delivered ation of India L		Shri				for a	nd or	behalf	of	RailTel
The co	ntract within na	amed ir	the pre	sence of :							
1.	Signature Date Name in Block Address	Capita	ls								
2.	Signature Date Name in Block Address	Capita	!s :								
Signed	and delivered	d by S		ontractor w	vithin naı	med in the	e pres		and on of:	b	ehalf of
1.	Signature Date Name in Block	Canita	ls								
	Address	Cupita	:								
2.	Signature Date Name in Block Address	Capita	ls				7	1			
Annexu Annexu Annexu Annexu	ure – B ure – C	P	Firm's o Letter o	Paper No. ffer. f Acceptan Contract I	ice No	with	all e	nclosu			

CONTRACT PERFORMANCE GUARANTEE BOND

(On Stamp Paper of Rs one hundred) (To be used by approved Scheduled Banks)

In consideration of the RailTel Corporation of India Limited, 6 th Floor, III Block, Delhi Technology Park, Shastri Park, Delhi-110053 with Western Regional office at Western Railway Microwave Complex, Opposite Ambika Mills, Senapati Bapat Marg, Mahalaxmi (West), Mumbai-400013 (Herein after called the RailTel) having agreed to exempt
We,
We,(name of 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,(name of 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

shall be discharged from all liability under this Guarantee thereafter. We,........................(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 or 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 name of Bank) lastly undertake not to revoke this Guarantee during its currency except with the previous consent of the RailTel in writing.

NOT WITH STANDING ANYTHING CONTAINED HEREIN ABOVE

(i)	The liability of the surety under his Bank Guarantee shall not exceed Rs
(ii)	This Bank guarantee shall be valid upto
(iii)	We are liable to pay the guaranteed amount or any part thereof under this Bank Guarantee only and only if you serves upon the bank, written claim or demand on or before
Dated	theday of 20
for (Ir	ndicate the name of the Bank)
Witnes	

Signature : Name :

Signature Name

NOTE: The Guarantee shall be valid for a period of 60 days after the expiry of the

warranty period of the work as per Clause 3.17 of chapter 3.

STATEMENT OF DEVIATIONS

PROFORMA FOR STATEMENT OF DEVIATIONS

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

Preamble (Chapter 1)

<u>Clause</u> <u>Deviation</u> <u>Remarks (including justification)</u>

Instructions to Tenderers and Conditions of Tendering (Chapter 3)

Clause Deviation Remarks (including justification)

Special Conditions of Contract (Chapter 5)

<u>Clause</u> <u>Deviation</u> <u>Remarks (including justification)</u>

2. The following are the particulars of deviations from requirement of the **Technical** specifications and instruction (Chapter 7)

Clause Deviation Remarks (including justification)

The following are the particulars of deviations from requirement of the **Drawings** (Chapter 8)

<u>Clause</u> <u>Deviation</u> <u>Remarks (including justification)</u>

The following are the particulars of deviations from requirement of the **Instruction and** terms and condition for AMC of erected Tower (Chapter 9)

Clause Deviation Remarks (including justification)

Note: Where there is no deviation, the statement should be returned duly signed with an andersement indicating "no deviations"

endorsement indicating "no deviations".

A G O V e r n m e n o SIGNATURE AND SEAL OF THE TENDERER

FORM - 6

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
nremises throu	for and on behalf of RailTel Corporation of India Limited in the ugh General Manager or his successor hereinafter referred to as "the Purchaser" all
	which 'On Account' payments have been made to us against the Contract for
	Acceptance of Tender No and the materials handed over to us
•	ser for all purpose of execution of the said Contract, until such time the materials are duly erwise handed over to him.
erected of othe	it wise finding over to fiffit.
	ntirely responsible for the safe custody and protection of said materials against all risk till
	delivered as erected equipment to the purchaser or as he may direct otherwise and shall
	Purchaser against any loss, damage or deterioration whatsoever in respect of the said le in our possession and against disposal of surplus materials. The said materials shall at
	pen to inspection by any engineer authorized by the Director / Projects (whose address
	ted in due course).
Should any lo	oss demaga or deterioration of meterials easur or surplus meterials disposed off and
	oss, damage or deterioration of materials occur or surplus materials disposed off and uses due, the purchaser shall be entitled to recover from us the full cost as per prices
included in the	e Contract (as applicable) and also compensation for such loss or damage, if any, along
	ant to be refunded without prejudice to any other remedies available to his by deduction
other Contract	due or any sum which at any time hereafter becomes due to us under the said or any
Dated this	day of
	for and on behalf of
	M/s (Contractor)
Signature	of witness
_	
Name and	d witness in Block letters
Address	
e 94 of 170	

FORM – 7

SYSTEM PERFORMANCE GUARANTEE PROFORMA FOR THE SYSTEM PERFORMANCE GUARANTEE

To The Executive Dire Mumbai	ector /RCIL,	
the basis of which wade to conform to further guarantee that end objectives or witto enable the RailTepayment for any additional the expenses for profurther guarantee that months from the data.	we have submitted our tender no the end objectives in the tender document in the event of the performance of the the the specifications contained in the tender to realize the end objectives contained ditional equipment which may be required oviding the additional inputs under the lat these additional inputs will be provided.	has been carefully ents and to technical specification therein. We system, when installed, not complying with the der documents, we shall provide further inputs ed in these documents without any additional ed in this regard. We further guarantee that all e System Guarantee will be borne by us. We ed by us to make the system workable within 1 by the Purchaser. The guarantee is valid for a stem.
(Signature of Firm's	Authorized Officer)	
Seal		
Signature of witness 1 2	s: 	
	रेल	दि
	RAIL	TEL

FORM – 8

LIST OF STAFF / ORGANISATION /T&P AVAIABLE

S.N.	Staff / Organization available	
S.N.	T & P Available	



WORKS IN HAND

SI No	System & Name of the Project	Party's name & address for whom the work is being done	Total Contract Value	Schedule period of execution (in months)	%age progress in terms of work already done	Likely date of completion	No. of extensions granted	Payments received till date	Remarks



The Dy. General Manager (Finance)
RailTel Corporation of India Ltd. (Regional Office)
Western Railway Microwave Complex,
Senapati Bapat Marg,
Mahalaxmi, Mumbai – 400 013.

Sub. : Option for Payment through RTGS/NEFT

Sir,

You are requested to remit the payment due to us through RTGS/NEFT into our Current Account. The detail required duly verified by our bank for Online payment is provided here under for needful please.

DETAIL REQUIRED FOR PAYMENT THROUGH RTGS/NEFT

1.	Beneficiary Name :	M/s
2.	Beneficiary	
	Address:	
3.	PAN No.	
4.	GSTIN (list)	
5.	Bank A/c No.:	
6.	Name of Bank :	
7.	Bank Branch	
	Address:	
8.	Branch Id Code:	
9.	Current Account No.	
10.	RTGS / IFSC Code:	
11.	NEFT/ IFSC Code:	
12.	MICR no.	

I do hereby declare that the particulars given above are correct and complete. If the transaction is delayed or not effected at all for reasons of incomplete or incorrect information, RailTel will not be held responsible. Further, I undertake that till we request a change, paying authority may kindly continue to make the payments in our account as per above detail.

For for Online payments	Verified above Bank Particulars
Authorized Signatory	Bank's Authorized Signatory
Undertaki Page 98 of 170	

EXTENSION OF PERIOD OF COMPLETION OF WORK

Ref No. : R	CIL/ Date :
То,	
Sub: (i) (ii) (iii)	-
Ref: Qu	ote specific application of the Contractor for extension to date, if received).
Dear Sir,	
made so fa	ted date for completion of the work mentioned above is From the progress r and the present rate of progress, it is unlikely that the work will be completed by the (or However, the work was not completed on this date)
RailTel Cor	that you may be able to complete the work if some time is given the Director / POM poration of India Limited, New Delhi although not bound to do so, hereby time for completion from to
the comple	leration of the circumstances explained in your letter of request RailTel has extended etion period by Days without any liquidated damages. Please ensure the and commissioning of the project well within the extended period.

* Please note that an amount equal to @0.5% for each week of delay or part thereof for a period up to ten weeks and thereafter at the rate of 0.7% for each week of delay or part thereof for another ten weeks subject to a maximum of 12% 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 clause 5.35 chapter V 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 Page 99 of 170

work by (2) _____ (here mention the extended date), further action will be taken in terms of relevant clause of special conditions of contract.

Yours faithfully,

for & on behalf of RailTel Corporation of India Limited

Note:

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

Strike out one of the * clauses as applicable.



QUALIFICATION & EXPERIENCE

Details of works executed and under execution by Tenderer during the last 5 years should be furnished in the following format.

SI No	Name of Project & Description of work	Party's name & address for whom the work was done	Total Value of the Contract (in Rs)	Date of award of work and schedule period of execution (in months)	Date of completion and actual period of execution (in months)	Remarks
		9				

Note: A certificate from the organization for whom the work was executed should be submitted to indicate that the contract was satisfactorily executed.

(Signature and Seal of the Manufacturer / Contractor)

Form-14

Undertaking for compliance of Taxes/GST

(On the Letter-Head of Supplier/Tenderer)

implemented from respect of which Conditions in Ter provisions of GST	ers/LOA in Terms and nereto, and at Terms &
Tender No.:	
LOA:	
Name Of Work :	
Signature:	
Designation:	
Date:	
Seal:	



Vendor Data Sheet

Form -15

Contact Details				RCM Details	Type of Supply	G: Crede	ST entials	Detai Goods HS Classif n	with N icatio	Detai Servi with	ices	Composit ion On Dealer	Exemptio ns	
Title	Compa ny Name	Registere d Address (As per GST)	Region (State, Provinc e, Countr y)	E- Mail Add ress	Wheth er tax is payabl e on revers e charge basis	Taxable Supply /Non- Taxable Supply /Comp osite Levy	Per man ent Acc oun t No (PA N)	GST IN / Pro visi onal Ide ntifi cati on No	Descr iption of Good s	HSN	Descr iption of Servic e	SAC	Whether registere d under composit ion Scheme ?	Wheteher covered under any exemptio n ? If yes please specify
													7	· · · · · · · · · · · · · · · · · · ·



Form No -16

FORMAT FOR AFFIDAVIT TO BE SUBMITTED BY TENDERER ALONGWITH THE TENDER DOCUMENT

•	e executed in presence of Public notary on non-judicial stamp paper of the value of 00/ The paper has to be in the name of the tenderer)**
I attorn	(Name and designation)** appointed as the ey/authorized signatory of the tenderer (including its constituents),
M/s	(hereinafter called the tenderer) for the purpose of the er documents for the work of as per the tender
	er documents for the work of as per the tender of (RailTel), do hereby solemnly affirm ad state on the behalf 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's website www.railtelindia.com or 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 be 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 certificate	es regarding	eligibility	/ criteria	submitte	ed by	y us
	are found to be forged/false or income	rect at any tir	me durir	g proces	ss for ev	/alua	ıtion
	of tenders, it shall lead to forfeiture of	the tender E	MD bes	ides ban	ning of b	ousin	iess
	for five years on entire RailT	el. Further,	I/we	(insert	name	of	the
	tenderer)**	and all	my/our	constitue	ents und	derst	and
	that my/our constituents understand t	hat my/our of	ffer shall	be sum	marily re	ejecte	∍d.

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 tenderer 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: Dated:

^{**} 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.

Form - 17

Certificate by tenderer

I/we certify that I/we are not debarred/work terminated by RailTel from participating in any tender in RailTel.

Signature and Seal of tenderer



CHAPTER 7

TECHNICAL SPECIFICATION

AND INSTRUCTIONS



Para No. Subject 7.1 Scope Introduction 7.2 7.2. Site Survey 7.3 **Design Specification** 7.3. **Mandatory Design Compliance Requirements:** Mandatory Design Compliance Requirements: 7.4 7.5 **General Technical Requirements:** 7.6. Patent & copyright 7.7 **Inspection and Tests** 7.8 **Inspection and Site Acceptance Test** 7.9 Guarantee 7.10 **Documentation (Structure Stability Certificate)** 7.11 **Structure Stability Certificate SAFETY PRECAUTIONS** 7.12 7.13 **Allied Activates** BOQ 7.14 7.15 Annexure 7.16 **Inspection Format**



Engineering Instructions

7.1 SCOPE

7.1.1 The Engineering Instructions spelt out in this document deal with the methods to be adopted for Erection of Ground Base Tubular Towers (GBT) at various Railway sites.

7.2 INTRODUCTION

The broad responsibility of the contractor under the scope of work for this tender shall be as under:

- 7.2.1 **Survey of site:** Site Inspection of each tower location to take soil sample for determining the safe bearing capacity of soil. Involves detailed study of Railway site premises/POP(point of presence), available space and resources, planning of GBT and outdoor cabinet (ODC) & DG set locations, location of earth pits, documentation of planning and approval of the same by Engineer-in-charge and concerned Railway Authority.
- 7.2.2 Preparation of site for erection of GBT including removal debris, vegetation etc.,
- 7.2.3 Fabrication, Transportation and erection of GBT and associated infrastructure for colocation of minimum three cellular operators in Railway approved Space and drawing. Each BTS site shall be capable of hosting including antennas as per details mentioned in drawings of chapter-8.
- 7.2.4 At each site, the Towers should be erected as per technical specifications. For more details chapter-07 (Technical Specification) should be referred.
- 7.2.5 Deleted.
- 7.2.6 All necessary Testing & Submission of test results, planning diagrams of site.
- 7.2.7 For further details chapter-02 (Schedule of Rates) & chapter-07 (Technical Specification) should be referred.
- 7.2.8 RailTel will have the right to change/modify the locations and numbers of sites, prioritize the site location for works and change the planning of installations as per site conditions.
- 7.2.9 After completion of work at a site, the contractor will produce a certificate from authorized engineer/consultant that the work at the site has been carried out as per technical specifications and designs as per contract.
- 7.210 Design, Supply, Fabrication, Quality Assurance, Logistics & Erection of Ground based Tubular Towers, along with Earthing etc. all complete.
- 7.16.1 Bidder shall be single point of contact, responsible for design & quality assurance for the tower, until the completion of work. Bidder shall confirm the name & contact details of the SPOC appointed for this work.

- 7.16.2 Bidder has to carryout following and submit the documents
 Pre dispatch inspection report & certificate for raw material quality
 Post erection work completion certificate confirming completeness of work as per drawing and quality during various stages of foundation construction and tower installation.
- 7.16.3 The soil Investigation of each site shall be in scope of the bidder and refer one sample soil test report.
- 7.16.4 Towers shall be able to support GSM antennas and micro wave antennas as per attached drawing. Mount brackets shall be used for antenna carrier. Antenna mounting ring must have 6Nos. mounts suitable GSM & MW.

7.3 Design Specifications:

The tower is designed according to:

	WIND SPEED - 180 kmph	WIND SPEED - 200 kmph
Wind loads	As per IS: 875 (Part-3)- 2015	As per IS: 875 (Part-3)- 2015
 Design Standard 	IS: 800-2007	IS: 800-2007
 Basic wind Speed 	180 kmph (3 sec gust)	200 kmph (3 sec gust)
Operational Wind Speed	70% of basic wind speed (Assumed)	70% of basic wind speed (Assumed)
Mean probable design life	50 Years	50 Years
Terrain Category	2	2
 Topography factor k3 	1 (Flat terrain)	1 (Flat terrain)
WIND SPEED -	180 kmph	200 kmph
 Importance factor for cyclonic region, k4 	1.0 (For general structures)	1.0 (For general structures)
Wind directionality factor, kd	1.0	0.90
Area averaging factor, ka	1.0	1.0
Combination factor, kc	1.0	1.0
Factor of safety	1.5	1.5
Twist & sway limits	±0.5 deg at operational wind speed (Assumed)	±0.5 deg at operational wind speed (Assumed)

Tubes are of quality Yst-310 grade conforming to IS: 1161-2003/Equivalent ASTM.

Bolts are of Grade 8.8 conforming to IS:4000-1992/Equivalent ASTM.

All bolts are hexagon head bolts, screws and nuts.

All structural steel is hot-dip galvanized conforming to IS:4759.

Antenna Details:

Operator - 1@ 1.5m from top on ring mount

- \rightarrow 3 nos. RF antenna (1.9 x 0.5m)
- \rightarrow 3 nos. RRU (0.4 x 0.34m) #
- \rightarrow 3 nos. RF antenna (2.6 x 0.262m)
- \rightarrow 3 nos. RRU (0.45 x 0.45 m)#
- \rightarrow 2 nos. \emptyset 0.6m MW (Solid dish with cylindrical shroud).

Operator - 2 @ 4.5m from top on ring mount

- \rightarrow 3 nos. RF antenna (1.9 x 0.5m)
- \rightarrow 3 nos. RRU (0.4 x 0.34m) #
- \rightarrow 3 nos. RF antenna (2.6 x 0.262m)
- \rightarrow 3 nos. RRU (0.45 x 0.45 m)#
- \rightarrow 2 nos. \emptyset 0.6m MW (Solid dish with cylindrical shroud).

Operator - 3 @ 7.5m from top on ring mount

- \rightarrow 3 nos. RF antenna (1.9 x 0.5m)
- \rightarrow 3 nos. RRU (0.4 x 0.34m) #
- \rightarrow 3 nos. RF antenna (2.6 x 0.262m)
- \rightarrow 3 nos. RRU (0.45 x 0.45 m)#
- \rightarrow 2 nos. \emptyset 0.6m MW (Solid dish with cylindrical shroud).

Resulting in an effective area of 18.43sqm on the tower.

7.4 Mandatory Design Compliance Requirements :

- 7.4.1 Lattice tubular towers shall have a design that allows an easy and cost efficient transportation from supplier to the site and a simple and cost efficient assembly and erection on site.
- 7.4.2 The overall force co-efficient for wind load on tower shall be taken from IS: 875(with latest amendments) Indian Standard for Self-Supporting Steel Towers.
- 7.4.3 For calculating the solidity ratio actual obstruction area of tower shall be considered. Separate Wind obstructing areas shall be taken for ladder, cable rack and platforms etc.
- 7.4.4 In the tower design, the flange joint connections shall be designed as per the sum of forces at the joints. The joints shall be adequately designed with FOS beyond 1.5.
- 7.4.5 The Factor of safety shall be considered as 1.5 for tower design & foundation design.
- 7.4.6 The foundation design shall be done as per IS standards –IS 456 :2000 "Plain & Reinforced Concrete Code of Practice"

- 7.4.7 The 30m tower shall have equipment platform at approximately 2.75m from ground within Tower to house all the BTS and other equipment (excluding DG).
- 7.4.8 The 30m tower shall have fence in periphery of Tower with Antitheft bolts arrangement to prevent stealing of members.
- 7.4.9 The agency has to confirm after erection of tower that the tilt, twist and rotation of the tower are within specified limits. The agency also has to check the verticality of the tower after erection. The verticality of tower shall be within 1 in 360 (1H; 360V) as per IS5613.

7.5 **General Technical Requirements**:

- 7.5.1 The supply of lattice towers shall be followed by a detailed assembly and erection specification/description.
- 7.5.2 Supplier's assembly & erection guidelines shall be followed i.e. Leg members, lattice members and sections shall be marked with stenciling other than hard punch marking to secure an easy assembly.
- 7.5.3 The specifications cover the design, fabrication, supply and erection of self-supporting Tubular tower and accessories complete with foundation work, earthing devices, pipe of suitable size and length for mounting antennae, Solid State Aviation Obstruction Lights with cabling, ladders for climbing, Cable Trays for supporting cables and platforms at respective levels.
- 7.5.4 All tower members & elements shall be Hot Dip Galvanized after fabrication as per relevant standards IS 2629.
- 7.5.5 All tower accessories like ladder, , mount pipes & brackets, platforms etc. also shall be Hot Dip Galvanized as per relevant standards.
- 7.5.6 All fasteners, plain washer, all Nuts, Bolts & Washers should be Hot Dip Galvanized as per applicable relevant standards.
- 7.5.7 Assembly of tower members & other structures on the tower shall be done by means of nuts & bolts with locking nuts. Nuts are of 8 grade and bolts of grade 8.8 as per IS:6639-1972 (with latest amendments), IS:12427-2001, IS:1363 (Part I)-1992 IS:1364- 2002, IS: 1367-2002 (Part 8) (with latest amendments) and plain washers as per IS: 6610-1972 shall be used. M8 Bolts will be of 5.6 grade.
- 7.5.8 The tower shall be provided with a suitable designed complete system of lightening protection in accordance with the provision of IS-2309-1969 with latest amendments.
- 7.5.9 All the tower legs shall be grounded properly, following the standard practice of earthing of such structures in level ground
- 7.5.10 The tower earthing shall be done as per the drawing (Details provided as Annexure). The earth resistance of the tower shall be less than 1 (one) ohm.

- 7.5.11 Provision of platform for access to microwave dish antennae and cable at different levels be made. 1.0 meter high handrails shall be provided at each level.
- 7.5.12 Platform flooring will consist of chequered plate/ steel grating
- 7.5.13 An internal ladder of width not less than 400 mm starting from the ground level and going up to the top with openings at all the platforms shall be provided.
- 7.5.14 The ladder shall have safety hoops provided for the safety of the climbing personnel Also, Fall arrester system, as per specification.
- 7.5.15 The successful Bidder shall carry out soil tests through a reputed firm of experts. Soil samples should get tested in a recognized laboratory.
- 7.5.16 The foundation construction shall be done in accordance with IS 456 Code of Practices for plain & reinforced concrete.
- 7.5.17 The cement, sand and concrete used shall be best grade materials and the concrete shall be supplied in-situ/Ready mis concrete in the standard M20 grade.
- 7.5.18 The foundation shall be watered and cured for at least 7 days and the erection of the tower shall be commenced only after the foundations are thoroughly cured.
- 7.5.19 At present Antenna mounts pertaining to three operator as per above and drawing details are required to be supplied with the tower.

7.6. Patent & copyright

- 7.6.1 The bidder shall hold the purchaser and his employees safe, harmless and immune from any liability that may arise out of infringements of patents and copyright associated with design, fabrication, erection of tower construction work and its accessories.
- 7.6.2 The performance specification and basis of design are detailed in subsequent paragraphs. All deviation from these specifications should be clearly brought out in a separate annexure and submitted with the offer. The bidder shall be deemed to comply with specifications in that aspect which do not figure specifically in the deviations from specification. A compliance statement/Nil deviation statement in the format enclosed shall be submitted.

7. 7 Inspection and Tests

7.7.1. Foundation:

- 7.7.1.1 Level Measurements: The levels at the three corners of the tower footing should be maintained at the same level.
- 7.7.1.2 Test for strength of foundation: The concrete used in the foundation should be designed as per IS:10262. Along with the foundation, cubes should be cast, which can be tested on 7 days and 28 days to get the strength of the concrete used in the tower foundation. Reinforcement used in the foundation must also be tested in a

Authorized Laboratory after complete curing of foundation. The strength of the footing may also be ascertained by non-destructive tests like Ultra Sonic Pulse Velocity Tests if required by RailTel.

7.7.2. Structural Steel:

- 7.7.2.1 Original copies of the test certificates of steel should be sent to RailTel. Steel collected should be properly stacked at bidder's works to avoid corrosion and kept for physical verification by RailTel.
- 7.7.2.2 The bidder shall offer all assistance in regard to RailTel inspection and proper care shall be taken so that steel collected for RailTels work is not mixed up with the steel for other agencies works.
- 7.7.2.3 Samples from fabricated or raw steel for each type should be tested by the bidder if required by RailTel at any Govt. approved laboratory free of cost. Test should be made in accordance with provisions of concerned IS (latest). The various testing to be performed are as follows:
- 7.7.2.4 Material Specification as per IS-2062 & latest updated standard (Grade-A) and tolerances as per IS-1852.
- 7.7.2.5 Sampling shall be as per IS-2500.
- 7.7.2.6 Physical properties: i) Verification of Mill Test Certificate. ii) Actual Test Certificate from Laboratory.
- 7.7.2.7 Dimensional and visual inspection shall be in accordance to IS-808 and IS-1852.
- 7.7.2.8 Chemical Property in accordance to IS-2062 (Grade-A)

7.7.3 **Fasteners:**

- Manufacturer's routine test certificates for bolts, nuts, washers etc. as laid down in 7.7.3.1 relevant IS code shall be submitted by the bidder at the time of inspection. In addition, minimum ten numbers of random sample tests for bolts and nuts for prototype test shall be performed by the bidder in Governmental approved Test Laboratory.
- 7.7.3.2 The various Tests to be performed are as follows:
- 7.7.3.3 Materials Specification: IS-6639 / IS-1363 / IS-1367(Part - III)
- 7.7.3.4 Sampling shall be as per IS-1367(Part - XVII)
- 7.7.3.5 Visual Inspection.
- Dimensional Checking for Bolts & Nuts in accordance to IS-6639 and IS-1363 7.7.3.6 respectively.
- Physical Test: Nuts & Bolts To property class 8.8 for bolts and matching class for 7.7.3.7 nuts as per IS-1367(Part - III) Galvanising Test in accordance to IS-1367(Part - XIII)
- 7.7.3.8

7.7.4 Galvanizing:

- 7.7.4.1 The Contractor shall prepare a detailed galvanizing procedure including Flow Chart with 7.8.2 control parameters and all plant standards as required above and submit to RailTel for approval as part of Quality Assurance Plan.
- 7.7.4.2 The various testing to be performed on the finished galvanized materials:
 - a. Visual Inspection in accordance to IS-2629.
 - b. Uniformity of coating as per IS-2633

Magnetic Gauge Test.

- c. Stripping Test.
- d. Adhesion of coating as per IS-2629.
- 7.7.4.3 Bidder shall perform routine test at least three samples from each Batch of production and record the result in separate registered book. RailTel's inspection officer will be present at the time of test. Bidder should submit regularly the result of all the tests performed to the inspection officer of RailTel.
- 7.7.4.4 All standard tests, including quality control tests, in accordance with appropriate Indian BIS standard shall be carried out unless otherwise specified herein.
- 7.7.4.5 The bidder shall submit all the test certificates during inspection.
- 7.7.4.6 In addition to the provisions of clause regarding inspection following shall also be included:
- 7.7.4.7 Bidder shall keep RailTel informed in advance about time of starting and progress of manufacture and fabrication of various parts, so that it can be inspected.
- 7.7.4.8 The acceptance of any part or items shall in no way relieve the bidder of any part of his responsibility for meeting the overall requirement of the specifications.
- 7.7.4.9 RAILTEL or his representative shall have free access at all reasonable times to those parts of bidder's works, where fabrication work is carried out for satisfying him that fabrication is being done in accordance with the specifications.
- 7.7.4.10 Inspection shall be made at the works of bidder prior to dispatch.
- 7.7.4.11 The correct grade and quality of steel shall be used by the bidder. The bidder shall make available the manufacturer's test certificate to substantiate the same at the time of inspection. However, Inspection officer may at his discretion get the material tested at approved laboratory to ascertain the quality of steel and other material used, for which cost shall be borne by the bidder.
- 7.7.4.12 Any member of the structure found not to comply with the approved drawings, shall be rejected. No member once rejected should be resubmitted for inspection except in case, where Inspection Officer considers that the defect can be rectified.
- 7.7.4.13 7.7.4.13All welded structures shall be subject to a non-destructive testing as per BIS code requirement and cost should be borne by the bidder.

- 7.7.4.14 All gauges, templates, jigs, fixtures, instruments necessary for inspection and testing shall be provided by the bidder to RailTel for the purpose of inspection.
- 7.7.4.15 To ensure effective in-process quality control, it is essential that the manufacturer should have all testing facilitates for tests like, weight of zinc coating, tensile & shear strength, non-destructive testing of welds etc in house. The manufacturer should have proper quality assurance system in line with requirement of this specification and latest IS:4000.
- 7.7.4.16 Each Piece of steel work shall be distinctly marked before delivery in accordance with marking diagram and shall bear such and other marks as well to facilitate erection.
- 7.7.4.17 The bidder shall ensure that the steel work shall be temporarily shop erected complete or part, so that accuracy of it may be checked before dispatch.
- 7.7.4.18 Each individual tower member shall carry a stamped mark (number) assigned to in the approved drawings. These stamping shall be done by a metal die of 16 mm size before galvanizing and on optimum depth so as to be clearly legible after galvanizing. In addition, the mark No. should be stenciled in indelible ink on each tower member after galvanizing.

7.8 Inspection and Site Acceptance Test

- 7.8.1 ATP: Acceptance Test Procedure (ATP) must be submitted by the bidder within one month of issue of Workorder for acceptance of RailTel. The ATP shall be approved by RailTel after necessary modifications, if required. The approved ATP shall be sent back to the bidder to be used for inspection of tower by RailTel representatives.
- 7.8.2 The bidder shall also state in his tender, the place of manufacture, testing and inspecting of the various materials included in the specifications, to enable RailTel to carry out inspection and test as desired.
- 7.8.2.3 The bidder shall provide all the necessary facilities for this purpose. The stores inspected during manufacturing have to be certified by RailTel before the finished materials are packed and forwarded to the destination. Only duly inspected and passed material shall be dispatched to site.
- 7.8.2.4 All the works and materials will be inspected by the representatives of RailTel.

7.9 **Guarantee**

- 7.9.1 The bidder shall guarantee to replace free of charge any material or part thereof that may develop defects within the guarantee period of the tower. The guarantee period shall be three years from the date of completion of erection of the tower.
- 7.9.2 The bidder shall guarantee the stability, safety, durability and satisfactory mechanical behavior of the tower structure under all conditions of specified loading and complete system and part there off including allied system such as lightening arrestors.

7.9.3 All the Electrical/Electronic parts/materials such as AOL, Control Panels, cabling wiring to lights, shall be guaranteed for two years from the date of handing over.

7.9.4. Earthing Work:

Combined ohmic earth resistance: less than 1 Ohm. Please refer Figure no 7 of chapter-8.

7.10 Documentation (Structure Stability Certificate)

Before start of work, structure stability certificate/site plan for each site has to be taken from authorised consultant firm and necessary approval of respective Railways authorities on Structure stability Certificate/Site plan is to be taken.

The documentation, consisting of the following shall be prepared for each site. 4 sets of documentation shall be provided both in Electronic format on CD as well as Hard binded copy.

For all the new poles to be erected and other allied works, proper diagrams along with all the relevant details like the alignment and location of various assets, major landmarks are to be recorded in a proper format Following specifications/instructions are to be followed:

- 7.10.1 Alignment and location of Poles and other equipment on roof top. Top view diagram.
- 7.10.2 In additions to the above, Earthling strips/pits and wiring locations.
- 7.10.3 The Structure Stability Certificate shall be prepared on A3 sheets of 80 GSM paper. Each sheet in the Structure Stability Certificate shall be assigned unique sheet number.
- 7.10.3 The details of various assets shall be provided in a tabular form.
- 7.10.4 The **Structure Stability Certificate** shall be submitted both as soft copy and hard copy.
- **7.10.5** Structure Stability Certificate should have detailed information of each asset with its location, size and bill of materials consumed in installation/construction as per clause.

7.11 FACTORY ACCEPTANCE TEST (FAT):

All equipments materials fittings and components will be subject to inspection by the purchaser or his representative at the manufacturer's factory 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.

Factory acceptance tests shall be carried out after review and approval of FAT procedure/documents as per bid requirements and review of Pre-Factory acceptance results & shall be conducted at the manufacturing facilities from where the respective equipment/subsystems are offered. The factory acceptance testing shall be conducted in the presence of the Purchaser/Engineer. The cost of equipment and materials, all tests and/or analysis performed for inspection shall be borne by the Contractor. The inspection charges, if any, payable to the purchaser's representative for carrying out the inspection shall be borne by the purchaser. The tests shall be carried out on all equipment/items including those supplied by Sub-vendors and factory acceptance certificates shall be issued. The factory tests shall include but not be limited to:

7.11 Testing:

- 7.11.1 Mechanical checks to the equipment for dimensions, inner and outer supports, finishing, welds, hinges, runways, Antenna fixtures, cables tray, painting etc.
- 7.11.2 Check for assuring compliance with standards mentioned in the specifications.
- 7.11.3 Environment testing and other laid down tests in Type Tests plan of the specification of the equipment.
- 7.11.4 Functional testing
- 7.11.5 Any other test not included in FAT document but relevant to the project as desired by the Purchaser/Engineer at the time of factory acceptance testing.
- 7.11.6 The supplier/manufacturer shall send inspection call letter when the material is ready for inspection. The supplier/manufacturer shall submit along with inspection call the details of test procedures, test programs, test parameters together with permitted values, etc., and their Quality Assurance Plan.
- 7.11.7 In case material/equipment fails during inspection, the fresh lot of equipment same shall be offered without any extra cost, by the manufacturer/supplier. In such a case, total cost of re-inspection including travel, lodging & boarding of the inspecting officials shall be to manufacturer's / supplier's account.



7.12 SAFETY PRECAUTIONS

7.12.1 Safety Precautions when excavating or working in excavations/on roof close to electric cables

The Engineer- in-charge of the work should get full information from Electricity undertaking regarding any electric cables, which are known or suspected to exist near the proposed site. The electricity undertaking should be asked to send a representative and work should be preceded with close consultation with them.

Only wooden handled hand tools should be used until the electric cables have been completely exposed. Power Cables, not laid in conduits, are usually protected from above by a cover slab of concrete, brick or stone. They may or may not be protected on the sides. It is safer, therefore, always to drive the point of the pickaxe downwards then uncovering a cable, so that there is less chance of missing such warning slabs. No workman should be permitted to work alone where there are electric cables involved. At least one more man should be working near by so that help can be given quickly in case of an accident. If disconnection of power could be arranged in that section it will be better. No electric cables shall be moved or altered without the consent of the Electric Authority and they should be contacted to do the needful. If an electric cable is damaged even slightly, it should be reported to the Electric Authority and any warning bricks disturbed during excavation should be replaced while back filling the trench. Before driving a spike into the ground, the presence of other underground properties should be checked. Information on plans regarding the location of power cables need not to be assumed as wholly accurate. Full precautions should be taken in the vicinity until the power cable is uncovered. All electric cables should be regarded as being live and consequently dangerous. Any power is generally dangerous, even low voltage proving fatal in several cases.

7.12.2 Electric shock-Action and treatment:

Free the victim from the contact as quickly as possible. He should be jerked away from the live conductors by dry timber, dry rope or dry clothing. Care should be taken not to touch with bare hands as his body may be energized while in contact. Artificial respiration should begin immediately to restore breathing even if life appears to be extinct. Every moment of delay is serious, so, in the meanwhile, a doctor should be called for.

7.12.3 Safety Precautions while working in public street and along railway lines:

Where a road or footpath is to be opened up in the course of work, special care should be taken to see that proper protection is provided to prevent any accidents from occurring. Excavation work should be done in such a manner that it will not unduly cause inconvenience to pedestrians or occupants of buildings or obstruct road traffic. Suitable bridges over open trenches should be so planned that these are required for the minimum possible time. Where bridges are constructed to accommodate vehicular traffic and is done near or on railway property, it should be with the full consent and knowledge of the competent railway authorities.

7.12.4 Danger from falling material

Care should be taken to see that apparatus, tools or other excavating implements or excavated materials are not left in a dangerous or insecure position so as to fall or be knocked into the trench thereby injuring any workman who may be working inside the trench.

7.12.5 Care when working in Excavations

Jumping into a trench is dangerous. If it is deep, workmen should be encouraged to lower themselves. Workers should work at safe distance so as to avoid striking each other accidentally with tools. If the walls of the trench contain glass bits, corroded wire or sharp objects they should be removed carefully. If an obstruction is encountered, it should be carefully uncovered and protected if necessary. If an obstruction is encountered, it should be carefully uncovered and protected if necessary. Care must be taken to see that excavated material is not left in such a position that it is likely to cause any accident or obstruction to a roadway or waterway. If possible the excavated material should be put between the workmen and the traffic without encroaching too much on the road.

7.12.6 Danger of cave in

When working in deep trenches in loose soil, timbering up/shoring the sides will prevent soil subsidence. The excavated material should be kept at sufficient distance from the edge of the trench or pit. Vehicles or heavy equipment must not be permitted to approach too close to the excavation.

When making tunneled opening, it should be ensured that the soil is compact enough to prevent cave in even under adverse conditions of traffic. Extra care should be taken while excavating near the foundations of buildings or retaining walls. In such cases, excavation should be done gradually and as far as possible in the presence of the owners of the property.

7.12.7 Protection of Excavations:

Excavations in populated areas, which are not likely to be filled up on the same day should be protected by barriers or other effective means of preventing accidents and the location of all such openings must in any event be indicated by red flags or other suitable warning signs. During the hours from dusk to dawn, adequate number of red warning lamps should be displayed. Supervisory officers should ensure that all excavations are adequately protected in this manner as serious risk and responsibility is involved. Notwithstanding adoption of the above mentioned precautions, works involving excavations should be so arranged as to keep the extent of opened ground and the time to open it to a minimum.

7.12.8 Precautions while working on roads

The period between half an hour after sun-set and half an hour before sunrise, and any period of fog or abnormal darkness may also be considered as night for the purpose of these instructions, for the purpose of providing the warning signs. Excavation liable to cause danger to vehicles or the public must at all times be protected with fencing of rope tied to strong uprights or bamboo poles at a suitable height or by some other effective means. Any such temporary erection which is

likely to cause obstructions and which is not readily visible should be marked by posts carrying red flags or boards with a red background by day and by continuously lighted lamps at night.

The flags and the lamps should be placed in conspicuous positions so as to indicate the pedestrians and drivers of vehicles the full expanse i.e. both width and length of the obstruction. The distance between lamps or between floors should not generally exceed 1.25 m along the width and 6m along length of the obstruction in non congested areas, but 4 meters along the length in congested areas.

If the excavation is extensive, sufficient notice to give adequate warning of the danger, should be displayed consciously not less than 1.25 m above the ground and close to the excavation. Where any excavation is not clearly visible for a distance of 25m to traffic approaching from any direction or any part of the carriage way of the road in which the excavation exists, a warning notice should be placed on the kerb or edge of all such roads from which the excavation or as near the distance as is practicable but not less than 10 m from the junction of an entering or intersecting road in which the excavation exists. All warnings, in these should have a red background and should be clearly visible and legible. All warning lamps should exhibit a red light, but white lights may be used in addition to facilitate working at night. Wherever required a passage for pedestrians with foot bridge should be provided. At excavations, cable drums, tools and all materials likely to offer obstructions should be properly folded round and protected. This applies to jointer's tents as well. Leads, hoses etc. stretched and across the carriageway should be guarded adequately for their own protection and also that of the public.

7.12.9 Traffic Control

The police authorities are normally responsible for the control of traffic and may require the setting up of traffic controls to reduce the inconvenience occasioned by establishment of a single line of traffic due to restriction in road width or any other form of obstruction caused by the work. As far as possible, such arrangements should be settled in advance. If there are any specific regulations imposed by the local authorities, these should be followed.

7.12.10 Work along Railway Lines

Normally all works at Railway crossing is to be done under supervision of the railway authorities concerned, but it is to be borne in mind that use of white, red or green flags by the Departmental staff is positively forbidden to be used when working along a railway line as this practice may cause an accident through engine drivers mistaking them for railway signals. When working along a double line of railway, the men should be warned to keep a sharp look on both the "UP" and "DOWN" lines to avoid the possibility of any accident when trains pass or happen to cross one another near the work spot.

7.13 ALLIED ACTIVITIES

7.13.1 Transportation of Materials : The materials required for executing the work entrusted to the contractors against a work order shall be made available at Project Store Depot. In some cases the materials may be available at sub divisional store go down. The contractor shall be responsible for transporting the materials, to be

supplied by the RailTel or otherwise to execute the work under the contract to site at his/ their own cost. The costs of transportation are subsumed in the standard Schedule Rates and therefore no separate charges are payable on this account.

7.13.2 Deleted

7.13.3 Deleted

- **7.13.4** The contractor shall not be allowed to dump any waste in Govt./Public place which may cause inconvenience to the RailTel / Railways/public
- 7.13.5 Supply Of Materials: There are some materials required to be supplied by the contractor for execution of work under this contract like Bricks, Cement, Wire Mesh and Steel for protection, etc., besides using other consumables which do/don't become the part of the asset. The contractor shall ensure that the materials supplied are of best quality and workmanship and shall be strictly in accordance with the specifications.

7.13.6 **Deleted**

7.14 BOM

Tower: Height 30 Mtr. Wind speed:180 Kmph

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	1011 1	A C -	114.3x3.	VCT24C						
	1011-1	Leg A U	6	YST310	e n 1	0	5984			3
	1011-2	Joint, top	Pl 16	E250	1		265	265		3

	1011-3	Joint, bottom	PI 16	E250	1		265	265		3
	1011-4	Gusset, top	PI 12	E250	1		172	189		3
	1011-5	Gusset, Centre	PI 12	E250	2		292	152		6
	1011-6	Gusset, bottom	PI 12	E250	1		80	200		3
	1011-7	Gusset, Horisontal	PI 12	E250	1		137	50		3
		Gusset, Horisontal	Ø	1			137	30		
	2011	Diagonal	76.1x3.2	YST310	9		2626			9
			Ø							
	3011	Horizontal	60.3x3.2	YST310	3		1864			3
	4011	Closing	PI 6	E250	3		330	265		3
	1446.65			8.8					1	
	M16-65	For Horizontal	M16x65	Grade Grade	6	0				6
	N16		Nut M16	8	12	0				12
	W16		W. M16			0				12
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	M20-75	For Diagonal	M20x75	Grade	18	1				19
		For Joint and		8.8	10	-				
	M20-90	Closing	M20x90	Grade	36	2				38
				Grade						
	N20		Nut M20	8	108	6				114
	W20		W. M20		108	6				114
	Total	Section 1	T1830-						480 1	
	Total per	Section 1	T1830- S-001A						489.1	
1		Section 1							489.1	
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1	per T1830	Section 1 Section 2	S-001A						489.1	
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1	T1830 -S- 002A 1021-1 1021-2	Section 2 Leg Joint, top	Ø 139.7x3. 6 Pl 16	E250	1		265		489.1	3
1	T1830 -S- 002A	Section 2 Leg Joint, top Joint, bottom	Ø 139.7x3.					265 295	489.1	
1	T1830 -S- 002A 1021-1 1021-2	Section 2 Leg Joint, top	Ø 139.7x3. 6 Pl 16	E250	1		265		489.1	3
1	T1830 -S- 002A 1021-1 1021-2 1021-3	Leg Joint, top Joint, bottom Gusset, top and bottom	Ø 139.7x3. 6 Pl 16 Pl 16	E250 E250	1 1 2		265 295 215	295 80	489.1	3
1	T1830 -S- 002A 1021-1 1021-2 1021-3 1021-4 1021-5	Section 2 Leg Joint, top Joint, bottom Gusset, top and	Ø 139.7x3. 6 Pl 16 Pl 16 Pl 12 Pl 12 Ø	E250 E250	1		265 295	295	489.1	3 3 6
1	T1830 -S- 002A 1021-1 1021-2 1021-3 1021-4	Leg Joint, top Joint, bottom Gusset, top and bottom	Ø 139.7x3. 6 Pl 16 Pl 16 Pl 12 Pl 12	E250 E250 E250 E250 YST310	1 1 2		265 295 215	295 80	489.1	3 3 6
1	T1830 -S- 002A 1021-1 1021-2 1021-3 1021-4 1021-5 2021	Section 2 Leg Joint, top Joint, bottom Gusset, top and bottom Gusset, Centre Diagonal	Ø 139.7x3. 6 Pl 16 Pl 12 Pl 12 Ø 76.1x3.2	E250 E250 E250 E250 YST310 8.8	1 1 2 2		265 295 215 319	295 80	489.1	3 3 6 6 9
1	T1830 -S- 002A 1021-1 1021-2 1021-3 1021-4 1021-5	Section 2 Leg Joint, top Joint, bottom Gusset, top and bottom Gusset, Centre	Ø 139.7x3. 6 Pl 16 Pl 16 Pl 12 Pl 12 Ø	E250 E250 E250 E250 YST310 8.8 Grade	1 1 2 2	1	265 295 215 319	295 80	489.1	3 3 6 6
1	T1830 -S- 002A 1021-1 1021-2 1021-3 1021-4 1021-5 2021 M20-75	Section 2 Leg Joint, top Joint, bottom Gusset, top and bottom Gusset, Centre Diagonal For Diagonal	Ø 139.7x3. 6 Pl 16 Pl 12 Pl 12 Ø 76.1x3.2	E250 E250 E250 E250 YST310 8.8 Grade 8.8	1 1 2 2 9		265 295 215 319	295 80	489.1	3 3 6 6 9
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1	T1830 -S- 002A 1021-1 1021-2 1021-3 1021-4 1021-5 2021 M20-75 M20-90	Section 2 Leg Joint, top Joint, bottom Gusset, top and bottom Gusset, Centre Diagonal For Diagonal	Ø 139.7x3. 6 Pl 16 Pl 12 Pl 12 Ø 76.1x3.2 M20x75	E250 E250 E250 E250 YST310 8.8 Grade 8.8 Grade Grade Grade	1 1 2 2 9 18	1	265 295 215 319	295 80	489.1	3 3 6 6 9 19
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Page 123 of 170

	Total		T1830-							
	per	Section 2	S-002A						486.1	
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	003A	Section 3								
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	1031-1	Leg	168.3x4	YST310	1		6002			3
	1031-2	Joint, top	Pl 16	E250	1		295	295		3
	1031-3	Joint, bottom	PI 16	E250	1		320	320		3
	1031-4	Gusset, top	PI 12	E250	1		228	165		3
	1031-5	Gusset, Centre	Pl 12	E250	2		292	161		6
	1031-6	Gusset, bottom	Pl 12	E250	1		182	80		3
	1031-7	Gusset, Horisontal	PI 12	E250	1		129	50		3
			Ø							
	2031	Diagonal	76.1x3.2	YST310	9		2839			9
	2024		Ø	VCT240						2
	3031	Horizontal	60.3x3.2	YST310 8.8	3		1805			3
	M16-65	For Horizontal	M16x65	Grade	6	0				6
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	N16		Nut M16	8	12	0				12
	W16		W. M16		12	0		6		12
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	M20-75	For Diagonal	M20x75	Grade	18	1	0.070			19
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	M20-90	For Joint	M20x90	Grade	18	1				19
	N20		Nut M20	Grade 8	72	4				76
	W20		W. M20	O .	72	4				76
	Total	(T1830-		12	4				70
	per	Section 3	S-003A						621.5	
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			193.7x4.							
	1041-1	Leg	6	YST310	1		6004			3
	1041-2	Joint, top	PI 16	E250	1		320	320		3
	1041-3	Joint, bottom	PI 16	E250	1		345	345		3
	1041-4	Gusset, top	Pl 12	E250	1		154	80		3
	1041-5	Gusset, Centre	PI 12	E250	2	0	282	177	a	6
	1041-6	Gusset, bottom	Pl 12	E250	1		182	79		3

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	2041	Diagonal	76.1x3.2	YST310	9		3296			9
	2041	Diagonal	70.1X3.2	8.8	9		3290			
	M20-75	For Diagonal	M20x75	Grade	18	1				19
		Tot Biagonar		8.8	10					
	M20-90	For Joint	M20x90	Grade	18	1				19
				Grade						
	N20		Nut M20	8	72	4				76
	W20		W. M20		72	4				76
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	per	Section 4	S-004A			- 1/3			723.4	
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			219.1x4.							
	1051-1	Leg	6	YST310	1		6005			3
	1051-2	Joint, top	PI 16	E250	1		345	345		3
	1051-3	Joint, bottom	PI 16	E250	1		345	345	1/2	3
	1051-4	Gusset, top	Pl 12	E250	1		171	79		3
	1051-5	Gusset, Centre	Pl 12	E250	2		263	200		6
	1051-6	Gusset, bottom	Pl 12	E250	1		177	73		3
			Ø							
	2051	Diagonal	76.1x4.5	YST310	9		3767			9
				8.8						
	M20-75	For Diagonal	M20x75	Grade	18	1				19
				8.8						
	M20-90	For Joint	M20x90	Grade	18	1				19
	NOO		NI. + N420	Grade	70					7.0
	N20		Nut M20	8	72	4				76
	W20 Total		W. M20 T1830-		72	4				76
	per	Section 5	S-005A						889.5	
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45		Climbing								_
	A-420	accessories								
	Members									
	4200	U-profile	U 80x60	E250	1		-			45
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	per	accessories	A-420						20.4	
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	Total per	U-clamp for Ladder	A-4020- 76						21.1	
	W10	Single washer	W. M10	SS	2	1				90
	N10	Double nut	Nut M10	SS	4	1				150
	4021-76	Plate	Pl 12	E250	1					30
	4020-76	U-Clamp	Ø 10	SS-304	1		71			30
	76	Ladder								
	4020-	U-clamp for								
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	per	Section	A-400						533.3	
	W16 Total	6,0m Ladder	W. M16		8	1		28470		45
	N16		Nut M16	8	8	1				45
	N16		Nu+ NAAC	Grade						4-
	M16-50	For Connection	M16x50	Grade	4	1				25
				8.8						
	4001	Connection plate	PI 8	E250	2		164	36		10
	4000-4	Ladder cable-step	Pl 10	E250	24	0	316	30		120
	4000-3	Ladder step	Ø 20	E250	18	0	380			90
	4000-2	Ladder leg	Ø 20	E250	2	0	5986			10
	4000-1	Ladder tube	48.3x2.6	YST240	2	0	5956			10
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,	A-400	Section								
5		6,0m Ladder								
	per	30m	C-005A						296.0	
	Total	Cast-in Part	T1830-						206.0	
	W16		W. M16		48	2				50
	N16		Nut M16	8	48	2				50
		. 3		Grade		-			1	·
	M16x90	For Horizontal	M16x90	Grade	24	1				25
	C131-7	horizontal	1110	8.8	2		140	220		0
	C151-2	Plate for	Pl 16	E250			1.40	220		6
	C151-1	Horizontal	76.1x3.2	YST310	1		3400			3
		riate iliside tube	Ø	1230	1		50	200		
	C051-5	Plate inside tube	PI 5	E250	1		50	208		3
	C051-4	Earthing plate	PI 5	E250	1		40	45		3
	C051-3	Bottom ring	PI 20	E250	1		340	340		3
	C051-2	Flange plate, top	Pl 16	E250	1		411	459		3
	C051-1	Cast-in Tube	6	YST310	1		790			3
		1	Ø 219.1x5.							
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4	A-302-	Rest- and internal work platform								
	A3020-1	Frame. outer	PI 8	E250	1		60	2090		4
	A3020-2	Frame, support	PI 8	E250	1		60	1068		4
	A3020-3	Frame, hatch	PI 5	E250	3		30	347		12
	A3020-4	Chequered plate, side	Pl 4	E250	2		201	347		8
	A3020-5	Chequered plate, back	PI 4	E250	1	/	227	346		4
	A3001	Clamp	PI 8	E250	2		100	148		8
	A3002-2	Plate for hinge	PI 5	E250	2	1	30	35		8
	A3002-3	Plate for stop	PI 5	E250	4		30	55		16
	A3002-1	Frame, outer	PI 5	E250	1		30	1866		4
	A3002-2	Plate for hinge	PI 5	E250	4		30	35		16
	A3002-4	Chequered plate, hatch	PI 4	E250	1		515	470		4
	A3001	Clamp	PI 8	E250	2		100	148		8
	M12-55	For Platform	M12x55	8.8 Grade	8	1				36
	M12-75	For Clamp	M12x75	8.8 Grade	2	1				12
	N12		Nut M12	Grade 8	20	1				84
	W12		W. M12		20	1				84
	Total per	Rest- and internal work platform	A-302-1						143.8	
	•									
3	A-308-	Work platform- Back GFT						T		
	Parts				-					
	A3080-1	Frame. outer	PI 8	E250	1		60	3361		3
	A3080-2	Frame, support	PI 8	E250	1		60	1146		3
	A3080-3	Plate for sceptre	PI 8	E250	2		60	150		6
	A3080-4	Chequered plate	PI 4	E250	1		617	1866		3
	A3080-5	Chequered plate, stiffener	PI 4	E250	3		617	43		9
	A3001	Clamp	PI 8	E250	2		100	148		6
	A3081	Handrail	PI 8	E250	1		60	936		3
	A3001	Clamp	PI 8	E250	1		100	148		3
	A3082	Sceptre	PI 8	E250	2	_	<u>-110</u>	1065		6
	A3083	Sceptre	L 50x50x5	E250	2) ::		3	0	6

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			l _L						1	
	A3084	Handrail	50x50x5	E250	1					3
	A3001	Clamp	PI 8	E250	4		100	148		12
		Cidilip		8.8			100	2.0		
	M12-50	For Platform	M12x50	Grade	14	1				44
				8.8						
	M12-55	For Clamp	M12x55	Grade	16	1				50
				Grade						100
	N12		Nut M12	8	60	3				189
	W12 Total	Work platform-	W. M12		60	3				189
	per	Back GFT	A-308-1						336.0	
4	A-208	Handrail for rest- and work platform								
	Parts	\								
	A2080-1	Frame. outer	PI 8	E250	1		60	2090		4
	A3001	Clamp	PI 8	E250	2		100	148		8
	A3001	Clamp	PI 8	E250	2		100	148		8
	M12-55	For Clamp	M12x55	8.8 Grade	8	1				36
	N12		Nut M12	Grade 8	16	1				67
	W12		W. M12		16	1				67
	Total per	Handrail for rest- and work platform	A-208						52.5	
1		Support for obstruction						T		
	A-600	light				- 4				
	Parts		Ø			91				
	A6000-1	Tube	Ø 26.9x4.6	YST240	1		106			0
	A6000-1	15eptim 5.760	PI 8	E250	1		50	155		0
	A6000-2	Plate, extension Plate, bracket	PI 8	E250	1		90	90		0
	A6001	U-clamp - Stainless	Ø8	SS-304	2		205	90		2
	N8	Stainless	Nut M8	SS	8	1				9
	W8	Stainless	W. M8	SS	8	1				9
	Total per	Support for obstruction light	A-600			-			1.7	

3	A-602	Lightning rod								
	Members									
	A6020	Rod	Ø 16	E250	1		800			3
				Grade						
	N16		Nut M16	8	3					9
	W16		W. M16		2					6
	Total per	Lightning rod	A-602						4.4	
	pei	Lightining rou	A-002						7.7	
1	A-418- 30	Back guard for 30m Tower								
	30	Leg for back							(1)	
	4181	guard - 30x15	PI 2	E250	15		60	2760	j ý	15
	4182	Leg for back guard - 24x15	PI 2	E250	12		50	2760		12
	4183	Back guard	PI 2	E250	28		60	1796		28
		Clamp for ladder								
	4184	leg	PI 5	E250	56		50	109		56
	4185	Plate for Clamp	PI 2	E250 5.6	56		50	90		56
	M8x25	For back guard	M8x25	Grade	84	4				88
	N8		Nut M8	Grade 5	168	8				176
	W8		W. M8		168	8				176
				8.8						
	M12-55	For Clamp	M12x55	Grade	112	6				118
	N12		Nut M12	Grade 8	224	12				236
	W12		W. M12	8	224	12				236
	Total	Back guard for	A-418-		224	12				250
	per	30m Tower	30						150.4	
3		Ring and Antenna								
	A-850	support 2200-GFT								
	Parts									
	A-8500-1	Plate	PI 12	E250	12		120	305		36
	A-8500-2	Plate	Pl 12	E250	6		145	183		18
	A-8501-1	Tube for ring	Ø 88.9x3.6	YST240	6	J	2950			18
	A-8501-2	Flange plate for tube	Pl 12	E250	12		£ 145	145		36
	A-8501-2 A-8502-1	Foot plate	PI 6	E250	3	0	60	1669		9
	A-8502-2	Foot plate	PI 6	E250	6		60	391		18
I	/\ 0302 Z	i out plate		L230	U		UU	221		10

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	A-8502-3	Foot plate	PI 6	E250	3		60	2583		9
	A-8502-4	Plate	PI 8	E250	9		70	133		27
	7.0002	Tidee	33x106,				70	133		
	A-8502-5	Gratings	h=30		3		2258	780		9
				8.8						
	M16-75	For clamp	M16x75	Grade	24	2				78
				8.8						
	M16-165	For platform	M16x165	Grade	9	1				30
	N16		Nut M16	Grade 8	6.6	2				207
	W16		W. M16	0	66	3				153
	VV 10	Ring and	VV. IVIIO		48	3			l l	133
		Antenna								
	Total	support 2200- GFT	A-850						1377. 2	
	per	GFI	A-650						2	
18		3,0m GSM								
	A-508	Mount								
	Parts								May	
			Ø					7		
	A5080-1	Tube	76.1x3.6	YST240	1		3000			18
	A5080-2	Plate, extension	Pl 10	E250	2		80	315		36
	Total	3,0m GSM								
	nor	Mount	A_EAG						420.7	
	per	Mount	A-508						439.7	
36	per		A-508						439.7	
36	per	U-bolt bracket for	A-508						439.7	
36	per A-520	U-bolt	A-508						439.7	
36		U-bolt bracket for	A-508						439.7	
36	A-520	U-bolt bracket for tube ø114,3	A-508	E250	1		172	172	439.7	36
36	A-520 Parts A5200-1	U-bolt bracket for tube ø114,3 Plate, bracket Plate, for Ant.	PI 16						439.7	
36	A-520 Parts A5200-1 A5020-2	U-bolt bracket for tube ø114,3 Plate, bracket Plate, for Ant. mount	PI 16	E250	1		80	172 190	439.7	36
36	A-520 Parts A5200-1	U-bolt bracket for tube ø114,3 Plate, bracket Plate, for Ant. mount Stainless U-clamp	PI 16						439.7	
36	A-520 Parts A5200-1 A5020-2	U-bolt bracket for tube ø114,3 Plate, bracket Plate, for Ant. mount	PI 16	E250	1	1	80		439.7	36
36	A-520 Parts A5200-1 A5020-2 A5201	U-bolt bracket for tube ø114,3 Plate, bracket Plate, for Ant. mount Stainless U-clamp For U-clamp	PI 16 PI 16 Ø 16	E250 SS-304 SS SS	1 2	1	80		439.7	36 72
36	A-520 Parts A5200-1 A5020-2 A5201 N16 W16	U-bolt bracket for tube ø114,3 Plate, bracket Plate, for Ant. mount Stainless U-clamp For U-clamp (stainless)	PI 16 PI 16 Ø 16 Nut M16 W. M16	E250 SS-304 SS SS SS 8.8	1 2 8	1	80		439.7	36 72 324 144
36	A-520 Parts A5200-1 A5020-2 A5201 N16	U-bolt bracket for tube ø114,3 Plate, bracket Plate, for Ant. mount Stainless U-clamp For U-clamp (stainless) Stainless	PI 16 PI 16 Ø 16 Nut M16	E250 SS-304 SS SS 8.8 Grade	1 2 8		80		439.7	36 72 324
36	A-520 Parts A5200-1 A5020-2 A5201 N16 W16 M16-65	U-bolt bracket for tube ø114,3 Plate, bracket Plate, for Ant. mount Stainless U-clamp For U-clamp (stainless) Stainless For antenna	PI 16 PI 16 Ø 16 Nut M16 W. M16 M16x65	E250 SS-304 SS SS 8.8 Grade Grade	1 2 8 4		80		439.7	36 72 324 144 72
36	A-520 Parts A5200-1 A5020-2 A5201 N16 W16 M16-65 N16	U-bolt bracket for tube ø114,3 Plate, bracket Plate, for Ant. mount Stainless U-clamp For U-clamp (stainless) Stainless For antenna	PI 16 PI 16 Ø 16 Nut M16 W. M16 M16x65 Nut M16	E250 SS-304 SS SS 8.8 Grade	1 2 8 4 2	1	80		439.7	36 72 324 144 72 468
36	A-520 Parts A5200-1 A5020-2 A5201 N16 W16 M16-65 N16 W16	U-bolt bracket for tube ø114,3 Plate, bracket Plate, for Ant. mount Stainless U-clamp For U-clamp (stainless) Stainless For antenna mount	PI 16 PI 16 Ø 16 Nut M16 W. M16 M16x65	E250 SS-304 SS SS 8.8 Grade Grade	1 2 8 4		80		439.7	36 72 324 144 72
36	A-520 Parts A5200-1 A5020-2 A5201 N16 W16 M16-65 N16	U-bolt bracket for tube ø114,3 Plate, bracket Plate, for Ant. mount Stainless U-clamp For U-clamp (stainless) Stainless For antenna	PI 16 PI 16 Ø 16 Nut M16 W. M16 M16x65 Nut M16	E250 SS-304 SS SS 8.8 Grade Grade	1 2 8 4 2	1	80		301.3	36 72 324 144 72 468
36	A-520 Parts A5200-1 A5020-2 A5201 N16 W16 M16-65 N16 W16 Total	U-bolt bracket for tube ø114,3 Plate, bracket Plate, for Ant. mount Stainless U-clamp For U-clamp (stainless) Stainless For antenna mount U-bolt bracket	PI 16 PI 16 Ø 16 Nut M16 W. M16 M16x65 Nut M16 W. M16	E250 SS-304 SS SS 8.8 Grade Grade	1 2 8 4 2	1	80			36 72 324 144 72 468
36	A-520 Parts A5200-1 A5020-2 A5201 N16 W16 M16-65 N16 W16 Total	U-bolt bracket for tube ø114,3 Plate, bracket Plate, for Ant. mount Stainless U-clamp For U-clamp (stainless) Stainless For antenna mount U-bolt bracket	PI 16 PI 16 Ø 16 Nut M16 W. M16 M16x65 Nut M16 W. M16	E250 SS-304 SS SS 8.8 Grade Grade	1 2 8 4 2	1	80			36 72 324 144 72 468

	@2.75m								
Parts									
-	ISMC		E250	3					
-	Leg Clamp (ISMC)		E250	3	3				
-	Handrail		E250	3					
-	Grating-1		E250	1					
-	Grating-1		E250	1					
-	Grating-1		E250	1					
_	Grating Clamp			25					
Total	U-bolt bracket			2.5					
per	for tube ø114,3	A-520						670.0	
				1					
	Extension								
	Platform on								
-	2 Sides						1		
Parts									
		L							
RA-EXT-		150x150x		\					
101	Angle	10	E250	4					
RA-EXT-									
102	Channel		E250	4					
RA-EXT-		Grating							
103	Gratings	100x30	E250	1					
RA-EXT-		L 50.50.4	5250	_					
104	Angle	50x50x4	E250	2					
RA-EXT- 105	A I	L 40x40x4	E250						
103	Angle	4004004	8.8	4					
M12-50	Bolt 8.8	M12x50	Grade	8	_				8
10112-30	DOIL 8.8	IVITZXJU	Grade	8	0				
N12	Nut	M12	8	8	0				8
W12	Washer	W. M12		16	1				16
VVIZ	wasilei	VV. IVI12	8.8	10					
M16-60	Bolt 8.8	M16x60	Grade	28	1				29
20 00	Doit 0.0		8.8	20	-				
M16-70	Bolt 8.8	M16x70	Grade	4	0				4
	2011 010		Grade						
N16	Nut	M16	8	64	3	200			67
W16	Washer	W. M16		64	3				67
Total									
per								340.0	
						8 +			
EPF30		ver	ıım	eni	0			I CI	
-F-101	Fence		_						

1011 Right) EPF30-F- 1012 Fence EPF30-F- 1013 Gate EPF30-F- 1014 Gate EPF30-F- 1015B Clamp EPF30-F- 1016 for Fer EPF30-F- 1017 Bracket Anchoo EPF30-F- 1018 Conne EPF30-F- 1018 Conne EPF30-F- 1018 Conne EPF30-F- 1018 Conne EPF30-F- 1010 Anchoo M16-60 Bolt 8. N16 Nut W16 Washe	Pole (Left -) Panel - Left - Right - for Leg ection Plate ence Pole et for	L 50x50x4 L 50x50x5 Pl. 8	E250 E250 E250 E250 E250 E250 E250	4 2 10 1 1 6 2				10 1 1 6
1010 Fence EPF30-F- 1011 Fence EPF30-F- 1012 Fence EPF30-F- 1013 Gate EPF30-F- 1014 Gate EPF30-F- 1015B Clamp EPF30-F- 1016 For Fer EPF30-F- 1017 Bracket Anchol EPF30-F- 1018 Conne EPF30-F- 1018 Conne EPF30-F- 1018 Conne EPF30-F- 1010 Anchol M16-60 Bolt 8. N16 Nut W16 Washe M12-40 Antithe M12-50 Antithe	Pole (Left -) Panel - Left - Right - for Leg ection Plate ence Pole et for	50x50x4 L 50x50x5	E250 E250 E250 E250 E250	2 10 1 1 6				10 1
EPF30-F- 1012 Fence EPF30-F- 1013 Gate 1014 Gate 1015B Clamp EPF30-F- 1016 For Fer 1017 Bracke 1017 Bracke 1017 Bracke 1017 Cleat f 1018 Conne EPF30-F- 1018 Conne EPF30-F- 1010 Ancho EPF30-F- 10110 Ancho M16-60 Bolt 8. N16 Nut W16 Washe M12-40 Antithe N12 Antithe	Pole (Left -) Panel - Left - Right - for Leg ection Plate ence Pole et for	L 50x50x5	E250 E250 E250 E250 E250	2 10 1 1 6				10 1
1011 Right) EPF30-F- 1012 Fence EPF30-F- 1013 Gate EPF30-F- 1014 Gate EPF30-F- 1015B Clamp EPF30-F- 1016 For Fer EPF30-F- 1017 Bracket Anchor EPF30-F- 1018 Conne EPF30-F- 1018 Cleat f Conne EPF30-F- 1018 Cheat f Conne EPF30-F- 10110 Anchor M16-60 Bolt 8. N16 Nut W16 Washe M12-40 Antithe M12-50 Antithe	Panel Left Right of or Leg ection Plate ence Pole et for oring	50x50x5	E250 E250 E250 E250	10 1 1 6				10 1
EPF30-F- 1013	Panel Left Right of or Leg ection Plate ence Pole et for	50x50x5	E250 E250 E250	10 1 1 6				10 1
EPF30-F- 1013	- Left - Right o for Leg ection Plate ence Pole et for oring	50x50x5	E250 E250 E250	1 6 2				1
1013	- Right o for Leg ection Plate ence Pole eet for oring	50x50x5	E250 E250 E250	6 2				1
EPF30-F- 1014 Gate EPF30-F- 1015B Clamp EPF30-F- 1016 for Fer EPF30-F- 1017 Bracket Anchor EPF30-F- 1017 Cleat f Conne EPF30-F- 1018 Conne EPF30-F- 1018 Conne EPF30-F- 10110 Anchor M16-60 Bolt 8. N16 Nut W16 Washe M12-40 Antithe M12-50 Antithe	- Right o for Leg ection Plate ence Pole eet for oring	50x50x5	E250 E250 E250	6 2				1
1014 Gate - EPF30-F- 1015B Clamp EPF30-F- 1016 for Fer EPF30-F- 1017 Bracke Anchor EPF30-F- 1018 Cleat f Conne EPF30-F- 1018 Cheat f Conne EPF30-F- 10110 Anchor M16-60 Bolt 8. N16 Nut W16 Washe M12-40 Antithe M12-50 Antithe	o for Leg ection Plate ence Pole et for oring	50x50x5	E250 E250	6				
EPF30-F- 1015B Clamp EPF30-F- 1016 for Fer EPF30-F- 1017 Bracket Anchor EPF30-F- 1018 Conne EPF30-F- 1018 Conne EPF30-F- 10110 Anchor M16-60 Bolt 8. N16 Nut W16 Washet M12-40 Antithe M12-50 Antithe	o for Leg ection Plate ence Pole et for oring	50x50x5	E250 E250	6				
1015B Clamp EPF30-F- 1016 For Fer EPF30-F- 1017 Bracket Anchor EPF30-F- 1018 Conne EPF30-F- 1018 Conne EPF30-F- 10110 Anchor M16-60 Bolt 8. N16 Nut W16 Washe M12-40 Antithe N12 Antithe	ection Plate ence Pole et for oring	50x50x5	E250	2				6
EPF30-F- 1016	ection Plate ence Pole et for oring		E250	2			1	6
1016 for Fer EPF30-F- 1017 Anchor EPF30-F- 1018 Conne EPF30-F- 10110 Anchor M16-60 Bolt 8. N16 Nut W16 Washe M12-40 Antithe N12 Antithe	ence Pole et for oring	PI. 8		1				
EPF30-F- 1017 EPF30-F- 1017 EPF30-F- 1018 EPF30-F- 10110 Anchor M16-60 Bolt 8. N16 Nut W16 Washe M12-40 Antithe N12 Antithe	et for oring	Pl. 8		1				
1017 Ancho EPF30-F- 1017 Ancho EPF30-F- 1018 Conne EPF30-F- 10110 Ancho M16-60 Bolt 8. N16 Nut W16 Washe M12-40 Antithe N12-50 Antithe	oring		E250	4		i		2
EPF30-F- 1017			E250	4				_
1017 Anchor EPF30-F- 1018 Conne EPF30-F- 10110 Anchor M16-60 Bolt 8. N16 Nut W16 Washe M12-40 Antithe M12-50 Antithe								4
EPF30-F- 1018			L = 2 = 0					4
1018 Conne EPF30-F- 10110 Ancho M16-60 Bolt 8. N16 Nut W16 Washe M12-40 Antithe M12-50 Antithe			E250	4				4
EPF30-F- 10110 Anchor M16-60 Bolt 8. N16 Nut W16 Washe M12-40 Antithe M12-50 Antithe N12 Antithe	for Fence	L 50x50x5	E250					8
10110 Anchor M16-60 Bolt 8. N16 Nut W16 Washe M12-40 Antithe M12-50 Antithe N12 Antithe	ection	30x30x3	E230	8				0
M16-60 Bolt 8. N16 Nut W16 Washe M12-40 Antithe M12-50 Antithe N12 Antithe	or Rolt	Ø 16		8				8
N16 Nut W16 Washe M12-40 Antithe M12-50 Antithe N12 Antithe) BOIL	<i>y</i> 10	8.8	0				
N16 Nut W16 Washe M12-40 Antithe M12-50 Antithe N12 Antithe	2.8	M16x60	Grade	24	1			25
W16 Washe M12-40 Antithe M12-50 Antithe N12 Antithe	7.0		Grade	27				
W16 Washe M12-40 Antithe M12-50 Antithe N12 Antithe		M16	8	64	3			67
M12-40 Antithe M12-50 Antithe N12 Antithe			Antithe	0.	J			
M12-40 Antithe M12-50 Antithe N12 Antithe	er	W. M16	ft Nut	56	3			59
M12-50 Antithe	The state of the s		5.6					
N12 Antithe	neft Bolt	M12x40	Grade	50	3			53
N12 Antithe			5.6					
	neft Bolt	M12x50	Grade	4	0			4
			Antithe					
W12 Washe	a CL NI. It	M12	ft Nut	54	3			57
	iert Nut	W. M12		54	3			57
			5.6					
M16-120 Carria		M16x120	Grade	4	0			4
			Antithe					
	er age Bolt	N/11C	ft Nut	4	0			4
W16 Washe	er	M16		4	0			4
Total	er age Bolt neft Nut	W. M16					375.0	
per Fence	er age Bolt neft Nut er						3/3.0	

Tower: Height 30 Mtr. Wind speed:200 Kmph

Detailed BOQ: T2030_30m Tower Date: Manufacturer: T2030-X-PO <u>030</u> **Customer:** No.: Во M 8394 Wei ght: kg Rev00 & 23.07.2019

No of secti ons	Element No.	Description:	Profile	Mater ial Specif icatio n	Element Qty -	Extra Elem ent Qty	Length	Width	Total weight of BOM kg	Tot al ele me nt Qt y
1	T2030-									
	S-001A	Section 1						T		
			Ø	YST31						
	1011-1	Leg	114.3x3.6	0	1		5990			3
	1011-2	Joint, top	Pl 16	E250	1		265	265		3
	1011-3	Joint, bottom	Pl 16	E250	1		265	265		3
	1011-4	Gusset top	Pl 12	E250	1		172	189		3
	1011-5	Gusset, Centre	PI 12	E250	2		152	292		6
	1011-6	Gusset bottom	Pl 12	E250	1		80	200		3
	1011-7	Gusset, Horisontal	Pl 12	E250	1		50	137		3
			Ø	YST31	200					
	2011	Diagonal	76.1x3.2	0	9		2632			9
			Ø	YST31						
	3011	Horizontal	60.3x3.2	0	3		1870			3
	4011	Closing	PI 6	E250	3		330	265		3
	M16-65	For Horizontal	M16x65	8.8 Grade	6	0	dia			6
	NAG			Grade						4.0
	N16	U	Nut M16	8	12	0				12

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M20-75			8.8	12	0	 			
M20-75			0.0						
11120 73	For Closing	M20x75	Grade	18	1				19
			8.8		1.7				
M20-90	For Joint	M20x90	Grade	36	2				38
NICO		NI. + N420	10000	400					114
			8						1
				108	6				114
Total per	Section 1	T2030-S-0	001A					489.1	
T2030-									
	Section 2								
			YST31						
1021-1	Leg	Ø 139.7x4	0	1		5990			3
1021-2	Joint, top	PI 16	E250	1		265	265		3
1021-3	Joint, bottom	PI 16	E250	1		295	295		3
1021 4	Gusset, top	DI 12	E250	2		00	215		6
									6
1021-3	Gusset, Centre					104	319		- 0
2021	Diagonal	•		9		2600			9
					1	2000			19
	1 or Biagoriai		8.8	10	_				
M20-90	For Joint	M20x90	Grade	18	1				19
			Grade						
			8	72	4				76
W20		W. M20		72	4				76
Total per	Section 2	T2030-S-0	002A					527.5	
	Cootion 2								
5-003A	Section 3	Ø	VST21						
1031-1	Lea			1		6008			3
		la.					295		3
									3
									3
			_						6
									3
	Gusset, Doctorii			1		32	132		
1031-7	Horizontal		E250	1		50	129		3
2024		<i>*</i>		_					
2031	Diagonal	90 100 0000		9	1 n	2825			9
2024		60.3x3.2	0	3		1794			3
3031	Horizontal	1 DU 3×3 /							
	N20 W20 Total per T2030- S-002A 1021-1 1021-2 1021-3 1021-4 1021-5 2021 M20-75 M20-90 N20 W20 Total per T2030- S-003A 1031-1 1031-2 1031-3 1031-4 1031-5 1031-6	N20	Nut M20 W. M20	N20	N20	Nut M20	Nut M20	Nut M20	Nut M20

I		1	1	100			1			ı ı
	M16-65	F	M16x65	8.8 Grade		0				6
	10110-03	For Horizontal	INITOXO2	Grade	6	0				0
	N16	,	Nut M16	8	12	0				12
	W16		W. M16		12	0				12
	1110		W W Z	8.8	12					
	M20-75	For Diagonal	M20x75	Grade	18	1				19
				8.8						
	M20-90	For Joint	M20x90	Grade	18	1				19
				Grade						
	N20		Nut M20	8	72	4				76
	W20		W. M20		72	4		n n		76
	Total per	Section 3	T2030-S-0	03A					696.1	
							<u> </u>			
1	T2030-	_								
	S-004A	Section 4	-1							
	1011 1		Ø	YST31						2
	1041-1	Leg	193.7x4.6	0	1		6008			3
	1041-2	Joint, top	Pl 16	E250	1		320	320		3
	1041-3	Joint, bottom	PI 20	E250	1		345	345		3
	1041-4	Gusset, top	Pl 12	E250	1		84	154		3
	1041-5	Gusset, Centre	PI 12	E250	2		177	287		6
	1041-6	Gusset, bottom	PI 12	E250	1		83	180		3
			Ø	YST31						
	2041	Diagonal	88.9x3.2	0	9		3302			9
				8.8						40
	M20-75	For Diagonal	M20x75	Grade	18	1				19
	M20-90	E. J. L.	M20x90	8.8 Grade	10	_				19
	10120-90	For Joint	IVIZUX9U	Grade	18	1				19
	N20		Nut M20	8	72	4				76
	W20		W. M20		72	4				76
	Total per	Section 4	T2030-S-0	0044	12				767.2	70
	Total per	Section 4	12030-3-0	JUTA			b		707.2	
1	T2030-									
_	S-005A	Section 5		0 4						
	Parts									
	1 41 65		Ø	YST31						
	1051-1	Leg	219.1x4.6	0	1		6011			3
	1051-2	Joint, top	Pl 16	E250	1		345	345		3
	1051-3	Joint, bottom	Pl 16	E250	1		345	345		3
	1051-4	Gusset, top	Pl 12	E250	1 0 1	In	83	171		3
	1051-5	Gusset, Centre	Pl 12	E250	2		201	269		6
ı	1031 3	Gusset, Centre	n d e	1230	KIN		201	209		
Page 135	5 of 170									

	1051-6	Gusset, bottom	Pl 12	E250	1		82	177		3
			Ø	YST31						
	2051	Diagonal	88.9x3.2	0 8.8	9		3773			9
	M20-75	For Diagonal	M20x75	6.6 Grade	18	1				19
	11120 75	1 or Diagonal	Willow	8.8	10	-				
	M20-90	For Joint	M20x90	Grade	18	1				19
				Grade						
	N20		Nut M20	8	72	4				76
	W20		W. M20		72	4			0.40.0	76
	Total per	Section 5	T2030-S-0	05A					848.9	
45		Climbing								
10	A-420	accessories								
	Members				7					
	4200	U-profile	U 80x60	E250	1					45
	Total per	Climbing accessories	A-420						20.4	
	Total per	accessories	A-420						20.7	
1	T2030- C-005A	Cast-in Part 30m								
	Parts									
			Ø	YST31						
	C051-1	Cast-in Tube	219.1x5.6	0	1		796			3
	C051-2	Flange plate, top	Pl 16	E250	1		411	459		3
	C051-3	Bottom ring	PI 20	E250	1		340	340		3
	C051-4	Earthing plate	PI 5	E250	1		40	45		3
	C051-5	Plate inside tube	PI 5	E250	1		50	208		3
		tube	Ø	YST31	-					
	C151-1	Horizontal	76.1x3.2	0	1		3406			3
	C151-2	Plate for horizontal	Pl 16	E250	2		140	220		6
				8.8	26					
	M16-90	For Horizontal	M16x90	Grade	24	2				26
	N16		Nut M16	Grade 8	40	3				51
	W16		W. M16	0	48	3				51
	** 10	Cast-in Part	VV. IVITO		40	J 3				71
	Total per	30m	T2030-C-0	05A					296.4	
5		6.0m								1
5	A-400	6,0m Ladder Section	rnm	e n	tof	In	dia			
	4000-1	Ladder tube	Ø	YST24	2	0	5956			10
	.555 1	Ladder tube				U	3330			

			48.3x2.6	0						
	4000-2	Ladder leg	Ø 20	E250	2	0	5986			10
	4000-3	Ladder step	Ø 20	E250	18	0	380			90
		Ladder step			10	U	360			
	4000-4	step	Pl 10	E250	24	0	316	30		120
	4001	Connection plate	PI 8	E250	2		164	36		10
				8.8						
	M16-50	For Connection	M16x50	Grade	4	1				25
	NAG		N	Grade						4.5
	N16 W16		Nut M16 W. M16	8	8	1				45
	VV 16	6,0m Ladder	VV. IVITO		8	1				45
	Total per	Section	A-400						533.3	
12	A-4020-	U-clamp								
	76	for Ladder	d 10	00.004			201			4.0
	4020-76	U-Clamp	Ø 10	SS-304	12		394			12
	4021-76	Plate	Pl 12	E250	12		125			12
	N10	Double nut	Nut M10	SS	60	1				60
	W10	Single washer	W. M10	SS	36	1				36
	Total per	U-clamp for Ladder	A-4020-76	5					8.5	
		No. 1								
18	A-4020-	U-clamp								
18	A-4020- 88	U-clamp for Ladder								
18		-	Ø 10	SS-304	18		433			18
18	88	for Ladder	Ø 10 Pl 12	SS-304 E250	18 18		433 140			18 18
18	88 4020-88	for Ladder U-Clamp				1				
18	88 4020-88 4021-88	U-Clamp Plate Double nut Single washer	Pl 12	E250	18	1 1				18
18	88 4020-88 4021-88 N10 W10	U-Clamp Plate Double nut Single washer U-clamp for	Pl 12 Nut M10 W. M10	E250 SS SS	18 90				13.9	18 90
18	88 4020-88 4021-88 N10	U-Clamp Plate Double nut Single washer	PI 12 Nut M10	E250 SS SS	18 90				13.9	18 90
18	88 4020-88 4021-88 N10 W10	U-Clamp Plate Double nut Single washer U-clamp for	Pl 12 Nut M10 W. M10	E250 SS SS	18 90				13.9	18 90
	88 4020-88 4021-88 N10 W10	For Ladder U-Clamp Plate Double nut Single washer U-clamp for Ladder	Pl 12 Nut M10 W. M10	E250 SS SS	18 90				13.9	18 90
	88 4020-88 4021-88 N10 W10 Total per	for Ladder U-Clamp Plate Double nut Single washer U-clamp for Ladder Rest- and internal work	Pl 12 Nut M10 W. M10	E250 SS SS	18 90				13.9	18 90
	88 4020-88 4021-88 N10 W10 Total per	for Ladder U-Clamp Plate Double nut Single washer U-clamp for Ladder Rest- and internal work platform	PI 12 Nut M10 W. M10 A-4020-88	E250 SS SS	18 90				13.9	18 90
	88 4020-88 4021-88 N10 W10 Total per A-302-1 A3020-1	for Ladder U-Clamp Plate Double nut Single washer U-clamp for Ladder Rest- and internal work	PI 12 Nut M10 W. M10 A-4020-88	E250 SS SS E250	18 90			2090	13.9	18 90 54
	88 4020-88 4021-88 N10 W10 Total per A-302-1 A3020-1 A3020-2	for Ladder U-Clamp Plate Double nut Single washer U-clamp for Ladder Rest- and internal work platform Frame. outer Frame, support	PI 12 Nut M10 W. M10 A-4020-88 PI 8	E250 SS SS B E250 E250	18 90 54		140	1068	13.9	18 90 54 4 4
	88 4020-88 4021-88 N10 W10 Total per A-302-1 A3020-1	Frame, support For Ladder U-Clamp Plate Double nut Single washer U-clamp for Ladder Rest- and internal work platform Frame, outer Frame, hatch	PI 12 Nut M10 W. M10 A-4020-88	E250 SS SS E250	18 90 54		140		13.9	18 90 54
	88 4020-88 4021-88 N10 W10 Total per A-302-1 A3020-1 A3020-2	Frame, support Frame, hatch Clamp Clamp Plate Double nut Single washer U-clamp for Ladder Rest- and internal work platform Frame, support Frame, hatch Chequered	PI 12 Nut M10 W. M10 A-4020-88 PI 8	E250 SS SS B E250 E250	18 90 54		60 60 30	1068 347	13.9	18 90 54 4 4
	88 4020-88 4021-88 N10 W10 Total per A-302-1 A3020-1 A3020-2 A3020-3 A3020-4	rame, batch Chequered Cheq	PI 12 Nut M10 W. M10 A-4020-88 PI 8 PI 8 PI 5 PI 4	E250 SS SS B E250 E250 E250 E250	18 90 54 1 1 3		60 60 30 201	1068 347 347	13.9	18 90 54 4 4 12 8
	88 4020-88 4021-88 N10 W10 Total per A-302-1 A3020-1 A3020-2 A3020-3 A3020-4 A3020-5	reame, support Frame, batch Chequered plate, back	PI 12 Nut M10 W. M10 A-4020-88 PI 8 PI 8 PI 5 PI 4 PI 4	E250 SS SS B E250 E250 E250 E250 E250	18 90 54 1 1 3 2		60 60 30 201 227	1068 347 347 346	13.9	18 90 54 4 4 12 8 4
	88 4020-88 4021-88 N10 W10 Total per A-302-1 A3020-1 A3020-2 A3020-3 A3020-4	rame, batch Chequered Cheq	PI 12 Nut M10 W. M10 A-4020-88 PI 8 PI 8 PI 5 PI 4	E250 SS SS B E250 E250 E250 E250	18 90 54 1 1 3		60 60 30 201	1068 347 347	13.9	18 90 54 4 4 12 8

A3002-2	Diaka face latera	PI 5	E250		ĺ]	3F		
	Plate for hinge			2		30	35		8
A3002-3	Plate for stop	PI 5	E250	4		30	55		16
A3002-1	Frame, outer	PI 5	E250	1		30	1866		4
A3002-2	Plate for hinge	PI 5	E250	4		30	35		16
A3002-4	Chequered plate, hatch	PI 4	E250	1		515	470		4
A3001	Clamp	PI 8	E250	2		100	148		8
			8.8						
M12-55	For Platform	M12x55	Grade	8	1				36
M12-75	For Clamp	M12x75	8.8 Grade	2	1				12
	r or clarify		Grade		_				
N12		Nut M12	8	20	1				84
W12		W. M12		20	1				84
	Rest- and								
Total per	internal work platform	A-302-1						143.8	
Total per	piatioriii	A-302-1					7	143.0	
Co.	Work								
	platform-		\ \						
A-308-1	Back GFT		1						
Parts									
A3080-1	Frame. outer	PI 8	E250	1		60	3361		3
A3080-2	Frame, support	PI 8	E250	1		60	1146		3
A3080-3	Plate for sceptre	PI 8	E250	2		60	150		6
A3080-4	Chequered plate	PI 4	E250	1		617	1866		3
A3080-5	Chequered plate, stiffener	PI 4	E250	3		617	43		9
A3001	Clamp	PI 8	E250	2		100	148		6
A3081	Handrail	PI 8	E250	1		60	936		3
A3001	Clamp	PI 8	E250	1		100	148		3
A3082	Sceptre	PI 8	E250	2		110	1065		6
A3083	Sceptre	L 50x50x5	E250	2					6
A3084	Handrail	L 50x50x5	E250	1					3
A3001	Clamp	PI 8	E250	4		100	148		12
			8.8	100					
M12-50	For Platform	M12x50	Grade	14	1				44
M12-55	For Clamp	M12x55	8.8 Grade	16	1				50
N12		Nut M12	Grade 8	60	3				189
W12	Gove	W. M12	en	60	3	dia			189
Total per	Work platform-	A-308-1		00	<u> </u>			336.0	100

ĺ		Back GFT								
4	A-208	Handrail for rest- and work platform								
	Parts	•								
	A2080-1	Frame. outer	PI 8	E250	1		60	2090		4
	A3001	Clamp	PI 8	E250	2		100	148		8
	A3001	Clamp	PI 8	E250	2		100	148		8
	M12-55	For Clamp	M12x55	8.8 Grade	8	1				36
				Grade						
	N12		Nut M12	8	16	1				67
	W12		W. M12		16	1				67
		Handrail for rest- and work								
	Total per	platform	A-208						52.5	
1	\ \	Cumport for		1						
1	A-600	Support for obstruction light								
	Parts	iigiit								
	Tares		Ø	YST24						
	A6000-1	Tube	26.9x4.6	0	1		106			0
	A6000-2	Plate,	PI 8	E250	_		F.0	455		0
	A6000-2 A6000-3	extension	PI 8	E250	1		50	155		0
	A0000-3	Plate, bracket U-clamp -	PIO	E250	1		90	90		U
	A6001	Stainless	Ø 8	SS-304	2		205			2
	N8	Stainless	Nut M8	SS	8	1				9
	W8	Stainless	W. M8	SS	8	1				9
	Total per	Support for obstruction light	A-600						1.7	
3	A-602	Lightning rod			P					
	Members									
	A6020	Rod	Ø 16	E250	1		800			3
	N1C		Nivit NAAC	Grade						^
	N16	Gene	Nut M16	8	3					9
	W16	Gove	W. M16	en	2			<u> </u>		6
1	Total per	Lightning rod	A-602		210				4.4	
Dago 120	of 170									

1	A-418- 30	Back guard for 30m Tower								
	4181	Leg for back guard - 30x15	PI 2	E250	15		60	2760		15
	4182	Leg for back guard - 24x15	PI 2	E250	12		50	2760		12
	4183	Back guard	PI 2	E250	28		60	1796		28
	4184	Clamp for ladder leg	PI 5	E250	56		50	109		56
	4185	Plate for Clamp	PI 2	E250	56		50	90		56
	M8x25	For back guard	M8x25	5.6 Grade	84	4				88
	N8		Nut M8	Grade 5	168	8				176
	W8		W. M8		168	8				176
	M12-55	For Clamp	M12x55	8.8 Grade	112	6				118
	N12		Nut M12	Grade 8	224	12				236
	W12	<u> </u>	W. M12		224	12				236
		Back guard for 30m								
	Total per	Tower	A-418-30						150.4	
3	A-850	Ring and Antenna support 2200-GFT								
3	A-850 Parts	Antenna support								
3		Antenna support	Pl 12	E250	12		120	305		36
3	Parts	Antenna support 2200-GFT	Pl 12	E250	12		120 145	305 183		36 18
3	Parts A-8500-1	Antenna support 2200-GFT Plate Plate Tube for ring								1
3	Parts A-8500-1 A-8500-2	Antenna support 2200-GFT Plate Plate	Pl 12	E250 YST24	6		145	183		18
3	Parts A-8500-1 A-8500-2 A-8501-1	Antenna support 2200-GFT Plate Plate Tube for ring Flange plate for	Pl 12 Ø 88.9x3.6	E250 YST24 0	6		2950			18
3	Parts A-8500-1 A-8500-2 A-8501-1 A-8501-2	Antenna support 2200-GFT Plate Plate Tube for ring Flange plate for tube	PI 12 Ø 88.9x3.6 PI 12	E250 YST24 0 E250	6 6 12		2950 145	183		18 18 36
3	Parts A-8500-1 A-8500-2 A-8501-1 A-8501-2 A-8502-1	Antenna support 2200-GFT Plate Plate Tube for ring Flange plate for tube Foot plate	PI 12 Ø 88.9x3.6 PI 12 PI 6 PI 6	E250 YST24 0 E250 E250	6 6 12 3		2950 2950 145 60	183 145 1669		18 18 36 9
3	Parts A-8500-1 A-8500-2 A-8501-1 A-8501-2 A-8502-1 A-8502-2	Antenna support 2200-GFT Plate Plate Tube for ring Flange plate for tube Foot plate Foot plate	PI 12 Ø 88.9x3.6 PI 12 PI 6 PI 6 PI 8	E250 YST24 0 E250 E250 E250	6 6 12 3 6		2950 2950 145 60 60	183 145 1669 391		18 18 36 9 18
3	Parts A-8500-1 A-8500-2 A-8501-1 A-8501-2 A-8502-1 A-8502-2 A-8502-3	Antenna support 2200-GFT Plate Plate Tube for ring Flange plate for tube Foot plate Foot plate Foot plate Foot plate	PI 12 Ø 88.9x3.6 PI 12 PI 6 PI 6	E250 YST24 0 E250 E250 E250 E250 E250	6 6 12 3 6 3		2950 145 60 60	183 145 1669 391 2583		18 18 36 9 18 9
3	Parts A-8500-1 A-8500-2 A-8501-1 A-8501-2 A-8502-1 A-8502-2 A-8502-3 A-8502-4	Antenna support 2200-GFT Plate Plate Tube for ring Flange plate for tube Foot plate Foot plate Foot plate Plate	PI 12 Ø 88.9x3.6 PI 12 PI 6 PI 6 PI 6 PI 8 33x106,	E250 YST24 0 E250 E250 E250 E250	6 12 3 6 3 9		2950 145 60 60 60 70	183 145 1669 391 2583 133		18 18 36 9 18 9 27

				Grade						
	N16		Nut M16	8	66	3				207
	W16	/	W. M16		48	3				153
	1120	Ring and			10					
		Antenna								
		support								
	Total per	2200-GFT	A-850						1377.2	
18		3,0m GSM								
	A-508	Mount								
	Parts	1	A		- 9					
	Tarts		Ø	YST24	10					
	A5080-1	Tubo	76.1x3.6	0			2000			18
	A3080-1	Tube Plate,	70.175.0	U	1		3000			10
	A5080-2	extension	PI 10	E250	2		80	315		36
		3,0m GSM			_					
	Total per	Mount	A-508						439.7	
36		U-bolt	18	\ \						
		bracket for		1						
		tube								
	A-520	ø114,3								
		, , , , , , , , , , , , , , , , , , ,								
	Parts		51.46							
	A5200-1	Plate, bracket	Pl 16	E250	1		172	172		36
	A5020-2	Plate, for Ant.	PI 16	E250			00	100		36
	A3020-2	mount Stainless U-	FIIO	L230	1		80	190		30
	A5201	clamp	Ø 16	SS-304	2		441			72
		For U-clamp								
	N16	(stainless)	Nut M16	SS	8	1				324
	W16	Stainless	W. M16	SS	4		×			144
		0.		8.8	-					
	M16-65	For antenna mount	M16x65	Grade	2					72
	11120 03	mount	MIZONOS	Grade		7				
	N16		Nut M16	8	12					468
						1				+
	W16	11 1-11	W. M16		8	1				324
		U-bolt bracket for								
	Total per	tube ø114,3	A-520						301.3	
1		Equipment								
-		Platform								
		@2.75m								
	Parts				4 _ 4		4 *			<u> </u>
	- A	ISMC	rnm	E250	3	In	ala	<u> </u>		3
		Leg Clamp								
	-	(ISMC)	nde	E250	3	61				3
	l of 170									

Grade Grade

	Í	ı				ı	1		i	
	-	Handrail		E250	3					3
	-	Grating-1		E250	1					1
	-	Grating-1		E250	1					1
	-	Grating-1		E250	1					1
	-	_		2230	25					25
		Grating Clamp U-bolt			25					23
		bracket for								
	Total per	tube ø114,3	A-520						670.0	
						ı	1			T
2		Extension								
		Platform								
	-	on 2 Sides						11	1	
	Parts									
			L 150-150-							
	RA-EXT-101		150x150x 10	E250						
		Angle	10		4					4
	RA-EXT-102	Channel	Crating	E250	4			7		4
	RA-EXT-103	Gratings	Grating 100x30	E250	1					1
	RA-EXT-104	_	L 50x50x4	E250						2
	RA-EXT-104	Angle	L 40x40x4	E250	2					4
	KA-EXT-105	Angle	L 40X40X4	8.8	4					4
	M12-50	Bolt 8.8	M12x50	Grade	8	0				8.4
	10112-30	BOIL 8.8	IVIIZAGO	Grade	8	0				0.4
	N12	Nut	M12	8	8	0				8.4
		IVUC			0					16.
	W12	Washer	W. M12		16	1				8
				8.8						29.
	M16-60	Bolt 8.8	M16x60	Grade	28	1				4
				8.8						
	M16-70	Bolt 8.8	M16x70	Grade	4	0				4.2
				Grade						67.
	N16	Nut	M16	8	64	3				2
					00		L			67.
	W16	Washer	W. M16		64	3				2
	Total per								340.0	
_						- 20		T	T	Т
1	EPF30-	_								
	F-101	Fence		5						
	Parts	A 20								
	EPF30-F-		1.50.50.4	F2F0						_
	1010	Fence Pole	L 50x50x4	E250	4		41			4
	EPF30-F- (A) 1011	Gate Pole (Left		E250	2		ulu			2
l	1011	- Right)	000	[[230	2					
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N16 W16	Antitheft Nut Washer	M16 W. M16	Nut	4	0			4
N16		M16	eft	P				Α.
			Antith					
M16-120	Carriage Bolt	M16x120	5.6 Grade	4	0	Ь		4
W12	Washer	W. M12	T. 6	54	3	-		57
N12	Antitheft Nut	M12	Nut	54	3			57
			Antith eft					
M12-50	Antitheft Bolt	M12x50	5.6 Grade	4	0			4
M12-40	Antitheft Bolt	M12x40	5.6 Grade	50	3			53
W16	Washer	W. M16	Antith eft Nut	56	3			59
N16	Nut	M16	Grade 8	64	3			67
M16-60	Bolt 8.8	M16x60	8.8 Grade	24	1			25
EPF30-F- 10110	Anchor Bolt	Ø 16		8				8
EPF30-F- 1018	Cleat for Fence Connection	L 50x50x5	E250	8			7	8
EPF30-F- 1017	Bracket for Anchoring		E250	4				4
EPF30-F- 1017	Bracket for Anchoring		E250	4				4
EPF30-F- 1016	Connection Plate for Fence Pole	Pl. 8	E250	2				2
EPF30-F- 1015B	Clamp for Leg	L 50x50x5	E250	6				6
EPF30-F- 1014	Gate - Right		E250	1				1
EPF30-F- 1013	Gate - Left		E250	1				1
EPF30-F- 1012	Fence Panel		E250	10				10

A Government of India Undertaking

7.15 Annexure

The design, manufacturing, fabrication, galvanizing, testing, erection procedure and materials used for manufacture and erection of towers, design and construction of foundations shall conform to the following Indian Standards (IS) which shall mean latest revisions, with amendments/changes adopted and published, unless specifically stated otherwise in the Specification.

- 1. IS Code TITLE I IS:875 Code of Practice for Design Loads (Other Than Earthquake for Buildings and Structures
- 2. IS:1893 Criteria for Earthquake Resistant Design of Structures
- 3. IS:800 Code of Practice for General Construction in Steel
- 4. IS:11233 Code of Practice for Design and Construction of Radar Antenna, Microwave and TV Tower Foundations
- 5. IS:456 Code of Practice for Plain and Reinforced Concrete
- 6. IS:10270 Guidelines for Design and Construction of Prestressed Rock Anchors
- 7. IS:1367 Technical Supply Conditions for Threaded Steel Fasteners
- 8. IS:6639 Specification for Hexagon Bolts for Steel Structures
- 9. IS:1363 Hexagon Head Bolts, Screws and Nuts of Product Grade 'c'
- 10. IS:1573 Specification for Electroplated Coatings of Zinc on Iron and Steel
- 11. IS:I024 Code of practice for use of welding in bridges and structures subject to dynamic loading
- 12. IS:9595 Metal arc welding of carbon and carbon manganese steels Recommendations
- 13. IS:7215 Tolerances for Fabrication of Steel Structures
- 14. IS:2629 Recommended Practice for Hot-Dip Galvanizing of Iron and Steel
- 15. IS:4759 Hot-dip zinc coatings on structural steel and other allied products
- 16. IS:2633 Methods for testing uniformity of coating of zinc coated articles
- 17. IS:3203 Methods of testing local thickness of electroplated coatings
- 18. IS:5358 Specification for galvanization of Bolts and other fasteners
- 19. IS:2062 Steel for General Structural Purposes Specification (June 1997)
- 20. IS:1852 Rolling and cutting tolerances for hot rolled steel products
- 21. IS:2500 Sampling Procedure for Inspection by Attributes
- 22. IS:808 Dimensions for Hot Rolled Steel Beam, Column, Channel and Angle Sections
- 23. IS:4000 High Strength Bolts in Steel Structures Code of Practice
- 24. IS:5666 Specification for Etch (Pretreatment) Primer
- 25. IS:2932 Specification of synthetic enamel paint
- 26. IS:2720 Methods of Test for Soils
- 27. IS:1892 Code of Practice for Subsurface Investigation for Foundations
- 28. IS:2131 Method for Standard Penetration Test For Soils
- 29. IS 8112 Specification for 43 grade ordinary Portland cement
- 30. IS:1489 Portland Pozzolana Cement Specification

- 31. IS:383 Specification for Coarse and Fine Aggregates From Natural Sources for Concrete
- 32. IS:432 Specification for Mild Steel and Medium Tensile Steel Bars and HardDrawn Steel Wire for Concrete Reinforcement
- 33. IS:I139 Specification for high strength deformed steel bars and wires for concrete reinforcement
- 34. IS:1786 Specification for high strength deformed steel bars and wires for concrete Reinforcement
- 35. IS:2502 Code of Practice for Bending and Fixing of Bars for Concrete Reinforcement
- 36. IS:2309 Code of practice for the protection of buildings and allied structures against Lightning
- 37. IS:3043 Code of practice for Earthing
- 38. IS:1554 PVC insulated (heavy duty) electric cables:
- 39. IS:816 Code of practice for use of metal arc welding for general construction in mild Steel
- 40. IS 3502 Steel Chequered Plates Specifications
- 41. IS 209 Zinc Ingot Specification
- 42. IS 1566 Specification for Hard-drawn Steel Wire Fabric for Concrete Reinforcement
- 43. IS 12843 Tolerances for Erection of Steel Structures
- 44. IS 13229 Standard for Zinc for Galvanization
- 45. IS 6610 & IS 3063 Standards for plain washers and spring washers



7.16 Inspection Format

S No	Description	Yes /No	Remarks
Materia			
1	On receipt of tower material at site check availability of all sections as per drawing.		
2	All steel members shall generally conform to Drawing/BOQ.		
3	Test certificate from the manufacturer SAIL/TISCO/VSPL available.		
4	Independent test report from approved lab available on the quality of steel.		
5	Steel members shall be free from cracks, lamination, excessive rust and scaling.		
6	Edges of members shall not be sharp.		
7	Position of holes must conform to drawing. Holes shall have there axis perpendicular to the bored.		
8	Test certificate for mass of zinc coating available.	7	
9	Galvanisation thickness is checked in the field by instrument (ELCOMETER etc.).		
10	The adhesion of zinc coating should be checked by giving pivoted hammer blows. The zinc coating shall not flat off when applied pivot hammer blows.		
Erection	1		
11	Whether base width of the tower is as per the drawing		
12	Whether top width of the tower is as per the drawing.		
13	Whether height width of the tower is as per the drawing.		
14	Whether condition of the welding at various locations is satisfactory.		
15	Bulky white deposits and blisters and is satisfactory.		
16	Deleted		
17	Whether any mispunch/excess holes are made in any member.		
18	Whether the tightening of bolts is checked with torque wrench and found satisfactory.		
19	Whether length of any bolts are short.		
20	Whether any gap is observed between the chequered plate at working plate		
21	Whether any lack of fit in any member due to defective fabrication.		
22	Whether the member dimension, member lengths, slop, section sizes etc are as per drawing.		
23	Whether bolt holes, bolt size, bolt no. and its position on member is as per drawing.		
24	Whether gussets plate spacers, washers, nuts etc. are placed as per drawing.	3	
25	Whether all the members are reasonably straight.		

26	Necessary safety belt and safety shoes are provided to the workers.	
27	Insurance as per contract is available.	
28	Verticality of the erected tower checked with the help of plumb bob and	
	/or theodolite. (The theodolite if used should check for vertical error	
	before use.)	





DRAWINGS



Fig No.	Description	Remarks
Fig No.1	Tower drawing .Height=30 Mtr Wind speed:180 Kmph	Drawing provided separately
Fig No.2	Foundation for Tower Height=30 Mtr Wind speed:180 Kmph	Drawing provided separately
Fig No.3	Tower drawing .Height=30 Mtr Wind speed:200 Kmph	Drawing provided separately
Fig No.4	Foundation for Tower Height=30 Mtr Wind speed:200 Kmph	Drawing provided separately
Fig No.5	Pile foundation	Drawing provided separately
Fig No.6	Fall arrester	Drawing provided separately
Fig No.7	Earthing drawing	Drawing provided separately



Checklist for Submission of Bid

SR.NO	DESCRIPTION	COMPLIANCE
1	Following documents (Digitally signed) submitted online along with bid-	YES/NO
Α	Digitally signed Tender Document	YES/NO
В	Offer letter. (Form No.1)	YES/NO
С	Earnest Money in prescribed form. (Para 3.5 of tender document)	YES/NO
D	Audited balance sheet for last three financial years and current years as per para 3.16.3.	YES/NO
Е	Constitution of Firm and Power of Attorney (in case of Partnership firm).	YES/NO
F	Clause wise compliance to tender conditions by digitally signing tender document & statement of deviations. (Form No.5)	YES/NO
G	Similar works executed .Form No. 13 (Para 3.16.2 of tender document)	YES/NO
Н	User's Certificate Form No. 2 (Para 3.16.1.2 of tender document)	YES/NO
I	Any other information desired to be submitted by the tenderer.	YES/NO
J	Copy of registration/exemption certificate for EPF.	YES/NO
K	Registration with labour commissioner	YES/NO
L	GST registration with form no.14 and form no.15.	YES/NO
М	The present work load of the telecom contracts in hand as per the Format (Form 9) (Para 1.7 of tender document).	YES/NO
N	Relevant documents for JV Firms as per clause 3.7.6.	YES/NO
0	Affidavit on stamp paper as per clause 3.6.7.2 (Form No.16-Chapter-6)	YES/NO
Р	Other Forms of chapter-6.	YES/NO

Chapter 2

SCHEDULE

OF

REQUIREMENTS



SCHEDULE OF WORK

Schedule-1

A1	TUBULAR TOWER-30r	n hight T & 180 Kr	nph wind speed	
No.	Item Description	Unit Rate in Rs.	Nos of Site (Qty)	Amount in Rs.
1	Structure cost: Transporation, Erection, Fall arrester and Tower AT	901201.00	16	14419216.00
2	Foundation cost :Earthing work, Soil testing and Quality audit	650800.00	16	10412800.00
	Total			24832016.00

A2	TUBULAR TOWER- 30m hight T & 200 Kmph wind speed			
No.	Item Description	Unit Rate in Rs.	Nos of Site (Qty)	Amount in Rs.
1	Structure cost: Transporation, Erection, Fall arrester and Tower AT	926091.00	14	12965274.00
2	Foundation cost :Earthing work, Soil testing and Quality audit	704000.00	14	9856000.00
	Total			22821274.00

Total Basic Amount in Rs. (Schedule-1)	47653290.00
Amount Of GST (@18%) in Rs. (Schedule-1)	8577592.20
Total Amount (Schedule-1)(In Rs.)=	56230882.20

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Schedule-2

B- 1	Annual Mair	ntenance of 30 M	ltr Towers	
No.	Item Description	Unit Rate in Rs.	Nos of Months (Qty)	Amount in Rs.
1	Annual Maintenance of 30 Mtr Towers (30 Nos) for all sites erected under Schedule-1.	138988.00	36	5003568.00

Total Basic Amount in Rs. (Schedule-2)	5003568.00
Amount Of GST (@18%) in Rs. (Schedule-2)	900642.24
Total Amount (Schedule-2)(In Rs.)=	5904210.24

Schedule	Amount of Schedule in Rs.
Schedule-1	56230882.20
Schedule-2	5904210.24
Total (In Rs.)	62135092.44



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NOTE

- 1. The Quantities mentioned in Schedule of rates as above are tentative and may increase/decrease as per site condition/requirement.
- 2. In case of any contradiction between term and conditions of Special condition of contract (Chapter-5) and general condition of contract (Chapter-4), the conditions of Special condition of contract will supersede.
- 3. Finally approved Site plan/drawings for each site are to be submitted along with bills. (Please refer chapter-7).
- 4. Drawing of chapter-8 are attached separately with tender document.
- 5. Work order will be issued in part for number of sites as available for work.
- 6. For detailed description of Schedule-B of SOR, please refer chapter-9.
- 7. The foundation of tower will be as per SBC report. i.e. Piling type, Raft type, Anchoring type. The contractor must get full acquaintance of sites for type of foundation and bidding must be done considering the site factors and types of foundation required.

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S NO	Schedule Estimated Cost in Rs.		
1	Schedule-1	5,62,30,882.20	
2	Schedule-2	59,04,210.24	
	Total Cost of Tender in Figure (Rs.)	6,21,35,092.44	
	Total Cost of Tender in Words	Rupees Six Crore Twenty One Lakh Thirty Five Thousand and Ninety Two and Forty Four Paise Only	

i.	I/we undertake to execute the work of schedule of work at% (in wordspercent), At Par/below/above of the RailTel's total estimated cost of schedule of work mentioned above.
ii.	It is certified that I/we have inspected the site of work and acquainted myself or ourselves with local conditions.
iii.	I/we have carefully gone through the specifications. Additional special conditions etc attached with the tender document.
iv.	I/we undertake to keep this offer valid for period indicated in Tender from the date of opening of Tender and further not to revoke the same before the expiry of such period.

Signature and Seal of the Tenderer

Note for Guidance	[i] Tenderer should quote his single percentage rate in row (i) above only, At par /above/below the RailTel's estimated cost of work.
	[ii] The single percentage rate to be quoted both in figures and words.
	[iii] Tenderer shall quote all inclusive rates, but there shall be break up of basic price and all type of applicable taxes such as CGST/IGST/UTGST/SGST etc. (including tax under reverse charges payable by the recipient under GST Act).
	[iv] If none of the above/below/at par is ticked by the tenderer, the quoted single percent will be treated below the RailTel's estimated rate.

Chapter 9

INSTRUCTION AND TERMS & CONDITION

FOR AMC (ANNUAL MAINTENANCE CONTRACT)
OF
ERECTED Towers



INTRODUCTION

- 9.1.1 RailTel is responsible for leasing out bandwidth on commercial basis to Railways and external agencies over RailTel's own telecom network. For the same, RailTel has obtained Category II IP1, IP2, NLD and ISP licenses in the Telecom Sector.
- 9.1.2 RailTel has over 63,000 Km length of OFC route commissioned along with Railway track and an integrated dedicated telecom network is in operation out of which RailTel Western Region has 6,000 kms. of route.
- 9.1.3 30 Mtr GBT will be erected at various sites as mentioned in Chapter-2. The Tower/poles will be provided with railways antenna/GSM/MW antenna for LMC or co location of RailTel's subscribers. However contractor has to accept the site on as-is-where-is-basis.
- 9.1.4 To maintain high availability of services along its telecom networks, RailTel intends to engage agencies for maintaining the MW/UHF towers/Poles.
- 9.1.5 Engineer-in-charge (EIC) shall mean respective Section in-charge of RailTel or as authorized by Executive Director, RailTel.

9.2 **JURISDICTION:**

The jurisdiction of maintenance of Towers/Poles covers the Railway sites as mentioned in chapter-2.

9.3 DESCRIPTION OF WORK:

- 9.3.1 RailTel Intends to award a contract to reputed contractors who are financially and technically meeting the eligibility criteria to undertake various activities required maintaining & ensuring health of microwave towers/Poles in physical layer for different hops /stations along the OFC route.
- 9.3.2. The contractor shall be responsible for total health of tower/Poles and maintaining the all concern parameters w. r. t. meet RDSO /Railways/RailTel standards.
- 9.3.3 The contractor shall carry out additional works like earthing arrangements of tower/Poles, etc. all works included in the contract. No separate payment shall be made for carrying out these works.
- 9.3.4 The contractor has to deploy sufficient no of teams to take care of regular maintenance schedule and avoid delay in transit time to reach site in case of emergency. The persons deployed at various locations shall be communicated to EIC with Telephone number and address.

9.4 SCOPE AND SCHEDULE OF WORK:

The tower maintenance work shall consist of fault tracing and checking of the below listed and other possible causes of fault, dismounting (if required) of the faulty part and mounting of the repaired/new part/equipment. If dismounting is not necessary, rectification of the fault at its mounted position shall be done. All the tower maintenance works shall require climbing the tower/Poles for fault location/rectification. Operative and preventive maintenance of Telecom tower/Poles at different locations in India covering all telecom towers through a pool of qualified and trained workforce who are responsible for routine mechanical checkup, damage control of electrical and electronics equipments, working under fixed response time and safety as per IS: 7205.

In this tender, the word "Tower" pertains to "GBT" which will be erected under scope of work of this tender.

The detailed scope of work is as follows:

SNO	ITEM/Periodicity	WORK INVOLVED
1	Tower/Poles lights (If any), (every Month)	Checking of tower lights, dismounting if faulty and mounting the repaired/new bulbs, holders, Tower Lighting Upgrades/repairs.
2	Visual Inspection (every three Months)	Visual inspection of the tower shall be carried out every three months and should cover the following aspects. i) Tilt of the tower and settlement of foundation if any ii) Buckling/distortion of members, if any iii) Corrosion iv) Condition of foundations. v) Condition of connections, looseness of bolts If any tilt, serious corrosion, settlement of foundations or any other defects, likely to endanger the safety or function of tower is noticed, immediate remedial action shall be taken. If the tilt of the tower exceeds 1/120, immediate actions shall be taken to arrest further tilt and carry out rectification.
3	Feeder & Power Cable between RR station and tower/Poles (every Six Months)	Checking cables and couplings for breakage, loose fittings, other faults and replacing/rectification the same.
4	Antenna (every Six Months)	Checking for any possible antenna faults, dismounting if faulty and mounting the repaired/new antenna.
5	Tower nut/bolts & Other associated works. (Every Six Months)	Checking of correct torque of nut bolts & replacing if any faulty. Checking tower nuts, bolts etc and replacing rusted/tightening any loose ones. Suitable record of tightening of bolts will be kept. Bolts and nuts shall be tightened by using the part turn method. Nuts may be tightened using a calibrated wrench so that the proof load of the bolt specified in IS 1367 is achieved." Snug tight is defined as the tightness attained by a few impacts of an impact wrench of the full effort of a man using an ordinary spud wrench. Following this initial operation, bolts shall be placed in remaining holes in the connection and brought to snug tight position." Members of components, which are dented, bent or twisted, shall be replaced. If any defect of deficiency in the member comes to notice, the same shall be rectified. Aged items shall be replaced. The shear, bearing& tension strength shall be in accordance with IS:800. The bolts nuts shall be procured from reputed manufacturers by contractor/contracting firm. Work shall include but not limited to tracing the faults location and cause of fault(if not one of the above) and rectification the same
6	Earthing System (every Six Months)	Check condition of earthing & Complete tower earthing inspection with report showing all Meggar measurement. Ensuring the proper earthing and earth resistance and it should be less than one Ohm, corrective action taken and rectification the same. In case it exceeds two ohms the same should be reduced by providing additional earth electrodes.
7	Verticality Check & level of top of foundations (every six month)	Verticality of the tower shall be checked every six months and corrective action taken and rectification of the same. The tower shall be vertical all the time and no straining shall be permitted to achieve this. The erection tolerance of vertically shall be within 25mm every 9100mm, subject to over all verticality of tower with in 50 mm, corrective action shall be

		taken to achieve the same. If it is found that the deviation from straightness of the member of length 'L' exceeds .001 L or 10 mm whichever is less or the member is otherwise distorted, temporary member shall be inserted to relieve the distressed member and complete the rectification. The top horizontal member of tower on all the four faces should have center clearly visibly marked for easy check of verticality. The successful contractor/contracting firm will have to satisfy the RailTel that verticality of tower is maintained within 50 mm of full height of tower at site on two adjacent faces. The maximum deflection of the axis of tower shall not be more than 1/100 from vertical at various levels including top, under maximum wind and other critical loading conditions.
8	Painting/Galvanizing finishing (Once in the contract period of 2 years, but 50% within first six months of 2 nd year and remaining 50% within next six months 2 nd year after issue of LOA)	The paints used in painting shall be in accordance with IS-2074/62. Before applying coats of paint, surface shall be given a coat of 'Pickling agent' so as to avoid the flaking of painting. The painting shall be done carefully so that all corners and crevices of the mast received the paint and no base surface is left exposed anywhere. Special care is to be taken in applying paint at the place where galvanized coating has got removed. No driers such as Litharge or Turpentine are to be used. The practice of mixing kerosene oil with paint is strictly forbidden. Paints shall be synthetic enamel of the best quality and anticorrosive and withstand exposures to outside conditions. They should be of standard quality equivalent to synthetic enamel paint. Painting should be as per the standard scheme of painting (in ORANGE and WHITE bands)
9	Protection Against Lightening, (Every Six Month)	Regular checking of complete system of lightening protection in accordance of IS-2309-1969 including earthing based on the specific resistivity of the soil and sub-soil water level. The lightening protective system shall work properly.
10	Cleaning (Every Six Month)	Dust, grease and rust on galvanized tower members namely angles, tees, plates railing, ladders, racks etc. shall be removed by wire brushing and cleaned with a piece of cloth. This also includes the removing of vegetations if any and providing approach to tower

DOCUMENTS TO BE MAINTAINED: Results of inspections and work carried out shall be recorded systematically in microwave tower inspection register, as per (A), (B), (C), (D), (E), (F), (G), (H), (I), (J), and (K) formats. Two hard copies and one soft copy of complete documents, along with the installation details, in shall be provided by the contractor.

9.5 Tower Registers

A. GENERAL

- 1. Location of tower
- 2. Section
- 3. Height of tower
- 4. Site plan number
- 5. Drawing number of tower

- 6. Drawing number of foundation
- 7. Bench mark
- 8. Completion date of foundation
- 9. Completion date of tower (erection)
- 10. Date of Inspection/Maintenance

B TOWER LIGHTS (If any) (every Months)

S.No.	Date of Inspection	Condition of Tower Lights	Work done	Remarks if any

C VISUAL INSPECTIONS (once in three Months)

Date of inspection.	Tilt of the tower	Buckling of members, if any.	Corrosion	Condition of foundation	Condition of Nuts & Bolts

D FEEDER AND POWER CABLES BETWEEN RR STATION AND TOWER (EVERY SIX MONTHS)

Date of inspection	Condition of Cables	Condition of Couplings	Work done	Remarks if any

E BOLTS INSPECTION AND MAINTENANCE (once in six months)

Date of inspection	Panel No.	Member No.	Joint No.	No. of bolts provided	No. of bolts found loose and tightened	No. of bolts found missing & replaced	No. of nuts & washers found missing and replaced

F EARTHING OF SYSTEM (Every Six Months, Specifically before and after monsoon)

Date of inspection	Panel No./ Earthing No.	Eathing No.	Megger Reading/ earthing resistance	Condition of Earthing/ electrodes	Work Done

G VERTICALITY OF TOWER (once in six month)

Date of		Deviation from vertical							
inspection	Along side 1-2				Along Side 2-3				
	Top	3/4	Mid point	1/4	Top	3/4	Mid point	1/4	
	A .				A				

H DISTORTION OF MEMBERS/GUSSETS (once in six months.)

Date of	Panel No.	Member/J	Length	Deviation from	Action taken

inspection	oint No.	straightness	

I PAINTING/GALVANISHING (Once in the contract period)

Date of	General	Members requiring attention				
inspection	condition	Panel No.	Member No.	Extent of corrosion	Action taken	

J PROTECTION AGAINST LIGHTENING (once in six month)

Date of Inspection	Condition of Lightening Foundation	Specific Receptivity of Soil	Work done	Remarks if any

K CLEANING (once in six month)

Date of Inspection	Condition of Towers	Work Done	Remarks if any

The acceptance of any part or items shall in no way relieve contractor / tenderer of any part of his responsibility for meeting all the requirement of the specification of the tower. The routine maintenance work shall be carried out once in a months at all the locations. In case of emergency maintenance work, the contractor shall make available sufficient manpower for ensuring proper rectification of the fault within one day of intimation to the contractor.

9.6 The contractor/contracting firm shall jointly inspect with RailTel Staff/officers as per instructions & Guidelines below:

9.6.1 VISUAL INSPECTIONS OF MW/UHF TOWERS/POLES BY MICROWAVE/RAILTEL STAFF AND CONTRACTOR/CONTRACTONING FIRM.

- 9.6.1.1 Microwave Station/RailTel staff will carry out visual inspection of the tower every six months with the contractor/contracting firm and record their observations in the visual inspection register jointly. Microwave/RailTel officials would advise promptly to the contractor/contracting firm, if any immediate remedial action is called for.
- 9.6.1.2 Levels of the nominated points on top of foundation for all towers shall be recorded at least once annually jointly with contractor/contracting firm.

9.6.2 INSPECTION OF MW/UHF TOWERS BY THE ASSTT. MANAGER/RAILTEL WITH CONTRACTOR/CONTRACTING FIRM

- 9.6.2.1 Deleted.
- 9.6.2.2 Visual inspection of all towers shall be carried out the contractor/contracting firm should cover the following aspects: -

Tilt of the tower and settlement of foundation if any;

Buckling/distortion of members, if any;

Corrosion:

Condition of foundations;

Condition of connections, looseness of bolts

Binoculars may be used for this purpose by the contractor.

- 9.6.2.3 Bolts and nuts in all towers shall be checked once every six months before and after rainy season & as and when required. Results of inspection by the Asstt. Manager with Contracting firm/contractor shall be submitted to Sr. Manager, RailTel annually.
- 9.6.3 All MW/UHF towers shall be jointly inspected with contractor/contracting firm in details twice in every year on programme basis as per the scope of work. This inspection should cover the following aspects in addition to those stated above.
 - a. Checking distortion of members using piano wire and scale, if necessary
 - b. Checking of corrosion.
 - c. Checking of Feeder and Power Cables between RR Station and tower
 - d. Checking of earthing and its meggaring
 - e. Verticality check and level of top of foundations
 - f. Condition of Painting/Galvanizing and its finishing
 - g. Checking of protection against lighting
 - h. Cleaning of towers

Results of inspections shall be recorded systematically in the microwave tower inspection register. This register shall be submitted to TM/RailTel annually with contractor/contracting firm report.

9.6.4 INSPECTION OF MW/UHF TOWERS BY MANGER/SR. MANAGER, RAILTEL.

Visual inspection of the tower shall be carried jointly with contractor/contracting firm once a year, detailed inspection of at least 25% of the towers by the Asstt. Manager, RailTel shall be carried out under the supervision of Manager/Sr. Manager, RailTel and with contractor/contracting firm.

9.6.5 INSPECTION OF MICROWAVE TOWERS BY MANAGER/RailTel

Visual inspection of all towers shall be carried out jointly with contractor/contracting firm along with Asstt. Manager, RailTel once in two years time i.e all the towers will be visually inspected during the period. He shall also satisfy himself, by such checks as necessary, of the quality of detailed inspections carried out by the Asstt. Manager, and will ensure that remedial actions if required have been taken by the contractor/contracting firm.

9.6.6 ADDITIONAL & ALTERATIONS TO THE ANTENNA OR MOUNTING ARRANGEMENTS BY THE CONTRACTOR/CONTRACTING FIRM

Additions or alterations to the antenna or their mounting arrangements, after their initial erection and commissioning, shall have the prior approval of ED, RailTel.

9.6.7 PERMISSIBLE TILT

9.6.7.1 If settlement of foundation is noted and thereby the tilt of the tower is such that the vertical through the centre of gravity falls at a point on the base at a distance from the centre of more than 10% of the base width, the tower shall be kept under close observation and safety

precautions also taken by contracting firm and RailTel.

9.6.7.2 If the tilt of the tower exceeds 1/200, immediate action should be taken by the contracting firm to arrest further tilt and carry out rectification.

If it is found that the deviation from straightness of a member of length 'L' exceeds .001 xL or 10 mm whichever is less, or the member is otherwise distorted, temporary members shall be inserted to relieve the distressed member and complete the rectification by the contracting firm as considered necessary by the ED/RailTel.

9.6.7.3 Instructions for Tower Painting

Painting process consists of:-

- 1. Cleaning: The tower structure members namely angles, Tees, plates, ladders, racks etc are galvanized. The dust, dirt, grease and rust should be removed by wire brushing and cleaned with piece of cloth.
- 2. Application of the Wash or etch primer: After cleaning the tower members, a first coat of an Etch primer has to be applied to the tower structure members. The Etch primers consist of polyvinal butyral phospheric acid catalyst & Zink chromate base and are supplied separately. They should be mixed before use as specified ratio of four parts base to one part catalyst or as specified by the manufacturer. The primer is to be applied uniformly to get a very thin and almost invisible coat and every part of the tower structure should be treated with this primer. The subsequent painting of the zink chromate primer should be commenced within two hours of application of primer. The etch primer once mixed should be used up early.
- 3. Painting: The first coat of paint should be applied carefully well brushed in to the surface, corners, crevices, etc. Painting should be uniform and even. The second coat of paint should be applied 48hrs after the application of the first coat. Care should be taken to see that painting is not carried out at the highest time of day and air pockets should be avoided.
- 4. Orange and white bands(Day Marking):To confirm to civil aviation regulations the mast shall be painted in alternate bands of international orange and international white terminating with orange at top and the bottom. Height of the each band should be not exceed 6mtrs.and should not be less than 0.5 Mtr. the correct shade for the international orange correspondence to ISI shade 592 as given in the Indian Standard Institution publication, Indian Standard colors for ready mixed paint.
- 5. Special Remarks: The painting shall be done carefully so that all corners and crevices of the mast received the paint and no base surface is left exposed anywhere. Special care is to be taken in applying paint at the place where galvanized coating has got removed.
- 6. No drivers such as litharge or Turpentine are to be used, the practice of mixing kerosene oil with paint is strictly forbidden.
- 7. Paints:- Paints should be synthetic enamel of the best quality and anti corrosive and with stand exposure to outside conditions. They should be standard quality equivalent to synthetic enamel paints of Shalimar or British paints or Asian paints.
- 8. Galvanizing, Painting & Metal losing.

- 9. All members and fasteners of tower structure should be galvanized. Galvanizing of memberens of the tower shall be confirm to IS 4750 .Bolts and fasteners shall be galvanized in accordance with IS 5358.Spring washers shall be galvanized in accordance with IS 1573.
- 10. Painting If The Member is already galvanized, the surface shall be prepared by etch paint and a primer of ready mixed red oxide with Zink chromate to IS 2074 may be applied. the painting of MW tower including provision of the day marking according to civil aviation regulations has to be done as per above.
- 9.7 The Terms of AMC as per chapter-9 will be effective from the date of issue of FAC of each work order against Schedule-A under Chapter-2. The Work order of AMC for the same nos. of site against work order under Schedule-A will be issued and Security Deposit and Performance Bank Guaranty for each AMC work order should be dealt separately for the amount of AMC work order.

9.8 **Currency of the Contract:**

The currency of the contract shall be Three Years from the date of taking up service contract after issue of LOA/Work order and shall be extendable by one year on same terms & conditions.

9.9 Security Deposit

Security deposit shall be 5% of the LoA value. SD amount shall be recovered from the running bills of the contract (@10% of per bill amount) and no other mode of collecting SD shall be accepted.

- (a) Unless otherwise specified in the special conditions, if any, the Security Deposit/rate of recovery/mode of recovery shall be as under:-
- i. Security Deposit for each work should be 5% of the contract value.
- ii. The rate of recovery should be at the rate of 10% of the bill amount till the full security deposit is recovered.
- iii. Security Deposits will be recovered only from the running bills of the contract and no other mode of collecting SD such as SD in the form of instruments like BG, FD etc. shall be accepted towards Security Deposit.
 - (b) Refund of SD The Security Deposit for execution of work shall be released immediately after successful completion of the work, provided that all the stipulations of the clause have been fulfilled by the Contractor and all claim and demands made against the RailTel for and in respect of damage or loss by, from or in consequence of the works have been finally satisfied. The security deposit shall be released only after the expiry of the maintenance period and after passing the final bill based on "No Claim Certificate".

It has now been decided that:

- i) After the work is physically completed, security deposit recovered from the running bills of a contractor can be returned to him if he so desires, in lieu of irrevocable Bank Guarantee for equivalent amount to be submitted by him.
- ii) In case of contracts of value Rs. 50 crore and above, irrevocable Bank Guarantee can also be accepted as a mode of obtaining security deposit.
- (c) No interest will be payable upon the Earnest Money and Security Deposit or amount payable to the Contractor under the Contract.

(d) Should the tenderer fail to observe or comply with the foregoing stipulation the amount deposited as security for the due performance of the above stipulation shall be forfeited by the Railtel.

9.10 Performance Guarantee

The successful bidder is required to give a Performance Guarantee in the form of an irrevocable Bank Guarantee amounting to 5% of the contract value/LoA Value for schedule for successful completion of the work. The PBG amount for AMC work (Schedule-B of chapter-2) will be LoA wise issued time to time and as per amount of LoA.

The procedure for obtaining Performance Guarantee is outlined below:-

- (a) The successful bidder shall have to submit a Performance Bank Guarantee (PBG) within 15 (Fifteen) days from the date of issue of Letter Of Acceptance (LOA). Extension of time for submission of PBG beyond 15 (Fifteen) days and up to 30 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. 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.
 - (b) The successful bidder shall submit the Performance Guarantee (PG) in any of the following forms, amounting to 5% of the contract value:
 - (i) Irrevocable Bank Guarantee: No other form of PBG will be accepted expect schedule of bank PBG
 - (ii) A separate advise 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 RaiTel. 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 advise of BG through SFMS to the RailTel's Bank.
- (c) The Performance Guarantee should be submitted by the successful bidder after the Letter of Acceptance (LOA) has been issued, but before signing of the contract agreement. The PBG shall be initially valid upto the stipulated date of completion plus 60 days beyond that. In case, the time for completion of work gets extended, the contractor shall get the validity of Performance Guarantee extended to cover such extended time, for completion of work plus 60 days.
- (d) The value of PBG to be submitted by the contractor will not change for variation up to 25% (either increase or decrease). In case during the course of execution, value of the contract increases by more than 25% of the original contract value, an additional Performance Guarantee amounting to 5% (Five percent) for excess value over the original contract value shall be deposited by the contractor.
- (e) The Performance Bank Guarantee (PBG) shall be released after the physical completion of the work to the satisfaction of competent authority based on the certification by the Railtel official mentioning that the contractor has completed the work in all respects satisfactorily. The Security Deposit shall, however, be released only after expiry of the maintenance period and issue of the certificate that the entire system specified in the contract has been maintained by the contractor as per terms and conditions of the contract and after passing the final bill based on 'No Claim Certificate' from the contractor.
- (f) Whenever the contract is rescinded, the security deposit shall be forfeited and the Performance Bank Guarantee shall be en-cashed the balance work shall be got done independently without risk and cost of the failed contractor. The failed contractor shall be debarred from participating in the tender for executing the balance work. If the failed contractor is a JV or partnership firm, then every member or partner of such a firm shall 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.

- (g) The Engineer shall not make a claim under the Performance Bank Guarantee except for amounts to which the Railtel is entitled under the contract (Notwithstanding, and /or without prejudice to any other provisions in the contract agreement) in the event of:
 - (i) Failure by the contractor to extend the validity of the Performance Bank Guarantee as described herein above, in which event the Engineer may claim the full amount of the Performance Bank Guarantee.
 - (ii) Failure by the contractor to pay Railtel any amount due either as agreed by the contractor or determined under any of the clauses/conditions of the agreement, within thirty days of the service of the notice to this effect by Engineer.
 - (iii) The contract being determined or rescinded, the Performance Bank Guarantee shall be forfeited in full and shall be absolutely at the disposal of the RailTel Corporation of India Ltd.

9.11 Specifications

Reference of specifications of the important equipments and materials required for execution of the contract is given in the Technical Specification. The work shall be executed in compliance with all the technical requirements given there in. Drawings are indicative. In case of any mismatch or confusion, the decision of EIC shall be final.

9.12 Schedule of Requirement

The various items to be supplied and execution of the work by the tenderer for the section are indicated in Schedule of Requirement as in chapter 2 of this tender document. The tenderer is advised to quote percentage rate above/below/at Par the RailTel's total estimated cost of schedule. The make and model of all the equipments proposed to be supplied must be indicated by the tenderer/s in the Schedule of Requirement.

9.13 ENGAGEMENT OF OUALIFIED ENGINEER:

(a) If the total cost of the tenderer's offer is Rs.10 lakhs or more, the tenderer(s) shall also give a declaration along with his / their tender to the effect that he / they shall engage and continue in service for the period of the contract, one electrical / electronics engineering degree holder and also atleast one electrical/electronics engineering diploma holders having minimum one year experience of any kind. They will be paid as under:

Electrical/Electronics Engineering Degree holders'

Electrical/Electronics Engineering Diploma Holders

Not less than Rs.10,000/- per month for the duration of the contract.

Not less than Rs.6,000/- per month for the duration of the contract.

If, the tenderer(s) fails/fail to comply the above declaration, his/ their tender will be ignored. In case it is subsequently discovered that the declaration as aforesaid is in any way incorrect or the information furnished therein is wrong, the administration reserves the right to rescind the contract and to take action in accordance with clause 4.61 of the General Condition of Contract.

9.14 TEST & MEASURING INSTRUMENTS AND SPECIAL TOOLS ETC.

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

9.14.2 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.

9.15 INSPECTION OF MATERIALS

- 9.15.1 All materials shall be procured from the manufacturers of repute/their authorized dealers. Such materials are to be acceptable to the Engineer.
- 9.15.2 The cost of equipment and materials, all tests and/or analysis performed for inspection shall be borne by the Contractor.

9.16 PENALTY FOR DELAY IN COMPLETION

The time for the execution of the work or part of the works specified in the contract documents shall be deemed to be the essence of the contract and the works must be completed not later than the date(s) as specified in the contract. If the contractor fails to complete the works within the time as specified in the contract for the reasons other than the reasons specified in clause 5.48, the RailTel may, if satisfied that the works can be completed by the contractor within reasonable short time thereafter, allow the contractor for further extension of time (Performa Annex. II) as the Engineer may decide. On such extension the RailTel will be entitled without prejudice to any other right and remedy available on that behalf, to recover from the contractor as agreed damages and not by way of penalty a sum equivalent to ½ of 1% of the contract value of the works for each week or part of the week.

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

(i) For contract value up to Rs. 2 lakhs

10 % of the value of the contract.

ii) For contract value above Rs. 2 lakhs

(iii) The competent authority while granting extension of currency of the contract may also levy token penalty as deemed fit based on the merit of case.

10 % of the 1st 2 lakh and 5 % of the balance

Provided further, that if the RailTel is not satisfied that the works can be completed by the Contractor and in the event of failure on the part of the contractor to complete the work within further extension of time allowed as aforesaid, the RailTel shall be entitled without prejudice to any other right or remedy available in that behalf; to appropriate the contractor's security deposit and rescind the contract under 49 of these conditions, whether or not actual damage is caused by such default.

9.17 ADHERENCE OF TIME SCHEDULE

- 9.17.1 Timely completion of the work is the essence of the contract. While delay in execution will attract penalty.
- 9.17.2 If any delay as aforesaid in Para 9.16 of tender document 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 as mentioned in chapter-6.

9.18 TERMS OF PAYMENT

As per provisions of tender document, payment will be made by RailTel on certification of work by respective AM/Manager of the section and counter signed by GM/AGM/DGM/JGM or any other RailTel official authorized by ED/RailTel/WR Region.

- 9.18.1 Even though the maintenance charges are worked out on a monthly basis. The CONTRACTOR shall be **paid once in Three months** the maintenance charges for Three months period subject to submission of permanent restoration certificate of fault occurred during the particular period jointly signed by RAILTEL & contractor representatives and on submission of verified reports, readings etc as required by the terms of the contract to the satisfaction of the EIC.
- 9.18.2 Along with the bill for payments the following documents must be submitted duly certified by the RailTel's representative.
 - 1. Any other Recovery for contractor's fault.
 - **2.** Certificate showing the payments have been made to Team Members by the Contractor as per the prevailing minimum wages act.
- 9.18.3 The Penalty imposed on account of various reasons / Slippages in accordance with the conditions stipulated in this document may go up to 50% of Quaterly billed amount for the billing period. In case an agency is repeatedly touching the maximum level of penalty in consecutive billing periods, it will be treated as defaulter and contract terminated (The idea is to discharge the work in accordance with the contract efficiently rather than having major lapses and keep paying penalty repeatedly).
- 9.18.3.1 The last and final bill should be submitted for payments within one month of expiry of the contract.
- 9.18.3.2 Labour cess @ 1 % shall be deducted from Bills.
- **Price Variation**: Price Variation will not be allowed during the currency of contract

9.20 CERTIFICATE FOR CENVAT BENEFITS ON BILLS

a) The purchaser will not be responsible for payment of taxes and duties paid by the supplier under misapprehensions of law or misclassification and in such cases even if the suppliers bill contain an element of tax or duty which is not payable by the purchaser, such payment would be disallowed.

- b) The claim for Excise Duty, if any, on each bill should be supported by the following certificates:
 - i) Certified that the amount ofclaimed as Excise Duty in this bill is in accordance with the provision of the rules in all respects and the same has been actually paid to the excise authorities in respect of the stores covered by the bills.
 - ii) Quarterly certificate to the effect that no refund of Excise Duty already reimbursed against this contract has been obtained during the quarter ending. In the event of any such refund being obtained by the seller, the same should be passed on to the purchaser.
 - iii) Certificate: The tenderers will have to give the following certificates in their offer:-
 - "We hereby declare that in quoting the above price, we have taken into effect, the full effect of the duty set-off on 'Central excise and counter veiling duties' available under the existing scheme. We further agree to pass on such additional duties and set off as may become available in future in respect of all the inputs used for the manufacture of the final product, on the date of the supply under scheme, by way of reduction in price and advise the purchaser accordingly."
 - iv) Payment of excise duty will be released only after submission of excisable invoice to RailTel for availing CENVAT credit.

9.21 **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.
- (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.

9.22 TAXES

- 9.22.1 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.
- 9.22.2 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.
- 9.22.3 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.

Undertaking

9.23 INSURANCE

9.23.1 The Contractor shall take out and keep in force a policy or policies of insurance against all liabilities of the Contractor or the Purchaser at common law or under any statute in respect of accidents to persons who shall be employed by the contractor in or about the site for the purpose of carrying out the works on the site. The Contractor shall also take out and keep in force a policy or policies of Insurance against all recognized risks to their offices and depots. Such insurance shall in all respects be to the approval of the Purchaser and if he so requires in his name.

All other terms & conditions which are not specifically mentioned in this chapter-9, will be dealt as per General Condition of Contract (Chapter-4) & Special Condition of Contract (Chapter-5). In case of any conflicts in terms & Conditions, the terms of Special Condition of Contract (Chapter-5) will prevail.

