Document No…

B I D D I N G D O C U M E N T S

Issued on: …. …….

to

M/s. ……

For

Execution of

“Construction of PEB Sheds, Structures, Buildings, Water supply arrangement, Drainage, Sewerage, Road works, Rail track works, Signaling & Telecommunication works, OHE and Power supply arrangements, General Electrical works and Supply, Installation and commissioning of Machinery and Plant in connection with setting up of Rail Coach Factory at Latur, Maharashtra (India)”

IFB No: RVNL/M/SC/LUR/1 dated 31/05/2018

PROJECT:- **“Setting up of Rail Coach Factory at Latur, Maharashtra (India)”**

Employer: Rail Vikas Nigam Limited

1st Floor August Kranthi Bhavan,

Bikaji cama place

New Delhi

TABLE OF CONTENTS

Preamble

Introduction

PART I: Bidding Procedures

Invitation for Bids

Section 1. Instructions to Bidders (ITB)

Section 2. Bid Data Sheet

Section 3. Evaluation Criteria and Qualification Criteria

Section 4. Bidding Forms

PART II: Works Requirements

Section 5. Works Requirements:

(1) Safety Requirements
(2) General
(3) Site Facilities for the Employer and the Engineer
(4) Specifications
(5) Drawings

PART III: Conditions of Contract and Contract Forms

Section 6. General Conditions of Contract (GCC)

Section 7. Special Conditions of Contract (SCC)
(A) Contract Data
(B) Specific Provisions

Section 8. Contract Forms

PART I

BIDDING PROCEDURES

Invitation for Bids

Section 1. Instructions to Bidders

Section 2. Bid Data Sheet

Section 3. Evaluation Criteria and Qualification Criteria

Section 4. Bidding Forms

NOTICE

FOR

INVITATION FOR BIDS

(IFB)

Rail Vikas Nigam limited

INTERNATIONAL COMPETITIVE BIDDING

INVITATION FOR BIDS

Bid Notice No ***RVNL/M/SC/LUR/1*** **Date: 31*/05/2018***

1. **RAIL VIKAS NIGAM LIMITED (RVNL**), having its Corporate office at 1st Floor August Kranti Bhavan, Bhikaji Cama Place, New Delhi – 110066, India which is a Public Sector Enterprise set up as a wholly owned Government Company under the provisions of Section 617 of Companies Act., invites bids under single stage two packet system for the work of ***"*Construction of PEB Sheds, Structures, Buildings, Water supply arrangement, Drainage, Sewerage, Road works, Rail track works, Signaling & Telecommunication works, OHE and Power supply arrangements, General Electrical works and Supply, Installation and commissioning of Machinery and Plant in connection with setting up of Rail Coach Factory at Latur, Maharashtra (India)*"**

2.

Sl. No.	Approx. Estimated Cost of Project	Bid Security	Period of Completion	Cost of Bidding Document
1	Rs 340.50 crores (Rupees three hundred forty crores and fifty lakhs only)	Rs. 2 Crores	*24* Months	Rs. 20,000/-

3. Bidders are advised to note the eligibility and minimum qualifying criteria specified in the Instruction to Bidders and Section 3 " Evaluation and Qualification Criteria" of bid document.

4. **Bidding documents:** The interested Bidders may purchase the bidding documents from the address in Sl No. 10 below between **10:00 hrs and 17:00 hrs** on all working days **from 01/06./2018 to 13/07/2018** on payment of non-refundable cost of Rs. 20,000/- (Rupees Twenty Thousand only) by a crossed Demand Draft on any Scheduled bank payable at New Delhi drawn in favour of **Rail Vikas Nigam Limited,** New Delhi. Bidding documents requested by Post will be dispatched by registered speed post/courier on payment of an extra amount of Rs. 2000/- (Rupees Two Thousand only). Rail Vikas Nigam Limited will not be held responsible for the postal delay if any, in the delivery of the documents or non-receipt of the same.

5. Bids must be accompanied by a bid security **of Rs.2 Crore (Rupees Two Crores only)** in any one of the forms as specified in the bidding documents and shall have to be valid for 42 days beyond the validity of the bid.

6. Bidding Documents can also be down loaded from RVNL website www.rvnl.org from **31/05/2018** and the bids can be submitted on the down loaded document along with a separate demand draft towards the cost of bidding documents at the time of tendering in a separate envelope marked "cost of Bidding documents" failing which the offer will be summarily rejected.

   Please note that if any drawings are referred in the bid document, the cost of such drawings shall be inclusive in the cost of bidding documents. For viewing the drawings and to have a copy of the same, the tenderer can contact this office on any working day. It will be the responsibility of the bidder who is submitting the bid on downloaded bidding documents to check and see any addendum/Corrigendum issued in this regard from the website from time to time and ensure submission of bid along with all addendum/Corrigendum."

7. **Pre-bid Meeting:** A pre-bid meeting will be held on **12/06/2018 at 11.30 hrs** in Rail Vikas Nigam limited Corporate Office New Delhi at August Kranti Bhavan; Bhikaji Cama Place New Delhi 110066, India.

8. **Purchase Preference:** Shall not apply to Central Public Sector Enterprises, as per extant rules in force.

9. **Date of Receipt and opening of Bids:** The completed Bids must be dropped in the nominated tender box or delivered to the address below not later than **11.00 hrs on- 16/07/2018** and the same shall be opened **at 11.30 hrs**. in the same day in the presence of Bidders who choose to be present. RVNL will not be responsible for any delays in receiving the Bidding documents by the Bidder or receipt of Bids by RVNL.

10. **Address for Communication:** Interested eligible Bidders may obtain further information from the following address:

Chief Project Manager (West)
Rail Vikas Nigam Ltd.,
Amsri Faust, 5th floor, Door No. 9-1-164/A, 165 & 166,
Sarojini Devi Road,
SECUNDERABAD – 500 003.
Phone No.040 - 27710153 & 27710154
Fax: +91 40 - 27710755
E-mail: cpmwestsc@rvnl.org

Table of Clauses

A. General 2
1. Scope of Bid 2
2. Source of Funds 2
3. Corrupt Practices 2
4. Eligible Bidders 3
5. Eligible Materials, Equipment and Services 5

B. Contents of Bidding Document 5

6. Sections of Bidding Document 5
7. Clarification of Bidding Document, Site Visit, Pre-Bid Meeting 6
8. Amendment of Bidding Document 7

C. Preparation of Bids 7

9. Cost of Bidding 7
10. Language of Bid 7
11. Documents Comprising the Bid 8
12. Letters of Bid and Price Schedules 8
13. Alternative Bids 8
14. Bid Prices and Discounts 9
15. Currencies of Bid and Payment 10
16. Documents Comprising the Technical Bid 10
17. Documents Establishing the Qualifications of the Bidder 10
18. Period of Validity of Bids 10
19. Bid Security 11
20. Format and Signing of Bid 12

D. Submission and Opening of Bids 12

21. Sealing and Marking of Bids 12
22. Deadline for Submission of Bids 13
23. Late Bids 13
24. Withdrawal, Substitution, and Modification of Bids 13
25. Bid Opening 14

E. Evaluation and Comparison of Bids 16

26. Confidentiality 16
27. Clarification of Bids 16
28. Deviations, Reservations, and Omissions 16
29. Determination of Responsiveness 16
30. Nonconformities, Errors, and Omissions 17
31. Pre-Qualification of the Bidder 17
32. Correction of Arithmetical Errors ..... **Error! Bookmark not defined.** 8
33. Conversion to Single Currency 199
34. Purchase Preference 199
35. Evaluation of Bids 199
36. Comparison of Bids 2020
37. Employer's Right to Accept Any Bid, and to Reject Any or All Bids 221

F. Award of Contract 2121
38. Award Criteria 221
39. Notification of Award 211
40. Signing of Contract 211
41. Performance Security 211
42. Jurisdiction of Courts 22

Section 1: Instructions to Bidders (ITB)

A. General

1. Scope of Bid

1.1 In connection with the Invitation for Bids indicated in the Bid Data Sheet (BDS), Rail Vikas Nigam Limited (RVNL), a Government of India Undertaking, hereinafter referred to as the 'Employer', issues these Bidding Documents for the Procurement of Works as specified in Section 5: Works Requirements. The name, identification, number of contract(s) for the International Competitive Bidding (ICB) are provided in the BDS.

1.2 Throughout these Bidding Documents:

(a) the term "in writing" means communicated in written form and delivered against receipt;

(b) except where the context requires otherwise, words indicating the singular also include the plural and words indicating the plural also include the singular; and

(c) "day" means calendar day.

2. Source of Funds

2.1 The required funds have been sourced by RVNL, unless otherwise specified in the BDS.

3. Corrupt Practices

3.1 The Employer requires that bidders, suppliers, and contractors observe the highest standard of ethics during the procurement and execution of such contracts. In pursuance of this policy, the Employer:

(a) defines, for the purposes of this provision, the terms set forth below as follows:

(i) "corrupt practice" means the offering, giving, receiving, or soliciting, directly or indirectly, of any thing of value to influence the action of any party in the procurement process or the execution of a contract;

(ii) "fraudulent practice" means a misrepresentation or omission of facts in order to influence a procurement process or the execution of a contract;

(iii) "collusive practice" means a scheme or arrangement between two or more bidders, with or without the knowledge of the Employer, designed to influence the action of any party in a procurement process or the execution of a contract;

(iv) "coercive practice" means harming or threatening to harm, directly or indirectly, persons, or their property to influence their participation in a procurement process, or affect the execution of a contract;

(b) will reject a Bid for award if it determines that the bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract; and

(c) will sanction a party or its successor, including declaring ineligible, either indefinitely or for a stated period of time, to participate in Employer's activities, if it at any time determines

that the firm has, directly or through an agent, engaged in corrupt, fraudulent, collusive, or coercive practices in competing for, or in executing a contract of the employer.

4. Eligible Bidders

4.1 A Bidder may be a natural person, private entity, government-owned entity, or any combination of them with a formal intent to enter into an agreement or under an existing agreement in the form of a Joint Venture (JV). The bidder must ensure the following:

(a) In case of Single Entity:

(i) Submit Power of Attorney authorizing the signatory of the bid to commit the bidder.

(b) In case of Joint Venture:

(i) The JV shall not have more than three (3) partners;

(ii) Submit MOU, as per form given in Section 4.

(iii) The JV shall nominate a Representative through Power of Attorney (Form given in Section 4) who shall have the authority to conduct all business for and on behalf of any and all the parties of the JV during the bidding process and, in the event the JV is awarded the Contract, during contract execution.

(iv) Submit Power of Attorney by individual partners to lead partners as per form given in Section 4.

(v) In case a Joint Venture is the successful bidder, the Joint Venture Agreement should be entered by the Joint Venture partners. The duly signed Joint Venture Agreement should be submitted along with the Performance Security to the employer after notification of the award of contract within 28 days.

(c) Foreign Firm (s) should be covered under the grant of general permission to establish project offices in India (as per RBI Master Circular No.7/2015-16 updated up to the deadline for submission of bids) on securing the subject project or have already opened project office in India. In case of award of contract to a foreign firm such foreign firm has to submit proof of having opened project office in India before submitting any interim payment certificate.

4.2 Deleted.

4.3 A Bidder shall not have conflict of interest. All Bidders found to have a conflict of interest shall be disqualified. A Bidder may be considered to be in a conflict of interest with one or more parties in this bidding process, if, including but not limited to:

(a) they have controlling shareholders in common; or

(b) they receive or have received any direct or indirect subsidy from any of them; or

(c) they have the same legal representative for purposes of this bid; or

(d) they have a relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the Bid of another

Bidder, or

(e) a Bidder participates in more than one bid in this bidding process. Participation by a Bidder in more than one Bid will result in the disqualification of all Bids in which the party is involved. However, this does not limit the inclusion of the same subcontractor in more than one bid; or

(f) a Bidder participated as a consultant in the preparation of the design or technical specifications of the contract that is the subject of the Bid; or

(g) a Bidder was affiliated for any period(s) during last two years before the date of issue of Invitation for Bids with a firm or entity that has been hired (or is proposed to be hired) by the Employer as Engineer for the contract.

4.4 The bidder shall be disqualified if:

(a) The bidder or any of its constituents has been blacklisted/ banned business dealings for all Government Departments or by Ministry of Railways or by RVNL at any time till finalization of bids, except in cases where such blacklisting/banning has been withdrawn by Competent Authority or has ceased on the deadline for submission of the bids, for which satisfactory evidence is to be produced.

(b) Any previous contract of the bidder or any of its constituents had been terminated for contractor's failure by Rail Vikas Nigam Ltd.(RVNL) at any time starting from 2 years before the deadline for submission of bids and upto one day before the date of opening of price bids;

Provided, however, there is no stay order or declaration by any Court against such termination of the Contract by Rail Vikas Nigam Ltd. or such termination of the Contract has not been revoked by Rail Vikas Nigam Ltd.

(c) The bidder or any of its constituents has been imposed delay damages of 5% or more of contract value by RVNL due to delay in the implementation of any previous contract within the period of last 2 years before the deadline for submission of bids (Period of 2 years shall be reckoned from the date on which the total accrued amount of Delay Damages has reached 5% or more of the contract price) or such accrued delay damages has not been fully recovered before the deadline for submission of bids on account of contractor's request for deferring recovery to maintain cash flow and RVNL has acceded to the same in the interest of the project or the work under the previous contract in question has not been completed before the deadline for submission of bids, unless imposition of such delay damages has been set aside by the Competent Authority.

(d) The bidder or any of its constituents has suffered bankruptcy/insolvency or it is in the process of winding-up or there is a case of insolvency pending before any Court on the deadline of submission of bids or thereafter till finalization of bids.

(e) The bidder is found ineligible by the Employer, in accordance

with ITB-3.

(f) The bidder or its constituent(s) has been declared by RVNL to be a poor performer and the period of poor performance is still in force on the deadline for submission of bids.

OR

The bidder or its constituent(s) has been declared by RVNL to be a poor performer at any time after the deadline for submission of bids and upto one day before the date of opening of price bids.

(g) The bidder or any of its constituents has changed its name or created a new business entity as covered by the definition of "Allied Firm" under para 1102 (iii) of Chapter XI of Vigilance Manual of Indian Railways (available on website of Indian Railways), consequent to having been banned business dealings or suspended business dealings or having been declared poor performer.

The Bidder shall submit an affidavit stating that they are not liable to be disqualified as per this sub clause using the appropriate Performa given in Section 4. Non-submission of an affidavit by the bidder shall result in summary rejection of his bid.

4.5 Bidders shall immediately inform the Employer in case they cease to fulfill eligibility in terms of ITB 4.3 & 4.4. In case the bidder fails to inform the Employer or submits a false affidavit his bid shall be summarily rejected and bid security shall be forfeited. The bidder shall also be liable for Banning of Business dealings for a period up to five years.

5. Eligible Materials, Equipment and Services

5.1 The materials, equipment and services to be supplied under the Contract shall be from the approved sources as specified in Section 5: Works Requirements.

B. Contents of Bidding Document

6. Sections of Bidding Document

6.1 The Bidding Document consists of Volume-I (Parts I, II and III) and Volume-II, which includes all the Sections indicated below, and should be read in conjunction with any Addenda issued in accordance with ITB 8.

Volume-I

PART I: Bidding Procedures

Section 1: Instructions to Bidders (ITB)

Section 2: Bid Data Sheet (BDS)

Section 3: Evaluation and Qualification Criteria (EQC)

Section 4: Bidding Forms (BDF)

PART II: Work's Requirements

Section 5: Work's Requirements (WRQ)

PART III: Conditions of Contract and Contract Forms

Section 6: General Conditions of Contract (GCC)

Section 7: Special Conditions of Contract (SCC)

Part A: Contract Data (CD)

Part B: Specific Provisions (SP)

Section 8: Contract Forms (COF) – Annexes to SCC

Volume-II

Bill of Quantities(BOQ)

6.2 The Invitation for Bids (IFB) issued by the Employer is not part of the Bidding Document.

6.3 The Employer is not responsible for the completeness of the Bidding Document and their Addenda, if they were not obtained directly from the source stated by the Employer in the Invitation for Bids.

6.4 The Bidder is expected to examine all instructions, forms, terms, and specifications in the Bidding Document. Failure to furnish all information or documentation required by the Bidding Document may result in the rejection of **the** bid.

7. Clarification of Bidding Document, Site Visit, Pre-Bid Meeting

7.1 A prospective Bidder requiring any clarification of the Bidding Document shall contact the Employer in writing at the Employer's address indicated in the BDS or raise his inquiries during the pre-bid meeting if provided for in accordance with ITB 7.4. The Employer will respond in writing to any request for clarification, provided that such request is received no later than twenty one (21) days prior to the deadline for submission of bids. The Employer shall forward copies of its response to all Bidders who have acquired the Bidding Document in accordance with ITB 6.3, including a description of the inquiry but without identifying its source. Should the Employer deem it necessary to amend the Bidding Document as a result of a request for clarification, it shall do so following the procedure under ITB 8 and ITB 22.2.

7.2 The Bidder is advised to visit and examine the Site of Works and its surroundings and obtain for itself on its own responsibility all information that may be necessary for preparing the bid and entering into a contract for construction of the Works. The costs of visiting the Site shall be at the Bidder's own expense.

7.3 The Bidder and any of its personnel or agents will be granted permission by the Employer to enter upon its premises and lands for the purpose of such visit, but only upon the express condition that the Bidder, its personnel, and agents will release and indemnify the Employer and its personnel and agents from and against all liability in respect thereof, and will be responsible for death or personal injury, loss of or damage to property, and any other loss, damage, costs, and expenses incurred as a result of the inspection.

7.4 The Bidder's designated representative is invited to attend a pre-bid meeting, if provided for in the BDS. The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.

7.5 The Bidder is requested, as far as possible, to submit any questions in writing, to reach the Employer not later than one week before the meeting.

7.6 Minutes of the pre-bid meeting, including the text of the questions raised, without identifying the source, and the responses given, together with any responses prepared after the meeting, will be transmitted promptly to all Bidders who have acquired the Bidding Document in accordance with ITB 6.3. Any modification to the Bidding Document that may become necessary as a result of the pre-bid meeting shall be made by the Employer exclusively through the issue of an addendum pursuant to ITB 8 and not through the minutes of the pre-bid meeting.

7.7 Non-attendance at the pre-bid meeting will not be a cause for disqualification of a Bidder.

8. Amendment of Bidding Document

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

8.2 Any addendum issued shall be part of the Bidding Document and shall be communicated in writing to all who have obtained the Bidding Document from the Employer in accordance with ITB 6.3.

8.3 To give prospective Bidders reasonable time in which to take an addendum into account in preparing their bids, the Employer may, at its discretion, extend the deadline for the submission of bids, pursuant to ITB 22.2

C. Preparation of Bids

9. Cost of Bidding

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

10. Language of Bid

10.1 The Bid, as well as all correspondence and documents relating to the bid exchanged by the Bidder and the Employer, shall be written in English. Supporting documents and printed literature that are part of the Bid may be in another language provided they are accompanied by an accurate translation of the relevant passages in English in which case, for purposes of interpretation

of the Bid, such translation shall govern.

11. Documents Comprising the Bid

11.1 The Bid shall comprise two envelopes submitted simultaneously, one containing the Technical Bid and the other the Price Bid, enclosed together in an outer single envelope.

11.2 Initially, only the Technical Bids are opened at the address, date and time specified in ITB Sub-Clause 25.1. The Price Bids remain sealed and are held in custody by the Employer. The Technical Bids are evaluated by the Employer. No amendments or changes to the Technical Bids are permitted. Bids with Technical Bids which do not conform to the specified requirements will be rejected as deficient Bids.

11.3 Price Bids of technically compliant Bids are opened in public at a date and time advised by the Employer. The Price Bids are evaluated and the Contract is awarded to the Bidder whose Bid has been determined to be the lowest evaluated substantially responsive Bid.

11.4 The Technical Bid shall contain the following :

(a) Letter of Technical Bid in accordance with ITB 16;

(b) Bid Security, in accordance with ITB Clause 19;

(c) alternative Technical Bid, if permissible, in accordance with ITB Clause 13;

(d) written confirmation authorizing the signatory of the Bid to commit the Bidder, in accordance with ITB Clause 20.2;

(e) documentary evidence in accordance with ITB Clause 17 establishing the Bidder's qualifications to perform the contract; and

(f) any other document required in the BDS.

11.5 The Price Bid shall contain the following :

(a) Letter of Price Bid and completed schedules as required including Bill of Quantities in accordance with ITB Clauses 12, and 14;

(b) alternative Price Bid corresponding to the alternative Technical Bid, if permissible, in accordance with ITB Clause 13; and

(c) any other document required in the BDS.

12. Bid Letters and Price Schedules

12.1 The Bidder shall submit the Technical Bid and the Price Bid using the appropriate letter formats furnished in Section 4: Bidding Forms. These forms must be completed without any alterations to their format, and no substitutes shall be accepted. All blank spaces shall be filled in with the information requested.

12.2 The Bidder shall submit, as part of the Price Bid, the Schedules, including the Bill of Quantities.

13. Alternative Bids

13.1 Unless otherwise indicated in the BDS, alternative bids shall not

be considered.

13.2 When alternative periods for completion are explicitly invited, a statement to that effect will be included in the BDS, as will the method of evaluating different periods for completion.

14. Bid Prices and Discounts

14.1 The prices and discounts quoted by the Bidder in the Letter of Price Bid (LPB)and in the Bill of Quantities shall conform to the requirements specified below.

14.2 In the BOQ, quantity and unit rates and thereby the amount against each item have been indicated. From this, price of each schedule has been worked out and indicated in the summary sheet in BOQ. The Bidder shall quote rates as single percentage above/below/at par in figures and words as per format for each schedule in the summary sheet**. If any bidder quotes more than one percentage for any schedule, its bid shall be summarily rejected.**

14.3 The price to be quoted in the Letter of Price Bid, in accordance with ITB 12.1, shall be the total price of the Bid, excluding any discounts offered.

14.4 The Bidder shall quote any discounts and the methodology for their application (the discounts, and the methodology of their application, should be quoted on prices quoted in the bid so that the discounts can be evaluated by simple arithmetic calculation during financial evaluation of the bids, to arrive at the net total price of the bid. If the net total price cannot be calculated after application of the methodology of the discount(s) quoted, the bid shall be considered as incomplete and will be rejected) in the Letter of Price Bid, in accordance with ITB 12.1

14.5 Unless otherwise provided in the BDS and the Contract, the rates and prices quoted by the Bidder are subject to adjustment during the performance of the Contract in accordance with the provisions of the Conditions of Contract. In such a case, the indices and weightings for the price adjustment formulae shall be as specified in the Tables of Adjustment Data included in Contract Data.

14.6 If so indicated in ITB 1.1, bids are being invited for individual contracts or for any combination of contracts (packages). Bidders wishing to offer any price reduction for the award of more than one Contract shall specify in their bid the price reductions applicable to each package, or alternatively, to individual Contracts within the package. Price reductions or discounts shall be submitted in accordance with ITB 14.4, provided the bids for all contracts are submitted and opened at the same time.

14.7 All duties, taxes, and other levies payable by the Contractor under the Contract, or for any other cause (including standard specifications), as of the date 28 days prior to the deadline for submission of bids, shall be included in the rates and prices and the total Bid Price submitted by the Bidder.

14.8 Bidders should note that during the progress of the Works, the foreign currency requirements of the outstanding balance of the Contract Price may be adjusted by agreement between the Employer and the Contractor in order to reflect any changes in foreign currency requirements for the Contract, in accordance with Sub-Clause 14.15 of the Conditions of Contract. Any such adjustment shall be effected by comparing the percentages quoted in the bid with the amounts already used in the Works and the Contractor's future needs for imported items.

14.9 Bidder should note that non-submission of the Letter of Price Bid (LPB) and/or Summary sheet of BOQ by the bidder shall result in summary rejection of his bid.

15. Currencies of Bid and Payment

15.1 The bidder shall quote the unit rates and the prices entirely in the Indian Rupees.

16. Documents Comprising the Technical Bid

16.1 The Bidder shall furnish a commitment in Letter of Technical Bid (LTB)for deployment of equipment and personnel as stipulated in Section 5: Work's Requirement.

16.2 The bidder shall furnish commitment in LTB for submitting construction method statement for all major activities of work and get this approved from the engineer prior to the commencement of work on that activity in case of award of contract.

16.3 The Bidder shall furnish a commitment in Letter of Technical Bid (LTB)for adhering to mobilisation and construction schedule as stipulated in Section 5: Work's Requirement.

16.4 Bidder should note that non-submission of the Letter of Technical Bid (LTB) by the bidder shall result in summary rejection of his bid.

17. Documents Establishing the Qualifications of the Bidder

17.1 To establish its qualifications to perform the Contract in accordance with Section 3: Evaluation and Qualification Criteria, the Bidder shall submit as part of its technical Bid the information requested in the corresponding information sheets included in Section 4: Bidding Forms.

17.2 Domestic Bidders, individually or in joint ventures, applying for eligibility for domestic preference shall supply all information required to satisfy the criteria for eligibility as described in ITB 34.

18. Period of Validity of Bids

18.1 Bids shall remain valid for a period of 120 days after the bid submission deadline date prescribed by the employer. A bid valid for a shorter period shall be rejected by the employer as non responsive.

18.2 In exceptional circumstances, the Employer may request Bidders to extend the period of validity of their bids. The request and the responses shall be made in writing. If a bid security is requested in accordance with ITB 19, it shall also be extended upto the date mentioned in the letter of request for extension. A Bidder may refuse the request without forfeiting its bid security. A Bidder granting the request shall not be required or permitted to modify its

bid.

19. Bid Security

19.1 Unless otherwise specified in the BDS, the Bidder shall furnish as part of its bid, a bid security in original form and for the said amount of Indian Rupees as specified in the BDS.

19.2 The bid security shall be, at the Bidder's option, in any of the following forms:

(a) A Cashiers or Banker's certified cheque or Bank draft drawn on a Scheduled/Nationalized Bank in India in favour of "Rail Vikas Nigam Ltd" payable at New Delhi; or

(b) An unconditional bank guarantee using the Form given in Section 4: Bidding Forms. The bank guarantee shall be from a bank having minimum net worth of over INR 500 million from the specified banks as under:

(i) a Scheduled Bank in India, or

(ii) a Foreign Bank having their operations in India, or

(iii) a Foreign Bank which do not have operations in India is required to provide a counter-guarantee by State Bank of India,

The bid security shall be valid upto the date as mentioned in BDS, or upto the date mentioned in the letter of request for extension, if any under ITB 18.2.

19.3 Any bid not accompanied by an enforceable and compliant bid security, as required in accordance with ITB 19.1, shall be summarily rejected by the Employer as non-responsive.

19.4 The bid security of unsuccessful Bidders shall be returned as promptly as possible upon the successful Bidder's furnishing of the performance security pursuant to ITB 41.

19.5 The bid security of the successful Bidder shall be returned as promptly as possible once the successful Bidder has signed the Contract and furnished the required performance security.

19.6 The bid security may be forfeited:

(a) if a Bidder withdraws its bid during the period of bid validity specified by the Bidder on the Letter of Bids, except as provided in ITB 18.2 or

(b) if a Bidder misrepresents or omits the facts in order to influence the procurement process;

(c) if the successful Bidder fails to:

(i) sign the Contract in accordance with ITB 40;

(ii) furnish a performance security in accordance with ITB 41;

(iii) accept the correction of its Bid Price pursuant to ITB 32.2; or

(iv) furnish a domestic preference security if so required.

(d) if the undertaking of the affidavit submitted by the bidder or

its constituents in pursuance to ITB clause 4.4 or any of the declarations of Letter of Technical Bid or Letter of Price Bid submitted by the bidder has been found to be false at any stage during the process of bid evaluation.

19.7 The Bid Security of a JV shall be in the name of the JV that submits the bid. If the JV has not been legally constituted at the time of bidding, the Bid Security shall be in the names of all future partners as named in the letter of intent mentioned in ITB 4.1.

20. Format and Signing of Bid

20.1 The Bidder shall prepare one original of the Technical Bid and one original of the Price Bid as described in ITB Clause 11 and clearly mark each "ORIGINAL - TECHNICAL BID" and "ORIGINAL - PRICE BID". In addition, the Bidder shall submit copies of the Technical Bid and the Price Bid, in the number specified in the BDS and clearly mark them "COPY NO… - TECHNICAL BID" and "COPY NO…. - PRICE BID". In the event of any discrepancy between the original and the copies, the original shall prevail.

20.2 The original and all copies of the bid shall be typed or written in indelible ink and shall be signed by a person duly authorized to sign on behalf of the Bidder. This authorization shall consist of a written confirmation as specified in the BDS. The name and position held by each person signing the authorization must be typed or printed below the signature. All pages of the bid, except for un-amended printed literature, shall be signed or initialed by the person signing the bid.

20.3 Any interlineations, erasures, or overwriting shall be valid only if they are signed or initialed by the person signing the bid.

D. Submission and Opening of Bids

21. Sealing and Marking of Bids

21.1 The Bidder shall enclose the original of the Technical Bid, the original of the Price Bid, and each copy of the Technical Bid and each copy of the Price Bid, including alternative bids, if permitted in accordance with ITB Clause 13, in separate sealed envelopes, duly marking the envelopes as "ORIGINAL - TECHNICAL BID", "ORIGINAL - PRICE BID" and "COPY NO… - TECHNICAL BID" and "COPY NO…. - PRICE BID", as appropriate. These envelopes containing the original and the copies shall then be enclosed in one single envelope.

21.2 The inner and outer envelopes shall:

(a) bear the name and address of the Bidder;

(b) be addressed to the Employer in accordance with BDS 22.1;

(c) bear the specific identification of this bidding process indicated in the BDS 1.1; and

(d) The outer envelopes and the inner envelopes containing the Technical Bids shall bear a warning not to open before the time and date for the opening

of Technical Bids, in accordance with ITB Sub-Clause 25.

(e) The inner envelopes containing the Price Bids shall bear a warning not to open until advised by the Employer in accordance with ITB Sub-Clause 25.

21.3 If all envelopes are not sealed and marked as required, the Employer will assume no responsibility for the misplacement or premature opening of the bid.

21.4 In case Price Bid in a bid is received unsealed then the bid shall be considered as non-responsive and will be returned to the bidder immediately.

21.5 Alternative Bids, if permissible in accordance with ITB Clause 13, shall be prepared, sealed, marked, and delivered in accordance with the provisions of ITB Clauses 22 and 23, with the inner envelopes marked in addition "ALTERNATIVE NO…." as appropriate.

21.6 No details about price proposal shall be disclosed directly or indirectly in the technical proposal failing which the bid shall be rejected.

22. Deadline for Submission of Bids

22.1 Bids must be received by the Employer at the address and not later than the date and time indicated in the BDS.

22.2 The Employer may, at its discretion, extend the deadline for the submission of bids by amending the Bidding Document in accordance with ITB 8, in which case all rights and obligations of the Employer and Bidders previously subject to the deadline shall thereafter be subject to the deadline as extended.

23. Late Bids

23.1 The Employer shall not consider any bid that arrives after the deadline for submission of bids, in accordance with ITB 22. Any bid received by the Employer after the deadline for submission of bids shall be declared late, rejected, and returned unopened to the Bidder.

24. Withdrawal, Substitution, and Modification of Bids

24.1 A Bidder may withdraw, substitute, or modify its bid after it has been submitted by sending a written notice, duly signed by an authorized representative, and shall include a copy of the authorization in accordance with ITB 20.2, (except that withdrawal notices do not require copies). The corresponding substitution or modification of the bid must accompany the respective written notice. All notices must be:

(a) prepared and submitted in accordance with ITB 20 and ITB 21 (except that withdrawal notices do not require copies), and in addition, the respective envelopes shall be clearly marked "WITHDRAWAL," "SUBSTITUTION," "MODIFICATION;" and

(b) received by the Employer prior to the deadline prescribed for submission of bids, in accordance with ITB 22.

24.2 Bids requested to be withdrawn in accordance with ITB 24.1

shall be returned unopened to the Bidders.

24.3 No bid may be withdrawn, substituted, or modified in the interval between the deadline for submission of bids and the expiration of the period of bid validity specified by the Bidder on the Letter of Bid or any extension thereof.

25. Bid Opening

25.1 The Employer shall conduct the opening of Technical Bids in the presence of Bidders' representatives who choose to attend, at the address, date and time specified in the BDS.

25.2 The Price Bids will remain unopened and will be held in custody of the Employer until the time of opening of the Price Bids. The date, time, and location of the opening of Price Bids will be advised in writing by the Employer to all the bidders who have been determined qualified in technical evaluation.

25.3 First, envelopes marked "WITHDRAWAL" shall be opened, read out, and recorded, and the envelope containing the corresponding Bid shall not be opened, but returned to the Bidder. No Bid shall be withdrawn unless the corresponding Withdrawal Notice contains a valid authorization to request the withdrawal and is read out and recorded at bid opening.

25.4 Next, outer envelopes marked "SUBSTITUTION" shall be opened. The inner envelopes containing the Substitution Technical Bid and/or Substitution Price Bid shall be exchanged for the corresponding envelopes being substituted, which are to be returned to the Bidder unopened. Only the Substitution Technical Bid, if any, shall be opened, read out, and recorded. Substitution Price Bids will remain unopened in accordance with ITB Sub-Clause 25.2. No envelope shall be substituted unless the corresponding Substitution Notice contains a valid authorization to request the substitution and is read out and recorded at bid opening.

25.5 Next, outer envelopes marked "MODIFICATION" shall be opened. No Technical Bid and/or Price Bid shall be modified unless the corresponding Modification Notice contains a valid authorization to request the modification and is read out and recorded at the opening of Technical Bids. Only the Technical Bids, both Original as well as Modification, are to be opened, read out, and recorded at the opening. Price Bids, both Original as well as Modification, will remain unopened in accordance with ITB Sub-Clause 25.2.

25.6 All other envelopes holding the Technical Bids shall be opened one at a time, and the following read out and recorded :

(a) the name of the Bidder;

(b) whether there is a modification or substitution;

(c) the presence of a Bid Security, if required; and

(d) any other details as the Employer may consider appropriate.

Only Technical Bids and alternative Technical Bids read out and recorded at bid opening shall be considered for evaluation. No Bid shall be rejected at the opening of Technical Bids except for late bids, in accordance with ITB Sub-Clause 23.1.

25.7 The Employer shall prepare a record of the opening of Technical Bids that shall include, as a minimum: the name of the Bidder and whether there is a withdrawal, substitution, modification, or alternative offer; and the presence or absence of a Bid Security, if one was required. The Bidders' representatives who are present shall be requested to sign the record. The omission of a Bidder's signature on the record shall not invalidate the contents and effect of the record. A copy of the record shall be distributed to all Bidders.

25.8 At the end of the evaluation of the Technical Bids, the Employer will invite bidders who have submitted substantially responsive Technical Bids and who have been determined as being qualified for award to attend the opening of the Price Bids. The date, time, and location of the opening of Price Bids will be advised in writing by the Employer. Bidders shall be given reasonable notice of the opening of Price Bids.

25.9 The Employer will notify Bidders in writing who have been rejected on the grounds of being substantially non-responsive to the requirements of the Bidding Document and who have been determined as being not qualified as a result of evaluation of Technical Bid and their unopened Price Bids along with their bid security shall be returned.

25.10 The Employer shall conduct the opening of Price Bids of all Bidders who submitted substantially responsive Technical Bids and who have been determined qualified as a result of technical evaluation, in the presence of Bidders' representatives who choose to attend at the address, date and time specified by the Employer. The Bidder's representatives who are present shall be requested to sign a register evidencing their attendance.

25.11 All envelopes containing Price Bids shall be opened one at a time and the following read out and recorded :

(a) the name of the Bidder

(b) whether there is a modification or substitution;

(c) the Bid Price(s), including any discounts and alternative offers; and

(d) any other details as the Employer may consider appropriate.

Only Price Bids, discounts, and alternative offers read out and recorded during the opening of Price Bids shall be considered for evaluation. No Bid shall be rejected at the opening of Price

Bids.

25.12 The Employer shall prepare a record of the opening of Price Bids that shall include, as a minimum: the name of the Bidder, the Bid Price (per contract if applicable), any discounts, and alternative offers. The Bidders' representatives who are present shall be requested to sign the record. The omission of a Bidder's signature on the record shall not invalidate the contents and effect of the record. A copy of the record shall be distributed to all Bidders.

E. Evaluation and Comparison of Bids

26. Confidentiality

26.1 Information relating to the examination, evaluation & comparison, pre-qualification of Bids and recommendation of contract award, shall not be disclosed to Bidders or any other persons not officially concerned with such process until information on Contract award is communicated to all Bidders.

26.2 Any attempt by a Bidder to influence the Employer in the examination, evaluation & comparison and pre-qualification of the Bids or Contract award decisions may result in the rejection of its Bid.

26.3 Notwithstanding ITB Sub-Clause 26.2, from the time of opening the Technical Bids to the time of Contract award, if any Bidder wishes to contact the Employer on any matter related to the bidding process, it should do so in writing.

27. Clarification of Bids

27.1 To assist in the examination, evaluation & comparison and pre-qualification of the Bids, the Employer may, at its discretion, ask any Bidder for a clarification of its Bid. Any clarification submitted by a Bidder that is not in response to a request by the Employer shall not be considered. The Employer's request for clarification and the response shall be in writing. No change in the prices or substance of the Bid shall be sought, offered, or permitted, except to confirm the correction of errors discovered by the Employer in the evaluation of the Price Bids, in accordance with ITB Clause 32.

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

28. Deviations, Reservations, and Omissions

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

(a) "Deviation" is a departure from the requirements specified in the Bidding Document;

(b) "Reservation" is the setting of limiting conditions or withholding from complete acceptance of the requirements specified in the Bidding Document; and

(c) "Omission" is the failure to submit part or all of the information or documentation required in the Bidding Document.

29. Determination of

29.1 The Employer's determination of a bid's responsiveness is to be

Responsiveness

based on the contents of the bid itself, as defined in ITB 11.

29.2 A substantially responsive bid is one that meets the requirements of the Bidding Document without material deviation, reservation, or omission. A material deviation, reservation, or omission is one that,

(a) if accepted, would:

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

(ii) limit in any substantial way, inconsistent with the Bidding Document, the Employer's rights or the Bidder's obligations under the proposed Contract; or

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

29.3 The Employer shall examine the technical aspects of the bid submitted in accordance with ITB 16, Technical Bid, in particular, to confirm that all requirements of Section 5 (Works Requirements) have been met without any material deviation or reservation.

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

30. Nonconformities, Errors, and Omissions

30.1 Provided that a bid is substantially responsive, the Employer may waive any nonconformities in the bid that do not constitute a material deviation, reservation or omission.

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

30.3 Deleted

31. Pre-Qualification of the Bidder

31.1 The Employer shall determine to its satisfaction during the evaluation of Technical Bids whether Bidders are qualified to perform the Contract satisfactorily.

31.2 The determination shall be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder, pursuant to ITB Clause 17, to clarifications in accordance with ITB Clause 27 and the qualification criteria indicated in Section 3: Evaluation and Qualification Criteria. Factors not included in Section 3: Evaluation and Qualification Criteria shall not be used in the evaluation of the Bidder's qualification.

31.3 An affirmative determination of technical bid shall be a prerequisite for the opening and evaluation of a Bidder's Price Bid. A negative determination shall result into the disqualification of the Bid, in which event the Employer shall return the unopened Price Proposal to the Bidder

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31.4 DELETED

31.5 DELETED

32. Correction of Arithmetical Errors and Omissions in Price Bid and Evaluation of Bid Price

32.1 Provided that the bid is substantially responsive, the Employer shall correct arithmetical errors and omissions in the price bid and then arrive at the Evaluated Bid Price on the following basis:

(a) If there is a discrepancy between the price mentioned in the summary sheet of the BOQ and the price that is obtained by calculation i.e. by taking into account the percentage rate quoted above/below/at par for any bill/ schedule in the summary sheet of BOQ, then the quoted percentage rate shall prevail and the price shall be corrected accordingly;

(b) if the percentage rate has been quoted both in words and in figures and there is a discrepancy in such rates, then the rate in words shall prevail and shall be considered for evaluation of the price of the schedule/bill;

(c) If the percentage rate has been quoted either in words or in figures only, then the same shall be considered for evaluation of the price of the schedule/bill;

(d) If no percentage rate has been indicated for any particular schedule/bill in words, as well as in figures, irrespective of the fact whether the bidder has written or not written above/below/at par, in such cases, the rate shall be considered as at par and the price shall be calculated accordingly;

(e) If the bidder has indicated a percentage rate other than zero percent without mentioning whether it is above/below or has mentioned it as at par, in such cases the percentage rate shall be considered as at par and the price shall be calculated accordingly;

(f) if there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected.

(g) The rate for each item of each schedule/bill shall first be calculated after applying percentage rate and discount(s) to the BOQ rate for that item and the net rate shall be rounded off to 2 decimal places. The net rate so calculated shall then be used for working out the amount for each item of the schedule/bill. Thereafter, evaluated price of a schedule shall be calculated as the sum of amounts of all items of that schedule and sum of evaluated prices of all schedules/bills shall be the overall Evaluated Bid Price.

32.2 If the Bidder that has submitted the lowest evaluated bid does not accept the correction of errors and omissions as per above provisions, its bid shall be disqualified and its bid security shall be forfeited.

33. Conversion to Single Currency

33.1 For evaluation and comparison purposes the currencies of the bid shall be converted into Indian Rupees as stated in BDS.

34. Purchase Preference

34.1 Unless otherwise specified in the BDS the Purchase Preference shall not apply.

34.2 Unless otherwise specified in the BDS the Domestic Preference shall not apply.

35. Evaluation of Bids

35.1 The Employer shall evaluate Price Bids of each Bid for which the Technical Bids have been determined to be substantially responsive. The Employer shall use the criteria and methodologies listed in this Clause. No other evaluation criteria or methodologies shall be permitted.

35.2 To evaluate the price Bid of a bid, the Employer shall consider the following:

(a) the bid price, excluding Provisional Sums and the provision, if any, for contingencies in the Summary Bill of Quantities, but including Day Work items, where priced competitively;

(b) price adjustment for correction of arithmetic errors and omissions in the price bid in accordance with ITB 32.1;

(c) price adjustment due to discounts offered in accordance with ITB 14.4;

(d) DELETED

(e) application of all the evaluation factors indicated in Section 3 (Evaluation and Qualification Criteria).

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

35.4 If this Bidding Document allows Bidders to quote separate prices for different contracts, and the award to a single Bidder of multiple contracts, the methodology to determine the lowest evaluated price of the contract combinations, including any discounts offered in the Letter of Price Bid , is specified in Section 3 (Evaluation and Qualification Criteria).

35.5 If the bid, which results in the lowest Evaluated Bid Price is substantially on lower side and/or seriously unbalanced in the opinion of the Employer as per criteria defined below, the Employer may require the bidder to submit additional performance security as under:-

a) If overall price quoted by the L1 bidder is below the engineer's estimated price by more than 10% and the difference between overall price quoted by the L1 and L2 is

more than 5% of the estimated price, then the bid price of L1 bidder shall be treated as substantially on lower side and such bidder shall be bound to furnish additional performance security equal to the (0.9x engineer's estimated price – L1 price) or (0.95 x L2 price – L1 price) whichever is lower, on this account. Example below demonstrates the method of calculation to arrive at additional performance security:

Suppose overall price quoted by the L1 bidder is 17% below the estimated price and the overall price quoted by L2 bidder is 8% below the estimated price. In this case the overall price quoted by the L1 bidder is lower by more than 10% of the estimated price and also the difference between overall price quoted by the L2 and L1 bidder is more than 5% of the estimated price, hence the L1 bidder shall be required to furnish additional performance security for an amount equal to

{0.9 x engineer's estimated price – (1-17/100) x engineer's estimated price} = {0.07 x engineer's estimated price} = 7% of engineer's estimated price or {0.95 x (1-8/100) x engineer's estimated price – (1-17/100) x engineer's estimated price} = {0.044 x engineer's estimated price} = 4.4% of engineer's estimated price; whichever is lower.

As per the above L1 bidder shall be required to submit additional performance security of 4.4% of engineer's estimated price.

b) If for any bill/ schedule of quantities % age above or below quoted by the bidder on the estimated price is beyond 10% below the overall % age difference between the quoted contract price and the engineers estimated price, then the price for that particular schedule shall be treated as seriously unbalanced and bidder shall be bound to furnish additional performance security for such unbalanced price. Example below demonstrates the method of calculation to arrive at unbalanced price and additional performance security:

Suppose for the L1 bidder overall % age difference between quoted contract price and the engineers estimated price;

(Overall contract price – Overall estimated price) x 100 ÷ overall estimated price = + 4 %

Maximum % age below permitted over estimated price of any bill / schedule in this case = +4 – 10 = -6%

Suppose for the L1 bidder has quoted 20% below estimated price of schedule "A" then the pricing of the schedule A shall be treated as unbalanced and the bidder shall be required to furnish additional performance security for an amount equal to (20 – 6) % of the estimated price of schedule A.

36. Comparison of Bids

36.1 The Employer shall compare all substantially responsive bids to determine the lowest evaluated bid, in accordance with ITB 34 and 35.

37. Employer's Right to Accept Any Bid, and to Reject Any or All Bids

37.1 The Employer reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at any time prior to contract award, without thereby incurring any liability to Bidders. In case of annulment, all bids submitted and specifically, bid securities, shall be promptly returned to the Bidders.

F. Award of Contract

38. Award Criteria

38.1 The Employer shall award the Contract to the Bidder whose bid is substantially responsive to the Bidding Document, provided further that the Bidder is determined to be qualified to perform the Contract satisfactorily and whose offer has been determined to be the lowest evaluated subject to ITB 38.2 below. In case of more than one bids are evaluated to be lowest, Contract shall be awarded to the bidder having higher average annual construction turnover (calculated as total certified payments received for contracts in progress or completed) in equivalent INR within the last three financial years.

38.2 The Employer has the right to review at any time prior to award of contract that the qualification criteria as specified in Section 3: Evaluation and Qualification Criteria are still being met by the Bidder whose offer has been determined to be the lowest evaluated Bid. A Bid shall be rejected if the qualification criteria as specified in Section 3: Evaluation and Qualification Criteria are no longer met by the Bidder whose offer has been determined to be the lowest evaluated Bid. In this event the Employer shall proceed to the next lowest evaluated Bid to make a similar reassessment of that Bidder's capabilities to perform satisfactorily.

39. Notification of Award

39.1 Prior to the expiration of the period of bid validity, the Employer shall notify the successful Bidder, in writing, that its bid has been accepted by the Competent Authority at RVNL's Corporate Office at Delhi or CPM's Office. The notification letter (hereinafter and in the Conditions of Contract and Contract Forms called the "Letter of Acceptance") shall specify the sum that the Employer will pay the Contractor in consideration of the execution and completion of the Works (hereinafter and in the Conditions of Contract and Contract Forms called "the Contract Price") and the requirement for the Contractor to remedy any defects therein as prescribed by the Contract.

39.2 Until a formal contract is prepared and executed, the notification of award shall constitute a binding Contract.

40. Signing of Contract

40.1 Promptly after notification, the Employer shall send the successful Bidder the Contract Agreement.

40.2 Within twenty-eight (28) days of receipt of the Contract Agreement, the successful Bidder shall sign, date, and return it to the Employer.

41. Performance Security

41.1 Within twenty-eight (28) days of the receipt of notification of award from the Employer, the successful Bidder shall furnish the performance security in accordance with the conditions of contract, subject to ITB 35.5, using for that purpose the Performance Security Form included in Section 8: Contract

Forms, or another form acceptable to the Employer.

41.2 Failure of the successful Bidder to submit the above-mentioned Performance Security or to sign the Contract Agreement shall constitute sufficient grounds for the annulment of the award and forfeiture of the bid security.

41.3 The above provision shall not apply to the furnishing of a Domestic Preference Security, if so required.

42. Jurisdiction of Courts

The bidding process shall be governed by and construed in accordance with the laws of India and the Courts as indicated in Bid Data Sheet shall have exclusive jurisdiction over all the disputes/issues arising under, pursuant to and/ or in connection with the bidding process.

***

[Section 2: Bid Data Sheet (BDS)]

This section consists of provisions that are specific to each procurement and supplement the information or requirements included in Section I – Instructions to Bidders.

A. Introduction

ITB 1.1	The number of the Invitation for Bids is: **RVNL/M/SC/LUR/1 dated 31/05/2018**
ITB 1.1	The Employer is: **RAIL VIKAS NIGAM LIMITED. NEW DELHI**
ITB 1.1	The name of the ICB is: **"Construction of PEB Sheds, Structures, Buildings, Water supply arrangement, Drainage, Sewerage, Road works, Rail track works, Signalling & Telecommunication works, OHE and Power supply arrangements, General Electrical works and Supply, Installation and commissioning of Machinery and Plant in connection with setting up of Rail Coach Factory at Latur, Maharashtra (India)"**

B. Bidding Documents

ITB 4.1	In case of Joint Venture, the JV shall not have more than **two(2)** partners
ITB 7.1	For clarification purposes only, the Employer's address is Chief Project Manager(West) Rail Vikas Nigam Ltd., Amsri Faust, 5th floor, Door No. 9-1-164/A, 165 & 166, Sarojini Devi Road, SECUNDERABAD – 500 003. Phone No.040 - 27710153 & 27710154 Fax: +91 40 - 27710755 E-mail: cpmwestsc@rvnl.org
ITB 7.4	A Pre-Bid meeting takes place at the following date, time and place: **Date: 12/06/2018** **Time: 11.30 hrs** Rail Vikas Nigam limited Corporate Office New Delhi at August Kranti Bhavan; Bhikaji Cama Place New Delhi 110066, India. Site visit is not proposed to be organized by the Employer. However, the bidders are advised to visit the site before pre-bid meeting.

C. Preparation of Bids

ITB 10.1	The language of the bid is: **English**
ITB 11.2	Alternative technical solutions **are not** permitted.
ITB 13.1	Alternative bids **will not be** permitted.
ITB 13.2	Alternative times for completion **will not be** permitted.
ITB 14.5	**The prices quoted by the Bidder shall be adjustable in accordance with the provisions in Sub Clause 13.8 of GCC, Section 7, Part B; Particular Conditions of Contract.**
ITB 15.1	The unit rates and the prices shall be quoted by the bidder entirely in **Indian Rupees (INR)**
ITB 18.1	The bid validity period shall be 120 **(One hundred and twenty only)** days.
ITB 19.1	The Bidder should submit along with the bid, a bid security for Rs.**2 crore** (Rupees Two crore only)
ITB 19.2	The bid security shall be valid up to **24/12/2018**
ITB 20.1	In addition to the original of the bid, the number of copies is: NIL
ITB 20.2	The written confirmation of authorization to sign on behalf of the Bidder shall consist of: (a) In case of Companies, a POA from the Director of the Company who has been authorized by the Board of Directors through resolution to sign on behalf of the Company (b) In case of firms Power of Attorney by the Proprietors. (c) In case of JV POA by the JV partners.

D. Submission and Opening of Bids

ITB 22.1	For bid submission purposes only, the Employer's address is: Chief Project Manager(West) Rail Vikas Nigam Ltd., Amsri Faust, 5th floor, Door No. 9-1-164/A, 165 & 166, Sarojini Devi Road, SECUNDERABAD – 500 003. Phone No.040 - 27710153 & 27710154 Fax: +91 40 - 27710755 E-mail: cpmwestsc@rvnl.org The deadline for bid submission is: **Date: 16/07/2018** **Time: 11:00 hrs.**
ITB 22.2	Electronic bid submission **is not** permitted.
ITB 25.1	The bid opening shall take place at: Chief Project Manager(West) Rail Vikas Nigam Ltd., Amsri Faust, 5th floor, Door No. 9-1-164/A, 165 & 166, Sarojini Devi Road, SECUNDERABAD – 500 003. Phone No.040 - 27710153 & 27710154 Fax: +91 40 - 27710755 E-mail: cpmwestsc@rvnl.org **Bid Opening**: **Date: 16/07/2018** **Time: 11:30 hrs**
ITB 25.2	Electronic bid opening procedure is **Not permitted.**
ITB 42	**Delhi**

Table of Criteria

1. Evaluation 2

1.1. Adequacy of Technical Bid 2

1.2. Multiple Contracts 2

1.3. Completion Time 2

1.4. Technical Alternatives 2

1.5. Margin of Preference 2

1.5.1. Purchase Preference to Central Public Sector Enterprises (CPSUs) 2

1.5.2. Domestic Preference 2

2. Qualification 3

2.1 Eligibility 3

2.2 Financial Status 3

2.3 Experience 5

2.3.1 Specific Construction Experience 5

2.4 Personnel 8

2.5 Equipment 8

2.6 Specialist sub-contractor……9

1. Evaluation

In addition to the criteria listed in ITB 35.2 (a)-(e), the following criteria shall apply:

1.1. Adequacy of Technical Bid

Evaluation of the Bidder's commitment to mobilize key equipment and personnel for the contract consistent with the requirements stipulated in Section 5: Works Requirements regarding work methods, scheduling, and material sourcing.

1.2. Multiple Contracts

Multiple Contracts are not envisaged.

1.3. Completion Time

Alternative Completion Time is not permitted.

1.4. Technical Alternatives

Technical alternatives are not permitted

1.5. Margin of Preference

1.5.1. Purchase Preference to Central Public Sector Enterprises (CPSEs)

Purchase Perference to CPSEs shall not apply.

1.5.2. Domestic Preference

Domestic Preference is not applicable.

RVNL

2. Qualification

2.1 Eligibility

Criteria	Compliance Requirements				Documents
	Single Entity	Joint Venture			Submission Requirements
		All Partners Combined	Each Partner	Lead Partner	
2.1.1 Conflict of Interest					
No Conflict of interest in accordance with ITB Sub-Clause 4.3.	Must meet requirement	Existing or intended JV must meet requirement	Must meet requirement	Must meet requirement	Letter of Technical Bid (Form PS 1)
2.1.2 Share of partners					
The share of partners shall not be less than the specified percentage.	N. A.	100%	8%	50%	MoU or JV Agreement Form JV 4 Or JV 5
2.1.3 Disqualification of Bidder					
Not Disqualified under Clause 4.4 of ITB.	Must Meet Requirement	Existing or intended JV must meet requirement	Must meet requirement	Must meet requirement	Letter of Technical Bid (Form PS 1) & Affidavit (Form PS 3)

2.2 Financial Status

Criteria	Compliance Requirements				Documents
Requirement	Single Entity	Joint Venture			Submission Requirements
		All Partners Combined	Each Partner	Lead Partner	
2.2.1 Historical Financial Performance					
Submission of audited balance sheets for the last three financial years (refer note below the table) to demonstrate the current soundness of the Bidders financial position with the following as minimum criteria; a) Average Profit After Tax (PAT) for last three financial years should be positive. b) Profit After Tax (PAT) should be positive for two financial years out of last three years. c) The bidder should not be at default in repayment of dues to a financial institution or bank or debenture holders at the end the latest financial year for which audited	Must meet requirement	Not applicable	Must meet requirement if share of a partner in JV is more than 15%	Must meet requirement	Form FIN-1 with attachments

balance sheet is available.					
2.2.2 Average Annual Construction Turnover :					
Minimum average annual construction turnover in equivalent **INR 340.50 crores** Calculated as total certified payments received for contracts in progress or completed, within the last three financial years (refer note below the table).	Must meet requirement	Must meet requirement	Must meet At least 8% of the requirement	Must meet At least 70% of the requirement	Form FIN-2
2.2.3 Net –Worth					
Minimum average Net-Worth (Total Assets – Total Liabilities) should not be less than **INR 68.10 crores** during the last three financial years (refer note below the table).	Must meet requirement	Must meet requirement	Not applicable	Must meet At least 80% of the requirement	Form FIN-1
2.2.4 Bid Capacity					
Available Bid capacity = (A x N x 1.5 – 0.33 x N x B), should be more than the total Estimated price where, A = Maximum value of works executed in any one year during the last 5 years which will take into account the completed as well as works in progress (total contract receipts). B = Total value of existing commitments irrespective of the completion period of those works (in case bidder or partner of JV has existing commitment through another JV, then the commitment will be taken in proportion to the share of the Bidder in the JV) and N = Number of years prescribed for completion of works in the present bid.	Must meet requirement	Must meet requirement	Must meet At least 8% of the requirement	Must meet At least 70% of the requirement	Form FIN-2 & FIN-3

Note: In the event that the audited accounts for the latest concluded Financial Year are not available, the Bidder shall furnish information pertaining to the last three financial years after ignoring the latest concluded financial year. In case the bidder submits audited financial information for the last four or more years, only the figures for the latest three years shall be considered for evaluation.

2.3 Experience

Criteria	Compliance Requirements				Documents
Requirement	Single Entity	Joint Venture			Submission Require-ments
		All Partners Combined	Each Partner	Lead Partner	
2.3.1 Specific Construction Experience					
2.3.1 (a) Contracts of Similar Size and Nature. (I) Execution as contractor, or subcontractor, at least One contract with a value of at least **INR 204.30 crores**. that has been successfully or is substantially completed within the last Seven years before the deadline for submission of the bids, and that is similar to the proposed work. The similar work here shall be that which includes at least any one of the quantities of key activities mentioned below: i. Execution of minimum quantity of **2830 MT** of fabrication and erection of steel structures through single contract, which should include an industrial/ pre-engineered building shed of height equal to or more than 10m with a gantry. ii. Supply and commissioning of machinery and plant for minimum value of **INR 53.55 crores** through single contract . **OR** (II) Execution as contractor or subcontractor, at least two contracts, each with a value of at least **INR 119.17 crores** that has been successfully or is substantially completed within the last Seven years before the deadline for the submission of the bids, and that are similar to the proposed work. Each similar work here shall be that which includes at least any one of the quantities of key activities mentioned below: i. Execution of minimum quantity of **1415 MT** of fabrication and erection of steel structures through single contract, which should include an industrial/ pre-engineered building shed of height equal to or more than 10m with a gantry.	must meet requirement of either (I) or (II)	must meet require ment of either (I) or (II)	not applicable	must meet requirement of either (I) or (II)	Form EXP-2(a)

ii. Supply and commissioning of machinery and plant for minimum value of **INR 26.77 crore** through single contract,					
2.3.1 (b) Construction Experience in Key Activities (Executed during the last Seven years prior to the applications submission deadline)					
For the contracts as per 2.3.1 (a) above and/or other contracts a minimum construction experience in the following key activities: i. Execution of minimum quantity of **2264 MT** of fabrication and erection of steel structures in one year which should include an industrial/ pre-engineered building shed of height equal to or more than 10m with a gantry. ii. Supply and commissioning of machinery and plant for minimum value of **INR 42.84** crore in one year.	must meet all requirements	must meet all requirements	Must Meet requirement of atleast one of the Key activities i.e. either (i) or (ii)	Must Meet requirement of atleast one of the Key activities i.e. either (i) or (ii)	Form EXP-2(b)

Note:-

(1) (a) For the purpose of value of work for the past experience of a firm in a JV in sub clause 2.3.1(a) credit shall be given in proportion of the percentage share of the firm in that JV. For past experience of key activities in sub clause 2.3.1(a) & (b) credit shall be given for execution of the quantity of that specific activity executed by the firm as part of a JV, duly certified by the Employer. If the Employer's Certificate does not indicate the specific quantity of key activity/activities executed by each partner, in such a case credit for quantity of each key activity shall be given as per following provisions in order of priority:

i) As per details given in JV agreement forming part of the relevant Contract Agreement.
ii) If JV agreement does not provide such details, then credit shall be given in proportion of the percentage share of the firm in that JV.

(b) In case a JV quoting for the tender has executed similar work specified in 2.3.1(a) and construction experience in key activities specified under 2.3.1(b), with the same constitution of JV, the requirement specified to be met under sub clause 2.3.1(a) & (b) shall be considered to have been met treating the JV as a single entity for this purpose

(2) The bidder must submit an undertaking that the equipment for SSI shall be procured, from RDSO approved supplier and installation, programming and commissioning of the SSI shall also be got done from the same agency. (This shall not be applicable in case Indoor Signaling is not part of the tender).

(3) For Sub-clause 2.2.2 Average Annual Construction Turnover, the Bidder should submit actual construction turnover figures for the specified financial years. For Evaluation purposes the figures of previous years shall be updated @ 5% per year compounded annually based on Rupee value to bring them to the level of the last Financial Year specified in sub-clause. If the figure for turnover in an individual year is in a currency other than INR, then the same shall first be converted to INR based on the exchange rates published by Reserve Bank of

India/International Monetary Fund (in that order) as on last day of that year and then the figures in INR shall be updated as mentioned above.

(4) For Sub-clause 2.3.1 Specific Construction Experience, the Bidder should submit actual Value of Work completed/ substantially completed. Value of Work for Evaluation purposes shall be updated based on Rupee value to bring them to the price level of date of deadline for submission of bids as per formula given below:-

A = B [1+ (5÷36500) x N]
Where
A = updated value of work on dead line for submission of bids.
B = value of work on the date of completion/substantial completion as indicated in the Employer's certificate.
N = Number of days between date of completion and dead line for submission of bids.
The base date for updating purpose shall be considered as the date of completion of work as certified by the Engineer-in Charge.

In case value of the work is mentioned in a currency other than INR, then the same shall first be converted to INR based on the exchange rates published by Reserve Bank of India/International Monetary Fund (in that order) as on the date of completion/substantial completion of the work and then the figures in INR shall be updated as mentioned above.

(5) The phrase "substantial completion" used in clause 2.3.1 (a) shall mean where the employer has certified:

Ongoing works where required value of the work as well as required quantity of key activity has been physically completed. The same should be supported by Employer's certificate.

(6) Evaluation of item 2.3.1(b) shall be done to assess the execution of quantity of each activity in a period of any one year. In cases, where year-wise quantities (For identical Period) of a particular key activity are indicated in the employer's certificate(s) of single or multiple works, the same will be considered to arrive at the total quantity of the particular key activity executed in a single year through single/multiple contract. In all other cases, assessment of execution of quantity of the key activity in a period of any one year will be made in the following manner:

(i) If the criteria is being met through a single contract (as per statement submitted by the bidder as required vide Para (vi) below), then the quantity executed shall be divided by the number of months from start of execution of activity up to the end of execution of activity and multiplied by 12 to arrive at the quantity executed in a year (if the period of execution is less than 12 months, the same will be taken as 12 months for calculation purpose) to establish whether the criteria is being met.

(ii) If the criteria is being met through multiple contracts (as per statement submitted by the bidder as required vide Para (vi) below), then the quantities executed through these contracts will be added and the sum shall be divided by number of months for the period starting from earliest month of start of execution of the activity in any of the contracts and ending with the latest month of execution of the activity in any of the contracts, as per employer's certification. In case the period between the earliest start month and latest finish month is less than 12 months, it will be taken as 12 months for calculation purposes. This average will then be multiplied by 12 to arrive at quantity executed in a year to establish whether the criteria is being met.

(iii) In case employer's certificate does not indicate start/end month of execution of the key activity then start/end month of contract shall be considered as the start/end month of execution of the key activity.

(iv) For S&T activity, the number of stations commissioned (after installation and testing) of EI/SSI/PI/RRI within one year shall be counted as under:

a) For new EI/PI/SSI works commissioned: -

1 x number of stations involving indoor and outdoor signaling works + 0.5 number of stations involving only outdoor signaling works + 0.5 number of stations involving only indoor signaling works.

b) For modification works of existing EI/PI/RRI installations commissioned to suit Railway Electrification works: -

0.5 x number of stations involving RE modification signaling works

c) No other alteration/ modification work shall be considered.

(v) For the contracts starting more than seven years prior to the deadline for submission of bids and where employer's certificate does not clearly indicate quantity of a particular key activity executed during last seven years prior to the deadline for the submission of bids, in such a case, quantity considered to be executed during the period of the such contract falling within last seven years shall be worked out on proportionate basis [i.e. by applying ratio of period of contract falling in last seven years to total period of the contract or period of execution of key activity falling in last seven years to total period of execution of the key activity as given in employer's certificate as the case may be]. Provisions of note (i) above shall also apply to cases where period falling within last seven years is less than 12 months.

(vi) **Bidder should submit a statement indicating as to how criteria specified under item 2.3.1(b) is being met duly referring to the relevant employer's certificates enclosed with the bid.**

(7) For Sub-clause 2.3.1 Evaluation of length of spans for multi track/ multi lane bridges shall be done as under:

a) In case of Railway bridges/Metro viaduct, accommodating multiple tracks, the length of span for each track shall be taken into consideration. In case of Road bridges accommodating multilanes, the credit for length of one span shall be given for every two lanes.

b) The credit for multiple tracks/multilane shall be given only if the number of tracks or number of lanes is specifically mentioned in the certificate of the employer, otherwise credit shall be given for single track/lane only.

(8) The experience of track linking, OHE and EI/SSI/PI/RRI work that shall be considered under this qualifying criteria must be a work of Railway including Metro Railway system but excluding LRT, Tramway & Mono Rail.

(9) Overhead Equipment works that shall be considered under this qualifying criterion must include erection, testing and charging of 25 KV AC system for electrification of un-electrified track. Works pertaining to construction of switching stations, commissioning of capacitor banks for Railway Electrification projects, rehabilitation of OHE/Structures, shall not qualify as similar works.

2.4 Personnel

The Bidder must give an undertaking to provide at least the personnel for the key position as given in Section 5: Works Requirement, if he is awarded the contract:

2.5 Equipment

The Bidder must give an undertaking to provide at least the key equipment for execution of the work as given in section5: Works Requirement, if he is awarded the contract:

2.6 Specialist sub-contractor

The Bidder must give a separate undertaking for each key activity mentioned below that either he is having minimum requisite experience mentioned below against each activity himself or he will be deploying specialist subcontractor not exceeding three for each activity, each sub contractor having such experience (in proportion of the quantity proposed to be assigned to him), if he is awarded the contract:

Sl No.	Key Activity	Minimum Experience Requirement (executed during the last Seven years prior to the applications submission deadline) for the Bidder or the specialist subcontractor for execution of following Key activities:
1	General Electrical works	(i) Execution of General electrical works of value INR 13.05 crore in one year preferably with railway/ Government organization. Contractor must have valid electrical contractor license from the appropriate authority. (ii) Must have valid electrical contractor license from the appropriate authority.
2	Earth Works	Execution of 1.1 lakh cum earthwork/ blanketing/ subbase in railway/ road formation/ dams/ runways/ taxi system in air ports in one year
3	Track Works	Execution of laying and linking of railway track with points and crossings of 4.2 km in one year
4	Supplying and stacking of ballast	Execution, supply and stacking of track ballast/ stone metal for railway/ road for a quantity of 10,800 cum in one year.
5	S&T Works	Execution and commissioning of signalling works of one station in one year

Note:-

(1) If the contract is awarded to the bidder and he himself does not have requisite experience as above, he is required to enter into legally enforceable agreement with the specialist sub-contractor at least one month prior to scheduled starting of Key activity as per program submitted by him as contractor and agreed by the engineer. The agreement must specify the specific role and responsibility of the subcontractor.

(2) Experience requirement of each key activity under the Clause shall be adjudged in the same manner as described in Note (6) under Clause 2.3 above.

IMPORTANT NOTE FOR SPECIAL ATTENTION OF BIDDERS:

EACH BIDDER SHOULD SUBMIT DETAILS/REFERENCES AS TO HOW THE ELIGILIBILITY CRITERIA IS BEING MET BY THE BIDDER AGAINST EACH ITEM OF EQC. THIS SHOULD BE PREPARED AND SUBMITTED IN THE PERFORMA "EQC FORM NO.1" ENCLOSED IN SECTION 4.

Section 4: Bidding Forms

This Section contains the forms which are to be completed by the Bidder and submitted as part of his Bid

Table of Forms

Letter of Technical Bid Form PS 1 2

Letter of Price Bid Form PS 2 3

Format for Affidavit (along with Bid) Form PS 3 ……..……..4

Format for Affidavit (before opening of price bid) Form PS 4 …… 7

Schedules Form PC/1 ……..…..…….....8

Bid Security Form:BDF/1……..…….....9

Letter of Bid

Form: JV/1...…… …… …….....12

Form: JV/2…….....14

Form: JV/3...…… …….....15

Draft MOU for JV

Form: JV/4...…….....17

Form: JV/5...…….....21

Bill of Quantities (BOQ) ……..…….....25

Bidders Qualification……..…….....26

Form ELI - 1: Bidder's Information Sheet…...…….....27

Form ELI - 2: JV Information Sheet…...…….....28

Form FIN - 1: Financial Situation…...…….....29

Form FIN - 2: Annual Construction Turnover for the last 5 years…….....31

Form FIN - 3: Current Contract Commitment ……...32

Form EXP – 2(a): Specific Construction Experience…….....33

Form EXP – 2(b): Specific Construction Experience……..……...34

EQC Form No.1 ……..……..35

Form: PS 1

Letter of Technical Bid

Date: .....

Invitation for Bid No.: .....

To: .....

We, the undersigned, declare that:

(a) We have examined and have no reservations to the Bidding Documents, including Addenda issued in accordance with Instructions to Bidders (ITB) 8;

(b) We offer to execute the Works in conformity with the Bidding Documents;

(c) Our bid shall be valid for a period of . . . . . days from the date fixed for the bid submission deadline in accordance with the Bidding Documents, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;

(d) If our bid is accepted, we commit to obtain a performance security in accordance with the Bidding Documents;

(e) If our bid is accepted, we commit to deploy key equipment and key personnel consistent with the requirements stipulated in Section 5: Works Requirements;

(f) If our bid is accepted, we commit to submit work method statements for all major activities and get these approved from the engineer prior to commencing work on such activities. We also understand that the work shall be executed as per the approved method statements without any deviations;

(g) We, including any subcontractors or suppliers for any part of the contract, do not have any conflict of interest in accordance with ITB 4.3;

(h) We are not participating, as a Bidder or as a subcontractor, in more than one bid in this bidding process in accordance with ITB 4.3, other than alternative offers submitted in accordance with ITB 13;

(i) We declare that we are not liable to be disqualified in Accordance with ITB 4.4, and we are enclosing the affidavit for the same as per the Performa given in the bid document.

(j) We understand that this bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal contract is prepared and executed; and

(k) We have not made any deviations from the requirement of the bidding document and we have also not made any tampering or changes in the bidding documents on which the bid is being submitted and if any tampering or changes are detected at any stage, we understand the bid will invite summary rejection and forfeiture of bid security/the contract will be liable to be terminated along with forfeiture of performance security, even if LOA has been issued.

(l) We declare that the submission of this bid confirms that no agent, middleman or any intermediary has been, or will be engaged to provide any services or any other item of work related to the award and performance of this contract. We further confirm and declare that no agency commission or any payment which may be construed as an agency commission has been, or will be, paid and that the bid price does not include any such amount. We acknowledge the right of the Employer, if he finds to the contrary, to declare our bid to be noncompliant and if the contract has been awarded to declare the contract null and void

(m) We understand that you are not bound to accept the lowest evaluated bid or any other bid that you may receive.

Name .....

In the capacity of .....

Signed .....

Duly authorized to sign the Bid for and on behalf of .....

Date

Form: PS 2

Letter of Price Bid

Date: .....

Invitation for Bid No.: .....

To: .....

We, the undersigned, declare that:

(a) We have examined and have no reservations to the Bidding Documents, including Addenda issued in accordance with Instructions to Bidders (ITB) 8;

(b) We offer to execute the Work in conformity with the Bidding Documents;

(c) The total price of our Bid, excluding any discounts offered in item (d) below is……
……

(d) The discounts offered and the methodology for their application (see note below) are
……
……

(e) We understand that this bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal contract is prepared and executed; and

(f) We have not made any deviations from the requirement of the bidding document and we have also not made any tampering or changes in the bidding documents on which the bid is being submitted and if any tampering or changes are detected at any stage, we understand the bid will invite summary rejection and forfeiture of bid security/the contract will be liable to be terminated along with forfeiture of performance security, even if LOA has been issued.

(g) We understand that you are not bound to accept the lowest evaluated bid or any other bid that you may receive.

Name .....

In the capacity of .....

Signed .....

Duly authorized to sign the Bid for and on behalf of .....

Date .....

Note: *The discounts, and the methodology of their application, should be quoted on prices quoted in the bid so that the discounts can be evaluated by simple arithmetic calculation during financial evaluation of the bids, to arrive at the net total price of the bid. If the net total price cannot be calculated after application of the methodology of the discount(s) quoted, the bid shall be considered as incomplete and will be rejected.*

Form: PS 3

FORMAT FOR AFFIDAVIT TO BE SUBMITTED BY BIDDER ALONGWITH THE BID

*(To be executed in presence of Public Notary on non-judicial stamp paper of the appropriate value in accordance with relevant stamp Act. The stamp paper has to be in the name of the bidder)***

I …….. ***(Name and designation)**……*** appointed as the attorney/authorized signatory of the bidder (including its constituents), M/s. _____ (hereinafter called the bidder) for the purpose of the Bid for the work of _____ as per the bid No._____ of RVNL, do hereby solemnly affirm and state on behalf of the bidder including its constituents as under:

*1. That the bidder or any of its constituents has not been Blacklisted/ banned for business dealings for all Government Departments or by Ministry of Railways or by RVNL at any time and/or no such blacklisting is in force as on the deadline for submission of bids.

*2 That none of the previous contracts of the bidder or any of its constituents had been terminated/rescinded for Contractor's failure by Rail Vikas Nigam Ltd. during the period of last 2 years before the deadline for submission of bids.

(Add Proviso of Clause 4.4(b) (ITB suitably, if any Contract was so terminated).

*3 The bidder or any of its constituents has not been imposed liquidated damages of 5% or more of contract value by RVNL due to delay in the implementation of any previous contract (either in the capacity of a single entity or as constituent of any other JV) within the period of last 2 years before the deadline for submission of bid [*2 years shall be reckoned from the date on which imposed L.D. has exceeded 5% of the contract price]* and there are no such accrued delay damages which has not been fully recovered before the deadline for submission of bids on account of contractor's request for deferring recovery to maintain cash flow and RVNL has acceded to the same in the interest of the project and the work under the previous contract in question has been completed before the deadline for submission of bid, unless imposition of

such delay damages has been set aside by the Competent Authority.

4 That the Bidder or any of its constituents is neither Bankrupt/Insolvent nor is in the process of winding-up nor such a case is pending before any Court on the deadline of submission of the bid.

*5 That the name of the Bidder or any of its constituents is not on the list of “Poor Performer” of RVNL as on the deadline for submission of bid.

6. We declare that the bidder or any of its constituents have not either changed their name or created a new business entity as covered by the definition of “Allied Firm” under para 1102 (iii) of chapter XI of Vigilance manual of Indian Railways with latest amendments and corrections (available on website of Indian Railways), consequent to having been banned business dealings for specified period which is not over or suspended business dealings or having been declared as poor performer.

7.# We declare and certify that balance sheets for last three financial years including that for the latest concluded financial year are being submitted.

OR

We declare and certify that balance sheet for the latest concluded financial year has not been finalized till date and accordingly financial data for last three financial years ignoring the latest concluded financial year is being furnished.

*(# - Delete whichever is not applicable)***.

8. We declare and certify that we have not made any misleading or false representation in the forms, statements and attachments in proof of the qualification requirements.

9. We declare that the information and documents submitted along with the tender by us are correct and we are fully responsible for the correctness of the information and documents, submitted by us.

10. We understand that in case we cease to fulfill the requirements of qualifying and eligibility criteria at any time after opening of bids and till finalization of bids, it will be our bounden duty to inform the Employer of our

changed status immediately and in case of our failure to do so, our bid shall be rejected and bid security shall be forfeited. In case such failure comes to the notice of Employer at any time after award of the contract, it will lead to termination of the contract and forfeiture of Bid or Performance Security. We shall also be liable for Banning of Business dealings upto a period of five years.

11. We understand that if the contents of the affidavit are found to be false at any stage during bid evaluation, it will lead to rejection of our bid and forfeiture of the bid security. Further, we ***[insert name of the bidder]*****_____ and all our constituents understand that we shall be liable for banning of business dealings upto a period of five years.

12. We also understand that if the contents of the affidavit are found to be false at any time after the award of the contract it will lead to termination of the contract, forfeiture of Bid or Performance Security and Banning of Business dealings for a period of upto five years.

SEAL AND SIGNATURE OF THE BIDDER

Verification:

Verified on _____ day of _____ at _____ that the contents of the above mentioned affidavit are true and correct and nothing material has been concealed there from.

SEAL AND SIGNATURE OF THE BIDDER

**Modify the contents wherever necessary, in terms of sub-clause 4.4 ITB.*

*** The contents in Italics are only for guidance purpose and details as appropriate, are to be filled in suitably by Bidder.*

Attestation before Magistrate/Public Notary

Form: PS 4

DELETED

Form: PC/1

Schedules

Schedule of Payment Currencies

(Refer Sub Clause 14.15)

DELETED

Form: BDF/1

Bid Security

Bank Guarantee

(On non-judicial stamp paper of the appropriate value in accordance with Stamp Act. The stamp paper should be in the name of the Executing Bank).

From:

..... [***Insert Bank's Name, and Address of Issuing Branch or Office]*****.....**

To:
The Chairman and Managing Director,
Rail Vikas Nigam Limited,
1st Floor, August Kranti Bhawan,
Bhikaji Cama Place, R. K. Puram,
New Delhi-110 066.

Beneficiary: Rail Vikas Nigam Limited (hereinafter called "the Employer")

Date:.....

Bid Security No.: .....

We have been informed that . . . . . *[***Insert** ***name of the Bidder]***..... (hereinafter called "the Bidder") intends to submit to you its bid (hereinafter called "the Bid") for the execution of . . . . . [***name of contract***]. . . . . under Invitation for Bids No. . . . . .dated ……("the IFB").

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

AND

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

1. KNOW ALL MEN that by these present that I/We the undersigned ***[Insert name(s) of authorized representatives of the Bank],*** being fully authorized to sign and incur obligations for and on behalf of the Bank**,** confirm that the Bank, hereby, unconditionally and irrevocably guarantee to pay to the Employer full amount in the sum of ***[Insert Value of Bid Security required]*** as above stated.

2. The Bank undertakes to immediately pay on presentation of demand by the Employer any amount up to and including aforementioned full amount without any demur, reservation or recourse. Any such demand made by the Employer on the Bank shall be final, conclusive and binding, absolute and unequivocal on the Bank notwithstanding any disputes raised/ pending before any Court, Tribunal, Arbitration or any Authority or any threatened litigation by the Bidder or Bank.

3. The Bank shall pay the amount as demanded immediately on presentation of the demand by Employer without any reference to the Bidder and without the Employer being required to show grounds or give reasons for its demand of the amount so demanded.

4. The guarantee hereinbefore shall not be affected by any change in the constitution of the Bank or in the constitution of the Bidder.

5. The Bank agrees that no change, addition, modifications to the terms of the Bid document or to any documents, which have been or may be made between the Employer and the Bidder, will in any way absolve the Bank from the liability under this guarantee; and the Bank, hereby, waives any requirement for notice of any such change, addition or modification made by Employer at any time.

6. This guarantee will remain valid and effective from***……[insert date of issue]*** till *…….**[insert date, which should be minimum 42 days beyond the expiry of bid validity date in the IFB]***. Any demand in respect of this Guarantee should reach the Bank within the validity period of Bid Security.

7. The Bank Guarantee is unconditional and irrevocable.

8. The expressions Bank and Employer herein before used shall include their respective successors and assigns.

9. The Bank hereby undertakes not to revoke the guarantee during its currency, except with the previous consent in writing of the Employer. This guarantee is subject to the Uniform Rules for Demand Guarantees, ICC Publication No.758.

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

Date …….
Place…….

…….
Bank's Seal and authorized signature(s)
[Name in Block letters]……...
[Designation]……..……

[P/Attorney] No.

Witness:

1 Signature
Name & Address & Seal

2 Signature

Bank's Seal

Name & address & Seal *[P/Attorney]* No.

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

Form: JV/1

PRO-FORMA LETTER OF PARTICIPATION FROM EACH PARTNER OF JOINT VENTURE (JV)

(On each Firm's Letter Head)

No…. Dated

From:
……..
……..

To,
The Chairman and Managing Director,
Rail Vikas Nigam Limited,
1st Floor,August Kranti Bhavan,
Bhikaji Cama Place,
RK Puram New Delhi -110066

Gentlemen,

Re: …"*[Insert name of work*]……..".

Ref: Your notice for Invitation for Bid (IFB) ……..

1. We wish to confirm that our company/firm (delete as appropriate) has formed a Joint Venture by name of -------- with for the purposes associated with IFB referred to above.

(Members who are not the lead partner of the JV should add the following paragraph).*

2. 'The JV is led by … whom we hereby authorise to act on our behalf for the purposes of submission of Bid for ……. and authorise to incur liabilities and receive instructions for and on behalf of any and all the partners or constituents of the Joint Venture.'

OR

*(Member(s) being the lead member of the group should add the following paragraph)**

2. 'In this group we act as leader and, for the purposes of applying for qualification, represent the Joint Venture:'

3. In the event of our group being awarded the contract, we agree to be jointly with ……. (names of other members of our JV)……. and severally liable to the Rail Vikas Nigam Limited, its successors and assigns for all obligations, duties and responsibilities arising from or imposed by the contract subsequently entered into between Rail Vikas Nigam Limited and our JV.

4. *I/We, further agree that entire execution of the contract shall be carried out exclusively through the lead partner.

Yours faithfully,

(Signature)

(Name of Signatory)…….
(Capacity of Signatory)…….
Seal

* Delete as applicable

Form: JV/2

FORMAT FOR POWER OF ATTORNEY FOR AUTHORISED SIGNATORY OF JOINT VENTURE (JV) PARTNERS

POWER OF ATTORNEY*

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

Know all men by these presents, we … do hereby constitute, appoint and authorise Mr/Ms. …. who is presently employed with us and holding the position of ……as our attorney, to do in our name and on our behalf, all such acts, deeds and things necessary in connection with or incidental to our bid for the work of …Including signing and submission of all documents and providing information/responses to Rail Vikas Nigam Limited, representing us in all matters, dealing with Rail Vikas Nigam Limited in all matters in connection with our bid for the said project.

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

Dated this the ……. day of …… 20....

(Signature of authorised Signatory)

……
(Signature and Name in Block letters of Signatory)
Seal of Company

Witness

Witness 1:	Witness 2:
Name:	Name:
Address:	Address:
Occupation:	Occupation:

**Notes:*

i) To be executed by all the partners individually, in case of a Joint Venture.
ii) The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and when it is so required the same should be under common seal affixed in accordance with the required procedure.

Form: JV/3

FORMAT FOR POWER OF ATTORNEY TO LEAD PARTNER OF JOINT VENTURE (JV)

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

POWER OF ATTORNEY[1]

Whereas Rail Vikas Nigam Limited has invited Bids for the work of

Whereas, the members of the Joint Venture comprising of M/s. …, M/s. ……, and M/s. …. are interested in submission of bid for the work of …*[Insert name of work*]… in accordance with the terms and conditions contained in the bidding documents.

Whereas, it is necessary for the members of the Joint Venture to designate one of them as the Lead Partner, with all necessary power and authority to do, for and on behalf of the Joint Venture, all acts, deeds and things as may be necessary in connection with the Joint Venture's bid for the project, as may be necessary in connection the Joint Venture's bid for the project.

NOW THIS POWER OF ATTORNEY WITNESSETH THAT:

We, M/s. ……., hereby designate M/s. ……, being one of the partners of the Joint Venture, as the lead partner of the Joint Venture, to do on behalf of the Joint Venture, all or any of the acts, deeds or things necessary or incidental to the Joint Venture's bid for the contract, including submission of bid, participating in conferences, responding to queries, submission of information/ documents and generally to represent the Joint Venture in all its dealings with the Railway or any other Government Agency or any person, in connection with the contract for the said work until culmination of the process of bidding till the contract agreement is entered into with the Rail Vikas Nigam Limited and thereafter till the expiry of the contract agreement.

We hereby agree to ratify all acts, deeds and things lawfully done by lead member, our said attorney, pursuant to this power of attorney and that all acts deeds and things done by our aforesaid attorney shall and shall always be deemed to have been done by us/ Joint Venture.

Dated this the ……. Day of …….. 20…..

……
(Signature)

……
(Name in Block letters of Executant)
Seal of Company

Witness 1:	Witness 2:
Name:	Name:
Address:	Address:
Occupation:	Occupation:

Notes:

1. *To be executed by all the Partners of the JV except the lead Partner.*
2. *The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and when it is so required the same should be under common seal affixed in accordance with the required procedure.*

Form: JV/4

DRAFT MEMORANDUM OF UNDERSTANDING (MOU[2])
For
JOINT VENTURE PARTICIPATION
BETWEEN

M/s …….. having its registered office at ……. (hereinafter referred to as …….) acting as the Lead Partner of the first part,

and

M/s ……..having its registered office at ……. (hereinafter referred to as `…….') in the capacity of a Joint Partner of the other part.

The expressions of …….. and …….. shall wherever the context admits, mean and include their respective legal representatives, successors-in-interest and assigns and shall collectively be referred to as " the Parties" and individually as " the Party"

WHEREAS:

Rail Vikas Nigam Limited (RVNL) [hereinafter referred to as "Employer"] has invited bids for … "*[Insert name of work]*……..."

NOW, THEREFORE, THE PARTIES AGREE AS FOLLOWS:

1. The following documents shall be deemed to form and be read and construed as an integral part of this MOU.

i) Notice for Bid, and
ii) Bidding document
iii) Any Addendum/Corrigendum issued by Rail Vikas Nigam Limited
iv) The bid submitted on our behalf jointly by the Lead Partner.

2. The `Parties' have studied the documents and have agreed to participate in submitting a`bid' jointly in the name of ------

3. M/s ……shall be the lead member of the JV for all intents and purpose and shall represent the Joint Venture in its dealing with the Employer. For the purpose of submission of bid proposals, the parties agree to nominate …….. as the leader duly authorized to sign and submit all documents and subsequent clarifications, if any, to the Employer. However M/s ……. shall not submit any such proposals, clarifications or commitments before securing the written clearance of the other partner which shall be expeditiously given by M/s……..……to M/s…….

4. The 'Parties' have resolved that the distribution of share and responsibilities between the JV partners **(Bidder shall ensure that the assigned responsibilities are commensurate with the EQC requirement of key activities being met by the respective JV partners under Clause 2.3.1: Specific Construction Experience duly indicating the schedule/bill nos. of BOQ for such responsibilities, failing which the bid may be rejected)** is as under:-

[2] *In case of existing joint venture, the certified copy of JV Agreement be furnished.*

(a) Lead Partner share ……..% ;

Responsibilities

(I) Key Activities
(i) …….
(ii) …….
(iii) …….

(II) BOQ Schedule/Bill No.
(i) …….
(ii) …….
(iii) …….

(b) Joint Venture Partner share ……..% ;

Responsibilities

(I) Key Activities
(i) …….
(ii) …….
(iii) ……..

(II) BOQ Schedule/Bill No.
(i) …….
(ii) …….
(iii) …….

(c) Joint Venture Partner share ……..% ;

Responsibilities

(I) Key Activities
(i) …….
(ii) …….
(iii) ……..

(II) BOQ Schedule/Bill No.
(i) …….
(ii) …….
(iii) …….

Note: In case any Bill or items of a Bill are proposed to be executed by more than one JV partner then indicate the breakup of that Item/Bill no. for each JV partner.

5. **JOINT AND SEVERAL RESPONSIBILITY**
The Parties undertake that they shall be jointly and severally liable to the Employer in the discharge of all the obligations and liabilities as per the contract with the Employer and for the performance of contract awarded to their JV.

6. **ASSIGNMENT AND THIRD PARTIES**
The parties shall co-operate throughout the entire period of this MOU on the basis of exclusivity and neither of the Parties shall make arrangement or enter into agreement either directly or indirectly with any other party or group of parties on matters relating to the Project except with prior written consent of the other party and the Employer.

7. **EXECUTIVE AUTHORITY**
The said Joint Venture through its authorized representative shall receive instructions, payments from the Employer. The management structure for the project shall be prepared by mutual consultations to enable completion of project to quality requirements within permitted cost and time.

8. **GUARANTEES AND BONDS**
The Bid Security of a JV shall be in the name of the JV that submits the bid. If the JV has not been legally constituted at the time of bidding, the Bid Security shall be in the names of all future partners through which JV is intended to be formed.

9. **BID SUBMISSION**
Each Party shall bear its own cost and expenses for preparation and submission of the bid and all costs until conclusion of a contract with the Employer for the Project. Common expenses shall be shared by both the parties in the ratio of their actual participation.

10. **INDEMNITY**
Each party hereto agrees to indemnify the other party against its respective parts in case of breach/default of the respective party of the contract works of any liabilities sustained by the Joint Venture.

11. For the execution of the respective portions of works, the parties shall make their own arrangements to bring the required finance, plants and equipment, materials, manpower and other resources.

12. **DOCUMENTS & CONFIDENTIALITY**
Each Party shall maintain in confidence and not use for any purpose related to the Project all commercial and technical information received or generated in the course of preparation and submission of the bid.

13. **ARBITRATION**
Any dispute, controversy or claim arising out of or relating to this MOU shall be settled in the first instance amicably between the parties. If an amicable settlement cannot be reached as above, it will be settled by arbitration in accordance with the Indian Arbitration and Conciliation Act 1996 or any amendments thereof. The venue of the arbitration shall be Delhi.

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

a. The bid submitted by the Joint Venture is declared unsuccessful, or
b. Cancellation/ shelving of the Project by the Employer for any reasons prior to award of work
c. Execution of detailed JV agreement by the parties, setting out detailed terms after award of work by the Employer.

15. This MOU is drawn in ….. number of copies with equal legal strength and status. One copy is held by M/s ……. and the other by M/s. .....,M/s ……& M/s….. and a copy submitted with the bid.

16. This MOU shall be construed under the laws of India.

17. **NOTICES BETWEEN JV PARTNERS**

Notices shall be given in writing by fax confirmed by registered mail or commercial courier to the following fax numbers and addresses:

Lead Partner	Other Partner
……..	…….
…….	…….
(Name & Address)	(Name & Address)

IN WITNESS WHEREOF THE PARTIES, have executed this MOU the day, month and year first before written.

M/s……..	M/s…….
…….	……..
(Seal)	(Seal)

Witness

1……..(Name & Address)

2…….. (Name & Address)

*****

Form: JV/5

DRAFT FORMAT OF JOINT VENTURE AGREEMENT

M/s …….. having its registered office at ……. (hereinafter referred to as …….) acting as the Lead Partner of the first part,

and

M/s ……..having its registered office at ……. (hereinafter referred to as `…….') in the capacity of a Joint Partner of the other part.

The expressions of …….. and …….. shall wherever the context admits, mean and include their respective legal representatives, successors-in-interest and assigns
and shall collectively be referred to as " the Parties" and individually as " the Party"

WHEREAS:

Rail Vikas Nigam Limited (RVNL) [hereinafter referred to as "Employer"] has invited bids for … "[*Insert name of work]……..."* Vide LOA No…….awarded contract.
NOW, THEREFORE, THE PARTIES AGREE AS FOLLOWS:

1. The following documents shall be deemed to form and be read and construed as an integral part of this AGREEMENT.
   i) Notice for Bid, and
   ii) Bidding document
   iii) Any Addendum/Corrigendum issued by Rail Vikas Nigam Limited
   iv) The bid submitted on our behalf jointly by the Lead Partner.
   v) Letter of Acceptance issued by Rail Vikas Nigam Ltd.

2. The `Parties' have studied the documents and LOA issued to enter into Joint Venture as under and have agreed to participate..

3. M/s …….shall be the lead member of the JV for all intents and purpose and shall represent the Joint Venture in its dealing with the Employer. For the purpose of execution, the parties agree to nominate …….. as the leader duly authorized to sign and submit all documents and enter into correspondence with the Employer.

4. . The 'Parties' have resolved that the distribution of share and responsibilities between the JV partners **(Bidder shall ensure that the assigned responsibilities are commensurate with the EQC requirement of key activities being met by the respective JV partners under Clause 2.3.1: Specific Construction Experience duly indicating the schedule/bill nos. of BOQ for such responsibilities, failing which the bid may be rejected)** is as under:-

(a) Lead Partner share ……..% ;

Responsibilities

(I) Key Activities
(i) …….
(ii) …….

(iii) ……

(II) BOQ Schedule/Bill No.

(i) ……

(ii) …….

(iii) ……

(b) Joint Venture Partner share ……..% ;

Responsibilities

(I) Key Activities

(i) ……

(ii) …….

(iii) ……..

(II) BOQ Schedule/Bill No.

(i) ……

(ii) …….

(iii) ……

(c) Joint Venture Partner share ……..% ;

Responsibilities

(I) Key Activities

(i) ……

(ii) …….

(iii) ……..

(II) BOQ Schedule/Bill No.

(i) ……

(ii) …….

(iii) ……

Note: In case any Bill or items of a Bill are proposed to be executed by more than one JV partner then indicate the breakup of that Item/Bill no. for each JV partner.

5. **JOINT AND SEVERAL RESPONSIBILITY**

The Parties undertake that they shall be jointly and severally liable to the Employer in the discharge of all the obligations and liabilities as per the contract with the Employer and for the performance of contract awarded to their JV.

6. **ASSIGNMENT AND THIRD PARTIES**

The parties shall co-operate throughout the entire period of this AGREEMENT on the basis of exclusivity and neither of the Parties shall make arrangement or enter into agreement either directly or indirectly with any other party or group of parties on matters relating to the Project except with prior written consent of the other party and the Employer

7. **EXECUTIVE AUTHORITY**

The said Joint Venture through its authorized representative shall receive instructions, payments from the Employer. The management structure for the project shall be prepared by mutual consultations to enable completion of project to quality requirements within permitted cost and time.

8. **GUARANTEES AND BONDS**
The Performance Security and other Securities of a JV shall be in the name of the JV that submits the bid.

9. **BID SUBMISSION**
Each Party shall bear its own cost and expenses for preparation and submission of the bid and all costs until conclusion of a contract with the Employer for the Project. Common expenses shall be shared by both the parties in the ratio of their actual participation.

10. **INDEMNITY**
Each party hereto agrees to indemnify the other party against its respective parts in case of breach/default of the respective party of the contract works of any liabilities sustained by the Joint Venture.

11. For the execution of the respective portions of works, the parties shall make their own arrangements to bring the required finance, plants and equipment, materials, manpower and other resources.

12. **DOCUMENTS & CONFIDENTIALITY**
Each Party shall maintain in confidence and not use for any purpose related to the Project all commercial and technical information received or generated in the course of preparation and submission of the bid.

13. **ARBITRATION**
Any dispute, controversy or claim arising out of or relating to this agreement shall be settled in the first instance amicably between the parties. If an amicable settlement cannot be reached as above, it will be settled by arbitration in accordance with the Indian Arbitration and Conciliation Act 1996 or any amendments thereof. The venue of the arbitration shall be Delhi.

14. **VALIDITY**
This Agreement shall remain in force till the defect liability period is over and Securities are released.

15. This AGREEMENT is drawn in ….. number 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 bid.

16. This AGREEMENT shall be construed under the laws of India.

17. **NOTICES BETWEEN JV PARTNERS**

Notices shall be given in writing by fax confirmed by registered mail or commercial courier to the following fax numbers and addresses:

Lead Partner.	Other Partner
……..	…….
…….	…….
(Name & Address)	(Name & Address)

IN WITNESS WHEREOF THE PARTIES, have executed this AGREEMENT the day, month and year first before written.

M/s……..
……
(Seal)

M/s…….
……..
(Seal)

Witness
1……..(Name & Address)

2…….. (Name & Address)

Bill of Quantities (BOQ)

For Bill of Quantities, Please refer Volume-II

Bidders Qualification

To establish its qualifications to perform the contract in accordance with Section 3 (Evaluation and Qualification Criteria) the Bidder shall provide the information requested in the corresponding Information Sheets included hereunder.

Form ELI - 1: Bidder's Information Sheet

Bidder's Information	
Bidder's legal name	
Bidder's country of constitution	
Bidder's year of constitution	
Bidder's legal address in country of constitution	
Bidder's authorized representative (name, address, telephone numbers, fax numbers, e-mail address)	

The bidder shall attach copies of the following original documents with the form:

1. In case of single entity, articles of incorporation or constitution of the legal entity named above, in accordance with ITB 4.1 and 4.2.
2. Authorization to represent the firm or JV named in above, in accordance with ITB 20.2.
3. In case of JV, MOU to form JV or JV agreement, in accordance with ITB 4.1.

Form ELI - 2: JV Information Sheet

Each member of a JV must fill in this form separately

JV / Specialist Subcontractor Information	
Bidder's legal name	
JV Partner's or Subcontractor's legal name	
JV Partner's or Subcontractor's country of constitution	
JV Partner's or Subcontractor's year of constitution	
JV Partner's or Subcontractor's legal address in country of constitution	
JV Partner's or Subcontractor's authorized representative information (name, address, telephone numbers, fax numbers, e-mail address)	

The bidder shall attach copies of the following original documents with the form:

1. Articles of incorporation or constitution of the legal entity named above, in accordance with ITB 4.1 and 4.2.
2. Authorization to represent the firm named above, in accordance with ITB 20.2.

Form FIN-1: Financial Situation

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

NAME OF BIDDER/JV PARTNER:

	Financial Data for Last 3 Years [Indian National Rupees]		
	Year 1:	**Year 2:**	**Year 3:**
1. Total Assets			
2. Current Assets			
3. Total Liabilities			
4. Current Liabilities			
5. Net Worth [= 1 – 3]			
6. Working Capital [= 2 - 4]			
7. Profit After Tax (PAT)			
8. Average Profit After Tax (PAT) for last three financial years (= average of [7] for year 1, year 2 & year 3)			
9. Whether the bidder was at default in repayment of dues to a financial institution or bank or debenture holders at the end the latest financial year for which audited balance sheet is available (Yes/No).	**-**	**-**	

_____

SEAL AND SIGNATURE OF THE BIDDER

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

_____

(Signature of CA/Auditor)

Name of CA/Auditor:_____

Registration No: _____

_____

(Seal)

1. The bidder shall attach copies of the following original documents with the form:

Copies of the audited balance sheets, including all related notes, and income statements for the last three years, as indicated above, complying with the following conditions.

- All such documents reflect the financial situation of the Bidder or partner to a JV, and not sister or parent companies.
- Historic financial statements must be audited by a certified accountant.
- Historic financial statements must be complete, including all notes to the financial statements.
- Historic financial statements must correspond to accounting periods already completed and audited (no statements for partial periods shall be requested or accepted).

2. **Contents of this form should be certified by a Chartered Accountant/Auditor.**

3. In the event that the audited accounts for the latest concluded Financial Year are not available, the Bidder shall furnish information pertaining to the last three financial years after ignoring the latest concluded financial year. In case the bidder submits audited financial information for the last four or more years, only the figures for the latest three years shall be considered for evaluation.

Form FIN-2: Annual Construction Turnover for the last 5 years

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

NAME OF BIDDER/JV PARTNER:

Annual Turnover Data for the Last 5Years (Construction only)			
Year	**Amount Currency**	**Exchange Rate**	**Indian National Rupees Equivalent**
Average Annual Construction Turnover for last 3 years			

1. The information supplied shall be substantiated by data in the audited balance sheets and profit and loss accounts for the relevant years and submitted as attachments to form Fin-1 in respect of the bidder or all partners constituting the bidder.

2. Contents of this form should be certified by a Chartered Accountant/Auditor.

3. In the event that the audited accounts for the latest Financial Year are not available, the Bidder shall furnish information pertaining to last three financial years after ignoring the latest financial year. In case the bidder submits audited financial information for the last four or more years, only the figures for the latest three years shall be considered for evaluation.

Form FIN-3: Current Contract Commitments / Works in Progress

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

Contract Commitments

SN	Des-crip-tion of work	Contract No. & date	Name & address of Employer, Tel./Fax/ Email	Value of Con-tract in INR	Stipulated Period of completion	Value of Balance work	Anti-cipa-ted date of Com ple-tion
1							
2							
Total							

Note: Enclose Certificate(s) from Engineer(s) Incharge (not below the rank of Executive Engineer) for Value of outstanding work. In case it is not feasible to furnish certificate from all the units the bidder should record the following certificate on Fin 3:

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

Form EXP-2(a): Specific Construction Experience

Fill up one form per contract

Contract of Similar Size and Nature			
Contract No.		**Contract Identification**	
Award Date		**Completion Date**	
Role in Contract	❑ **Contractor**	❑	❑ **Subcontractor**
Total Contract Amount	**INR**		
If partner in a JV or subcontractor, specify participation in total contract amount	**Percent of Total:**	**Amount: INR**	
Employer's Name, Current Address and Current Telephone/Fax Number, E-mail			
Description of the similarity in accordance with Criteria 2.3.1 (a) of Section 3			

The bidder shall attach a copy of the Certificate(s) issued by the employer in support of the information being furnished in each Exp (2a) form, failing which the claim of the bidder shall be liable to be rejected (in case of experience as a sub-contractor, the employer shall be the owner of the Project who has engaged the main Contractor).

Form EXP-2(b): Specific Construction Experience

Fill up one form per contract

Contract of Similar Size and Nature			
Contract No.		**Contract Identification**	
Award Date		**Completion Date**	
Role in Contract	❑ **Contractor**		❑ **Subcontractor**
Total Contract Amount	**INR**		
If partner in a JV or subcontractor, specify participation in total contract amount	**Percent of Total:**	**Amount: INR**	
Employer's Name, Current Address and Current Telephone/Fax Number, E-mail			
Description, quantity & period of execution of the key activities in accordance with Criteria 2.3.1 (b) of Section 3			

Copy of Certificate(s) issued by the employer in support of the information being furnished above, shall be attached with each respective Exp (2b) form, as per detailed requirements indicated in note 6 below clause 2.3.1 of Section 3 failing which the claim of the bidder shall be liable to be rejected (in case of experience as a sub-contractor, the employer shall be the owner of the Project who has engaged the main Contractor).

EQC FORM NO.1

Clause No & Clause heading	Details of value of work/quantity of activity and References (Folio No.) of Documents through which criteria against each item is being met.
2 Qualification	
2.1.1 Conflict of Interest	
2.1.2 Share of partners	
2.1.3 Disqualification of Bidder	
2.2 Financial Status	
2.2.1 Historical Financial Performance	
2.2.2 **Average** Annual Construction Turnover	
2.2.3 Net Worth	
2.2.4 Bid Capacity	
2.3 Experience	
2.3.1 Specific Construction Experience (a) Contracts of Similar Size and Nature (I) Single Contract (II) Two Contracts (b) Construction Experience in Key Activities (i) Fabrication and Erection Of Steel structures (ii) Supply and Commissioning of Machineries and Plants	
2.4 Personnel Undertaking submitted	
2.5 Equipment Undertaking submitted	
2.6 Specialist sub-contractor undertaking submitted 1. General Electrical works 2. Earth Works 3. Track Works 4. Supplying and stacking of ballast 5. S&T Works	

Section 5 – Works/Employers Requirements

This Section contains the Specification, the Drawings, and supplementary information that describe the Work to be procured.

I N D E X

S. No.	Description	Pages
1	Safety and Security	2 to 17
2	General Information and Scope of work	18 to 40
3	Site Facilities for the Employer and the Engineer	41 to 47
4	Specifications	48 to 65
5	Personnel	66 to 69
6	Equipment	69 to 73
7	Index plan, Typical Earthwork section, Drawings, Soil data, etc.	73

1. Safety and Security

1.1 The works included in this contract are to be carried out close to the running tracks and public utilities, therefore, safety of running trains and the public is paramount. Therefore, all activities undertaken by the Contractor / his Sub-contractors shall ensure safety at all times. The contractor shall comply with the instructions issued by the Railway / Engineer / Employer from time to time to ensure safe running of trains while carrying out works. The rates quoted by the Contractor shall be deemed to include all expenditure incurred in compliance with the same.

1.2 Before starting any excavation work adjacent to existing track, the contractor shall ensure that necessary permissions has been obtained and required precautions have been taken for doing such work in terms Joint Procedure Order reproduced below:

"JOINT PROCEDURE ORDER FOR UNDERTAKING DIGGING WORK IN THE VICINITY OF UNDERGROUND SIGNALING, ELECTRICAL AND TELECOMMUNICATION CABLES"

A. A number of Engineering works in connection with gauge conversion/doubling/third line are in progress on various railways, which require extensive digging work near the running track, in close vicinity of the working S&T cables carrying vital safety circuits as well as electrical cables feeding the power supply to cabins. ASM room, RRI Cabin, Intermediate Block Huts (IBH) etc. Similarly, S&T organisation under open line or construction units under CAO/C, are executing various Signaling and Telecom works requiring digging of earth for laying of cables or casting of foundations for the erection of signal posts etc. RailTel is also executing the work of laying of quad cable and OFC on various Railways as a part of sanctioned works for exclusive use of Railways for carrying voice and data i.e. administrative and control communication, PRS, FOIS etc. or shared by RailTel Corporation of India Ltd. On certain sections digging is also required for laying of electrical cable and casting of foundation for the erection of OHE masts by Electrical Deptt. Generally, these works are executed by contractors employed by these organisations.

B. However, while carrying out these works in the vicinity of working signaling, telecommunication and electrical cables, at times, cable cuts take place due to JCB machines working along the track or during the digging work being done by contractors carrying out the Civil Engineering Works. Similarly, such cable cuts are also resulting due to works undertaken by S&T or Electrical departments. Such cable faults results in the failure of vital signaling and telecommunication circuits & electrical installations.

C. Henceforth, the following joint procedure shall be followed by Engineering, Electrical and S&T (and RailTel organisation, wherever such works are being done by them) officers of the respective divisions and by the construction organisation, while carrying out any digging work near to existing signaling &

telecommunication and electrical cables, so that the instances of cable cut due to execution of works, can be controlled and minimized.

1. S&T Department (and RailTel, where they have laid the cables) and Electrical department shall provide a detailed cable route plan showing exact location of cable at an interval of 200m or wherever there is change in alignment so that the same is located easily by the Engineering official/contractor. In addition, S&T department and Electrical department shall also provide cable markers along the alignment of the cable. These cable route plans shall be made available to the Sr.DEN/DEN or Dy.CE/C, as the case may be, by Sr. DSTE/DSTE or Sr. DEE/DEE of the divisions or Dy.CSTE/C or Dy.CEE/C within 15 days in duplicate. Sr.DEN/DEN or Dy.CE/C will send copies to their field unit i.e. AEN/SE/P.Way & Works.

2. Before taking up any digging activity on a particular work by any agency, Sr.DSTE/DSTE or Sr.DEE/DEE of the section shall be approached in writing by the concerned Engg. or S&T or Electrical officer for permitting to undertake the work. Sr.DSTE/DSTE or Sr.DEE/DEE, after ensuring that the concerned executing agencies including the contractor have fully understood the S&T and Electrical cable route plan shall permit the work in writing within 7 days of the request by concerned department.

3. After getting the permission from S&T or Electrical department as the case may be, the relevant portion of the cable route plan shall be attached to the letter through which permission is issued to the contractor by concerned Engg. official for commencement or work and ensuring that the contractors have fully understood the cable route plan and precautions to be taken to prevent damage to the underground cables. The contractor shall be asked to study the cable plan and follow it meticulously to ensure that the safety of the cable is not endangered. Such a provision, including any penalty for default, should form part of agreement also. It is advisable that a suitable post of SE/Sig or SE/Tele or SE/Electrical(TRD or G) shall be created chargeable to the estimates of doubling/gauge conversion, who can help Engg. agencies in the execution of the work. However basic responsibility will be of the department executing the work and the Contractor. Creation of posts is not mandatory.

4 The SE/P.Way or SE/Works shall pass on the information to the concerned SE/Sig SE/Tele or SE/Electrical(TRD or G) about the works being taken up by the contractors in their sections at least 3 days in advance of the day of the work. In addition Engineering control shall also be informed by SE/P.Way or SE/Works, who in turn shall pass on the information to the test room/network operation centre of RailTel/TPC/Electrical control.

5. On receiving the above information, SE/Sig or SE/Tele or SE/Electrical (TRD or G) shall visit the site on or before the date of taking up the work and issue permission to the contractor to commence the work after checking that adequate precautions have been taken to avoid the damage to the cables. The permission shall be granted within 3 days of submission of such requests.

6. The name of the contractor, his contact telephone number, the nature of the work shall be notified in the Engineering control as soon as the

concerned Engineering officials issue the letter authorizing commencement of work to the contractor. Test room shall be given copies. Test room shall collect any further details from the Engineering Control and shall pass it on to S&T/RailTel & Electrical officials regularly. In case the supervisors of concerned departments do not turn up on the day as advised in terms of para 4 and 5 above, the works of contractor should not be stopped on this account.

7. In case of works being taken up by the State Government, National Highway Authority etc., the details of the permission given i.e. the nature the work, kilometer etc. be given to the Engineering control including the contact person's number so that the work can be done in a planned manner. The permission letter shall indicate the contact numbers of Test room/network Operating Centre of RailTel/TPC/Elect. Control.

8. Where the nature of the work taken up by the Engineering department is such that the OFC or other S&T cables or Electrical cables is to be shifted and relocated, notice of minimum one week shall be given so that the Division/RailTel/Construction can plan the works properly for shifting. Such shifting works shall in addition, for security and integrity of the cables, be supervised by S&T supervisors/RailTel supervisors/Electrical Supervisors.

9. The concerned SE/P.Way/SE/Works/SE/Sig/SE/Tele/SE/Electrical (TRD or G) or RailTel supervisors supervising the work of the contractor shall ensure that the existing emergency sockets are not damaged in view of their importance in providing communication during accident/emergency.

10. In case of minor nature of works where shifting of cable is not required, in order to prevent damage to the cable, the Engineering contractor shall take out the S&T or optical fibre cable or Electrical cable carefully from the trench and place it properly alongside at a safe location before starting the earthwork under the supervision of SE/Sig or SE/Tele or SE/Electrical(TRD or G). The cable shall be reburied soon after completion of excavation with proper care including placement of the brick over the cable under the supervision of S&T or Electrical supervisors. However, the work will be charged to the concerned engineering works. The responsibility for ensuring availability of SE (Signal), SE (Electrical) as per para 4 and 5 above lies with the respective department. The contractor will go ahead with the shifting of cables as per the program decided and he will not be held responsible for any cable cut.

11. In all the sections where major project are to be taken up/going on RailTel/S&T department shall deploy their official to take preventive/corrective action at site of work. As regards Electrical Department, the official may be deputed on need basis.

12. No new OFC or quad cable shall be laid close to existing track. It shall be laid close to the Railway boundary on one side of the Railway track to the extent possible to avoid any interference with the future works (doubling etc.). It shall be ensured in the new works of cable laying that the cable route is properly identified with electronic or concrete markers. Wherever multiple cables are laid in a trench, RFID markers may be provided for easy identification of the cable. Henceforth, wherever cable laying is

planned, before undertaking the cable laying work, the cable route plan of the same shall be prepared by the Dy.CSTE/A or Dy.CEE/C and shall be got approved from the concerned Sr. DSTE/DSTE or Sr.DEE/DEE and also from the concerned Dy. CE/C for new lines and from the concerned Sr.DEN for all other projects including GC etc., to avoid possible damages in future. Such approvals shall be granted within 15 days of the submission of the request.

13. The works of excavating the trench and laying of the cable should proceed in quick succession, leaving a minimum time between the two activities.

14. In case damage caused to OFC/Quad cable or Electrical cable during execution of the work, the contractor is liable to pay a penalty for damaging the cable. Penalty shall not be levied in case of the following:-

i). Detailed cable route plan as per clause C-1 not provided by concerned department or cable is not protected as per laid down procedures.

ii). The alignment of the cable does not tally with the information provided to the contractor.

iii). The cable depth is found to be less than 800 mm from normal ground level.

iv). No representative of S&T department/RailTel was available at site guarding the cables on the fixed pre determined date and time.

15. Penalty to be imposed for damages to cable shall be as under:-

Cable damaged	Penalty per location
Only Quad cable or Signalling cable	Rs.1.0 Lakh
Only OFC	Rs.1.25 Lakh
Both OFC & Quad	Rs.1.5 Lakh
Electrical Cable	Rs.1.0 Lakh

Necessary debit in this regard shall be raised on the department undertaking the work who shall in turn levy the penalty on the defaulting contractor. S&T department shall raise the debits in case of damage to OFC or Quad or Signaling cable and Electrical department shall raise the debits in case of damage to Electrical cable.

16. Railways will not lodge FIR with RPF in case of works being executed by authorized contractors of Railways who have been duly permitted to execute the works in accordance with this JPO. Joint note by the supervisors of the concerned department shall be prepared and the responsibility of the cable cut should be decided without involving RPF. The joint note deciding the fact whether the contactor should be penalized shall be completed in a day's time from the occurrence of cable cut.

In all other cases, when the cable is cut by an agency that was not permitted to execute any work, FIR should be lodged with RPF.

17. While giving permission for taking up the works, concerned departments may note that earthwork by engineering contractors will normally be done by machines except in a few isolated locations where the quantity of earth work is very less.

18. Railways shall make necessary correction in their future contract so that this JPO can also be enforced contractually.

19. In case of damages to OFC, RailTel should be paid 5/6th of the penalty recovered. RailTel shall raise demands on the S&T department in this regard.

20. All types of signaling & OHE bonds i.e. rail bond, cross bond and structure bond shall be restored by the contractor with a view to keep rail voltage low to ensure safety of personnel.

21. Above joint circular shall be applicable for construction as well as open line organization of Engineering, S&T and Electrical.

22. S&T cable and electrical cable route plan should be prepared by the concerned S&T and Electrical officers respectively and got approved as stipulated in para C-12 before undertaking the work. The completion cable route plan should be finalized block section by block section as soon as the work is completed.

23. All cable laying works shall be executed as per laid down technical specifications, such as protection measures/protective cover, compaction of refilled material etc.

1.3. Working near running line

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

1.3.2 Road vehicles can ply along the track after suitable cordoning of track with minimum distance of 6 meters from the centre of the nearest track. For working of machinery close to the running tracks or plying of road vehicles during night hours, the contractor shall apply to the Engineer in writing for permission, duly indicating the site details in a neat sketch and safety measures proposed to be taken. Subject to the approval of concerned Railway authorities, the Engineer or his authorised representative will communicate permission to the contractor / contractor's representative. The

contractor and his men shall strictly adhere to the instructions given along with such permissions.

1.3.3 Nominated vehicles and drivers shall be utilized for work in the presence of at least one flag man and one supervisor certified for such work. In order to monitor the activities during night hours, additional staff may have to be posted based on the need of the individual site.

1.3.4 The Contractor' machinery, equipment and vehicles shall normally operate 6 m clear of track. Any movement / work at less than 6m and upto a minimum of 3.5m clear of track centre, shall be carried out only in the presence of a person (including any railway employee) authorized by the Engineer. No part of the road vehicle shall be allowed at less than 3.5m from track centre. Cost of such railway employee shall be borne by the Employer.

1.3.5 The Contractor's machinery and equipment like Cranes, Flash Butt Welders, Ballasting machinery, Compactors, Track Laying Systems etc., are required to operate close to the existing line carrying traffic. Contractor is fully responsible for operating these machinery without endangering the safety of the running line and traffic.

1.3.6 <u>Safety Fencing :</u>

(i) Before commencing any work close to the running track, the Contractor shall provide safety fencing and obtain the specific permission of Engineer to commence the work in that stretch.
(ii) The fencing shall be for a height of 1.5 meters with wooden/Casurina balli posts of length 2.1 m at 3 m centre to centre spacing as per relevant BOQ item.
(iii) The Contractor shall maintain the safety fencing in good working condition through out the period till the work in a given stretch is completed. He can remove the fencing after getting the approval of Engineer. The fencing material will be the property of the Contractor. Serviceable materials obtained from the released fencing can be re-used for providing fencing in subsequent stretches.
(iv) The Contractor will be paid for providing safety fencing along the track as per the relevant item in the BOQ.

1.4. The contractor's special attention is drawn to Para 826 of Indian Railways Permanent Way Manual introduced under Advance Correction Slip no. 69 dated 23.05.2001, reproduced below which should invariably be complied with.

"826 Safe working of Contractors -- A large number of men and machinery are deployed by the contractors for track renewals, gauge conversions, doublings, bridge rebuilding etc. It is therefore essential that adequate safety measures are taken for safety of the trains as well as the work force. The following measures should invariably be adopted:

(a) *The contractor shall not start any work without the presence of Railway supervisor at site.*

(b) *Wherever the road vehicles and / or machinery are required to work in the close vicinity of railway line, he work shall be so carried out that there is no infringement to the railway's schedule of dimensions. For this purpose the area where road vehicles and / or Machinery are required to ply, shall be demarcated and acknowledged by the contractor. Special care shall be taken for turning / reversal of road vehicles / machinery without infringing the running track. Barricading shall be provided wherever justified and feasible as per site conditions.*

(c) *The "look out and whistle" caution orders shall be issued to the trains and speed restrictions imposed where considered necessary. Suitable flag men / detonators shall be provided where necessary for protection of trains.*

(d) *The supervisors / workmen should be counseled about safety measures. A competency certificate to the contractor's supervisor as per proforma annexed shall be issued by AEN which will be valid only for the work for which it has been issued.*

(e) *The unloaded ballast / rails / sleepers / other P.Way materials after unloading along track should be kept clear off moving dimensions and stacked as per the specified heights and distance from the running track.*

(f) *Supplementary site specific instructions, wherever considered necessary, shall be issued by the Engineer.*

<u>COMPETENCY CERTIFICATE</u>

Certified that Shri_____ P.Way supervisor of M/S_____has been examined regarding P.Way working on_____ work. His knowledge has been found satisfactory and he is capable of supervising the work safely.

ASSISTANT ENGINEER"

1.5. The work of formation in banks and cuttings through out the length of doubling is adjacent to track under running traffic. Many of the bridges on the proposed double line are to be constructed either as extensions or just adjacent to the existing bridges under running traffic. The work of Installation of Track through out the length of doubling is adjacent to track under running traffic. The work of Installation of Track and Signals in the Station yards including alterations to the existing Track and Signals has to be done

adjacent to or in replacement of the existing Track and Signals which are under running traffic. The contractor shall ensure that the safety of the running lines and running traffic is not endangered, because of his work.

1.6. Any traffic/traction blocks, temporary speed restrictions and caution orders required in this connection shall also be got sanctioned from the Railway authorities well in advance, through the Engineer. The Railways may sanction the same for specific sites within the overall recovery time available in the Railway's time table. The contractor shall have to schedule his programme according to the convenience of the Railways. No claim from the contractor for any delay/inconvenience/loss on this account shall be entertained by the Employer.

1.7. The contractor shall provide at site at his own cost, all protection measures including exhibition and lighting of all Temporary Engineering Signals as per Railway rules, instructions and norms. All lights provided by the contractor shall be screened so as not to interfere with any signal light on the Railways or with any traffic or signal lights of any local or other authority.

1.8. Ancillary and Temporary works

(a) The Contractor's proposals for erection of all ancillary and temporary works shall be in conformity with the proposals submitted along with the tender and modifications thereto as approved by the Engineer.

(b) The Contractor shall submit drawings, supporting design calculations where called for by the Engineer and other relevant details of all such works to the Engineer for approval at least one month before he desires to commence such works. Approval by the Engineer of any such proposal shall not relieve the contractor of his responsibility for the sufficiency of such works.

(c) The contractor shall, at his own cost, design and provide any temporary arrangements including relieving/service girders required in connection with the above said works and remove the same, when no longer required. These arrangements shall conform to Railway norms. The contractor shall obtain all necessary approvals and sanctions of the concerned Railway authorities including Commissioner of Railway Safety through the Engineer in advance and well in time

(d) The contractor shall ensure and be entirely responsible for proper design, fabrication, provision and upkeep of all temporary arrangements and all associated activities so as not to endanger safety of any assets, running track, traffic and traveling public and for following all extent instructions, norms, practice and procedures laid down by Railway authorities in this respect, which may be ascertained from the Railways through the Engineer.

(e) If required, Railways may, in order to ensure the safety of the running track, post at site Regular Railway staff to watch the efficacy and safety of temporary arrangements and protection measures round the clock for the period the same exist in the running line and till the running line is restored back to normal. Railways may also supervise the insertion, maintenance and removal of the temporary arrangements. The cost of such staff shall be borne by the Employer.

(f) Notwithstanding the above, the contractor shall not, however, be relieved of his responsibility and obligation as aforesaid.

(g) Save as provided in Para 7 (e) above, the contractor shall bear the cost of complying with all safety requirements. No extra payment will be made for complying with the safety provisions under this chapter and the cost of all such elements to meet the safety requirements shall be deemed to be included in the Bill of Quantities.

1.9. The contractor remains fully responsible for ensuring safety. In case of any accident, the Contractor shall bear cost of all damages to his equipment and men and also damages to Railway and its passengers.

1.10 Suitable barricading to forewarn road vehicle driver shall be provided by the contractor. The luminous tape, strung on bamboo or steel poles can be considered for such barricading. Barricading arrangement should be got approved by the Engineer.

1.11 **Indemnity by Contractor**

The Contractor shall indemnify and save harmless the Railway / Employer / Engineer from and against all actions, suit proceedings, losses, costs, damages, claims, and demands of every nature and description brought or recovered against the Railways / Employer / Engineer by reason of any act or omission of the contractor, his agents or employees, in the execution of the works or in his guarding 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.

1.12. **Damage to Railway Property or Life or Private Property**

The contractor shall be responsible for all risks to the works and for the trespass and shall make good at his own expense all loss or damage whether to the works themselves or to any other property of the Railway or the lives of persons or property of others from whatsoever cause in connection with the works until they are taken over by the Employer and this although all reasonable and proper precautions may have been taken by the Contractor, and in case the Railway/Employer/Engineer shall be called upon to make good any costs, loss or damages, or to pay any compensation, including that payable under the provisions of 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 any 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 Railway/Employer/Engineer may incur in reference thereto, shall be charged to the contractor. The Railway / Employer / Engineer 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, defence or compromise, and the incurring of any such expense shall not be called in question by the Contractor.

1.13. **Safety of Public**

(i) The Contractor shall be responsible to take all precautions to ensure the safety of the Public whether on Public or Railway property and shall post such look out men as may in the opinion of the Engineer be required to comply with regulations pertaining to the work.

(ii) The Contractor shall provide effective barricading using G.I. corrugated sheets around foundation pits, trenches, erection sites, demolition sites etc., to prevent accidents and injuries to the public. He shall erect barricading duly leaving safe passage for the movement of the public as per the directions of Engineer.

(iii) No payment will be made for providing such barricading and the rates quoted by the Contractor shall be inclusive of such safety measures.

1.14. **Reporting of Accidents**

The Contractor shall report to the Engineer details of any accidents as soon as possible after its occurrence. In the case of any fatality or serious accident, the Contractor shall, in addition, notify the Engineer and the Employer immediately by the quickest available means.

1.15 **Life-saving Appliances and First-aid Equipment:** The Contractor shall provide and maintain upon the Works sufficient, proper and efficient life-saving appliances and first-aid equipment to the approval of the Engineer and in accordance with the requirements of ILO Convention No. 62. The appliances and equipment shall be available for use at all time

1.16 **Security Measures**

(a) Security arrangements for the work shall be in accordance with general requirements and the contractor shall conform to such requirements and shall be held responsible for the action or inaction on the part of his staff, employees and the staff and employees of his subcontractors.

(b) Contractor's as well as Sub Contractor's employees and representatives shall wear identification Badges (cards), uniforms, helmets, gum boots and other safety / protection gadgets / accessories provided by the Contractor. Badges shall identify the Contractor and show the employee's name and number and shall be worn at all times while at site.

(c) All vehicles used by the contractor shall be clearly marked with the Contractor's name or identification mark.

(d) The contractor shall be responsible for security of works for the duration of the contract and shall provide and maintain continuously adequate security personnel to fulfill these obligations. The requirements of security measures shall include, but not be limited to, maintenance of Law and Order at site, provision of all lighting, guard, flagmen, and all other measures necessary for protection of works within the colonies, camps and elsewhere at site, all materials delivered to the site and all persons employed in connection with the works continuously through out working and non-working periods including nights, Sundays and holidays, for the duration of the contract. However, at work sites in close proximity of traffic corridors where public and traffic are likely to come close to the work area, suitable barricading as proposed by contractor and approved by Engineer shall be provided.

(e) No separate payment will be made for providing security measures and will be deemed to be included in the rates quoted by the contractor.

1.17 Contractor will have to comply the instructions circulated for ***Safety on Worksites Specially Doubling and Third line Works being implemented by RVNL***, circulated vide RVNL's letter No. 2005/RVNL/P/CC/Circular Dt. 10.02.2009 and letter of even No. Dt. 12.03.10 (enclosed as Annexure I and II of this chapter) and any subsequent instructions on this issue.

It is presumed that bidders have gone through the Rail Vikas Nigam Ltd.'s above mentioned letters including any subsequent instructions on this issue if any, before quoting the rates.

132

o/c

Rail Vikas Nigam Limited

1st Floor, August Kranti Bhawan, Bhikaji Cama Place, R.K.Puram, New Delhi-110066.

Ph.:011 – 26738505; Fax: 011 – 26738595, Mobile No. 9810900301 E – mail: cdre@rvnl.org

No. 2005/RVNL/P/CC/Circular Dated: February 10, 2009

The CPMs – Delhi, Kolkata, Chennai, Secunderabad, Jaipur, I/Mumbai, II/Mumbai, I/Bhubaneswar, II/Bhubaneswar, Pune, Bilaspur, Hubli at Bangalore and GM/P-II/Delhi.

Sub: Projects especially doubling/3rd line projects being implemented by Rail Vikas Nigam Limited.

Ensuring safety at work site is of paramount importance. It is disturbing to note that despite repeated counseling, execution of work involving movement of plant and machinery near existing running line without fixing proper barricading is still being permitted in some cases. Such unsafe practice must be stopped forthwith. Proper barricading and execution of work under required supervision must be ensured to avoid unlikely accidents and also to ensure quality.

In case of RVNL projects especially doubling/3rd line projects following measures must be taken: –

1. Fencing as per specification laid down in PCE circulars along the track at specified distance from centre line of existing track. The fencing should be maintained till the track is handed over to Railways. Accordingly at locations where it has been broken/stolen away, the same should be restored expeditiously.

2. Contractors to ensure patrolling by Cycle/Motor Cycle to prevent damage to fencing and to rectify as soon as it is detected.

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3. In the stretch where new formation is likely to be used by unauthorized vehicles and likely to create potential unsafe condition, lifting barriers at points where contractor's vehicles are required to enter should be provided and the same should be manned to allow entry to only contractor's vehicles and prevent entry of unauthorized vehicles.

4. Other likely entry points on the new formation must be suitably blocked by providing physical obstructions by stacking sleepers or by cross trenches or by erecting fence to prevent entry of unauthorized vehicles. Frequent check should be exercised to ensure that unauthorized vehicles do not ply.

5. Reducing number and length of such stretches by spreading ballast and linking of track as expeditiously as possible.

6. Laying welded rail panels along the fencing to create additional barriers for preventing vehicles coming near to the existing track.

7. PMC should be advised to educate his supervisor for each stretch to ensure Safety who should be well conversant with safety instructions and should see that the same are not violated. PMC has to be made accountable for lapses on the safety aspects.

8. Periodical formal counseling of all RVNL officials and PMC officials regarding safety instructions and review violations coming to light and taking appropriate action. This should be done during the monthly progress review meetings.

9. Counseling of drivers and operators of machinery regarding safety aspect during routine inspection of RVNL and PMC officials.

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132
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(3)

10. All the drivers/machine operators should have competency certificate issued by PMC after examining their knowledge about safety. Only authorized drivers can ply within 6.5 of the existing track.

11. Pursuing railway for issue of required caution order to Drivers of trains wherever required in terms of Railway Board's instructions/PCE circulars.

12. In case work is required to be carried out within 3.5 M of existing running line, ECoR should be advised well in time and requested to provide look out men and Railway Supervisors for the site. At such locations close supervision must be ensured.

In terms of contract conditions, preventing entry of outsiders at the work sites is the responsibility of contractor and this has to be ensured.

10/2/09

(Arun Kumar)
a/c Executive Director/Works

For Shree Ram Infra
Rail Vikas Nigam Ltd.
Name
Designation 1058
Signature
Status
Date 10/2/09

Note: CPM/BBS must report action taken on inspection note of CE/TM/ECoR advised vide GM/Engg/ECoR's Letter No. W.4/287/CE/TM/Inspn/223 dt. 16.01.2009.

Copy to ED/P, ED/Electrical, ED/S&T and AGM/Bhopal for information and necessary action.

Copy to Secy/MD for kind information of MD
Copy to Secy/DP for kind information of DP

Rail Vikas Nigam Limited

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Ph: 011-26738505, Fax: 011-26738595, Mobile No: 9810900301, E-mail: edw@rvnl.org

No.2005/RVNL/P/CC/Circular

12th March, 2010

The Chief Project Managers,
Delhi, Delhi/HQ, Jaipur, Mumbai, Secunderabad, Hubli at Bangalore, Chennai, Bilaspur, Raipur, Bhubaneshwar-I, Bhubaneshwar-II, Kolkata.

The General Managers,
Project-II/Delhi, Project-III/Delhi.

Sub: Safety on Worksites Specially Doubling and Third Line Works being implemented by RVNL

Detailed procedure for ensuring safety at the work sites has been laid down in the Standard Bidding Document (Section V: Works requirement). A detailed circular was also issued by the undersigned vide letter of even number dated 10.02.2009 (enclosed for ready reference). It has, however, been noted that appropriate measures to ensure safety at work sites especially for doubling and 3rd line projects are not in place in some of the cases. On several occasions, dedicated safety officers to ensure safety have also not been deputed by the contractors.

It has, therefore, been decided that to ensure safety at all the work sites all the time, a dedicated Safety officer duly trained as per the provisions of the contract shall be posted by the contractor for each project. Following works will in general be assigned to safety officer.

1. The Safety officer (in charge) shall be from the permanent rolls of the contractor. He will work under the administrative control of the Project Manager of the contractor.

2. The person from any sub-contractor deputed by the main contractor shall not be designated as Safety officer.

3. The Safety officer shall be overall in charge of the safety methods being undertaken at various work sites. He shall not be given any other task related to the project planning and execution.

4. The Safety officer should be well versed with the safety aspects related to worksites in the vicinity of running railway lines and should impart training to the officials assisting him.

5. The Safety officer shall be given suitable means of transport (depending on the requirement) by the contractor to approach all the work sites frequently and ensure that adequate precautions to ensure safety have been taken. Following items shall be specifically done by the Safety officer.

a) Ensuring the provision of the safety fencing. Any shortfall shall be made good immediately.

b) Availability of suitable lookout men at each working site. The lookout men shall be in possession of hooters, safety helmet and retro-reflective jacket to warn the site engineer/supervisor and operators/drivers of the equipments/vehicles working near the running track.

c) Arranging issuance of competency certificates by Employer/Engineer with the operator/driver of each equipment/vehicle before deputing for work.

d) Take assurance from the contractor officials at regular interval of complying with the safety instructions.

e) Any safety violation to be advised to all concerned and remedial action taken thereof.

6. The Safety officer will frequently counsel the contractor engineers/supervisors/ operators/drivers/lookout men about safety provisions during his day to day inspections and keep a record of the same. The Safety officer will prepare a monthly report of the safety inspections carried out and remedial action taken thereof and send it to the Project Manager of the contractor and the employer/engineer.

7. The contractor should open new sites only after discussing the safety measures to be undertaken with his Safety officer and obtaining the permission from Employer/ Engineer.

8. It shall be the duty of the Project Manager and Safety officer of the contractor that the instructions contained in the agreement related to safety and the same issued by the Railway/Employer/Engineer from time to time are strictly complied with.

Based on the above, it is advised that a thorough review of the safety provisions may be undertaken and it should be ensured that competent safety officers are available on all the projects. This office may also be apprised of the action taken in this regard.

(Arun Kumar) 12/3/20
Executive Director/Works

Copy to:

1. Secy to MD for kind information of MD.
2. Secy to DF for kind information of DF.
3. ED/Elect, ED/HQ, ED/P, ED/S&T for information.

2– GENERAL

2.0 SCOPE OF WORK

2.1 Introduction

This work pertains to
"Construction of PEB Sheds, Structures, Buildings, Water supply arrangement, Drainage, Sewerage, Road works, Rail track works, Signaling & Telecommunication works, OHE and Power supply arrangements, General Electrical works and Supply, Installation and commissioning of Machinery and Plant in connection with setting up of Rail Coach Factory at Latur, Maharashtra (India)"

The factory will be setup in railway land of about 150 hectors free of encumbrance. The scope covers construction of PEB sheds, structures, buildings etc as per layout drawing provided / referred in the Bid Document. In addition, the scope covers construction of roads, boundary wall, associated drainage, water supply, laying of railway track, OHE provision inside factory premise, general electric supply works, signal & telecommunication works etc. The scope covers provision of rail connectivity from factory to Harangul station and conversion of Harangul halt station to block station with necessary signal and interlocking. The scope covers supply, installation and commissioning of various machinery and plants. The scope also covers cutting of trees etc. The time lines for completion of various activities are given in the bid document. (For drawings refer clause of section 5)

2.2 Scope of Present Tender

The Scope of this tender includes earthwork, in filling and in embankment, track linking, construction of PEB sheds, service buildings, quarters, road, water supply arrangement, drainage, sewerage, power supply arrangement, OHE general electrical works, signal & Telecommunication works, and supply, installation and commissioning of machinery and plant.

Salient features of the proposed work are as under:

a) **Shed:** The scope covers design and drawing of foundation and structure, supply, erection and commissioning of Pre-Engineered Building shed as per GAD enclosed for different sheds and specification detailed in bid document. Shed areas will be provided with vacuum dewatered flooring. The scope covers construction of necessary foundation for machinery and plant which will be supplied and installed by the contractor as per foundation drawings provided by OEM.

b) **Power Supply Arrangement, General Electrical Works**: Power supply to the factory will be drawn from the State Electricity Authority at 33 KV. The scope covers stepping down and further distribution of power supply to various sheds/structures/buildings by two sub-stations, 2 nos. 1000 KVA ,11KV/415V for utility power supply and 11 KV / 27KV,1000KVA to supply to OHE of test track

inside (1 TKM) the factory premises, provision of 2 DG sets of 500 KVA respectively and distribution of LT power from the substation to shed, buildings including street lighting and other general electrification works. The scope covers 500 KWp grid connected solar power plant.

c) **Administration Building ad Quarters:** The scope covers construction of administrative building, residential quarters, canteen building, staff room, rest houses, etc with necessary provisions. Residential quarter will be located at a separate place outside factory premise.
d) **Water Supply Arrangement:** The scope covers water supply arrangement to sheds and other buildings with necessary pipelines, valves etc. including connection to existing water supply system
e) **Drainage, Sewerage and boundary wall:** The scope covers construction of necessary drainage arrangement in the form of hume pipes of various diameters, surface drains, septic tanks etc. and connection to existing drainage system & provision of boundary wall around the factory and colony premises.
f) **Roads:** The scope of covers construction of concrete roads, paver blocks for pathways etc.
g) **Track Laying & Linking:** The scope covers laying of tracks along with necessary points & crossings and connecting factory to Harangul station.
h) **Bridge:** The scope covers construction of bridge culvert required for the workshop.
i) **Earth-fill & Levelling:** The final floor level of the shed will be same as top level of the railway track/Road.
j) **Fire hydrants:** The scope covers supply, erection commissioning of fire hydrant system for the sheds and buildings with water supply arrangement from ground level reservoir.
k) **Telecommunication Works:** The scope covers supply, installation and commissioning of on telecom exchange and telecom, rail-net network and surveillance system for the workshop.
l) **Signaling works:** The scope covers design, supply, installation and commissioning of new electronic interlocking system with IPS, datalogger and colour light signals at Harangul station.
m) **Machinery & Plants:** The scope covers supply, installation, testing and commissioning of various machinery and plant/tools/gauges/instruments etc. as per terms and conditions and specification detailed in Bid Document Volume-II.

2.3 FORMATION & BRIDGES:

A. Formation

Earthwork in formation and cuttings for the full length, laying of a blanket layer as per RDSO guidelines with suitable materials as approved by Engineer.

The top width of the proposed new alignment for bank shall normally be 6.85m and 7.15m on curves with 2(H):1(V) side slopes. For cutting width of the proposed line excluding side drain shall be 6.25m on straight and 6.55m on curves, side slopes for cutting shall be as under:

H : V

(i) Hard rock	¼ : 1
(ii) Soft rock	¼ : 1
(iii) Moorum/Hard soil/Ordinary soil	1 : 1

Formation in embankment shall be provided with side slopes of 2:1 or flatter as required. Side slopes shall be turfed. Bank of height more than 6 Mts shall be designed for slope stability and the slope shall be adopted accordingly. Earthwork shall be provided with contractor's own earth.

Formation in cutting shall be provided with side slopes of 1:1 in ordinary soil and up to 1/10:1 in rocky strata. Flatter slopes in ordinary soil can be adopted subject to the design.

B. BRIDGES

There are about 10 minor bridges, 1 major and 1 RUB in the alignment which required to be constructed.

2.4 The contemplated works as a part of this tender consists of --

(a) Providing and maintaining office accommodation and vehicles for use of Employer and their Assistants and Staff.

(b) Survey for fixing the working alignment and establishment of working bench marks for doing Earth Work and Bridges, river training and protection works.

(c) Earth Work in formation in banks are to be done with suitable filling / blanketing material. Also required protection works are to be done.

(d) Construction of Minor Bridges and RUB for the proposed new line including laying of suitable backings for the bridges and earth work in bridge gaps.

(g) Protection works for bridges against severe exposure conditions and temperate climate with heavy to very heavy rain fall.

(h) Casting, stressing and launching of PSC girder, pile foundations etc.

(i) Setting of batching plant for production of controlled concrete.

(j) Setting out alignments and levels and marking of locations for all piers, abutments of bridges as well as river training and protection works

(k) Construction of Buildings

(l) Laying & Linking of Track

(m) Supply & installation of Signalling, Interlocking and Telecommunication works, including supply of all the required material/ equipment's.

(n) Supply & Erection of OHE and General Electrical works including Electrification of Shops, service buildings, Residential buildings & street lighting with supply arrangements.

(o) Making and supply of 'As Built" drawings of all the assets created.

(p) All other miscellaneous civil, S&T and electrical works connected with the proposed new crossing station at Harangul including removal of infringement and making of temporary arrangements.

(q) Making out design drawings for all circuits for signalling and interlocking works including for track circuits

(r) Setting out alignments and levels and marking of locations for all cables, location boxes, signals, point machines etc., for signalling, interlocking and telecommunication works.

2.5 The Nature of work:

The works to be executed can broadly be grouped as under:

Civil

1. Providing and maintaining office accommodation, equipment and vehicles for the use of the Employer and their Assistants and Staff during the contract and defect liability periods.

2. Setting out the alignment of proposed new line as per the layout and tentative alignment indicated in the enclosed drawing of factory layout and connectivity to Harangul station and establishing working, bench marks and alignment references, taking the details from bench marks and alignment references established by the Employer earlier. This work has to be done before any works under this contract.

3. Preparation of working plans for longitudinal sections, cross sections and bridge layouts.

4. Carrying out the work of Earth work in formation in banks with Contractor's earth, blanketing material with Contractor's material. The earth work and blanket layer have to be compacted with suitable machinery at OMC.

5. Construction of minor bridges, major bridge and RUB. The minor bridges are either balancing bridges or RUB over village roads or small nullahs and irrigation canals.

6. Fixing of bridge plaques, bridge boards, painting of HFL etc.

7. Transportation, handling, stacking, watching, protection, etc of all material from the manufacturer's works/place of purchase to the sites of use.

8. Deleted.

9. For carrying out accurate survey work, survey control points shall be established along the railway line using high end survey equipment such as DGPS or Total Station connected with nearest GTS Bench Mark. Also reference pillars are to be established for relocation. This work is meant for maintaining & checking proper alignment of mid section & bridges for which the contractor is solely responsible.

10. Every precaution has to be taken such that there shall be least disturbance to road traffic during transportation of construction materials to the site of work.

11. Making and supply of 'As Built' drawings for the new assets created.

Track Laying & Linking

1. 60 Kg/90UTS rails on PSC sleepers with density of 1660 sleepers per km with 300 mm ballast cushion shall be provided for the main line. In station yards, for the loop lines, 52 Kg rails on PSC sleepers with density of 1540 sleepers/Km with 250 mm ballast cushion have been proposed. The main line is proposed to be provided with LWR / CWR. Loop line is shall be provided with SWP/ LWR.

2. Yards will be track circuited. Glued joints shall be provided wherever required. 60 Kg points and crossings on PSC fan shaped lay outs have been proposed.

3. Hard Stone ballast of 65 mm size with 300 mm cushion on the main line and the turnouts and 250 mm cushion on loops and sidings shall be provided.

4. The work also involves slewing / regrading of existing tracks and relaying / dismantling of P-way and Points & crossings, wherever necessary.
5. After the formation is ready and cleared by the Engineer for track linking the rails (Single Rails/3 Rail Panels) shall be unloaded on the formation.
6. Deleted.
7. PSC sleepers shall be transported by road and stacked near level crossings.
8. The required quantity of ballast to the maximum extent (not less than 2 Cum per meter length) shall be brought by contractor's dumpers on the formation and spread on the proposed alignment by contractor's grader. The grader should spread and level the ballast in a width of 3.2 meter (Bottom) and cushion of 200 mm. The remaining quantity of ballast shall remain on the common cess of existing/proposed track, leaving clear space for linking of auxiliary track.

9. After laying of ballast is completed in a particular stretch between level crossings then auxiliary track shall be laid at a gauge of 3400 mm with centre line matching the proposed track.

10. Now the sleepers shall be lifted from the stacks near the level crossings with the help of hydra and kept on the formation between auxiliary track for being

picked up by portals for leading them to point of laying in case portals are proposed to be used for transport and laying of sleepers.

11. Contractor shall bring his own mechanized portal equipment which will be capable of traveling on the auxiliary track and will transport the sleepers from L-Xing to the location of linking. At the location of laying, the sleepers shall be laid at the required spacing ensuring that the centre line of sleepers matches with the centre line of proposed track. Instead of portals, sleeper laying equipment which does not require use of auxiliary track, can also be used for laying of sleepers.

12. After the sleepers are laid on the ballast bed of 200 mm thickness, contractor shall arrange his own Rail Threader to pick up the auxiliary track rails from both sides and lay on the PSC sleeper at Rail Seat to complete the laying of track.

13. The ballast lying along the track shall be put in the track in the cribs and shoulders for taking up the work of lifting of track to provide required cushion of 350 mm.

14. Track shall be lifted and aligned by small track machines. The lifting and aligning machine should be light in weight and should be transportable by road from one site to another. This lifting, aligning and tamping may be required in 2-3 phases until the desired clear cushion and proper alignment is achieved.

15. Behind the lifting aligning machine, a contractor's small track machine capable of tamping to be deployed. The Tamping machine should have 8 Nos. of tamping tools so that one sleeper can be tamped completely per insertion. This light duty tamper should be self propelled and should be transportable by road from one place to another.

16. The contractor shall unload additional ballast over the track by his own mechanized means or manually as per site conditions and directions of Engineer to achieve desired ballast profile.

17. For achieving the desired cushion and to fill the inter-space of sleepers as well as crib ballast as per final profile, whatever ballast will be required in phases to be unloaded by the contractor with his own equipment and machinery.

18. The contractor, after sequence of linking, lifting, aligning and packing with his own tools, plants and equipments shall bring the track parameters in floating condition within the following tolerance limits:

Sr. No.	**Parameters**	**Extent of irregularities permitted**
1.	Gauge (to be measured on each sleeper)	Up to = 3 mm
2.	Twist on 3.6 Meter base (for arriving twist	Up to 2.78 mm per

	cross level to be measured on each sleeper and twist to be calculated with respect to every 7th sleeper)	meter.
3.	Unevenness on 3.6-meter chord	Up to 15 mm.
4.	Alignment on 7.2-meter chord	Up to 5 mm.
5.	Spacing of sleepers with respect to theoretical spacing.	Up to = 20 mm.
6	Joints i) Low Joints ii) High Joints iii) Squareness of joints on straight	 Not permitted Up to = 2 mm. Up to = 10 mm.

19. The track thus laid shall have speed potential of 45 kmph. After this Railway's heavy on track tampers shall be made available for machine packing to achieve normal sectional speed.

20. Two packings shall be done by the contractor with Railway's heavy on track tampers. After the first tamping the track shall be made suitable for speed potential of 75 kmph. The second tamping (final tamping) shall be done in design mode and the track shall be made suitable for maximum permissible sectional speed.

21. Profiling of ballast shall be done to achieve the ballast section as prescribed in IRPWM.

S & T Work

1. Provision of Route setting type centralised operation of points and signals with EI at Harangul crossing station involved with yard remodeling in connection with setting up of Rail coach factory at Latur in Solapur Division of Central Railway.
2. Supply, Installation, wiring, programming, testing of Electronic Interlocking by the RDSO approved manufacturer, provision of Indoor and Outdoor equipment's i.e. motor operated points, D.C. tracks circuits and MACLS.
3. Provision of Block Instruments as per requirement and approved Signal Interlocking Plans.
4. Designing and documentation including completion documents of signaling drawings for indoor and outdoor work.
5. Removal of S&T infringements or shifting of signalling gears like location boxes, signals, cables etc. and telecom gears like cables, EC post etc. to facilitate the progress of earth work and bridge works.
6. Supply and installation of signaling equipments viz. Electronic interlocking with wiring dual VDU,signal units and accessories, Integrated power supply equipments, Block Instruments, location boxes and accessories, track circuit equipments, point machines with ground connection, data logger with networking etc.

7. Indoor work of programming and commissioning of electronic Interlocking, erection of Relay rack, CT rack, wiring of relays, testing and alterations in circuits, installation of power supply equipments & IPS, operating and indication panel, data logger and networking, installation of DG sets, painting and lettering of all indoor gears, releasing of all indoor gears etc.
8. Outdoor work of trenching and laying of cables, foundation for signals, location boxes, etc. wiring of location boxes, signal units, points machines, track circuits, jointing of signalling cables, earthing, RE protection, painting and lettering of all out door gears, releasing of all outdoor gears.
9. Testing of all indoor equipments for functional/operational requirements and all outdoor equipment's of signals, points, track circuits, etc. and carrying out necessary adjustments and modifications in consultation with Engineer. Preparation of all documents related with testing and test reports.
10. Shifting of all control and communication equipments in the new ASM room along with associated telecom work.
11. Provision of BSNL/DOT phone connections to factory and colony as per requirement
12. Setting up of Telecom Exchange at Factory and extending numbers and rail net connectivity to all officials in factory as well as in colony. Laying of new cables from Harangul station to Rail coach factory for provision of railway phone connectivity
13. Matching of OFC cable from Latur exchange to Rail coach factory for extending of PRI circuits and Control communication. VHF communication is also being provided as standby for the above communication.
14. Surveillance facility will be provided at Rail coach factory.

OHE & General Electrical Work.

1. Electrification of Service buildings including alterations to the existing Service buildings; where necessary .The main incoming substation in factory premise is 33KV/11KV (3000KVA Capacity) with associated switch gear and control and three numbers of distribution substations (11KV/415V,1000 KVA, 1 number each for shell and furnishing shops respectively, and one 11KV/27KV,1000KVA for test track OHE).Supply and erection of 2 diesel genset 500KVA for shell and furnishing area respectively. In addition to illumination and air circulation, all shops will be provided with 440 3Ph/230V 1 Ph power connection at each column for drawing electric power for operation of tools, machines and plants. Provision of energy efficient fittings (light fittings, fans and solar heater in service , admin-buildings & colony, and poles for illumination of roads and factory and colony premise. Lightening protection of installations. Energy efficient fittings to qualify GREENCO rating (LED light to qualify Greenco platimum rating).
2. Electrification of FOB, ROB, Level Crossing gates, other Service Buildings and Residential Buildings.

3. Supply & installation of overhead equipment at 25 KV AC for test tack inside factory and all associated works including preparation of all drawings. Only pegging plan will be supplied by the purchaser to the successful bidder.
4. Deleted
5. All works associated with the extension of 25 KV AC feed from the existing traction sub-stations to the over head equipment of track.
6. Deleted
7. Modifications to existing overhead Electrical Crossings/Parallel lines and underground electrical cable crossings
8. Liaison with MISC/MSEDC to ensure energisation of newly laid cable and removal of overhead conductors. removal of dismantle overhead conductors/poles/materials and availing of new services.
9. All works associated with supply and erection of 11kV/27kV TSS, 11kv/415V substation with required switch gears, and electrification of residential buildings including pumps/LT/HT supply arrangements
10. Provision of pumps for GLR, O/H tanks, bore wells and for firefighting equipment/installation etc.
11. Design, Installation, Erection, Testing and Commissioning of 500 KWp grid connected Solar plant

The above is not an exhaustive list covering all the works to be done under this Tender. Major works only have been listed for guidance.

2.6 Some Special stipulations/features:

Civil Work

2.6.1 While planning for the work of transportation of bridge construction materials to the bridge site., the finished formation of earth work in banks and cuttings with or without blanket layer should not be used for plying of trucks or other vehicles used for transportation. This restriction has specially been imposed to save the top surface of the formed formation from forming pits and ruts, which later are likely to accumulate water and pose problems for maintenance.

2.6.2 The mechanical means required to meet the stipulations mentioned in the above sub Para should be arranged by the Contractor.

2.6.3 Railway land, if available and spare-able, shall be provided for the purpose of stacking of material and setting up of concrete batching plant, etc. However, the Contractor shall be responsible for arranging any such requirement of land and arranging/developing any required approach to site of work, etc at his own cost..

2.6.4 The Contractor shall be required to mobilise resources for taking up work at a number of locations simultaneously. A tentative scheduling of major activities

is given at sub-clause 2.14 of this section for purpose of guidance only. The planning of resources may be done at least to meet these requirements.

2.6.5 Suitable/preferred type of soil for embankment is not available in close proximity of the proposed new line. The bidder may ascertain availability and lead/lift involved before quoting his rates.

Inspection of S & T Work

2.6.6 S &T work is required to be carried out in accordance with the IRS specification for RRI/PI (S/36/87) and conforming to RDSO Specifications No. RDSO/SPN/192/2005 for EI with latest amendments issued. The installation practices of all signaling gears should be as per the Signal Engg Manual Part I &II issued in September 2001 and to suit latest relevant correction slips. The work is required to be carried out in accordance with the RE manual for stations falling under 25 KV electrified traction. The execution is required to be carried as per standard specifications of RVNL. However, specifications, drawings and other details mentioned in BOQ or in special conditions, wherever applicable will prevail over the standard specifications. Copy of the standard specification of RVNL can be purchased from the office of RVNL on payment.

2.6.7 The Signal & Telecom material to be supplied by the contractor as per RDSO Specifications/ Drawings will have to be procured from approved Vendors appearing in Vendor Directories of RDSO and to be supplied duly inspected by RDSO. In case where no manufacturers are available in approved vendors list issued by RDSO, procurement may be done through the firms included in RDSO Vendors for Developmental order as per Railway Board's letter No. 99/RS(G)709/1 dated 18.11.2016 and 2001/RS(G)/779/7 PT 1 dated 29.06.2017.

For procurement through RDSO Vendors for Developmental order, prior approval of RVNL's Engineer shall be obtained.

2.6.8 The Signal & Telecom material to be supplied by the contractor as per TEC/DOT/BSNL specification will have to be procured form DOT/TEC approved firms. The inspection of such items will however be carried out by RDSO provided the value is more than value stipulated in inspection policy of RDSO.

2.6.9 In case the contractor is supplying imported equipments from approved manufacturer, then in addition to manufacture's test certificate, such equipments shall be inspected by RDSO.

2.6.10 Signal & Telecom items not inspected by RDSO/ RITES for any reason will be inspected by the Engineer / Authorised Representatives of RVNL. In case of any difficulty in inspection, RVNL may decide the authority of inspection, either by any other Govt. agency or by consignee. Whenever materials are inspected by Authorised Representatives of the RVNL/Engineer, the

contractor will be required to furnish his or manufacturer's Guarantee Certificate.

2.6.11 The RVNL shall have full power to reject any material that it may consider to be defective or inferior in quality, workmanship, or otherwise not in accordance with the Specification and the RVNL's decision shall be final, even though they might have been inspected by RDSO/RITES. The contractor shall remove forthwith any such material rejected and replace them promptly at his own cost. Inspected and accepted material, if damaged during transit shall be replaced by the contractor free of cost prior to installation.

2.6.12 Inspection Charges of RDSO and RITES will be borne by the Contractor. In case of change of inspection from RDSO/RITES to RVNL/Consignee, 1% of cost of material to be deducted by RVNL, as inspection charges.

2.6.13 Items included in the list of items to be inspected by RDSO & RITES and are not inspected by RDSO/RITES for any reason whatsoever and will be inspected by the Authorized Representatives of RVNL. The following conditions will apply:

i) Material conforming to RDSO specn/drg is procured from RDSO approved source.

ii) Contractor shall submit Manufacturer's Guarantee Certificate for the material.

iii) All such cases where change in agency of inspection other than mentioned in the schedule is required will be processed for specific approval of competent authority.

OHE work

2.6.14: The scope of work includes dismantling of LT/HT supply arrangements and dismantling of the existing OHE either in part or in full where ever required, as well as the structures of OHE that may be required for the laying the track.

2.6.15: The contractor shall furnish the details of Soil test reports for Designs.

2.6.16: For supporting the OHE on the major bridges, the contractor shall provide special fabricated galvanized steel mast of suitable length to be erected on the bridge piers to maintain the required height of the OHE.

2.6.16.1: Detailed Technical Specifications for the works to be executed under this contract are available in RVNL's standard specification for material and works Vol-II Electrical Works (latest) that can be purchased from corporate office of RVNL and is also available in RVNL website

2.6.16.2: The complete project site lies in the state of MAHARASTRA.

2.6.16.3: The entire TKM mentioned vide Para 2.2 (Electrical) needs to be provided with conventional 25kV AC 50Hz single phase OHE.
This part of the specification is complementary to RVNL's Technical Specification No. 2005/RVNL/Elect./Tech. revision-1 or latest Specs.

2.6.16.4 **CLIMATIC CONDITIONS**-Temperature: The ambient temperature generally varies between a minimum of 12□C and a maximum of 48□C. The mean

temperature may be taken as 38□C, Rains occur generally from June to September. The average rainfall during the monsoon seasons is approx. 60cms annually. The maximum relative humidity is nearly 28%. The region is subject to thunder storms during monsoon from June to September. Wind Pressure-This section falls in the wind pressure zone of 112 kg.f/sq.mtr in terms of IS 875(part-3) 1987 Re-affirmed1997. This conforms to the wind pressure adopted by State Electricity Boards for the design of their EHT transmission lines. The Galvanised Steel shall be supplied as per the latest RDSO specification. The zinc coating for the galvanized steel and SPS shall be 1000 grams/sq.mtr. The Foundation concrete should be of grade M-15 with concrete for core in M-20 grade.

2.6.16.5: ROOLING STOCK -Electric Locomotives including MEMU coaches with chimney height not exceeding 4.232m (WAP with their pantographs in the locked down position) and diesel Locomotives with a height of 4.42m (14ft. 6inch) would run on this section.

2.6.16.6: OVER DIMENSION CONSIGNMENTS

The maximum eight of Over Dimensional Consignment which will pass on this section is 4.80m (15ft. 9 inch) with moment restricted to specified lines.

2.6.16.7: POWER SUPPLY

The above section falls in the state of Maharashtra. Main Incoming Electrical Substation in the factory premises is proposed with one number of 33kV /11 kV, 3000 KVA with associated switch gear & control panels etc.

2.6.16.8: L.T. Supply Transformers Stations-Pole mounted Auxiliary Transformers (Aux.Trs) shall be installed for giving power supply to colour light signaling, repeater Stations, Manned L.C. Gates, cable huts, Goomty's Switching Stations and Traction Sub-Stations.

2.6.16.9: TYPE OF OHE

The Over-Head Equipment used shall normally be of regulated Conventional Polygonal type.

2.6.16.10: Return Conductors

In this section, return conductors and booster transformers will not be provided.

2.6.16.11: PEGGING PLANS

Pegging plans will not be supplied. Bidders need to do detailed survey for preparation of pegging plans, Layout plans etc.

2.6.16.12: Traction Sub-Station Feeders

25kV feeders from traction sub-stations shall be drawn separately for connecting to the feeding overlap.

2.6.16.13: DELETED

2.6.16.14: Labour & Materials

Unskilled labour is generally available almost all over the section while skilled labour would be available generally at the main towns in the section.

2.6.16.15: Contractor's Office

It is obligatory on the part of the contractor to establish an office at the convenient stations to be advised by engineer, for planning, design and for expeditious finalization of particular designs and working drawings. The office should be headed by a qualified Engineer whose credentials shall be

approved by the Engineer. In addition, the contractor will have to establish field-construction offices at convenient and approved locations for co-ordination and progressing of field works.

2.6.16.16: Deleted

2.6.16.17 - Part of the works covered under this contract have to be executed in close proximity to the existing running line. The contractor shall take adequate precautions to avoid any infringement to the moving dimensions resulting in serious accidents. The precautions to be taken while working close to the track have already been listed in Particular Conditions of Contract. The contractor shall execute all the works avoiding the possibilities of either detention or infringement to the operation of trains on existing track.

2.6.16.18:

a) Deleted
b) b) Deleted
c) In case a portion of the work is carried out manually and/or in the event of non-availability of Crane special or wiring Train for mast erection and wiring respectively 50% more will be paid over and above the accepted erection rate of relevant item. In such case, the contractor shall make his own arrangements for transporting the material to site. The manual erection charges referred above shall include the cost of labour for transportation, loading and unloading of material at site, overhead charges, taxes etc.
d) The work has to be executed in close coordination with other contractors who may be working on this section.
e) Tower Wagon (TW) shall be provided for final adjustments and alignment of OHE to facilitate measurements of stagger and inspection. In case not available it is to be checked with ladder trolleys at the cost of the contractor.
f) In open route and at stations, the Employer/Engineer after the inspection of OHE and after satisfying himself shall permit the contractor to make out and connections to electrically charge the line either at 2.2kV or 25kV. Till such time, the contractor shall protect the erected OHE from thefts and damages at his own cost. In the case of theft/breakdown, the contractor shall restore the traffic in minimum possible time. Failure to do shall attract suitable penalty.
g) No power/water supply arrangements shall be made available to the contractor by the Employer. The contractor shall make his own arrangements for power/water supply for the execution of works. However if railway power/water supply is available near the work place, the Engineer shall assist in coordination with the local railway authorities for use of same after payment of requisite charges by the contractor to the railway authorities.
h) For supporting the OHE on the bridges, the contractor shall provide Special fabricated galavanized steel masts on piers to maintain the required height of the OHE Suitable bolts required for erection of bridge masts on the piers shall be arranged by the contractor.
i) The successful bidder shall obtain/possess a valid electrical license to handle minimum 33kV electrical equipment, issued by any license issuing authority.

2.6.16.19 Works requiring traffic blocks-Any traffic/power blocks, temporary speed restrictions and caution orders required in connection with execution of works by contractor, shall be got sanctioned from the Railway authorities well in advance, through the Engineer. The Railways may sanction the same for specific sites within the overall recovery time available in the Railway's time table. The contractor shall have to schedule his programme according to the convenience of the Railways. No claim from the contractor for any delay/inconvenience/loss on this account shall be entertained by the Employer/ Engineer.

2.6.16.20 The contractor shall undertake the work involving Railway track, Railway Electrification installation in co-ordination with the Engineer and Railways in accordance with the program of work. Where traffic/power blocks are involved, the Contractor shall ensure that interruption to Railway operations, if any, is kept to bare minimum.

2.6.16.21 In case a portion of the work is carried out during power block, 100% more will be paid over and above the accepted erection rate of relevant item on certification by engineer. If power block is given for a total duration of 04 hours or more in a day, extra rate shall not be paid.

2.16 Power Line Crossings

The Contractor shall co-ordinate with the concerned State Electricity Authorities for carrying out all modifications to the power line crossings and strictly adhere to the Schedules of power shut down while executing the works if required. The Contractor shall hand over all released materials arising out of modifications to power line crossings to the respective Authorities and no separate payment will be made for loading, leading, transporting etc. The entire work shall be planned in advance and submitted to the Engineer for approval. The Contractor shall provide adequate resources as per approved plan to complete the work as per programme.

Procurement and storage of materials

2.6.17 Procurement of Track, S&T and Electrical Items has to be planned by the contractor in consultation with the Engineer and procurement plan shall be got approved from the Employer before placing any orders for such materials.

Procurement Plan should be prepared in such a manner that those materials which have a shelf life like rubber pads etc may be procured in a staggered manner so that the materials are used before its properties get modified with age. The procurement of materials shall be planned as per the milestone/key activities specified in pursuance to GCC clause 8.3. If the material/product does not remain of required specifications at the time of its actual use, the same will be replaced by the contractor with materials conforming to Specifications at his own cost.

The procurement of materials for the works by the contractor shall also be subject to the following:

(i) Procurement Schedule:

SN	Items	Schedule
1	Supply of	The procurement process should commence after

SN	Items	Schedule
	items under S&T BOQ	GGM/GM/AGM in-charge of S&T portion of the work, in consultation with the CPM in-charge, approves the programme of procurement proposed by the contractor such that materials proposed for procurement are expected to be installed within a year of receipt. However, to facilitate formation work, Cables, Wires Location Boxes, Terminals, Level Crossings and other associated items required for replacement/shifting of existing cables/location box/level crossing etc to the extent of 20% of BOQ quantity or higher quantity may be procured at the beginning with the approval of CPM/GM/GGM of the department.
2	Supply of items under Electrical BOQ	Since design and drawing for the work is part of the Electrical BOQ, normally, the contractor would place his procurement plan as per the drawing & design prepared by him. However, procurement process for cables and other related materials generally upto 20% or otherwise approved by CPM/GM/GGM in charge of Electrical works in consultation with the CPM in-charge, of items to facilitate shifting of Electrical utilities/ modifications should commence at the start. Thereafter, the materials may be procured as per approved plans/drgs. The materials to be procured should be expected to be installed within a year of receipt.
3	Supply of P. Way items under Civil BOQ	Procurement process should commence after CPM approves the programme for procurement of materials proposed by the contractor such that they are expected to be installed within a year of receipt. However, as the formation work starts, some materials in connection with extension/shifting of lifting barriers and other structures at Level Crossings may be required for replacement/shifting of existing cables/location box etc. Therefore, such items should be processed for procurement at the beginning and other items as per above para.
4	Supply of Mechanical BOQ items	Procurement process should commence after GGM/Mech or his authorized nominee approves the programme for procurement proposed by the contractor so as to synchronize with progress of civil and electrical works required for installation and commissioning of the M&Ps and T&Ps.
5	The contractor would make out a list of items for which procurement process to start indicating the expected time of arrival at site and installation as per the period indicated above. The concerned GM/Elect ,GGM/Mech and GGM/S&T or their authorized nominee would approve the programme in consultation with the CPM in-charge.	

(ii) Based on the above schedule, the contractor shall prepare BOQ Schedule/Bill-wise procurement plan and submit a statement in the following format:

Procurement Plan- Installment No.1				
BOQ Bill No:				
Item No.	Description	BOQ Quantity	Quantity planned for procurement	Justification for placing order for procurement (lead, likely month of execution/installation)

Certified that all efforts have been taken to ensure that the quantity of materials being planned for procurement is as per the BOQ and as per the requirement at the site based on approved drawing.

Contractor

The requirement planned is commensurate with the progress of work and as per approved drawing/ design.

Engineer/PMC

Approved

CPM/GM

While submitting the 1st stage payment of the materials, a copy of the above approval certificate should accompany the bill/IPC.

(iii) **Reconciliation of materials after each milestone is reached:** For procurement of materials in subsequent installment(s), the contractor shall enclose along with his proposal, a review statement of consumption already made or likely to be made in respect of materials already procured in the following format:

Review of the materials procured up to Previous Installment					
BOQ Bill No:					
Item No.	Description	Quantity procured upto previous Installment	Quantity Consumed/ installed	Balance Quantity	Remark

Considering the consumption and further targets, second installment of materials may approve for procurement.

Contractor

The requirement planned is commensurate with the progress of work and as per approved drawing/ design.

Engineer/PMC

Approved

CPM/GM

2.6.18 If the Contractor is required to purchase certain material(s) from firms in the approved list of RDSO/Zonal Railways /RVNL, as per terms and conditions of the contract, then the Contractor shall place orders accordingly on firms appearing in the approved list, as specified, on the date of placing the order and provide details of such orders placed to RVNL.

In case the contractor places an order on an approved firm, but the firm is subsequently de-listed before the supply is completed, then in such cases, if there are any outstanding orders on the de-listed firm, then wherever the balance delivery period is available, the extent of supply made by the firm within the original delivery period, shall be accepted provided it passes the inspection of RITES/RDSO/inspecting authority specified in the contract. If the de-listed firm fails to deliver the material within the original delivery period, no extension shall be granted by the Contractor to such firms after date of issue of de-listing order. In case where delivery period has expired, no extension shall be granted and all such orders shall be cancelled and a fresh purchase action should be taken.

2.6.19 The plant and materials etc. so procured for the works shall be properly stored on Site and protected against loss, damage or deterioration. For this purpose, the contractor shall make necessary arrangements of store godown/fenced area at site in Railway land as per directions of Engineer. In case the contract is terminated, the Employer shall have the right to take possession of the godown/store and reasonable cost of such store/godown shall be determined by the Engineer and included in the Final Payment Certificate.

2.7 CODES & SPECIFICATIONS

2.7.1 GENERAL

Wherever reference is made in the Contract to specific standards and codes to be met by the goods and materials to be furnished and work performed or tested the provisions of the latest current edition or revision of the relevant standards and codes in effect shall apply, unless otherwise expressly stated in the Contract. Where such standards and codes are national or relate to a particular country or region, other authoritative standards which ensure an equal or higher quality than the standards and codes specified will be accepted subject to the Engineer's prior review and written approval. Differences between the standards specified and the proposed alternative standards must be fully described in writing by the Contractor and submitted to the Engineer at least 28 days prior to the date when the Contractor desires the Engineer's approval. In the event the Engineer determines that such proposed deviations do not ensure equal or higher quality, the Contractor shall comply with the standards specified in the documents.

All goods and materials to be incorporated in the goods be new, unused, and of the most recent or current models, and that they incorporate all recent improvements in design and materials unless provided for otherwise in the contract.

(a) The specifications mentioned in these specifications shall be prime governing.

(b) Where there is conflict between provision in IRS & IS specifications, provisions in IRS specifications shall prevail.

(c) Where there is no provision of specifications in IRS, provisions in IS specifications should be adopted. Where there are no provisions in IRS and IS Specifications, provisions in IRC Specifications should be followed.

(d) For items not covered in IRS/IS/IRC specifications, BS-5400 Part 1 to 10 may also be considered.

(e) Where applicable CEB/FIP recommendations and codes of practices shall be used if specific recommendation does not exist in IRS/IRC/BS specifications.

(f) The decision of Engineer shall be final and binding in the interpretation of the clause of the codes of practice and specifications of this tender and no claim whatsoever shall be entertained on this account from the Contractor.

2.8 SURVEY AND FIXING WORKING BENCH MARKS AND ALIGNMENT MARKERS.

2.8.1 The work of conducting survey and fixing bench marks and alignment markers before the start of any work on this tender is included in the works covered by the present Tender.

2.9 Bench marks:

2.9.1 All along the length of the proposed New Line bench marks have been set up by the Employer at intervals of about a kilometer with reference to the nearest GTS Bench Mark. The details of these bench marks along with their reduced levels have been marked on the design drawings indicating the plan and 'L' section which form a part of the tender. The contractor along with the Engineer should verify the details of these bench marks in the first instance, soon after taking possession of the site. If any mistakes are detected in these details of these bench marks the same should be indicated to the Engineer. The mistakes detected should be corrected in consultation with the Engineer. These corrections should be got approved by the Engineer before starting of any other work.

2.9.2 The contractor shall then in presence of the Engineer establish working bench marks at short intervals, adequately connecting them to the reference bench marks set up by the Employer in the Project length. The working bench mark levels should be got approved from the Engineer. An up to date record of all bench marks including approved corrections if any, shall be maintained by the contractor and also the Engineer.

2.9.3 All levels taken for making out the longitudinal section and cross section should be related only to these working bench marks.

2.9.4 While doing the above mentioned work, the fact that similar work will have to be done once again on the completed earth work in formation for fixing up the longitudinal levels of the installed P.Way should be kept in view.

2.10 Alignment:

2.10.1 All along the length of the proposed New Line at a intervals of about half a kilometer, alignment reference pillars have been set up the Employer using latest survey equipment such as DGPS and Total Stations; in addition five reference pillars have been erected for each of the curves to indicate the start & end of the over all length of the curve and its circular portion and apex, by the Employer. In the design drawings showing the plan and 'L' section, which forms part of the tender, the co-ordinates for these pillars have also been given. This has been done to facilitate setting of the alignment of the proposed line. The contractor along with the Engineer should verify the details of these alignment pillars, soon after taking possession of the site. If any mistakes are detected in these details, the same should be indicated to the Engineer before starting any other work. These detected mistakes should be corrected by the Contractor in consultation with the Engineer. These corrections should be got approved from the Engineer.

2.10.2 The contractor shall then in presence of the Engineer establish working alignment reference markers at shorter intervals, adequately connecting them to the reference pillars set up by the Employer in the Project length. The location of these subsidiary alignment markers should be got approved from the Engineer. An up to date record of all alignment pillars, and corrections, if any done, shall be maintained by the contractor and also the Engineer.

2.10.3 The alignment for the new Line should be related only to these working bench marks.

2.10.4 While doing the above mentioned work, the fact that similar work will have to be done once again on the completed earth work in formation for fixing up the alignment of the installed P.Way should be kept in view.

2.10.5 After the formation and bridges have been constructed, the centre line of alignment of both in Block Sections at either end should be refixed taking guidance from already set up alignment references. Similarly the rail levels of track both in the block sections and the yards should also be fixed with reference markers. These will be used for installation of track by other agency.

2.11 Responsibility for establishing and maintaining working bench marks and alignment markers

2.11.1 The Engineer when necessary will provide the contractor with the data necessary for setting out of the centerline. All dimensions and levels shown on the drawing or mentioned in the documents forming part of or issued under the contract shall be verified by the contractor on the site; he shall immediately inform the Engineer of any apparent errors or discrepancies noticed in such dimensions or levels. In consultation with the Engineer, the noticed mistakes should be corrected. These corrections should have the approval of the Engineer.

2.11.2 The contractor will be entirely responsible for accurate setting out of the works and safeguarding all survey monuments, bench marks, alignment references etc. The work of setting out shall be deemed to be a part of the general works preparatory to the execution of work and no separate payment shall be made for the same.

2.11.3 The above mentioned points have been repeated in the respective sections dealing with specifications for different works for laying emphasis on these items.

The contractor will be entirely responsible for accurate setting out of the works and safeguarding all survey monuments, bench marks, alignment references etc. The work of setting out shall be deemed to be a part of the general works preparatory to the execution of work and no separate payment shall be made for the same.

2.12 INTERFACING AND INTEGRATION OF WORKS

2.12.1 As a part of **"Construction of PEB Sheds, Structures, Buildings, Water supply arrangement, Drainage, Sewerage, Road works, Rail track works, Signaling & Telecommunication works, OHE and Power supply arrangements, General Electrical works and Supply, Installation and commissioning of Machinery and Plant in connection with setting up of Rail Coach Factory at Latur, Maharashtra (India)"** will be done in this bid. Hence interfacing for the purpose of integration of works between different Contractors is of very much importance so that progress of work is not hampered. Coordination between all agencies has to be ensured. Such interfacing for the purpose of integration of works will arise between the partners of JV, in case the work is awarded to a JV or between the Contractor and his sub contractors will arise. This has to be kept in view.

2.12.2 Deleted.

2.12.3 It is the intention of the Employer that the overall interfacing, planning, scheduling, logistic administration inclusive of necessary logistic planning and all tasks that are necessary to guarantee proper co-ordination and proper interfacing of all activities during the complete execution of the works, is clearly understood and agreed to. Integrated programme shall set out in detail how the different contractors will work together in execution of the works. This new line project will have three more contracts for its completion in entirety. It shall also spell out the overall interfacing, planning, scheduling, logistic administration inclusive of necessary logistic planning and all tasks that are necessary to guarantee proper co-ordination and proper interfacing of the different activities by various agencies during the execution of the works. A master schedule incorporating the milestone of works completion by each contractor shall be included in the integrated programme to demonstrate the capability of all parties involved in the completion of the works. The essence of the integrated programme shall be that the contractors have both overall responsibility for the completeness and the timeliness of all the works and quality of the contractual works within the agreed time frame. Allowance need to be made by the contractors in their resources and pricing to ensure that proper co-ordination of the various items is incorporated in their contract.

2.12.4 Needless to say that commissioning of this new line project requires close coordination among various agencies executing the works in this section, Engineer, Employer and the Railway authorities. The contractor shall therefore plan all his works requiring interfacing, like works in mid section, station yards, with other agencies, meticulously, in consultation and coordination with all concerned parties, in advance, for expeditious execution, without causing any delay either to his works or those of others.

2.12.5 The contractor shall strictly adhere to the work plan made for works requiring interfacing. Any delay either on his part or on the part of other agencies and other bottlenecks that could affect the pace of works shall be informed to the Engineer in time so as to enable him to take corrective steps.

2.12.6 If, in the opinion of Engineer, any delay in execution of any part of the Project requiring interfacing is attributable to the failures of the contractor to take adequate steps for smooth execution of such works, then the Engineer shall have the right to take necessary steps to organize and streamline such works, including excluding the requisite portion of work from the scope of the Contractor and getting the same executed by other agencies, at the risk and cost of the contractor.

2.13 Damages to property:

The contractor shall organize all his activities so as not to cause any damage to the property of Railway or that of other agencies or any third party. In spite of taking all precautions, in the unfortunate event of any damage to the property, then the contractor shall not only indemnify the Employer of the claims made by the affected parties but also settle the matters with the affected parties as per law. If the nature of damage is one of that affecting the train movements or causing a safety hazard to the public, then the situation will be treated as an emergency and the Engineer reserves the right to take all necessary steps as deemed necessary to restore train operations or to remove the hazardous situation or to mitigate the damage, at the risk and cost of the contractor.

2.14 Tentative scheduling of major works:

Building work shall be completed in 8 months and Bridge work, Road bed should be completed in 14 months from Date of commencement and progressively the complete work including track linking, S & T and OHE is to be completed in 24 months.

2.15 SURVEY EQUIPMENT

All survey shall be done with Total Stations and high precision Auto levels. The contractor should provide the survey equipment and other accessories as per the instructions of Engineer as and when required. He should also provide all necessary help as required by the Engineer for checking the works, whenever required.

2.16 Power Line Crossings:

2.16.1 The Contractor shall co-ordinate with the concerned State Electricity Authorities for carrying out all modifications to the power line crossings and strictly adhere to the Schedules of power shut down while executing the works if required. The Contractor shall hand over all released materials arising out of modifications to power line crossings to the respective Authorities and no separate payment will be made for loading, leading, transporting etc. The entire work shall be planned in advance and submitted to the Engineer for approval. The Contractor shall provide adequate resources as per the approved plan to complete the work as per programme.

2.17 Contract Kay Dates :

Contract key dates are tabulated hereunder, which are important for timely completion of the project. In case the contractor fails to meet, the commitment of any key date specified here under, the contractor shall be liable to pay the delay damages in accordance with clause 8 of GCC. Contract key dates are with reference to the date of commencement of works (DOC) as defined in clause 8.1 of GCC and Part – A Contract Data of Section -7 Special Conditions of Contract.

Key Dates	Date	Description of Stages
Key Date #1	DOC	Submission of construction programme, mobilization of all resources, materials required for execution of work in full pace.
Key Date #2	1 month form DOC	Submission of Design Basis Report, GADs & architectural drawings with material specification for shed.
Key Date #3	2 months from DOC	Submission of detailed structural design & drawings including foundation details for PEB sheds. Demolition of existing sheds/ structures/buildings quarters & cutting of trees etc. from the site.
Key Date #4	4 months from DOC	Submission of proof checked structural design & drawings including foundation details for PEB shed.
Key Date #5	8 months from DOC	Completion of earthwork / formation and area development as well as completion of 80 % foundation work for shed.
Key Date #6	10 months from DOC	Completion of foundation for sheds & buildings.
Key Date #7	15 months from DOC	Completion of Fabrication & erection of PEB Shed including Sheeting.
Key Date #8	16 months from DOC	Completion of track works, water supply arrangement.
Key Date #9	20 months from DOC	Completion of PEB shed and building works, fire hydrant, drainage and sewerage works
Key Date #10	22 months from DOC	Completion of staff quarters and completion of all electrical works.
Key Date #11	23 months from DOC	Completion of supply, installation and commissioning of all M&Ps Completion and commissioning of Harangul station works
Key Date #12	24 months from DOC	Completion of entire work & Demobilization form Site.

Chapter – 3

3.0 SITE FACILITIES FOR THE EMPLOYER AND THE ENGINEER

3.1 GENERAL

The Contractor shall provide for the use of the Employer / Engineer office accommodation, equipment, communication & drawing facilities throughout the course of the work and for such period of time during the defects liability period as the employer & Engineer may require, The details of the accommodation & the other facilities are detailed below: All the facilities under this clause will continue to be maintained by the Contractor free of cost till the defect liability period is over. Thereafter the Contractor shall dismantle the building and take away all the materials, office furniture, & equipment etc which will be the property of the Contractor. The provisions of the site facilities will be paid for separately.

3.2 SITE OFFICES

3.2.1 Accommodation for the Employer / Engineer shall consist of one site office to be constructed by the Contractor at a place decided by the Employer, within Two months from the date of commencement of the works. In case of delay beyond Two months in provision of the accommodation either through construction or hire, penalty @ Rs 10000/- Per week or part thereof will be imposed."

3.2.2 The site office should remain open for 24 hours a day and 7 days a week i.e. round the clock till the defect liability period is over.

3.2.3 Site Office will provide for the following rooms:

SITE OFFICE for Engineer/Employer to be constructed by Contractor	Area required (Sq. m)
Project Director of RVNL	16
Other Officers of RVNL i.e. Manager & above @10 sqmt each	40
Other Officers of RVNL @5 sqmt each	40
Project Manager of PMC	16
Resident Engineers @ 10 sqmt each	50
Experts @5 sqmt each	40
Office staff of RVNL & PMC @ 2.0 sqmt each	20
Conference/Visitor Room	70
Computer/Drawing Office	20
Pantry & Kitchen area	15
File and Documents & Instruments Storage	15
Toilets	15

Total **"A"**	357 M^2
Common Area/Verandah	43 M^2
GRAND TOTAL	400 M^2

3.2.4 Materials used for the construction of the offices shall be new and of good quality. Materials shall be chosen such that the buildings when erected shall give good ventilation, heat and sound insulation.

3.2.5 All buildings shall be supplied with continuous (24 hour) running potable cold water to the kitchens and wash rooms. The toilets may use raw water for flushing. The Contractor shall also arrange for the constant and hygienic disposal of all effluent, sewage and rubbish from the buildings.

3.2.6 All buildings shall be supplied with electricity, AC 240 Voltage 50 Hz that shall be distributed to each room in accordance with the Regulations. Lighting and electrical power points shall be provided in each room. The disposition and location of light and power points will be as directed by the Engineer. 24 hours power supply is to be arranged by contractor to meet full power load. Fans and coolers etc will be provided as decided by the engineer. Rooms for (i) Project Director of Employer (ii) Project Manager (iii) Conference/Visitor Room shall be provided with Air Conditioners of appropriate capacity.

3.2.7 **Deleted**

3.2.8 Fire fighting equipment shall be provided in accordance with the local recommendations.

3.2.9 **Deleted**

3.3 FURNITURE AND OTHER OFFICE EQUIPMENT

3.3.1 The Contractor shall supply and maintain the following new furniture and equipment to the Engineer's offices within two months of the date of commencement of the works until the defect liability period is over:

Description of Item	**Nos.**
Conference table 24 seater Godrej Model Encarta	1
Conference chairs Godrej model Encarta	24
High back chair for officers Godrej model Kareena	3
Mid back revolving chair model Bravo PCH-7046R	7
Visitor chair model Kareena	30
4-door bookcase make Godrej	6

Storewell Godrej model KD plan/KD combi	6
Office desk model Godrej Majestro (A complete suite office furniture comprise of executive desk, side unit, mobile pedestal and credenza along with book case)	2
Office desk Godrej model stylo	20
4-drawer filing cabinet Godrej make	5
Plan chest (A1 size) Godrej make	1
Telephone switch board connected to 2 external lines with STD facility, and with independent local communication facility and conference facility with 10 phones instruments & one fax machine	10 phone lies
Umbrella	24
First aid kit for up to all the persons working at site office	2
Safety helmets	32
Safety harness	24
Day-glow waistcoat	32
Pairs industrial safety goggles	32
Gas oven with 2 nos. of commercial gas cylinder duly filled and filling of cylinders when required	1
Water purifier (RO) of 15 liter or above capacity with AMC	1
Refrigerator of 180 lit or above	1
Electric kettle 1-liter capacity	6
Micro-oven convection 20 liters or above	1
Cups and plates	32
Glass for water	32
Fire extinguisher	(As required).
Silent DG set of minimum power of 10 KVA	3

Note: In case of failure to provide the equipments within Two months, penalty @ Rs 5000/- Per week or part thereof will be imposed.

3.4 TRANSPORT

3.4.1 General

The Contractor shall provide road transport (for the use of the Employer and the Engineer within one month from the date of commencement of the works)

and the Payment for the same shall be covered in relevant schedule of the BOQ

3.4.2 Road Transport

a) The vehicles shall be new and delivered and maintained by the Contractor in good roadworthy condition including daily cleaning. The vehicle shall be replaced with a new vehicle after a maximum run of 75000 Km or three years whichever is earlier.

(b) The Contractor shall employ and make available competent drivers fully licensed to operate the vehicles as and when required by the Engineer/Employer. The Contractor shall replace drivers at the request of the Engineer/Employer.

(c) The vehicles shall be licensed and insured for use on the public highway and shall have comprehensive insurance cover for any qualified driver authorised by the Engineer together with any authorised passengers and the carriage of goods or samples.

(d) The Contractor shall provide fuel, oil for running of each vehicle for 4000 kms monthly and ensure maintenance in conformity with the vehicle manufacturer's recommendations and all relevant toll and parking charges incurred in connection with the Works. The vehicle shall be provided day and night as required by the Engineer/Employer. If any vehicle is allowed, with the prior approval of Project Director, to run beyond 4000 Kms in a month the charges for running of the additional kilometres shall be paid separately under item 9003(c), 9003(d) of schedule.

(e) A suitable replacement shall be provided by the contractor for any vehicle out of service for more than 24 hours. If the contractor at any time fails to provide vehicle(s) or substitute vehicle(s) as specified, an amount of Rs.1500 per day for each vehicle (that the Contractor failed to provide) shall be recovered from the Contractor.

3.4.3 Number of Vehicles

3.4.3.1 The Contractor shall provide the following type of vehicles as per requirement indicated by the Project Director within one month of the date of commencement.

Type	Numbers
INNOVA or similar	*3 Nos.*
TATA SUMO, BOLERO/SCORPIO or similar	*6 nos.*

3.4.3.2 The vehicle requirement given in para 3.4.3.1 above is the maximum requirement of the vehicles at a time. However requirement in a particular period will be intimated by the project director to the contractor on programme basis at least 7 days before the actual date of requirement after approval of the distribution by the Project Director. The Contractor shall withdraw particular vehicle(s) if the same is not further required by the Engineer/Employer if so directed by the Project Director. In such cases the instructions shall be given in writing 7 days in advance. The requirement during the Defect Liability Period will be quite less than the maximum requirement mentioned above.

3.4.3.3 **Duration of Transport Requirements**

Transport for the Engineer / Employer shall be provided so as to cover the entire completion period(s) and defect liability period(s). The transport so provided, as per Para 3.4.3, shall continue to be the property of the Contractor.

3.5 OFFICE MAINTENANCE

3.5.1 The contractor is required to maintain the offices throughout the contract period and provide the following, but not limited to:

i. Pay all electricity charges.
ii. Reimburse telephone bills for the use of telephone, upto Rs 3000/- per month for each external landline connection
iii. Pay all water charges.
iv. Carry out necessary repairs to office and equipment as and when required.
v. Day - to - Day cleaning and maintenance and watch & ward etc

3.5.2 The contractor shall provide within Two months from the Date of Commencement following personnel in the office as required for watch and ward of the site office.

Watchmen / Security (3 shifts of 2 men in a shift, till the defect Liability period is over)

Note: In case of delay beyond Two month, penalty @ Rs 5000/- Per week or part thereof will be imposed.

3.6 EQUIPMENT FOR USE OF THE ENGINEER.

The Contractor shall provide new equipment and software as listed below and maintain them for the exclusive use of the Employer and the Engineer. The Contractor shall provide and maintain the following equipment for the use of the Engineer and the Employer within one month from the date of commencement of the works until the defect liability period is over. The payment for the same shall be made separately under relevant BOQ item. On completion of defect liability period, the equipment shall be property of the Contractor.

(a)	Desktop Computer-8 nos.	HP Pro One 400G3 AiO desk top or better -6nos HP EliteOne 800G3 AiO desktop or better-2 nos preloaded with licensed latest window OS and 3 years internet total security software (Kaspersky/McAfee)
(b)	Laptop – 2 Nos.	Lenovo Ideapad 710s or better, preloaded with latest window OS and 3 years internet total security software (Kaspersky/McAfee)
(c)	Printers – 8 nos.	Color LaserJet HP model 521n or better-2 nos Laser jet duplex HP model 1606 Dn or better-4 nos Office jet HP model 7612 wide format all in one or better -2 nos .
(d)	LARGE FORMAT PLOTTER - ONE NO.	HP Model C6084A (3800CP 54 colour Plotter) or similar/ better
(e)	Application software	(i) Microsoft office Professional suit latest release – 10 nos. (ii) AUTOCAD 3D latest release- 2 nos. (iii) M S Project– 2 nos. (iv) PDF Converter/Professional – 4 Nos.
(f)	Colour scanner- 1 no.	HP ScanJet Enterprise Flow N9120 fn2 Document Scanner
(g)	Xerox Machine- 2 No. for paper prints capable of reduction and copying A3 & A4 size paper with automatic document feeder capability and sorter. (Canon IR 2020 or similar/ better)	
(h)	UPS 1000VA Microtek or better.	
(i)	Surge Protection Devices (one for each computer and printer as given above)	
(j)	Power supply for the systems is to be AC 240 volts, 50 Hz from normal building wiring circuit mains, power regulator, stabilizer or transformer should be supplied by the Contractor for the computer systems such that the systems can function efficiently.	
(k)	2 MBPS internet connection with WIFI facility so that multiple devices can be connected.	
(l)	4G ,50 MBPS WIFI HotSpot /USB Dongle with unlimited data (monthly bill to be paid by the contractor) – 6 nos.	

Note: In case of failure to provide the equipment including original software & internet connectivity within one month, penalty @ Rs 5000/- Per week or part thereof will be imposed.

3.7 Documentation

A complete set of documentation will be supplied with each System. The documentation should be self tutorial in nature and be readily understood by non-computer personnel. The following manuals will be supplied with the system:

(a) Manual on how to operate the equipment; and

(b) Manual on how to use the facilities and software provided by the supplier (including languages and utilities).

4.0 SPECIFICATIONS

4.1 Standard Specifications for Materials and Works of Rail Vikas Nigam Ltd.

Separate priced booklet containing Rail Vikas Nigam Ltd.'s Standard Specifications for Materials and Works in Volume-1(Civil) and Volume – II (Electrical) are available in the office of Rail Vikas Nigam Ltd. and bidders may obtain the same. The booklet is also available on RVNL's website www.rvnl.org.

It is presumed that bidders have gone through Rail Vikas Nigam Ltd.'s Standard Specifications for Materials and works (Civil, Electrical and Signalling and Telecommunication) including latest correction slips issued up to the date 28 days prior to the deadline for submission of bids before quoting the rates.

Works are to be executed as per above referred specifications except for Methodology of Mechanised Laying and Packing of Track, which is specified below :-

METHODLOGY OF MECHANISED LAYING AND PACKING OF TRACK

1. After the formation is ready and cleared by the Engineer for track linking the rails (Single Rails/3 Rail Panels) shall be unloaded on the formation.

2. Flash butt welding shall be done to convert the single rails into LWR/CWR as per plan approved by RVNL by contractor's portable road trailer mounted flash butt welding machine. If there is delay in formation being ready, single rails can be converted into 3/4 Rail Panels in depots and then these 3/4Rail Panels can be converted into LWR/CWR after transferring them to formation.

3. PSC sleepers shall be transported by road and stacked near level crossings.

4. The required quantity of ballast to the maximum extent (not less than 2 Cum per meter length) shall be brought by contractor's dumpers on the formation and spread on the proposed alignment by contractor's grader. The grader should spread and level the ballast in a width of 3.2 meter (Bottom) and cushion of 200 mm. The remaining quantity of ballast shall remain on the common cess of existing/proposed track, leaving clear space for linking of auxiliary track.

5. After laying of ballast is completed in a particular stretch between level crossings then auxiliary track shall be laid at a gauge of 3400 mm with centre line matching the proposed track.

6. Now the sleepers shall be lifted from the stacks near the level crossings with the help of hydra and kept on the formation between auxiliary track for being picked up by portals for leading them to point of laying in case portals are proposed to be used for transport and laying of sleepers.

7. Contractor shall bring his own mechanized portal equipment which will be capable of traveling on the auxiliary track and will transport the sleepers from L-Xing to the location of linking. At the location of laying, the sleepers shall be laid at the required spacing ensuring that the centre line of sleepers matches with the centre line of proposed track. Instead of portals, sleeper laying equipment which does not require use of auxiliary track, can also be used for laying of sleepers.

8. After the sleepers are laid on the ballast bed of 200 mm thickness, contractor shall arrange his own Rail Threader to pick up the auxiliary track rails from both sides and lay on the PSC sleeper at Rail Seat to complete the laying of track.

9. The ballast lying along the track shall be put in the track in the cribs and shoulders for taking up the work of lifting of track to provide required cushion of **350 mm**.

10. Track shall be lifted and aligned by small track machines. The lifting and aligning machine should be light in weight and should be transportable by road from one site to another. This lifting, aligning and tamping may be required in 2-3 phases until the desired clear cushion and proper alignment is achieved.

11. Behind the lifting aligning machine, a contractor's small track machine capable of tamping to be deployed. The Tamping machine should have 8 Nos. of tamping tools so that one sleeper can be tamped completely per insertion. This light duty tamper should be self propelled and should be transportable by road from one place to another.

12. The contractor shall unload additional ballast over the track by his own mechanized means or manually as per site conditions and directions of Engineer to achieve desired ballast profile.

13. For achieving the desired cushion and to fill the inter-space of sleepers as well as crib ballast as per final profile, whatever ballast will be required in phases to be unloaded by the contractor with his own equipment and machinery.

14. The contractor, after sequence of linking, lifting, aligning and packing with his own tools, plants and equipments shall bring the track parameters in floating condition within the following tolerance limits:

Sr. No.	Parameters	Extent of irregularities permitted
1.	Gauge (to be measured on each sleeper)	Up to = 3 mm
2.	Twist on 3.6 Meter base (for arriving twist cross level to be measured on each sleeper and twist to be calculated with respect to every 7^{th} sleeper)	Up to 2.78 mm per meter.
3.	Unevenness on 3.6 meter chord	Up to 15 mm.

4.	Alignment on 7.2 meter chord	Up to 5 mm.
5.	Spacing of sleepers with respect to theoretical spacing.	Up to = 20 mm.
6	Joints i) Low Joints ii) High Joints iii) Squareness of joints on straight	 Not permitted Up to = 2 mm. Up to = 10 mm.

The track thus laid shall have speed potential of 45 kmph. After this Railway's heavy ontrack tampers shall be made available for machine packing to achieve normal sectional speed.

15. Two packings shall be done by the contractor with Railway's heavy on track tampers. After the first tamping the track shall be made suitable for speed potential of 75 kmph. The second tamping (final tamping) shall be done in design mode and the track shall be made suitable for maximum permissible sectional speed.

16. Profiling of ballast shall be done to achieve the ballast section as prescribed in IRPWM.

Note : Contractor may propose his own methodology of mechanised laying and packing of track in place of above methodology which can be adopted, if approved by the Employer.

4.2 TECHNICAL SPECIFICATION FOR CONSTRUCTION OF SERVICE & RESIDENTIAL BUILDINGS

These specifications shall be applicable to service & residential buildings of various types to be constructed along the project length with reference to Bill No.6 of BOQ.

4.2.1 Technical Specifications common to all type of buildings :

4.2.1.1 Technical specifications for various activities involved in the work shall generally be in accordance with RVNL Standard Specifications for materials & works (Section-2100) as amended up to date. In case specification for any activity necessary for completion of building is not available in RVNL Standard Specifications for materials & works, relevant BIS codes of practices shall be applicable. In case of any contradicting instructions in the specifications, Engineer's decision will be final and binding.

4.2.1.2 General Arrangement Drawings (GAD) provided in the bidding documents are sample drawings for the guidance of bidders and are indicative of type of buildings to be constructed. However, particular GAD to be adopted at particular locations of the project shall be made available to the contractor during the currency of the contract. The buildings may also be required to be constructed in continuation of the

existing building, in such a case the new structure is to be constructed by proper joints and connections, the design and detailed drawings shall have to be made accordingly and cost of which is deemed to be included in plinth area rates.

4.2.1.3 Suitable economical structural and architectural design for foundation and super structure consisting of masonry walls, reinforced columns/beams/slabs shall be done by the Contractor as per site conditions for the service building and others structures including all detailed designs of RCC works i.e. columns, beams stair case, balcony, slabs etc. keeping in view the relevant seismic zone & making the building earthquake resistant Working drawings will have to be prepared by the contractor for each activity of work, giving details of reinforcement, water arrangements, drainage, sewerage, floorings, fittings etc. and got approved from the Engineer. The construction will be done with approved drawings.

4.2.1.4 The plinth area rates for construction of buildings includes cost of all design, drawings, materials, labour, tools & plants, equipments, taxes, ascent, descent, lead and lift, cement and steel etc. Nothing will be paid extra and buildings have to be handed over complete in all respect to house the Signaling/Electrical/Operating equipments and machines including provision of ducts, trenches, ramps etc. complete in all respect required to make it functional. This also includes cost of all architectural features and preparation of detailed drawings and designs thereof. RVNL reserves the right to ask the contractor to adopt available drawings of RVNL/Railways, without making any deductions or extra payments on this account.

4.2.1.5 If any activity of the work is essential for completion of the building but is not mentioned specifically in these specifications or elsewhere in the bidding documents, the same shall be deemed to be included in the rates and shall be executed by the Contractor as per specifications decided by the Engineer and the building shall be handed over in functional manner, complete in all respects.

4.2.1.6 Water & electricity shall be arranged by the Contractor at his own cost for execution of works.

4.2.1.7 Contractor has to make arrangements for approach to site, stacking of materials and all temporary works necessary for the execution of work at his own cost.

4.2.1.8 Contractor will have to make arrangements for required tests (as directed by the Engineer) for testing the soundness of the work or any of the materials at Contractor’s own cost.

4.2.1.9 Sampling and testing of work/material at site/laboratory shall be as per the RVNL Standard Specification for materials and works and relevant Indian Standard Specifications, with up to date corrections.

4.2.1.10 If any work is found unsatisfactory or under specification the same will have to be redone by the Contractor at Contractor’s own cost. In case, the Contractor fails to do so, the same will be got done by Engineer at the Contractor’s cost.

4.2.1.11 The Engineer will be at liberty to get any work or material dismantled/removed by any other means at Contractor's cost if it is found unsatisfactory or under specification, and the contractor fails to rectify the same within specified time.

4.2.1.12 The site shall be cleared of all debris etc. before commissioning of work.

4.2.1.13 The contractor shall take all necessary safety precautions during fabrication, launching, of members, casting of RCC slabs etc. He shall also ensure safety of railway track if the work is required to be done near the track or above railway tracks.

4.2.1.14 In case there is any damage to road, drain or other structure during construction of the work by the contractor, the damages will have to be rectified by the contractor at his own cost.

4.2.1.15 Earth work: Earthwork in filling in plinth and floors including for plinth protection, if required shall be done by contractor with Contractor's own earth of good quality. No earth is to be taken from the Railway premises except surplus earth from excavation for the building. The cost of such earthwork is included in plinth area rates

4.2.1.16 Concrete work: All plain and reinforced concrete work to be done as per IS: 456 Code of Practice. Design mix concrete as approved by Engineer shall only be used. Nominal mix can be permitted by the Engineer only in exceptional circumstances. The cement concrete flooring, roof and other RCC/Concrete structures are to be leveled and compacted with vibrator of suitable size and specification.

4.2.1.17 Anti-termite treatment: Anti-termite treatment shall be provided as per para 2901 of RVNL Standard Specifications for materials & works, cost of which is deemed to be included in plinth area rates. The chemical shall be approved by the Engineer and used as per the manufacturer's instructions/ specifications.

4.2.1.18 Plinth protection – If not mentioned otherwise in the detailed drawings, plinth protection of one meter width all around the building shall be provided as per para 2902 of RVNL Standard Specifications for materials & works.

4.2.1.19 Damp Proof Course (DPC) – Unless otherwise mentioned in the drawings, DPC will consist of 40mm thick 1:2:4 PCC with two coats of bitumen over it.

4.2.1.20 Masonry work – Masonry work has to be in well burnt clay bricks of class designation 7.5 in general and class 12.5 for external walls which are neither plastered nor rendered on the outer face, free standing walls and parapets, as approved by the Engineer. All outer and load bearing walls shall be of minimum 230 mm thickness or more as per design, in cement mortar 1:6, all partition walls shall be 115 mm thick in cement mortar 1:4. Fly ash bricks or cement concrete blocks (hollow/ solid) confirming to the BIS or stone masonry can be used as per

local availability in lieu of clay bricks, but nothing shall be paid extra on this account.

4.2.1.21 Plaster: 15-19 mm thick in cement mortar 1:4 on all outer and inner walls except in ceiling. Inner walls shall be finally finished with POP. Underside of the slabs shall be rendered smooth wherever required and finished with POP.

4.2.1.22 Painting – Two coats of synthetic enamel paint of 1st quality over a priming coat of Asian, Berger, Nerolac or equivalent brand and shade as approved by the Engineer, on all exposed steel and wooden surfaces.

4.2.1.23 **Sanitary fittings/sewerage system:**

4.2.1.23.1 Manholes and junction chambers to be constructed by Contractor as per the design by the Contractor & approved by the Engineer and to be connected with RCC pipes of 150/200 mm dia. with each other and to septic tank or to existing sewerage arrangement (up to 15m from extreme outer wall of building in the direction of source to be connected, including obtaining necessary clearance from concerned authorities required for the same. In case sewerage system is not to be connected to trunk sewer as stipulated, contractor will furnish appropriate design of septic tank to be approved by Engineer and will construct the septic tank accordingly.

4.2.1.23.2 Rain water pipes: Adequate number of rain water pipes of min 100 mm dia, PVC of approved quality and make as approved by the Engineer to be provided. Inlet of the rain water pipe to be provided with shoe and CI gratings and at the outlets necessary protection to be done to prevent erosion of soil.

4.2.1.23.3 Soil and vent pipes: PVC pipes of min 100 mm dia to be provided for soil and vent pipes including all branches of required degree, access door and other accessories as necessary for laying the pipes of approved quality and make as approved by the Engineer to be provided. Before embedding the pipes under the floor the same will have to be tested against any leakage. Necessary floor traps, gully traps as essential will be provided. Storm water drain of suitable size to be provided as approved by the Engineer.

4.2.1.23.4 Wash Basins and Sink: Wash basins (Ceramic) of approved size, colour and make to be provided in ladies and gents toilet with shelf, looking glass and towel rails (CP Brass). Urinals/ Squatting pans (ceramic) of approved size and make to be provided with ceramic flushing systems as per requirement. Stainless steel/Ceramic sinks of approved size and makes to be provided in battery rooms, Kitchen of Rest room. All water services and sinks will be connected through bottle traps to concealed outlet pipe.

4.2.1.24 Water supply: Necessary layout for water supply distribution in the Kitchen, toilets & baths to be designed by the Contractor and submitted for approval of Engineer and to be connected with GI pipe of designed dia to the existing main water line (up to 15m from extreme outer wall of building in the direction of source to be connected, including obtaining necessary clearance from concerned authorities required for the same. All internal pipes will be laid

concealed in walls and tested for leakages for minimum 12m head of water. All necessary taps, stop valve etc. of approved size and make to be provided by Contractor to make the toilets and kitchens functional including provision of water tank of designed capacity Moulded Polyethylene overhead tank Sintax make or equivalent in accordance with IS 127012 – 1996. This will include provision of float valve, copper/ brass rod and plastic ball with inlet, outlet, overflow, washout connections etc. for the overhead tank complete in all respect. Taps in platform toilets will be self-closing type.

4.2.1.25 Water proofing and heat insulation of roofs: Roof shall be painted with two coats of bitumen as per para 2405 of RVNL Standard Specifications for materials and works followed by mud phuska terracing with tile brick paving as per para 2406 of RVNL standard specification for material and works.

4.2.1.26 Drip courses- Drip course of approved design has to be provided all around the building, chajjas etc.

4.2.1.27 **Payment Conditions common to all buildings**: Payment shall be made on plinth area basis as per actual measurements. The plinth area rates include all works specified in the foregoing paras but not limited to the same required to make the building functional. External water supply, sanitary (excluding septic tank), drainage works required beyond 15m of the outer wall of the building are not included in the rates and shall be paid separately under bill No.7. Payment shall be made in stages depending upon the progress as below:-

(I) Ground Floor:

(i) Completion of ground floor up to plinth	: 10%
(ii) After casting of ground floor roof slab and provision of walls	: 35%
(iii) After completion of plastering (inside and outside)	: 15%
(iv) After completion in all respects	: 30%
(v) After handing over of the building	: 10%

(II) First and Subsequent Floor:

(i) After casting of roof slab and construction of the masonry walls	: 35%
(ii) After completion of plastering (inside and outside)	: 15%
(iii) After completion in all respects	: 40%
(iv) After handing over of the building	: 10%

Note:

a) For the purpose of measurement shall be calculated on the following principles:

i) The plinth area shall be measured separately for every floor and the basement, if any.

ii) Internal sanitary shafts shall not be included in the plinth area.

iii) The area of the stair case and lift shall be included but area of the mumti at the terrace level shall not be included in the plinth area. If a barsati is provided jointly with mumti then area of the barsati excluding mumti at the terrace level shall be included in the plinth area.

b) **Plinth area of ground floor**: The plinth area of the ground floor shall be calculated at the plinth level excluding the plinth off-sets. In case where the building consists of columns projecting beyond cladding, the plinth area shall be taken to the external face of the cladding and the projection of the columns shall not be included. In case of open verandah with parapets are protected at the ground floor projecting out of the building, the full area shall be taken up to the outer line of the external verandah lintel and in case of un protected verandah and porches, only 50% of the area shall be taken into consideration. Open platform without parapets and terraces at ground floor, shall not be included in the plinth area.

c) **Plinth area at first and subsequent floor:** The plinth area shall be calculated at the relevant floor level. Architectural bonds, cornice etc shall not be included in the plinth area even though they may occur at the floor level, vertical sun breakers or box louvers projecting out also shall not be included in the plinth area

In case of projecting balconies protected to their full width and length by sunshade or upper balcony roof full area shall be taken into consideration. In case of unprotected balconies equivalent area to the extent of 50% of the area of the balcony shall be considered in the plinth area.

4.2.2 Technical Specifications Specific to S&T/Electrical and office buildings:

4.2.2.1 Interior finish – Two coats of 1st quality oil bound distemper of approved shade over POP coating to make the surface smooth. 3rd coat may be done before handing over of assets.

4.2.2.2 Exterior finish – Two coats of 1st quality cement paint of approved shade over POP coating to make the surface smooth. 3rd coat shall be done before handing over of assets.

4.2.2.3 Flooring:

4.2.2.3.1 Cable entry in relay room and Exchange Room , Equipment Room and Electrical panel room, IPS, Data logger room, traffic store and other store rooms: 40 mm thick, cement concrete flooring 1:2:4 (1 cement, 2 coarse sand and 4 stone aggregate 20 mm and down size) laid in one layer finished with cement slurry to a true smooth surface with proper joints duly provided with glass strips of 4mm thick to form panels not exceeding 1200x1200mm , laid over 100 mm thick CC 1:4:8 over 100 mm thick sand filling over well rammed and consolidated earth filling.

4.2.2.3.2 Battery Room: Acid proof tiles conforming to IS 4457-1967 as approved by the Engineer over 20m thick cement sand mortar 1:4, over 100 mm thick CC 1:4:8 over 100 mm thick sand filling over well rammed consolidated earth filling. Acid proof tiles also to be provided in dado as per requirement up to 1.2 M height.

4.2.2.3.3 Stair Case: Chequerred terrazzo tile 22 mm thick with graded marble chips size up to 6 mm to be provided in risers, treads and landings of steps laid on with neat

cement slurry mixed with pigment to match the shade of tile including rubbing polishing complete on 20mm thick cement and sand mortar 1:3.

4.2.2.3.4 Verandah Flooring & Ground Floor Passage: 1st quality Vitrified tiles(600 x 600 mm) flooring over average 20 mm thick base of cement and sand mortar 1:4 and jointed with grey cement slurry mixed with pigment to match the shade of stone slab, including rubbing and polishing complete over 100 mm thick CC 1:4:8 over 100 mm thick sand filling on well rammed and consolidated earth filling.

4.2.2.3.5 Toilets - Finished floor to be kept 25 mm below the normal floor of the building. 300 x 300 mm ceramic antiskid floor tiles confirming to IS 13630-1993 of Kajaria, Nitco or similar make and shade and approved by Engineer laid over 20 mm thick bed of cement and sand mortar 1:4 with neat cement slurry mixed with pigment to match the shade of tiles between joints and over the base in floors laid over 100 mm thick CC 1:4:8 over 100 mm thick sand filling on well rammed and consolidated earth filling on ground floor. On subsequent floors the tiles will be laid directory on mortar bed. 5 mm thick of suitable size glazed tiles confirming to IS 13630-1993 of Kajaria ,Nitco or similar make, quality and shade as approved by the Engineer to be provided on walls for full height up to ceilings over 13 mm thick cement mortar 1:2. All the tiles to be laid with zero gaps between them.

4.2.2.3.6 Relay Rooms, Axle counter room ,booking , Panel Room and other S&T structures etc. 1st quality 600 x 600 mm vitrified floor tiles conforming to IS 13630-1993 of Kajaria, Nitco or similar make and shade as approved by Engineer laid over 20 mm thick bed of cement and sand mortar 1:4 with neat cement slurry mixed with pigment to match the shades of tiles between joints and over the base in floors over 100 mm thick CC 1:4:8 over 100 mm thick sand filling on well rammed and consolidated earth filling for ground floor. On subsequent floors tiles shall be laid directly on mortar bed .5 mm thick glazed tiles of suitable size confirming to IS 13630-1993 of Kajaria, Nitco or similar make, quality and shade as approved by the Engineer to be provided on walls in dado up to 90 cm height from floor level or up to the window sill. All the tiles to be laid with zero gap between them.

4.2.2.4 Door Frames: The door frame shall be of MS Tee 40mmx40mmx6mm.

4.2.2.4.1 Door Shutters: 35 mm thick flush door shutter, commercial type thermosetting, synthetic resin bound core of block board construction with lipping of 1st class commercial quality timber, such as elm or its equivalent, battens on all edges and well matched commercial ply veneering with vertical grains on both faces of shutters. Veneer and board shall be as per BIS specifications with brass fittings of approved size and make as per requirement.

4.2.2.4.2 Windows/Ventilators: Steel windows of standard rolled steel sections as approved by the Engineer. Glass panes 4 mm thick with glazing clips and special metal sash putty, of approved make with brass fittings of approved size and make as per requirement.

4.2.2.4.3 Windows in Relay Room shall be mix of double shutters/Fixed Panes to provide insulation for effective air conditioning.

4.2.2.4.4 MS grill of approved design shall be provided in the windows and ventilators.

4.2.2.4.5 Necessary exhaust fan opening to be provided as required.

4.2.2.4.6 Railings in balcony – RCC Design to be submitted for approval and to be constructed as per approved design. Railing in staircase – Suitable design to be prepared by the Contractor and submitted for the approval of Engineer and railing to be provided with PVC covering as per approved design.

4.2.3 Technical specifications specific to Station Buildings:

4.2.3.1 Exterior Doors: Main entrance from circulating area to the station building shall be provided with fully glazed Aluminum Door. Remaining portion of entrance shall be provided with fixed glazing with aluminum frames as per approved drawing. The frames shall be manufactured from extruded aluminum alloy sections of standard sizes and designs as per IS 1948 and IS 1949 or as manufactured by Indian Aluminium Co. Ltd or approved equivalent. The alloy used shall conform to IS designation HE9-WP of IS:733. Para 2310 of RVNL Standard Specification for material and works shall be followed for execution.

4.2.3.2 Door frames of office of Station Master/SS/Dy.SS/Waiting Rooms/Booking Office shall be of well seasoned steam beech/ 2nd class of teak wood of minimum section of 65mm x 100mm

4.2.3.3 Door Shutters: The door shutters shall be of 35mm thick flush door shutter, commercial type thermosetting, synthetic resin bound core of block board construction with lipping of 1st class commercial quality timber, such as elm or its equivalent, battens on all edges and well matched commercial ply veneering with vertical grains on both faces of shutters. Veneer and board shall be of BIS specifications. These door shutters may be partially glazed as per requirement, as per drawing approved by the Engineer. Glazing shall be of glass pane of 6mm thickness. Doors shall be finished with duco painted of desired shade and colour or melamine polished complete with all fittings including door closures.

4.2.3.4 Windows/Ventilators Shutters: The frames of windows and ventilators in the station building shall be same as mentioned in item 4.2.3.2 above with fully glazed shutters made of teak 2nd class of 30mm thickness and 4mm thick glass panes. The design of the ventilators may be top or central hung as decided by the Engineer and suitably designed.

4.2.3.5 Door/Window fittings: These shall be chromium plated brass, of size and make as approved by the Engineer.

4.2.3.6 Interior finish: Two coats of 1st quality oil bound distemper of approved shade over POP coating to make the surface smooth. 3rd coat may be done before handing over of assets

4.2.3.7 Exterior finish – Two coats of 1st quality cement paint of approved shade over POP coating to make the surface smooth. 3rd coat shall be done before handing over of assets.

4.2.3.8 Flooring and Dado:

4.2.3.8.1 1st quality 600 x 600 mm vitrified floor tiles conforming to IS 13630-1993 of Kajaria, Nitco or similar make and shade as approved by Engineer laid over 20 mm thick bed of cement and sand mortar 1:4 with neat cement slurry mixed with pigment to match the shades of tiles between joints and over the base in floors over 100 mm thick CC 1:4:8 over 100 mm thick sand filling on well rammed and consolidated earth filling. On subsequent floors tiles shall be laid directly on mortar bed .5 mm thick glazed tiles of suitable size confirming to IS 13630-1993 of Kajaria, Nitco or similar make, quality and shade as approved by the Engineer to be provided on walls in dado up to 90 cm height from floor level or up to the window sill. All the tiles to be laid with zero gap between them.

4.2.3.8.2 Chequered terrazzo tile 22 mm thick with graded marble chips size up to 6 mm to be provided in risers, treads and landings of steps laid on with neat cement slurry mixed with pigment to match the shade of tile including rubbing polishing complete on 20mm thick cement and sand mortar 1:3.

4.2.3.8.3 Toilets: Finished floor to be kept 25 mm below the normal floor of the building. 300 x300 mm ceramic floor tiles conforming to IS 13630-1993 of Kajaria or similar make and shade as approved by Engineer laid over 20 mm thick bed of cement and sand mortar 1:4 with neat cement slurry mixed with pigment to match the shade of tiles between joints and over the base in floors laid over 100 mm thick CC 1:4:8 over 100 mm thick sand filling on well rammed and consolidated earth filling. 5 mm thick 200 x 200 mm glazed tiles conforming to IS 13630-1993 of Kajaria or similar make, quality and shade as approved by the Engineer to be provided on walls for full height up to ceilings over 13 mm thick cement mortar 1:2. Tiles shall be laid with zero gaps between them.

4.2.3.9 Booking Counter:

Counters to be made with laminated block board in attractive form as per approved design.

4.2.3.9.1 Booking window shall be of toughened sheet glass 10 mm thick with a hole for 4 intercommunication at suitable height above the counter top and a suitable gap between the partition and counter for collection of fare and issue of tickets, the partition being protected on the passenger side by a aluminum grill of approved design.

4.2.3.9.2 Facilities for physically handicapped Ramps of desired width with a slope of 1:12 shall be provided as per the provisions of “The persons with disabilities (Equal opportunities protection of rights and full participation): Act 1995.

Note : The following requirements to be catered for S&T

1) Sliding doors to be provided in Battery room and Battery Plat forms as per S&T requirements.
2) Cable coil pits to be provided on either side of IPS, Relay room and OFC room

3) Indoor Cable ducts as per S&T requirement in side building along with checkered MS duct covers to be provided with collapsible handles.
4) Outdoor Cable ducts to be provided as per S&T requirement on platforms and circulating area.
5) Earthing space to be catered for S&T around the building.
6) Pipes/holes to be provided as per S&T requirements in walls/ flooring of IPS, Relay room, maintainer room, OFC room, SM room, booking office, waiting room.
7) RDSO type ventilators to be provided in S&T rooms.
8) Shelfs to be provided in Maintainer room of station building

4.2.4 Technical specifications specific to Residential Buildings:

The building will be constructed as per zonal Railways standard plans duly approved for adoption by RVNL for the specific project.

4.2.4.1 **Interior finish :** In type II, III, IV & IV (Special) quarters – all walls & ceiling to be treated with 2 mm thick POP and painted with low VOC Acrylic washable distemper. Synthetic enamel paint on all wood works and steel works. In type V quarters - all walls & ceiling to be treated with 6 mm thick POP punning (one time only) and painted with low VOC plastic emulsion paints. Synthetic enamel paint on all wood works and steel works.

4.2.4.2 **Exterior finish** – In type II, III, IV & IV (Special) quarters – Quartz reinforced Texture Acrylic paint finish/Premium Acrylic smooth water proof exterior finish. Synthetic enamel paint on all wood works and steel works. In type V quarters - Quartz reinforced Texture Acrylic paint finish of approved shade/Premium Acrylic smooth water proof exterior finish.

4.2.4.3 Flooring:

4.2.4.3.1 Flooring to be done with 1st quality Vitrified tiles of size not less than 600 x 600 mm in type II, III, IV & IV (Special) laid over average 20 mm thick base of cement and sand mortar 1:4 and jointed with matching grout over 100 mm thick CC 1:4:8 over 100 mm thick sand filling on well rammed and consolidated earth filling. On subsequent floors, flooring shall be done without under layer of CC 1:4:8. In type V, flooring to be done with double charged vitrified tiles of size not less than 600mm x 600mm.

4.2.4.3.2 Toilets/Bathrooms/WC: Finished floor to be kept 25 mm below the normal floor of the building. 300 x 300 mm glazed ceramic antiskid floor tiles confirming to IS 13630-1993 of Kajaria, Nitco or similar make and shade and approved by Engineer laid over 20 mm thick bed of cement and sand mortar 1:4 with neat cement slurry mixed with pigment to match the shade of tiles between joints and over the base in floors laid over 100 mm thick CC 1:4:8 over 100 mm thick sand filling on well rammed and consolidated earth filling on ground floor. On subsequent floors the tiles will be laid directory on mortar bed. Toilets /Bathrooms/WC dado: In type II, III, IV & IV(Special), glazed ceramic tiles of size not less than 200 x 300 and in type V, glazed ceramic tiles of size not less than 300 x 450 confirming to IS 13630-1993 of Kajaria, Nitco or similar make, quality and shade as approved by the Engineer to be provided upto full height with

decorative bands at certain intervals over 13 mm thick cement mortar 1:2. All the tiles to be laid with zero gaps between them.

4.2.4.3.3 Kitchen: In type II,III, IV & IV(Special), anti-skid vitrified tiles of size not less than 300 mm x 300 mm and in type V, anti-skid vitrified tiles of size not less than 400 mm x 400 mm with water absorption less than 0.08% laid seamless with joints finished with matching grout.

4.2.4.3.4 Common circulation area: In type II,III, IV & IV(Special), mirror-polished Kota stone and matching skirting and in type V, 18 mm thick pre-polished granite.

4.2.4.3.5 Staircase main: In type II, III, IV & IV(Special), pre-polished Kota stone in single length of treads & risers and in type V 18 mm thick, pre-polished granite in single length of Treads & Risers.

4.2.4.3.6 Fire escape Staircase: In type II, III, IV, IV (Special) & V, Pre-polished Kota stone in single length of Treads & Risers.

4.2.4.3.7 Skirting: In type II, III, IV, IV (Special) & V, 100 to 150 mm high skirting matching the floor material.

4.2.4.4 Door and Window Frames: The door frame shall be of MS Tee 40mmx40mmx6mm in type II & III quarters. In type IV, IV(Special) & V, frames shall be of well seasoned steam beech/2nd class teak of minimum section of 65mm x 100mm with single rebate and of section 65mmx125mm with double rebate (For fixing double shutters).

4.2.4.5 Door Shutters: Flush Door 30mm thick, if the width of the shutter is less than 750mm and of 35mm thick, if the width of the shutter is equal to or more than 750 mm, commercial type thermosetting, synthetic resin bound core of block board construction with tipping of 1st class commercial quality timber, such as elm or its equivalent, battens on all edges and well matched commercial ply veneering with vertical grains on both faces of shutters. Kitchen and main entrance door also to be provided with double shutters, one flush door and another with mosquito proof GI wire netting.

4.2.4.6 Window/Ventilator Shutters: For type II & III, shall be of standard rolled steel sections (as approved by Engineer), window shutters shall be glazed with glass panes 4 mm thick. These glazed shutters shall be fixed with projected hinges suitable for 180 degree rotation. These shutters have to open towards inside. Mosquito proof GI wire netting to be provided on the outer side of window openings which is to be fixed with suitable MS flat and screws.

For type IV, IV(Special) & V shutters shall be of 30mm thick of 2nd class teak wood/steam beech. Double shutters to be provided in the windows. Inside shutters shall be fixed with GI wire netting and outside shutters to be fully glazed with glazing of 4mm thick glass.

4.2.4.7 Windows and ventilators to be provided with MS Grill of approved design.

4.2.4.8 Doors, Windows/Ventilator fittings: Oxidized MS fittings of approved size and make as per requirement in type II & III. In type IV, IV(Special) & V chromium plated brass fittings of approved size and make shall be provided.

4.2.4.9 Railings in balcony: Design of suitable M.S. railing to be got approved from the Engineer and work to be done accordingly.

4.2.4.10 <u>Water Supply and Sewerage System</u>:

4.2.4.10.1 Zonal Railway plan duly approved by RVNL shall be followed for all water supply and sewerage system. However, contractor will submit layout plan of sewerage and water supply system using medium quality of GI pipes, making provision for scale of amenities as indicated in annexure and the work to be executed after approval of the engineer. Where pipe water supply is not available one hand pump at nominated place shall be provided common for two units. Water supply and sewerage system shall be connected to the external system/source upto 15m beyond the outermost wall in the direction of the source. Necessary manholes, traps within 15m of the outer wall of the building and septic tank will be constructed by the contractor. The discharge from kitchen and bath room shall be separately taken to outer drains. Storm water drains within 15m of the outer wall of the building and will be suitably designed and approved by the engineer and constructed accordingly.

<u>SCALE OF AMENITIES FOR RESIDENTIAL BUILDING</u>

Item No.	Item	Type II	Type III	Type IV	Type IV (Special)	Type V
1 (i)	**Kitchen shelves** 1" thick and not more than 40mm wide pre-laminated non decorative particle board/ plywood shelves in tires upto 7'-0" height covered with pre-laminated decorative particle board shutters along one wall as per Architectural design and specifications	Yes	Yes	Yes	Yes	Factory made Modular kitchen having sink with double bowl & double drain-board, cooking platform and Electric Chimney of reputed company.
(ii)	**Kitchen sink**	Stainless	Same as	Same as	Same as	

Item No.	Item	Type II	Type III	Type IV	Type IV (Special)	Type V
		steel AISI 304(18/8) kitchen sink as per IS 13983 with drain board.	Type-II	Type-II	Type-II	
(iii)	**Dado**	Ceramic tiles of size not less than 200 mm x 300 mm as per design from floor upto full height.	same as type II	same as type II	same as type II	Ceramic tiles of size not less than 300 mm x 450 mm as per design from floor upto full height.
(iv)	Built in cupboard without any shelves but with shutters of 18mm thick pre-laminated decorative particle board below cooking platform as per architectural design and specifications.	Yes	Yes	Yes, with drawers	Yes, with drawers	Factory made Modular kitchen
(v)	Cooking Platform Standing with granite top	Yes	Yes	Yes	Yes	Factory made Modular kitchen
2	**Wardrobes**					
(i)	One in each bed room upto ceiling height	Built in cupboard 650 mm wide with 18mm thick pre-laminated non decorative particle board as shelves and 18mm thick	Same as type II	Same as type II	Same as type II	Factory made wardrobe carcase, shelves, Drawers etc., manufactured in 19 mm thick particle/block board & finished in emulsion paint and wardrobe shutter in

Item No.	Item	Type II	Type III	Type IV	Type IV (Special)	Type V
		pre-laminated decorative particle board as shutters/steel Almirahs				19mm thick particle/block board/plywood finished with exterior grade post formed lamination/natural veneer with melamine polish as per the approved sample.
(ii)	Magic eye in front door	One	One	One	One	One
(iii)	Curtain rods with required accessories	In all windows & doors in all rooms except kitchen, Toilet/Bath/ WC	Same as type II	Drapery rods on all windows & doors in all rooms except kitchen, Toilet/Bath/ WC	Same as type IV	Same as type IV
(iv)	Set of Pegs	In all toilets/bath/ WC	In all toilets/bath/WC	In all toilets/bath/ WC, and wardrobes	In all toilets/bath/ WC, and wardrobes	In all toilets/ bath/WC and wardrobes
3	18 mm thick projected window sill lining, window jhambs	green marble	green marble	Granite	Granite	Granite

SCALE OF SANITARY FITTINGS FOR RESIDENTIAL BUILDING

Item No.	Item	Type II	Type III	Type IV	Type IV(Special)	Type V
1.	Orissa WC Pan (European style) with low level dual flushing PVC cistern	One	One	One	One	One
2.	European type floor	Yes	Yes	Yes	Yes	Yes

Item No.	Item	Type II	Type III	Type IV	Type IV(Special)	Type V
	mounted/wall – hung WC with seat, lid and low level dual flushing PVC cistern					
2(a)	Water Jet/health faucet with European W.C	Health faucet with each WC	Health faucet with each WC	Health faucet in each toilet	Health faucet in each toilet	Health faucet in each toilet
3.	Wash basin with CP brass mixture type for hot & cold water with single lever with quarter turns ceramic cartridges	One	One	One in each Toilet & one for dining area as per design	One in each Toilet & one for dining area as per design	One in each Toilet & one for dining area as per design
4.	Tap (Kitchen, toilet, bath & W.C.) C.P. Brass/PTMT bib cock provided with quarter turn ceramic cartridges	2 in Kitchen, 1 in each toilet, bath & WC - PTMT	2 in Kitchen, 1 in each toilet, bath & WC – CP Brass	2 in Kitchen, 1 in each toilet, bath & WC – CP Brass	2 in Kitchen, 1 in each toilet, bath & WC – CP Brass	2 in Kitchen, 1 in each toilet, bath & WC – CP Brass
5.	Shower C.P. Brass mixture type tap for hot & cold water with single lever, ceramic cartridges quarter turn	One in each toilet/bath	One in each toilet/bath	One in each toilet/bath	One in each toilet/bath	One in each toilet/bath
6.	Towel rail C.P. Brass/ PTMT	One PTMT in each Toilet/bath	One PTMT in each Toilet/bath	One CP Brass in each Toilet	One CP Brass in each Toilet	One CP Brass in each Toilet
7.	Mirror/ with PTMT glass shelf	600 mm x 450 mm with each wash basin	600 x 450 mm with each wash basin	600 mm x 450 mm with each wash basin	600 mm x 450 mm with each wash basin	As per design with each wash basin

Item No.	Item	Type II	Type III	Type IV	Type IV(Special)	Type V
8.	Soap rack (Nitch in W.C./Bath)	One in each bath/Toilet	One in each bath/Toilet	One in each Toilet	One in each Toilet	One in each Toilet
9.	Liquid soap container	-	-	-	Two	Three
10.	Storage tank of capacity as per NBC 2005 Provision of separate tank for WC & Drinking water	Separate tanks for kitchen and toilets (500 ltr. + 300 ltr.)	Same as type II	Same as type II	Separate tanks for kitchen and toilets (500 ltr. + 500 ltr.)	Separate tanks for kitchen and toilets (1000 ltr. + 500 ltr.)
11.	Plumbing for water purifier and Geyser	Yes	Yes	Yes	Yes	Yes
12.	CP/Brass ceramic Toilet paper holder with European WC	-	Yes	Yes	Yes	Yes

Note: Waste coupling in wash basins and grating over the floor trap shall be only of PTMT.

5.0 Personnel

The Bidder shall deploy, as per the programme, the minimum number of personnel for the key positions with requisite qualification and experience as mentioned hereunder: -

S. No.	Position	Minimum No. of Personnel	Qualification	Minimum Experience In Similar Work [years]
1	Project Manager	1	Graduate/ Diploma in Civil Engineering	10 years, out of which 3 years in-charge of road/Railway project (for Graduate). 16 years, out of which 3 years in-charge of road/Railway project (for Diploma).
2	Sr. Engineers i) Civil	1	Graduate/ Diploma in Civil Engg.	5 Years (for Graduate) 10 years for Diploma
	ii) Steel structure	1	Graduate/ Diploma in Civil /Mechanical Engg.	5 Years (for Graduate) 10 years for Diploma
	iii) P Way	1	Graduate/ Diploma in Civil Engg.	5 Years (for Graduate) 10 years for Diploma
	iv) S&T	1	Degree/ Diploma in Electrical /Electronics/Communication engineering or a combination of basic streams of Electrical/Electronics /Communication engineering	Experience in Signaling - 3 Years (for Graduate) 7 years for Diploma
	v) General Electrical Works(GS)	1	Degree/ Diploma in Electrical Engg/ Mechanical/Electroni	Experience in OHE/GS - 3 Years (for Graduate) 7 years

S. No.	Position	Minimum No. of Personnel	Qualification	Minimum Experience In Similar Work [years]
			cs Engineering or a combination of basic streams of Electrical /Mechanical/Electron ics Engineering.	for Diploma
	vi) Mechanical	1	Degree/ Diploma in Mechanical Engg.	Experience in machine installation and commissioning- 3 Years (for Graduate) 7 years for Diploma
3	Technicians/ Supervisors			
	(a) Civil	4	Minimum Diploma in Civil Engineering	5 years
	(b) Steel structure/bridge	1	Minimum Diploma in Civil/Mechanical Engineering	5 years
	(c) Mechanical	2	Minimum Diploma in Mechanical Engineering	5 years
4	Technicians/ Supervisors S&T	1	Minimum Diploma in Electrical /Electronics/Commu nication engineering or a combination of basic streams of Electrical/Electronics /Communication engineering	5 years
5	Technicians/ Supervisors OHE/General electric work	2	Minimum Diploma in Electrical /Mechanical/Electron ics Engineering or a combination of basic streams of Electrical /Mechanical/Electron ics Engineering	5 years
6	Surveyor for setting	1	Minimum Diploma in	5 years

S. No.	Position	Minimum No. of Personnel	Qualification	Minimum Experience In Similar Work [years]
	out Lines and levels periodically.		Civil Engg.	
7	Material Testing Engineer	1	Minimum Diploma in Civil Engg.	5 years
8	Liaison Manager for liaison with Govt. Dept. and local bodies.	1	Graduate. Preferably retired Govt. Official of local area.	5 years
9	Safety Officer	1	Preferably Graduate in any discipline but must have completed Diploma in industrial safety management OR construction management.	5 years
10	Quality Officer	1	Graduate/ Diploma in Civil Engineering	5 years (for Graduate) / 8 years (for Diploma) experience as a Quality Control Engineer.
11	Material Manager	1	Graduate/ Diploma in Engineering	5 years (for Graduate) / 8 years (for Diploma) experience of material handling and accounting of material for Project of this size
12	Draftsman with knowledge of AutoCAD	3	Minimum Diploma in Engineering	3 years

Note:

(1) Project Manager is to be deployed within 30 days of issue of Letter of Acceptance. The programme for deployment of other personnel shall be conveyed by PMC/Employer and personnel shall be deployed within 30 days of the stated requirement. In case of failure to deploy any personnel within 30 days of the stated requirement, a penalty shall be imposed for each day of delay as under:

(a) **Rs 10000 per person per day for Project Manager & Safety Officer.**

(b) **Rs 5000 per person per day for Sr. Engineers; Quality Assurance Specialist/ Quality Officer**

(c) **Rs 3000 per person per day for other personnel.**

(2) On completion/likely completion of activities concerned to a particular personnel, demobilization of that personnel shall be requested by the Contractor at least 30 days in advance and demobilization shall be done with the approval of PMC/Employer only. In case demobilization is done without approval of PMC/Employer, the penalty mentioned in note (1) above, as relevant, shall be imposed for each day of absence of the personnel.

(3) The professional qualification requirement can be relaxed by concerned CPM in case of ex railwayman who has worked in engineering department of railway in a position of gazetted officer for Sr Engineer (P way)/Jr Engineer or above for supervisor (P Way) and has relevant experience not less than that prescribed for minimum professional qualification.

(4) The professional qualification can be relaxed by concerned CPM on recommendations of concerned GM(S&T).In case of ex Railwayman who has worked in Signalling and Telecommunication engineering department of railway in a position of gazetted officer for Sr Engineer (S&T)/Jr Engineer or above for supervisor(S&T) and has relevant experience not less than that prescribed for minimum professional qualification.

6.0 Equipment

The Bidder shall deploy, as per the mutually agreed programme, the minimum number of equipments for execution of the work as mentioned hereunder:

SN	**Equipment Type and Characteristics**	**Min. Number Required**
Equipment type and characteristics for Civil work		
1	Earth excavation and loading equipment (Excavator)	2 sets
2	Earth moving equipment (Dumper)	4 Nos.
3	Earth leveling and grading equipment ~~Grader~~)	1 Nos.
4	Earth compaction equipment (10 Ton Vibratory Rollers)	2 nos.
5	Truck mounted water tank/sprinklers	2 nos.
6	Portable Road trailer mounted Flash butt welding M/C capable of taking insitu welding of 60 kg /52 kg rail section.	nil
7	Concrete Vibrating equipment	6 Sets
8	Total stations	1 No.
9	Auto levels	2 Nos.
10	Piling rig/percussion drilling	nil

SN	**Equipment Type and Characteristics**	**Min. Number Required**
11	Transit mixers *[6 cum]*	1no
12	Fully equipped soil, aggregate and concrete testing laboratory	1 set
13	Fully automatic and computerized batching and Mixing Plant *or Self-loading Mobile concrete Mixer with computerized printing facility*	1 No
14	Self propelled light duty tamper	NIL
15	Light weight lifting cum aligning machine	NIL
16	Mechanized portal equipment or Sleeper laying equipment	NIL
17	Rail threader	NIL
Equipment type and characteristics for S & T		
18	Portable Generators of all capacities as per site requirement	1 Nos.
19	Drilling machines of all type as per site requirement	1 Nos
20	Track Drilling machines of all type (mechanical cycle chain type and electrical type) as per site requirement	1 Nos
21	Grinders of all types as per site requirement	1 Nos.
22	Jacks for cable Laying	1 Set
23	Concrete Shutters for Apparatus case full	2 Set
24	Concrete Shutters for Apparatus case half	2 Sets
25	Concrete Shutters for Signal Post	1 Set
26	Concrete Shutters for Shunt Signal	1 Set
27	Tool Kits for fitters – Mechanical Installation gang (Location Box / Apparatus cases, Signals, etc.)	1 Set
28	Tool kit for fitters – Electro-mechanical gang (Track circuiting, Point machines, Axle counters, Circuits controllers, Level locks & relay Rack equipments.)	1 Set
29	Tool kit for locking fitters cum LC gate interlocking. Key lock point interlocking & ground level frame interlocking.	1 Set
30	Wireman's tool kit consisting of Multimeter, Meggar, Box spanner, Nose Plier, Holding Plier, buzzer, wooden hammer, Clamp type ampere meter etc.	1 Set
31	Carpenter tool kit	1 Set
32	Earth tester	1 Set
33	Torches	2 Nos.

SN	**Equipment Type and Characteristics**	**Min. Number Required**
34	Material loaders / Mini trucks /Matadors / Bolero's	1 Set
35	VHF – Walkie Talkies Sets	2 Sets
36	Hand Phones – Cell Phones	5 Sets
Equipment type and characteristics for OHE		
37	Tirfor 3/1.5 T Cap	1 no
38	Pull lift 3/1.5 T Cap	nil
39	Come along clamp	6 nos
40	Chain Pulley Block	1 no
41	"D" Shackle	12 nos
42	Tripod	2 nos
43	Derrick	nil
44	Mandrill (50cm dia.)	nil
45	Ladder Extension Type (20' x 36')	2 nos
46	Ladder trolley P/F type	2 nos
47	Drum lifting jacks	1 Sets
48	Gas cutter	1 no
49	Grinder	1 no
50	Power Hacksaw	1 no
51	Dropper making jig & Fixture	1 no
52	Megger 2.5 KV	1 no
53	Megger 5 KV	1 no
54	Earth Tester	1 no
55	Bonding Jig	1 no
56	Portable D.G. Set	1 no
57	Emergency lighting arrangement for night work.	1 Set
58	Manila rope	10 m x 5 Nos.
59	Spanners	4 Sets
60	Hammers 1.5 Lbs.	1 nos.
61	Hammers 3.0 Lbs	1 nos.
62	Discharge rod	2 nos.
63	D O operating rod	1 nos.

SN	**Equipment Type and Characteristics**	**Min. Number Required**
64	Rail Jumper	4 nos (3 mtrs- 2nos,6 mtrs-2 nos).
65	Aero plane Jack	Nil
	Equipment Type and Characteristics for Mechanical Works	
66	Arc Welding Plant Diesel Driven	1 no
67	Compressor portable diesel driven	1 no
68	Road mobile crane	1 no
69	Hand Trolley	2 no
70	Power tools for drilling, grinding and tapping	1 set
71	Measuring instruments like tape, scale etc	1 set
72	Pressure gauges for water and air lines	1 set
73	Tool kits comprising spanner set, socket set, pliers, adjustable wrenches, pipe wrenches, hammers, chisels, screw drivers, punches, torque wrenches, pipe vice, c- clamps, hack saw etc	1 set
74	Gas cutting equipment	1 set
75	Welding equipment	1 set
76	Portable hydraulic Jack	1 set
77	Pipe bending, threading and screwing equipment	1 set
78	Chains, wire ropes, manila ropes	1 set
79	Trifor , chain pulley block ,Tripod, ladder etc	1 set

Note:

1. ***Failure to deploy the above equipment as per mutually agreed programme shall attract penalty @ Rs. 25,000/- per day of delay for each equipment at S.No.1, 3, 4, 10, 11, 12, 13 & 18.***
2. ***S. No. 6 (Portable Road Trailer Mounted Flash Butt Welding Plant) has to be owned and deployed by the contractor at least 90 days prior to the stipulated date of commissioning of the first block section failing which a penalty @ Rs.1,00,000/- per day shall be imposed from the said date. However, in case the requirement of track linking is less than 50 km, the contractor shall have the option for deployment of Portable Road Trailer Mounted Flash Butt Welding Plant either by owning or taking on lease for a period not less than the estimated time period required for welding of rails as per the mutually agreed programme. The contractor shall have to submit necessary documents as a proof of owning/leasing as the case may be.***

3. ***The type of equipment specified can be changed by the Engineer depending upon suitability of the equipment as per site conditions with the approval of CPM concerned subject to the following;***

(i) The total rate of production/output of proposed number and type of equipments should be equal to or more than that of the number and type of equipments stipulated in the contract agreement and quality of work is not compromised in any way;

(ii) Eligibility and Qualification Criteria (EQC) in the bid document did not include any past experience criteria of execution of a key activity with the use of particular type of equipment proposed to be changed;

(iii) ***Higher rates for works were not justified in the estimate or BOQ on account of use of par*****ticular type of equipment proposed to be changed;**

(iv) Financial implications due to change in type and number of equipment shall be prepared and signed by both the parties and placed on record. If any financial benefit is found to accrue to the contractor, the same shall be recoverable from the contractor's bills.

(v) If the equipment proposed to be changed is covered under penalty clause specified in note above then the applicable rate of penalty per equipment shall be modified in proportion to increase/decrease in number of equipments."

7.0 **BID DRAWINGS**

For Drawings, Special feature of Project Area, Scheduling of Work and Methodology and Soil Investigation Reports etc are available with CPM/West/RVNL and GGM/Mech in Secunderbad office of RVNL.

Table of Clauses

1. General Provisions 5
1.1 Definitions 5
1.2 Interpretation 9
1.3 Communications 10
1.4 Law and Language 10
1.5 Priority of Documents 10
1.6 Contract Agreement 11
1.7 Assignment 11
1.8 Care and Supply of Documents 11
1.9 Delayed Drawings or Instructions 11
1.10 Employer's Use of Contractor's Documents 12
1.11 Contractor's Use of Employer's Documents 12
1.12 Confidential Details 12
1.13 Compliance with Laws 13
1.14 Joint and Several Liability 13
1.15 Inspections by the Employer 14
2. The Employer 14
2.1 Right of Access to the Site 14
2.2 Permits, Licences or Approvals 15
2.3 Employer's Personnel 15
2.4 Employer's Financial Arrangements 15
2.5 Employer's Claims 15
3. The Engineer 16
3.1 Engineer's Duties and Authority 16
3.2 Delegation by the Engineer 17
3.3 Instructions of the Engineer 17
3.4 Replacement of the Engineer 18
3.5 Determinations 18

4. The Contractor 18
4.1 Contractor's General Obligations 18
4.2 Performance Security 19
4.3 Contractor's Representative 21
4.4 Subcontractors 22
4.5 Assignment of Benefit of Subcontract 24
4.6 Co-operation 24
4.7 Setting Out 24
4.8 Safety Procedures 25
4.9 Quality Assurance 25
4.10 Site Data 26
4.11 Sufficiency of the Accepted Contract Amount 26
4.12 Unforeseeable Physical Conditions 26
4.13 Rights of Way and Facilities 27
4.14 Avoidance of Interference 28
4.15 Access Route 28
4.16 Transport of Goods 28
4.17 Contractor's Equipment 29
4.18 Protection of the Environment 30
4.19 Electricity, Water and Gas 30
4.20 Employer's Equipment and free issue material 31

4.21 Progress Report……..31
4.22 Security of the Site.....32
4.23 Contractor's Operations on Site.....32
4.24 Fossils.....32

5. Nominated Subcontractors.....33
5.1 Definition of "nominated Subcontractor".....33
5.2 Objection to Nomination.....33
5.3 Payments to nominated Subcontractors.....33
5.4 Evidence of Payments.....33

6. Staff and Labour.....34
6.1 Engagement of Staff and Labour.....34
6.2 Rates of Wages and Conditions of Labour.....34
6.3Persons in the Service of Employer…….....35
6.4 Labour Laws.....35
6.5 Working Hours.....35
6.6 Facilities for Staff and Labour.....36
6.7 Health and Safety.....36
6.8 Contractor's Superintendence.....37
6.9 Contractor's Personnel.....37
6.10 Records of Contractor's Personnel and Equipment.....38
6.11 Disorderly Conduct.....38
6.12 Foreign Personnel.....38
6.13 Supply of Foodstuffs.....38
6.14 Supply of Water.....39
6.15 Measures against Insect and Pest Nuisance.....39
6.16 Alcoholic Liquor or Drugs.....39
6.17 Arms and Ammunition.....39
6.18 Festivals and Religious Customs.....39
6.19 Funeral Arrangements.....39
6.20 Prohibition of Forced or Compulsory Labour.....39
6.21 Prohibition of Harmful Child Labour.....39
6.22 Employment Records of Workers.....39

7. Plant, Materials and Workmanship.....40
7.1 Manner of Execution.....40
7.2 Samples.....40
7.3 Inspection.....40
7.4 Testing.....40
7.5 Rejection.....41
7.6 Remedial Work.....41
7.7 Ownership of Plant and Materials.....42
7.8 Royalties.....42

8. Commencement, Delays and Suspension.....42
8.1 Commencement of Works.....42
8.2 Time for Completion.....42
8.3 Programme.....43
8.4 Extension of Time for Completion.....43
8.5 Delays Caused by Authorities.....44
8.6 Rate of Progress.....44
8.7 Delay Damages.....44

8.8 Suspension of Work....45
8.9 Consequences of Suspension....45
8.10 Payment for Plant and Materials in Event of Suspension....45
8.11 Prolonged Suspension....46
8.12 Resumption of Work....46
8.13 Bonus for early completion....46

9. Tests on Completion....46
9.1 Contractor's Obligations....46
9.2 Delayed Tests....46
9.3 Retesting....47
9.4 Failure to Pass Tests on Completion....47
9.5 Contractor's obligation....47

10. Employer's Taking Over....48
10.1 Taking Over of the Works and Sections....48
10.2 Taking Over of Parts of the Works....48
10.3 Interference with Tests on Completion....49
10.4 Surfaces requiring Reinstatement....50

11. Defects Liability....50
11.1 Completion of Outstanding Work and Remedying Defects....50
11.2 Cost of Remedying Defects....50
11.3 Extension of Defects Notification Period....50
11.4 Failure to Remedy Defects....51
11.5 Removal of Defective Work....51
11.6 Further Tests....51
11.7 Right of Access....51
11.8 Contractor to Search....51
11.9 Performance Certificate....52
11.10 Unfulfilled Obligations....52
11.11 Clearance of Site....52

12. Measurement and Evaluation....52
12.1 Works to be Measured....52
12.2 Method of Measurement....53
12.3 Evaluation....53
12.4 Omissions....54

13. Variations and Adjustments....55
13.1 Right to Vary....55
13.2 Value Engineering....55
13.3 Variation Procedure....56
13.4 Payment in Applicable Currencies....56
13.5 Provisional Sums....56
13.6 Day work....57
13.7 Adjustments for Changes in Legislation....58
13.8 Adjustments for Changes in Cost....58

14. Contract Price and Payment....74
14.1 The Contract Price....74
14.2 Advance Payment....75
14.3 Application for Interim Payment Certificates....77

14.4 Schedule of Payments....78
14.5 Plant and Materials intended for the Works....78
14.6 Issue of Interim Payment Certificates....79
14.7 Payment....80
14.8 Delayed Payment....81
14.9 Payment of Retention Money....81
14.10 Statement at Completion....82
14.11 Application for Final Payment Certificate....82
14.12 Discharge....833
14.13 Issue of Final Payment Certificate....83
14.14 Cessation of Employer's Liability....83
14.15 Currencies of Payment....83

15. Termination by Employer....83
15.1 Notice to Correct....83
15.2 Termination by Employer....85
15.3 Valuation at Date of Termination…….. ...86
15.4 Payment after Termination....86
15.5 Employer's Entitlement to Termination for Convenience....877
15.6 Corrupt or Fraudulent Practices....87

16. Suspension and Termination by Contractor....87
16.1 Contractor's Entitlement to Suspend Work....87
16.2 Termination by Contractor....88
16.3 Cessation of Work and Removal of Contractor's Equipment....88
16.4 Payment on Termination....89

17. Risk and Responsibility....89
17.1 Indemnities....89
17.2 Contractor's Care of the Works....9090
17.3 Employer's Risks....90
17.4 Consequences of Employer's Risks....90
17.5 Intellectual and Industrial Property Rights....91
17.6 Limitation of Liability....91
17.7 Use of Employer's Accomodation/Facilities....92
18. Insurance....92
18.1 General Requirements for Insurances....92
18.2 Insurance for Works and Contractor's Equipment....93
18.3 Insurance against Injury to Persons and Damage to Property…….….95
18.4 Insurance for Contractor's Personnel....96
19. Force Majeure....96
19.1 Payment and release in case of Optional Termination……..……..96
20. Claims, Disputes and Arbitration....97
20.1 Contractor's Claims....97
20.2 Amicable Settlement....98
20.3 Arbitration....98
21.Jurisdiction of Courts……..……102
Appendix 1……..102

General Conditions

1. General Provisions

1.1 Definitions In the Conditions of Contract ("these Conditions"), which include Special Conditions of Contract, Parts A and B, and these General Conditions, the following words and expressions shall have the meanings stated. Words indicating persons or parties include corporations and other legal entities, except where the context requires otherwise.

1.1.1 The Contract

1.1.1.1 "**Contract**" means the Contract Agreement, the Letter of Acceptance, the Letter of Bid, these Conditions, the Specification, the Drawings, the Schedules, and the further documents (if any) which are listed in the Contract Agreement or in the Letter of Acceptance.

1.1.1.2 "**Contract Agreement"** means the contract agreement (*if any*) **referred** to in Sub-Clause 1.6 [Contract Agreement].

1.1.1.3 **"Letter of Acceptance**" means the letter of formal acceptance, signed by the Employer, of the Letter of Bid, including any annexed memoranda comprising agreements between and signed by both Parties. If there is no such letter of acceptance, the expression "Letter of Acceptance" means the Contract Agreement and the date of issuing or receiving the Letter of Acceptance means the date of signing the Contract Agreement.

1.1.1.4 **"Letter of Bid"** means the document entitled letter of bid, which was completed by the Contractor and includes the signed offer to the Employer for the Works.

1.1.1.5 **"Specification**" means the document entitled specification, as included in the Contract, and any additions and modifications to the specification in accordance with the Contract. Such document specifies the Works.

1.1.1.6 **"Drawings"** means the drawings of the Works, as included in the **Contract**, and any additional and modified drawings issued by (or on behalf of) the Employer in accordance with the Contract.

1.1.1.7 **"Schedules"** means the document(s) entitled schedules, completed by the Contractor and submitted with the Letter of Bid, as included in the Contract. Such document may include the Bill of Quantities, data, lists, and schedules of rates and/or prices.

1.1.1.8 **"Bid/Tender"** means the Letter of Technical Bid **and**Letter of Price Bid and all other documents which the Contractor submitted with the Letter of Technical Bid and Letter of Price Bid , as included in the Contract.

1.1.1.9 **"Bill of Quantities"** and **"Daywork Schedule**" and "Schedule of Payment Currencies" mean the documents so named (if any) which are comprised in the Schedules.

1.1.1.10 **"Contract Data"** means the pages completed by the Employer

entitled contract data which constitute Part A of the Special Conditions of Contract.

1.1.1.11 **"Employer's Requirements"** means the document entitled 'Employer's Requirements' as part of Works Requirements and as included in the Contract, and any additions and modifications to such document in accordance with the Contract. Such document specifies the purpose, scope, and/or design and/or other technical criteria, for the works.

1.1.2 Parties and Persons

1.1.2.1 **"Party"** means the Employer or the Contractor, as the context requires.

1.1.2.2 **"Employer"** means the person named as employer in the Contract Data and the legal successors in title to this person.

1.1.2.3 **"Contractor"** means the person(s) named as contractor in the Letter of Bid accepted by the Employer and the legal successors in title to this person(s).

1.1.2.4 **"Engineer"** means the person nominated by the Employer to act as the Engineer for the purposes of the Contract and named in the Contract Data, or other person appointed from time to time by the Employer and notified to the Contractor under Sub-Clause 3.4 [Replacement of the Engineer]. The person nominated to act as an engineer may be an employee of Rail Vikas Nigam Ltd (RVNL) or an employee of a Project Management Consultancy firm engaged by RVNL for project management as per the discretion of the Employer.

1.1.2.5 **"**Contractor's **Representative"** means the person named by the Contractor in the Contract or appointed from time to time by the Contractor under Sub-Clause 4.3 [Contractor's Representative], who acts on behalf of the Contractor.

1.1.2.6 "Employer's **Representative"** means the person named by the Employer in the Contract or appointed from time to time by the Employer who acts on behalf of the Employer.

1.1.2.7 **"Employer's Personnel"** means the Engineer, the assistants referred to in Sub-Clause 3.2 [Delegation by the Engineer] and all other staff, labour and other employees of the Engineer and of the Employer; and any other personnel notified to the Contractor, by the Employer or the Engineer, as Employer's Personnel.

1.1.2.8 **"Contractor's Personnel"** means the Contractor's Representative and all personnel whom the Contractor utilises on Site, who may include the staff, labour and other employees of the Contractor and of each Subcontractor; and any other personnel assisting the Contractor in the execution of the Works.

1.1.2.9 **"**Subcontractor**"** means any person named in the Contract as a subcontractor, or any person appointed as a subcontractor, for a part of the Works; and the legal successors in title to each of these persons.

1.1.3 Dates, Tests, Periods and Completion

1.1.3.1 **"Base Date"** means the date 28 days prior to the deadline for submission of bids.

1.1.3.2 **"**Commencement **Date**" means the date notified under Sub-

Clause 8.1 [Commencement of Works].

1.1.3.3 **"Time for Completion"** means the time for completing the Works or a Section (as the case may be) under Sub-Clause 8.2 [Time for Completion], as stated in the Contract Data (with any extension under Sub-Clause 8.4 [Extension of Time for Completion]), calculated from the Commencement Date.

1.1.3.4 **"Tests on Completion"** means the tests which are specified in the Contract or agreed by both Parties or instructed as a Variation, and which are carried out under Clause 9 [Tests on Completion] before the Works or a Section (as the case may be) are taken over by the Employer.

1.1.3.5 **"Taking-Over Certificate"** means a certificate issued under Clause 10 [Employer's Taking Over].

1.1.3.6 **"Tests after Completion"** means the tests (if any) which are specified in the Contract and which are carried out in accordance with the Specification after the Works or a Section (as the case may be) are taken over by the Employer.

1.1.3.7 **"Defects Notification Period"** means the period for notifying defects in the Works or a Section (as the case may be) under Sub-Clause 11.1 [Completion of Outstanding Work and Remedying Defects], as stated in the Contract Data (with any extension under Sub-Clause 11.3 [Extension of Defects Notification Period]), calculated from the date on which the Works or Section is completed as certified under Sub-Clause 10.1 [Taking Over of the Works and Sections].

1.1.3.8 **"Performance Certificate"** means the certificate issued under Sub-Clause 11.9 [Performance Certificate].

1.1.3.9 "**Day"** means any (working or non-working) calendar day from 00:00 hrs. to 24:00 hrs.

1.1.3.10 **"Months"** means any calendar month of the Gregorian calendar year.

1.1.3.11 **"Year"** means 365 days

1.1.3.12 "**Time** Periods" Any reference to time period commencing "from" the specified day or date "till" or "until" a specified day shall include both such days.

1.1.3.13 Any reference to **"Time"** shall be according to Indian Standard Time (IST).

1.1.4 Money and Payments

1.1.4.1 "**Accepted Contract Amount"** means the amount accepted in the Letter of Acceptance for the execution and completion of the Works and the remedying of any defects. In the Letter of Acceptance, the Accepted Contract Amount shall have two components i.e. (i) the base amount excluding GST (ii) GST component (calculated at the rate for works contract service as per GST Laws).

1.1.4.2 **"Contract Price"** means the price defined in Sub-Clause 14.1 [The Contract Price], and includes adjustments in accordance with the Contract.

1.1.4.3 **"Cost"** means all expenditure reasonably incurred (or to be incurred) by the Contractor, whether on or off the Site, including overhead and similar charges, but does not include profit.

1.1.4.4 **"Final** Payment **Certificate"** means the payment certificate issued under Sub-Clause 14.13 [Issue of Final Payment Certificate].

1.1.4.5 **"Final Statement"** means the statement defined in Sub-Clause 14.11 [Application for Final Payment Certificate].

1.1.4.6 **"Foreign Currency"** means a currency in which part (or all) of the Contract Price is payable, but not the Local Currency.

1.1.4.7 **"Interim Payment Certificate**" means a payment certificate issued under Clause 14 [Contract Price and Payment], other than the Final Payment Certificate.

1.1.4.8 **"Local Currency"** means the currency in Indian Rupees.

1.1.4.9 **"Payment Certificate"** means a payment certificate issued under Clause 14 [Contract Price and Payment].

1.1.4.10 **"Provisional Sum"** means a sum (if any) which is specified in the Contract as a provisional sum, for the execution of any part of the Works or for the supply of Plant, Materials or services under Sub-Clause 13.5 [Provisional Sums].

1.1.4.11 **"Retention Money"** means the accumulated retention moneys which the Employer retains under Sub-Clause 14.3 [Application for Interim Payment Certificates] and pays under Sub-Clause 14.9 [Payment of Retention Money].

1.1.4.12 **"Statement"** means a statement submitted by the Contractor as part of an application, under Clause 14 [Contract Price and Payment], for a payment certificate.

1.1.5 Works and Goods

1.1.5.1 **"Contractor's Equipment**" means all apparatus, machinery, vehicles and other things required for the execution and completion of the Works and the remedying of any defects. However, Contractor's Equipment excludes Temporary Works, Employer's Equipment (if any), Plant, Materials and any other things intended to form or forming part of the Permanent Works.

1.1.5.2 **"Goods"** means Contractor's Equipment, Materials, Plant and Temporary Works, or any of them as appropriate.

1.1.5.3 **"Materials"** means things of all kinds (other than Plant) intended to form or forming part of the Permanent Works, including the supply-only materials (if any) to be supplied by the Contractor under the Contract.

1.1.5.4 **"Permanent Works"** means the permanent works to be executed by the Contractor under the Contract.

1.1.5.5 **"Plant"** means the apparatus, machinery and vehicles intended to form or forming part of the Permanent Works.

1.1.5.6 **"Section**" means a part of the Works specified in the Contract

Data as a Section (if any).

1.1.5.7 **"Temporary Works"** means all temporary works of every kind (other than Contractor's Equipment) required on Site for the execution and completion of the Permanent Works and the remedying of any defects.

1.1.5.8 **"Works"** mean the Permanent Works and the Temporary Works, or either of them as appropriate.

1.1.6 Other Definitions

1.1.6.1 **"Contractor's** Documents" means the calculations, computer programs and other software, drawings, manuals, models and other documents of a technical nature (if any) supplied by the Contractor under the Contract.

1.1.6.2 **"Country**" means India, the country in which the Site (or most of it) is located, where the Permanent Works are to be executed.

1.1.6.3 **"Employer's Equipment**" means the apparatus, machinery and vehicles (if any) made available by the Employer for the use of the Contractor in the execution of the Works, as stated in the Specification; but does not include Plant which has not been taken over by the Employer.

1.1.6.4 **"Force Majeure**" is defined in Clause 19 [Force Majeure].

1.1.6.5 **"Laws"** means all national (or state) legislation, statutes, ordinances and other laws, and regulations and by-laws of any legally constituted public authority.

1.1.6.6 **"Performance Security**" means the security (or securities, if any) under Sub-Clause 4.2 [Performance Security].

1.1.6.7 **"Site"** means the places where the Permanent Works are to be executed and to which Plant and Materials are to be delivered, and any other places as may be specified in the Contract as forming part of the Site.

1.1.6.8 **"Unforeseeable**" means not reasonably foreseeable and against which adequate preventive precautions could not reasonably be taken by an experienced contractor by the date for submission of the Bid.

1.1.6.9 **"Variation**" means any change to the Works, which is instructed or approved as a variation under Clause 13 [Variations and Adjustments].

1.1.6.10 **"Railway"** means a railway, or any portion of a railway for public carriage of passengers and goods as defined in the Railways ACT 1989. Any reference to railway means the Indian Railways and the respective Zonal Railway

1.2 Interpretation In the Contract, except where the context requires otherwise:

(a) words indicating one gender include all genders;

(b) words indicating the singular also include the plural and words indicating the plural also include the singular;

(c) provisions including the word "agree," "agreed" or "agreement" require the agreement to be recorded in writing;

(d) "written" or "in writing" means hand-written, type-written, printed or

electronically made, and resulting in a permanent record; and

(e) the word “tender” is synonymous with “bid”, and “tenderer” with “bidder” and the words “tender documents” with “bidding documents”

The marginal words and other headings shall not be taken into consideration in the interpretation of these Conditions.

In these Conditions, provisions including the expression "Cost plus profit" require this profit to be one twentieth (5%) of this Cost unless otherwise indicated in the Contract Data.

1.3 Communications

Wherever these Conditions provide for the giving or issuing of approvals, certificates, consents, determinations, notices, requests and discharges, these communications shall be:

(a) in writing and delivered by hand (against receipt), sent by mail or courier, or transmitted using any of the agreed systems of electronic transmission as stated in the Contract Data; and

(b) delivered, sent or transmitted to the address for the recipient’s communications as stated in the Contract Data. However:

(i) if the recipient gives notice of another address, communications shall thereafter be delivered accordingly; and

(ii) if the recipient has not stated otherwise when requesting an approval or consent, it may be sent to the address from which the request was issued.

Approvals, certificates, consents and determinations shall not be unreasonably withheld or delayed. When a certificate is issued to a Party, the certifier shall send a copy to the other Party. When a notice is issued to a Party, by the other Party or the Engineer, a copy shall be sent to the Engineer or the other Party, as the case may be.

1.4 Law and Language

The Contract shall be governed by the law of the country or other jurisdiction stated in the Contract Data.

The ruling language of the Contract shall be that stated in the Contract Data.

The language for communications shall be that stated in the Contract Data. If no language is stated there, the language for communications shall be the ruling language of the Contract.

1.5 Priority of Documents

The documents forming the Contract are to be taken as mutually explanatory of one another. For the purposes of interpretation, the priority of the documents shall be in accordance with the following sequence:

(a) the Contract Agreement (if any),

(b) the Letter of Acceptance,

(c) the Letter of bid,

(d) Special Conditions of Contract:

(i) Part A – Contract Data

(ii) Part B - Specific Provisions

(e) the General Conditions of Contract

(f) the Schedules (including Priced Bill of Quantities),

(g) Specification,

(h) the Drawings,

(i) Works Requirements,

(i) Employers Requirements

(ii) Safety Requirements, and

(j) any other documents forming part of the Contract.

If an ambiguity or discrepancy is found in the documents, the Engineer shall issue any necessary clarification or instruction.

1.6 Contract Agreement

The Parties shall enter into a Contract Agreement within 28 days after the Contractor receives the Letter of Acceptance, unless they agree otherwise. The Contract Agreement shall be based upon the form annexed to the Special Conditions of Contract. The costs of stamp duties and similar charges (if any) imposed by law in connection with entry into the Contract Agreement shall be borne by the Employer.

1.7 Assignment

Neither Party shall assign the whole or any part of the Contract or any benefit or interest in or under the Contract. However, either Party:

(a) may assign the whole or any part with the prior agreement of the other Party, at the sole discretion of such other Party, and

(b) may, as security in favour of a bank or financial institution, assign its right to any moneys due, or to become due, under the Contract.

1.8 Care and Supply of Documents

The Specification and Drawings shall be in the custody and care of the Employer. Unless otherwise stated in the Contract, two copies of the Contract and of each subsequent Drawing shall be supplied to the Contractor, who may make or request further copies at the cost of the Contractor.

Each of the Contractor's Documents shall be in the custody and care of the Contractor, unless and until taken over by the Employer. Unless otherwise stated in the Contract, the Contractor shall supply to the Engineer six copies of each of the Contractor's Documents.

The Contractor shall keep, on the Site, a copy of the Contract, publications named in the Specification, the Contractor's Documents (if any), the Drawings and Variations and other communications given under the Contract. The Employer's Personnel shall have the right of access to all these documents at all reasonable times.

If a Party becomes aware of an error or defect in a document which was prepared for use in executing the Works, the Party shall promptly give notice to the other Party of such error or defect.

1.9 Delayed Drawings or Instructions

The Contractor shall give notice to the Engineer whenever the Works are likely to be delayed or disrupted if any necessary drawing or instruction is not issued to the Contractor within a particular time, which shall be reasonable. The notice shall include details of the necessary drawing or instruction, details of why and by when it should be issued, and details of the nature and amount of the delay or disruption likely to be suffered if it is late.

If the Contractor suffers delay and/or incurs Cost as a result of a failure of the Engineer to issue the notified drawing or instruction within a time which is

reasonable and is specified in the notice with supporting details, the Contractor shall give a further notice to the Engineer and shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:

(a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion], and

(b) payment of any such Cost , which shall be included in the Contract Price.

After receiving this further notice, the Engineer shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these matters.

However, if and to the extent that the Engineer's failure was caused by any error or delay by the Contractor, including an error in, or delay in the submission of, any of the Contractor's Documents, the Contractor shall not be entitled to such extension of time, Cost or profit

1.10 Employer's Use of Contractor's Documents

As between the Parties, the Contractor shall retain the copyright and other intellectual property rights in the Contractor's Documents and other design documents made by (or on behalf of) the Contractor.

The Contractor shall be deemed (by signing the Contract) to give to the Employer a non-terminable transferable non-exclusive royalty-free licence to copy, use and communicate the Contractor's Documents, including making and using modifications of them. This licence shall:

(a) apply throughout the actual or intended working life (whichever is longer) of the relevant parts of the Works,

(b) entitle any person in proper possession of the relevant part of the Works to copy, use and communicate the Contractor's Documents for the purposes of completing, operating, maintaining, altering, adjusting, repairing and demolishing the Works, and

(c) in the case of Contractor's Documents which are in the form of computer programs and other software, permit their use on any computer on the Site and other places as envisaged by the Contract, including replacements of any computers supplied by the Contractor.

The Contractor's Documents and other design documents made by (or on behalf of) the Contractor shall not, without the Contractor's consent, be used, copied or communicated to a third party by (or on behalf of) the Employer for purposes other than those permitted under this Sub-Clause.

1.11 Contractor's Use of Employer's Documents

As between the Parties, the Employer shall retain the copyright and other intellectual property rights in the Specification, the Drawings and other documents made by (or on behalf of) the Employer. The Contractor may, at his cost, copy, use, and obtain communication of these documents for the purposes of the Contract. They shall not, without the Employer's consent, be copied, used or communicated to a third party by the Contractor, except as necessary for the purposes of the Contract.

1.12 Confidential Details

The Contractor shall disclose all such confidential and other information as the Engineer may reasonably require in order to verify the Contractor's compliance with the Contract.

The Contractor shall treat the details of the Contract as private and confidential, except to the extent necessary to carry out the Contractor's obligations under the Contract or to comply with applicable Laws. The Contractor shall not publish or disclose any particulars of the Works without the

previous agreement of the Employer. However, the Contractor shall be permitted to disclose any publicly available information, or information otherwise required to establish his qualifications to compete for other projects.

1.13 Compliance with Laws

The Contractor shall, in performing the Contract, comply with applicable Laws. Unless otherwise stated in the Special Conditions of Contract:

(a) the Employer shall have obtained (or shall obtain) the planning, zoning or similar permission for the Permanent Works, and any other permissions described in the Specification as having been (or being) obtained by the Employer; and the Employer shall indemnify and hold the Contractor harmless against and from the consequences of any failure to do so; and

(b) the Contractor shall give all notices, pay all taxes, duties and fees, and obtain all permits, licences and approvals, as required by the Laws in relation to the execution and completion of the Works and the remedying of any defects; and the Contractor shall indemnify and hold the Employer harmless against and from the consequences of any failure to do so.

1.14 Joint and Several Liability

If the Contractor constitutes (under applicable Laws) a joint venture of two or more persons/firms:

(a) these persons shall be deemed to be jointly and severally liable to the Employer for the performance of the Contract;

(b) these persons shall notify the Employer of their leader who shall have authority to bind the Contractor and each of these persons; and

(c) the Contractor shall not alter its composition or legal status without the prior consent of the Employer.

(d) In the event of default by any partner of joint venture, on or after achieving 25% of the financial progress (excluding advance if any) the lead partner or remaining partner(s), in case the defaulting partner is the lead partner, shall notify the Employer within twenty eight (28) days of the occurrence and within Fifty six (56) days of the said notification, the lead partner or remaining partner(s), who are not the defaulting partner, shall assign the works of the defaulting partner, to equally competent party with prior consent of the Employer. For this purpose the term “equally competent party” shall mean as under:

> “The new JV partner replacing the defaulting partner should meet the EQC requirement of package/combination of packages which was met by the defaulting partner on the basis of which the original tender was awarded.”

The replacement of any defaulting partner, with the new partner shall be subject to the condition that the new partner has to submit additional performance security equal to 10% of balance cost of work of the JV partner being replaced. The performance security submitted by the defaulting partner shall also continue with RVNL till satisfactory completion of the work.

(e) Notwithstanding the consent of the Employer for change in composition or legal status of the joint venture the partners shall continue to be jointly and severally liable to the Employer.

(f) The joint venture shall enter into a joint venture agreement incorporating the provisions of sub-paras (a) to (e) based upon the form annexed to the Conditions of Contract. The JV agreement shall indicate precisely the specific role of all members of the JV in respect of planning, design, construction equipment, key personnel, work execution, and financing of the project. The authority to sign the agreement shall be evidenced by approved legal instruments.

Notwithstanding the contents of the sub-clauses above, if the performance of any JV partner is not found satisfactory by the Employer, in respect of the responsibilities assigned to him as per JV agreement which is a part of this agreement, the Employer may issue notice of such default to the said JV partner or the JV (depending upon reasons of default) and declare the said JV partner or the JV as Poor Performer. The issue of such notice shall automatically debar the JV partner or JV as the case may be from participating in any RVNL tender from the date of issue of notice of default.

1.15 Inspections by the Employer

The Contractor shall permit the Employer and/or persons appointed by the Employer to inspect the Site and/or the Contractor's records relating to the performance of the Contract.

2. The Employer

2.1 Right of Access to the Site

The Employer shall give the Contractor right of access to, and possession of, all parts of the Site within the time (or times) stated in the Contract Data. The right and possession may not be exclusive to the Contractor. If, under the Contract, the Employer is required to give (to the Contractor) possession of any foundation, structure, plant or means of access, the Employer shall do so in the time and manner stated in the Specification. However, the Employer may withhold any such right or possession until the Performance Security has been received.

If no such time is stated in the Contract Data, the Employer shall give the Contractor right of access to, and possession of, the Site within such times as may be required to enable the Contractor to proceed in accordance with the programme submitted under Sub-Clause 8.3 [Programme].

If the Contractor suffers delay and/or incurs Cost as a result of a failure by the Employer to give any such right or possession within such time, the Contractor shall give notice to the Engineer and shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:

(a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion], and

(b) payment of any such Cost , which shall be included in the Contract Price.

After receiving this notice, the Engineer shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these matters.

However, if and to the extent that the Employer's failure was caused by any error or delay by the Contractor, including an error in, or delay in the submission of, any of the Contractor's Documents, the Contractor shall not be entitled to such extension of time, Cost or profit.

2.2 Permits, Licenses or Approvals

The Employer shall (where he is in a position to do so) provide reasonable assistanceto the Contractor at the request of the Contractor:

(a) by obtaining copies of the Laws of the Country which are relevant to the Contract but are not readily available, and

(b) for the Contractor's applications for any permits, licences or approvals required by the Laws of the Country:

(i) which the Contractor is required to obtain under Sub-Clause 1.13 [Compliance with Laws],

(ii) for the delivery of Goods, including clearance through customs, and

(iii) for the export of Contractor's Equipment when it is removed from the Site.

2.3 Employer's Personnel

The Employer shall be responsible for ensuring that the Employer's Personnel and the Employer's other contractors on the Site:

(a) co-operate with the Contractor's efforts under Sub-Clause 4.6 [Co-operation], and

(b) take actions similar to those which the Contractor is required to take under sub-paragraphs (a), (b) and (c) of Sub-Clause 4.8 [Safety Procedures] and under Sub-Clause 4.18 [Protection of the Environment].

2.4 Employer's Financial Arrangements

The Employer has sourced the funds to finance the project.

2.5 Employer's Claims

If the Employer considers himself to be entitled to any payment under any Clause of these Conditions or otherwise in connection with the Contract, and/or to any extension of the Defects Notification Period, the Employer or the Engineer shall give notice and particulars to the Contractor. However, notice is not required for payments due under Sub-Clause 4.19 [Electricity, Water and Gas], under Sub-Clause 4.20 [Employer's Equipment and Free-Issue Material], or for other services requested by the Contractor.

The notice shall be given as soon as practicable after the Employer became aware, or should have become aware, of the event or circumstances giving rise to the claim. A notice relating to any extension of the Defects Notification Period shall be given before the expiry of such period.

The particulars shall specify the Clause or other basis of the claim, and shall include substantiation of the amount and/or extension to which the Employer considers himself to be entitled in connection with the Contract. The Engineer shall then proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine (i) the amount (if any) which the Employer is entitled to be paid by the Contractor, and/or (ii) the extension (if any) of the Defects

Notification Period in accordance with Sub-Clause 11.3 [Extension of Defects Notification Period].

This amount may be included as a deduction in the Contract Price and Payment Certificates. The Employer shall only be entitled to set off against or make any deduction from an amount certified in a Payment Certificate, or to otherwise claim against the Contractor, in accordance with this Sub-Clause.

3. The Engineer

3.1 Engineer's Duties and Authority

The Employer shall appoint the Engineer who shall carry out the duties assigned to him in the Contract. The Engineer's staff shall include suitably qualified engineers and other professionals who are competent to carry out these duties.

The Engineer shall have no authority to amend the Contract.

The Engineer may exercise the authority attributable to the Engineer as specified in or necessarily to be implied from the Contract.

However, the Engineer shall obtain the specific approval of the Employer before taking action under the-following Sub-Clauses of these Conditions:

(a) Sub-Clause 4.12-Unforeseeable Physical Conditions: Agreeing o determining an extension of time and/or additional cost.

(b) Sub-Clause 8.4-Extension of Time for Completion: Agreeing o determining extension of time.

(c) Sub-Clause 11.9-Performance Certificate: Issue of Performance Certificate.

(d) Sub-Clause 13.1-Instructing a Variation: Except,

(i) in an emergency situation as determined by the Engineer and as amplified in sub-paras (g) and (h) below, or

(ii) If the variation in quantity of any item exceeds 25% of the stipulated quantity in the agreement

(iii) If the variation in quantity in any item results in increase in excess of 0.1% of contract price.

(iv) If variation in quantity in any item results in cumulative variation in contract price in excess of 2%.

(e) Sub-Clause 13.3-Variation Procedure: Approving a proposal for Variation submitted by the Contractor in accordance with Sub Clause 13.1 or 13.2.

(f) Sub-Clause 13.4-Payment in applicable Currencies: Specifying the amount payable in each of the applicable currencies for a Variation.

(g) Clause 20.1: Contractor Claims for extension of time and/or additional payment.

(h) Notwithstanding the obligation, as set out above, to obtain approval, if, in the opinion of the Engineer, an emergency occurs affecting the safety of life or of the Works or of adjoining property, he may, without relieving the Contractor of any of his duties and responsibility under the Contract, instruct the Contractor to execute all such work or to do all such things as may, in the opinion of the Engineer, be necessary to abate or reduce the risk. The Contractor shall forthwith comply, despite the absence of

approval of the Employer, with any such instruction of the Engineer. The Engineer shall determine an addition to the Contract Price, in respect of such instruction, in accordance with Clause 13 and shall notify the Contractor accordingly, with a copy to the Employer.

(i) In case the emergency mentioned in above Sub Paras occurs on account of failure of Contractor, by way of not adhering to the approved scheme of work or not taking adequate safety precautions or by any other reason attributable to the contractor, then no additional amounts shall be paid to the Contractor for attending to such emergencies and the Contractor shall be liable for Employer's claims".

(j) Sub-clause 4.4 regarding deployment of Sub-Contractors.

3.2 Delegation by the Engineer

The Engineer may from time to time assign duties and delegate authority to assistants, and may also revoke such assignment or delegation. These assistants may include a resident engineer, and/or independent inspectors appointed to inspect and/or test items of Plant and/or Materials. The assignment, delegation or revocation shall be in writing and shall not take effect until copies have been received by both Parties.

However, unless otherwise agreed by both Parties, the Engineer shall not delegate the authority to determine any matter in accordance with Sub-Clause 3.5 [Determinations].

Assistants shall be suitably qualified persons, who are competent to carry out these duties and exercise this authority, and who are fluent in the language for communications defined in Sub-Clause 1.4 [Law and Language].

Each assistant, to whom duties have been assigned or authority has been delegated, shall only be authorised to issue instructions to the Contractor to the extent defined by the delegation. Any approval, check, certificate, consent, examination, inspection, instruction, notice, proposal, request, test, or similar act by an assistant, in accordance with the delegation, shall have the same effect as though the act had been an act of the Engineer. However:

(a) any failure to disapprove any work, Plant or Materials shall not constitute approval, and shall therefore not prejudice the right of the Engineer to reject the work, Plant or Materials;

(b) if the Contractor questions any determination or instruction of an assistant, the Contractor may refer the matter to the Engineer, who shall promptly confirm, reverse or vary the determination or instruction.

3.3 Instructions of the Engineer

The Engineer may issue to the Contractor (at any time) instructions and additional or modified Drawings which may be necessary for the execution of the Works and the remedying of any defects, all in accordance with the Contract. The Contractor shall only take instructions from the Engineer, or from an assistant to whom the appropriate authority has been delegated under this Clause. If an instruction constitutes a Variation, Clause 13 [Variations and Adjustments] shall apply.

The Contractor shall comply with the instructions given by the Engineer or delegated assistant, on any matter related to the Contract. Whenever practicable, their instructions shall be given in writing. If the Engineer or a delegated assistant,

(a) gives an oral instruction and

(b) receives a written confirmation of the instruction, from (or on behalf of) the Contractor, within two working days after giving the instruction, and

(c) does not reply by issuing a written rejection and/or instruction within two working days after receiving the confirmation,

(d) then the confirmation shall constitute the written instruction of the Engineer or delegated assistant (as the case may be).

3.4 Replacement of the Engineer Notwithstanding Sub-Clause 3.1, if the Employer intends to replace the Engineer, the Employer shall, not less than 21 days before the intended date of replacement, give notice to the Contractor of the name, address and relevant experience of the replacement Engineer.

3.5 Determinations Whenever these Conditions provide that the Engineer shall proceed in accordance with this Sub-Clause 3.5 to agree or determine any matter, the Engineer shall consult with each Party in an endeavour to reach agreement. If agreement is not achieved, the Engineer shall make a fair determination in accordance with the Contract, taking due regard of all relevant circumstances.

The Engineer shall give notice to both Parties of each agreement or determination, with supporting particulars. Each Party shall give effect to each agreement or determination unless and until revised under Clause 20 [Claims, Disputes and Arbitration].

4. The Contractor

4.1 Contractor's General Obligations The Contractor shall design (to the extent specified in the Contract), execute and complete the Works in accordance with the Contract and with the Engineer's instructions, and shall remedy any defects in the Works.

The Contractor shall provide the Plant and Contractor's Documents specified in the Contract, and all Contractor's Personnel, Goods, consumables and other things and services, whether of a temporary or permanent nature, required in and for this design, execution, completion and remedying of defects.

All equipment, and material, to be incorporated in or required for the Works shall be procured from approved sources as stipulated in the Contract.

The Contractor shall be responsible for the adequacy, stability and safety of all Site operations and of all methods of construction. Except to the extent specified in the Contract, the Contractor (i) shall be responsible for all Contractor's Documents, Temporary Works, and such design of each item of Plant and Materials as is required for the item to be in accordance with the Contract, and (ii) shall not otherwise be responsible for the design or specification of the Permanent Works.

The Contractor shall, whenever required by the Engineer, submit details of the arrangements and methods which the Contractor proposes to adopt for the execution of the Works. No significant alteration to these arrangements and methods shall be made without this having previously been notified to the Engineer.

On completion of the works, the contractor shall arrange to furnish to the Employer two (2) bound sets of all "As Built" drawings for every component of the Works at his own cost, all such copies being on Polyester film of quality to

be approved by the Engineer or his Representative. The Taking – over Certificate of the Works, as per the provisions of Clause 10.1 herein, shall not be issued by the Engineer in the event of the Contractor's failure to furnish the aforesaid "As Built" drawings for the entire works.

If the Contract specifies that the Contractor shall design any part of the Permanent Works, then unless otherwise stated in the Special Conditions of Contract:

(a) the Contractor shall submit to the Engineer the Contractor's Documents for this part in accordance with the procedures specified in the Contract;

(b) these Contractor's Documents shall be in accordance with the Specification and Drawings, shall be written in the language for communications defined in Sub-Clause 1.4 [Law and Language], and shall include additional information required by the Engineer to add to the Drawings for co-ordination of each Party's designs;

(c) the Contractor shall be responsible for this part and it shall, when the Works are completed, be fit for such purposes for which the part is intended as are specified in the Contract; and

(d) prior to the commencement of the Tests on Completion, the Contractor shall submit to the Engineer the "as-built" documents and operation and maintenance manuals in accordance with the Specification and in sufficient detail for the Employer to operate, maintain, dismantle, reassemble, adjust and repair this part of the Works. Such part shall not be considered to be completed for the purposes of taking-over under Sub-Clause 10.1 [Taking Over of the Works and Sections] until these documents and manuals have been submitted to the Engineer.

4.2 Performance Security

The Contractor shall obtain (at his cost) a Performance Security and an additional Performance Security, if any in terms of ITB 35.5, for proper performance of the contract, for the amount, currencies and validity period for Performance Security stated in the Contract Data. If an amount is not stated in the Contract Data, this Sub-Clause shall not apply.

The Contractor shall deliver the Performance Security and additional Performance Security, if any, to the Employer within 28 days after receiving the Letter of Acceptance, and shall send a copy to the Engineer. The Performance Security/additional Performance Security shall be issued by an entity and from within a country (or other jurisdiction) approved by the Employer, and shall be in the form as given in Section 8 (Contract Forms) or in another form specifically approved by the Employer.

The Performance Security/additional Performance Security shall be, at the Contractor's option, in any of the following forms:An unconditional Bank guarantee in the prescribed format; or

A Cashier's or Banker's certified cheque drawn on a Scheduled / Nationalized Bank in India in favour of "Rail Vikas Nigam Ltd " payable at New Delhi,

The bank guarantee shall be from a bank having minimum net-worth of over INR 500 million from the specified banks as under:

(i) a Schedule Bank in India, or

(ii) a Foreign Bank having their operations in India, or

(iii) a Foreign Bank which does not have operations in India is

required to provide a counter-guarantee by State Bank of India,

In case the contractor is a JV;"the Performance Security/additional Performance Security, if any in terms of ITB 35.5, shall be submitted by each JV Partner separately on behalf of the JV in favour of RVNLin proportion of their respective percentage share specified in the JV Agreement. The additional Performance Security shall be submitted by the partner(s) responsible for execution of schedule(s) (as per JV agreement) against which additional Performance Security is required to be submitted in terms of ITB 35.5. However, Submission of Performance Guarantee Security by individual partners on behalf of the JV shall in no way dilute their Joint & Several responsibility. The Employer shall be entitled to recover the amount of Bank Guarantees individually and all the Partners jointly at its discretion."

The Contractor shall ensure that the Performance Security/additional Performance Security is valid and enforceable until the Contractor has executed and completed the Works and remedied defects, if any. If the contractor does not complete the work for any reasons whatsoever, the terms of the Performance Security/ additional Performance Security specify its expiry date, and the Contractor has not become entitled to receive the Performance Certificate by the date 28 days prior to the expiry date, the Contractor shall be bound to extend the validity of the Performance Security/additional Performance Security until the Works have been completed and any defects have been remedied.

The Guarantees shall be unconditional and irrevocable. The Employer shall return the Performance Security to the Contractor within 21 days after receiving a copy of the Performance Certificate. However, the Employer shall return additional Performance Security submitted in terms of ITB 35.5 as per the following;

(a) If the contractor submits an application stating that all the works against the particular schedule(s)/bill(s) for which additional Performance Security was submitted in terms of ITB 35.5 have been completed in all respect, then the Employer, on being satisfied with the claim of the contractor, shall return the full additional Performance Security against the particular schedule(s). Decision of the Employer regarding completion of works against a particular schedule/bill shall be final and binding on the contractor.

(b) If the contractor submits an application stating that majority of the works (physical progress being not less than 90%) against the particular schedule(s)/bill(s) for which additional Performance Security was submitted in terms of ITB 35.5 have been completed and execution of balance works is held up for reasons not attributable to the Contractor, then the Employer, on being satisfied with the claim of the contractor, shall return 75% of the amount of additional Performance Security against the particular schedule(s). The balance amount of additional Performance Security shall however be returned only after completion of the works against the particular schedule(s)/bill(s) for which additional Performance Security was submitted in terms of ITB 35.5, in all respects to the satisfaction of the Employer. Decision of the Employer regarding completion of works against a particular schedule/bill shall be final and binding on the contractor.

Without limitation to the provisions of the rest of this Sub-Clause, whenever the Engineer determines an addition or a reduction to the Contract Price as a result

of a change in cost and/or legislation or as a result of a Variation amounting to more than 25 percent of the portion of the Contract Price payable in a specific currency, the Contractor shall at the Engineer's request promptly increase, or may decrease, as the case may be, the value of the Performance Security in that currency by an equal percentage Guarantee.

Wherever the contract is terminated under Clause 15.2, the Performance Guarantee shall be encashed by the Employer:

i) in full including additional performance guarantee amount, if any, taken in terms of sub clause 35.5 of ITB and not due for release on the date of issue of termination letter in terms of this clause, in case of termination of the contract as a whole; Or

ii) at the discretion of the Employer it may be encashed in part/parts proportionate to the Contract price of the bill/schedule to which the terminated part of work belongs i.e P=(A x B)÷C where

P=Proportionate Bank Guarantee Amount.

A=Contract price of the particular bill/schedule to which the terminated part of work belongs.

B=Performance Guarantee amount in terms of GCC sub clause 4.2.

C=Total Contract price.

Plus additional performance Guarantee amount, if any, taken in terms of sub clause 35.5 of ITB and not due for release on the date of issue of termination letter in terms of this clause against this particular bill/schedule to which the terminated part of the work belongs, in case of termination in part/parts.

The balance work should be got done separately, and independently by RVNL without risk and cost of the original contractor. The original 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 would be debarred from participating in the tender for the balance work either in his/her individual capacity or as a partner of any other JV/partnership firm.

In case the contractor fails to perform the contract or any JV partner fails to perform its obligations under the JV agreement, which is a part of this agreement, the Employer may issue notice of such default to the said JV partner or the JV (depending upon reasons of default) and declare the said JV partner or the JV as Poor Performer. The issue of such notice shall automatically debar the JV partner or JV, as the case may be, from participating in any RVNL tender from the date of issue of notice of default. The relevant performance security including additional performance security, if any, in terms of sub clauses 35.5 of ITB submitted by the Contractor or submitted on behalf of JV partner to the extent not due for release at the time of contemplation of such action shall be encashed and forfeited either fully or in proportion of the percentage share of that partner in the JV agreement, as the case may be.

4.3 Contractor's Representative

The Contractor shall appoint the Contractor's Representative and shall give him all authority necessary, including financial powers, to act on the Contractor's behalf under the Contract.

Unless the Contractor's Representative is named in the Contract, the

Contractor shall, prior to the Commencement Date, submit to the Engineer for consent the name and particulars of the person the Contractor proposes to appoint as Contractor's Representative. If consent is withheld or subsequently revoked, or if the appointed person fails to act as Contractor's Representative, the Contractor shall similarly submit the name and particulars of another suitable person for such appointment.

The Contractor shall not, without the prior consent of the Engineer, revoke the appointment of the Contractor's Representative or appoint a replacement.

The whole time of the Contractor's Representative shall be given to directing the Contractor's performance of the Contract. If the Contractor's Representative is to be temporarily absent from the Site during the execution of the Works, a suitable replacement person shall be appointed, subject to the Engineer's prior consent, and the Engineer shall be notified accordingly.

The Contractor's Representative shall, on behalf of the Contractor, receive instructions under Sub-Clause 3.3 [Instructions of the Engineer].

The Contractor's Representative may delegate any powers, functions and authority to any competent person, and may at any time revoke the delegation. Any delegation or revocation shall not take effect until the Engineer has received prior notice signed by the Contractor's Representative, naming the person and specifying the powers, functions and authority being delegated or revoked.

The Contractor's Representative shall be fluent in the language for communications defined in Sub-Clause 1.4 [Law and Language]. If the Contractor's Representative's delegates are not fluent in the said language, the Contractor shall make competent interpreters available during all working hours in a number deemed sufficient by the Engineer.

The Contractor shall depute his Representative to attend all the review meetings notified by the Engineer

4.4Sub-contractors

The Contractor shall not subcontract the whole of the Works. The Contractor shall be responsible for the acts or defaults of any Subcontractor, his agents or employees, as if they were the acts or defaults of the Contractor.

Unless otherwise stated in the Special Conditions of Contract:

(a) the Contractor shall not be required to obtain consent to suppliers solely of Materials, or to a subcontract for which the Subcontractor is named in the Contract or as specifically provided in the Contract data or value of any sub-contract for Works, or the aggregate value of such sub-contracts with any Subcontractor, does not exceed 5% (five per cent) of the Contract Price provided that such works are not for the key activities in terms of clause 2.6 of section 3 (Evaluation and Qualification Criteria) which are to be executed by specialist subcontractor(s);

(b) the prior consent of the Engineer shall be obtained to other proposed Subcontractors and/or suppliers. While submitting his proposal in this regard, the Contractor shall ensure that;

(i) total value of Works requiring such consent for subcontracting shall not be more than 70% (seventy per cent) of the Contract Price;

(ii) the proposed subcontractor must have executed woks of 40% of value of the proposed subcontract through a single contract during last seven years; and

(iii) No banning/blacklisting/declaration as poor performer by RVNL is in force on the proposed subcontractor (on the date of grant of consent by the Engineer);

(iv) No contract of the proposed subcontractor has been terminated by RVNL during the last two years (to be reckoned from the date of grant of consent by the Engineer);

(v) the Contractor shall submit the proposal for subcontracting with the name, particulars and the relevant experience of the proposed subcontractor;

(c) the Contractor shall give the Engineer not less than 28 days' notice of the intended date of the commencement of each Subcontractor's work, and of the commencement of such work on the Site;

(d) each subcontract shall include provisions which would entitle the Employer to require the subcontract to be assigned to the Employer under Sub-Clause 4.5 [Assignment of Benefit of Subcontract] (if or when applicable) or in the event of termination under Sub-Clause 15.2 [Termination by Employer]; and

(e) On getting consent from the Engineer, the Contractor shall provide to the Engineer copy of the agreement entered with such subcontractor.

The Contractor shall ensure that the requirements imposed on the Contractor by Sub-Clause 1.12 [Confidential Details] apply equally to each Subcontractor.

Where practicable, the Contractor shall give fair and reasonable opportunity for contractors from the Country to be appointed as Subcontractors.

The Contractor shall endeavour to resolve all matters and payments amicably and speedily with the sub-contractors.

The Contractor shall indemnify and hold the Employer harmless against and from any claim of subcontractors or suppliers of the materials.

The Contractor shall release payment to the Sub-contractors/Suppliers promptly and shall endeavour to resolve all issues amicably and speedily with the Sub-contractors/Suppliers, so that the execution of work is not affected in any manner whatsoever.

In case a Sub-contractor/Supplier represents to the Engineer in writing with supporting documents, stating that he has not received payment due as per the agreement/work or purchase order for the works executed by such Sub-contractor or supplies made by such Supplier, which have been covered in previous Payment Certificates and the Engineer finds such representation having merit, the Engineer, before issuing next Payment Certificate, may forward a copy of the representation to the Contractor requesting the Contractor to supply reasonable evidence that the amount stated to be outstanding by the Sub-contractor/Supplier for the works executed or supplies made, which have been covered in previous Payment Certificates has been paid and if not, why the same is not payable. The Engineer may recommend to make payment to the

Sub-contractor/Supplier unless the Contractor submits reasonable evidence to the Engineer:

(i) that the amount claimed has been paid, or

(ii) satisfying the Engineer in writing that the Contractor is entitled to withhold or that the amount is not payable.

On the recommendation of the Engineer, the Employer may (at his sole discretion) directly pay to the Sub-contractor/Supplier the amount due for and on behalf of the Contractor, part or all of such amounts previously certified (less applicable deductions) as are found due to the Sub-contractor/Supplier by the Engineer. The Employer shall adjust the amount paid directly to the Sub-contractor/Supplier from any amount due by it to the Contractor. The Contractor shall repay the amount, in case no amount is found due by the Employer to the Contractor.

That the payment by Employer, on behalf of the Contractor to its Sub-contractor/Supplier, shall not alter any terms of agreement between the Employer and the Contractor and nor the same shall result in any privity of contract between the Employer and the Sub-contractor/Supplier.

4.5 Assignment of Benefit of Subcontract

If a Subcontractor's obligations extend beyond the expiry date of the relevant Defects Notification Period and the Engineer, prior to this date, instructs the Contractor to assign the benefit of such obligations to the Employer, then the Contractor shall do so. Unless otherwise stated in the assignment, the Contractor shall have no liability to the Employer for the work carried out by the Subcontractor after the assignment takes effect.

4.6 Co-operation

The Contractor shall, as specified in the Contract or as instructed by the Engineer, allow appropriate opportunities for carrying out work to:

(a) the Employer's Personnel,

(b) any other contractors employed by the Employer, and

(c) the personnel of any legally constituted public authorities,

who may be employed in the execution on or near the Site of any work not included in the Contract.

Any such instruction shall constitute a Variation if and to the extent that it causes the Contractor to incur Unforeseeable Cost. Services for these personnel and other contractors may include the use of Contractor's Equipment, Temporary Works or access arrangements which are the responsibility of the Contractor.

If, under the Contract, the Employer is required to give to the Contractor possession of any foundation, structure, plant or means of access in accordance with Contractor's Documents, the Contractor shall submit such documents to the Engineer in the time and manner stated in the Specification.

4.7 Setting Out

The Contractor shall set out the Works in relation to original points, lines and levels of reference specified in the Contract or notified by the Engineer. The Contractor shall be responsible for the correct positioning of all parts of the Works, and shall rectify any error in the positions, levels, dimensions or alignment of the works, notifying the Engineer within 28 days of the date of

commencement

In the event of such discrepancy arising during the course of the work, for which Employer's documents are handed over after the date of commencement, the contractor shall seek clarifications within 14 days of receipt of such documents

The Employer shall be responsible for any errors in these specified or notified items of reference, but the Contractor shall use reasonable efforts to verify their accuracy before they are used.

Contractor shall promptly notify the Employer and the Engineer of any error, omission, fault, or any other defect in the design, drawing or specifications for the works, which he discovers when reviewing the Contract Documents, and in the process of execution of the Works. The contractor shall be responsible to ensure correlation in various drawings and bill of quantities, before commencement and execution of work. In case of any discrepancy the contractor shall bring it to notice of the Engineer for clarification within 28 days of the issue of Letter of Acceptance. In the event of such discrepancy arising during the course of the work, for which drawings are given after the date of issue of Letter of Acceptance, the contractor shall seek clarifications within 14 days of receipt of such drawings.

4.8 Safety Procedures

The Contractor shall follow the provisions laid down in Annexure 1 to Section 7 (Special Conditions of Contract), Chapter 1. (Safety and Security) of Section 5 (Works/Employers Requirements) and shall:

(a) comply with all applicable safety regulations,

(b) take care for the safety of all persons entitled to be on the Site,

(c) use reasonable efforts to keep the Site and Works clear of unnecessary obstruction so as to avoid danger to these persons,

(d) provide fencing, lighting, guarding and watching of the Works until completion and taking over under Clause 10 [Employer's Taking Over], and

(e) provide any Temporary Works (including roadways, footways, guards and fences) which may be necessary, because of the execution of the Works, for the use and protection of the public and of owners and occupiers of adjacent land.

4.8.1

Notwithstanding with any other provision, the Contractor shall have to pay penalty for damage to Railway cable in terms of clause C 15 of the JPO as given in para 1.2 of Chapter 1. (Safety and Security) of Section 5 (Works/Employers Requirements) and shall also indemnify the Employer against any losses, damages to property or life in terms of para 1.11 and 1.12 of the chapter 1. (Safety and Security) of Section 5 (Works/Employers Requirements).

4.9 Quality Assurance

The Contractor shall institute a quality assurance system to demonstrate compliance with the requirements of the Contract. The system shall be in accordance with the details stated in the Contract. The Engineer shall be entitled to audit any aspect of the system.

Details of all procedures and compliance documents shall be submitted to the Engineer for information before each design and execution stage is

commenced. When any document of a technical nature is issued to the Engineer, evidence of the prior approval by the Contractor himself shall be apparent on the document itself.

Compliance with the quality assurance system shall not relieve the Contractor of any of his duties, obligations or responsibilities under the Contract.

4.10 Site Data

The Employer shall have made available to the Contractor for his information, prior to the Base Date, all relevant data in the Employer's possession on sub-surface and hydrological conditions at the Site, including environmental aspects. The Employer shall similarly make available to the Contractor all such data which come into the Employer's possession after the Base Date. The Contractor shall be responsible for interpreting all such data.

To the extent which was practicable (taking account of cost and time), the Contractor shall be deemed to have obtained all necessary information as to risks, contingencies and other circumstances which may influence or affect the Bid or Works. To the same extent, the Contractor shall be deemed to have inspected and examined the Site, its surroundings, the above data and other available information, and to have been satisfied before submitting the Bid as to all relevant matters, including (without limitation):

(a) the form and nature of the Site, including sub-surface conditions,

(b) the hydrological and climatic conditions,

(c) the extent and nature of the work and Goods necessary for the execution and completion of the Works and the remedying of any defects,

(d) the Laws, procedures and labour practices of the Country, and

(e) the Contractor's requirements for access, accommodation, facilities, personnel, power, transport, water and other services.

(f) Data made available by the Employer in accordance with the preceding paragraph shall be deemed to include data listed elsewhere in the contract as open for inspection at the address stipulated in the Contract.

4.11 Sufficiency of the Accepted Contract Amount

The Contractor shall be deemed to:

(a) have satisfied himself as to the correctness and sufficiency of the Accepted Contract Amount, and

(b) have based the Accepted Contract Amount on the data, interpretations, necessary information, inspections, examinations and satisfaction as to all relevant matters referred to in Sub-Clause 4.10 [Site Data].

Unless otherwise stated in the Contract, the Accepted Contract Amount covers all the Contractor's obligations under the Contract (including those under Provisional Sums, if any) and all things necessary for the proper execution and completion of the Works and the remedying of any defects.

4.12 Unforeseeable Physical Conditions

In this Sub-Clause, "physical conditions" means natural physical conditions and man-made and other physical obstructions and pollutants, which the Contractor encounters at the Site when executing the Works, including sub-surface and hydrological conditions but excluding climatic conditions.

If the Contractor encounters adverse physical conditions which he considers to have been Unforeseeable, the Contractor shall give notice to the Engineer as soon as practicable.

This notice shall describe the physical conditions, so that they can be inspected by the Engineer, and shall set out the reasons why the Contractor considers them to be Unforeseeable. The Contractor shall continue executing the Works, using such proper and reasonable measures as are appropriate for the physical conditions, and shall comply with any instructions which the Engineer may give. If an instruction constitutes a Variation, Clause 13 [Variations and Adjustments] shall apply.

If and to the extent that the Contractor encounters physical conditions which are Unforeseeable, gives such a notice, and suffers delay and/or incurs Cost due to these conditions, the Contractor shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:

(a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion], and

(b) payment of any such Cost, which shall be included in the Contract Price.

After receiving such notice and inspecting and/or investigating these physical conditions, the Engineer shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine (i) whether and (if so) to what extent these physical conditions were Unforeseeable, and (ii) the matters described in sub-paragraphs (a) and (b) above related to this extent.

However, before additional Cost is finally agreed or determined under sub-paragraph (ii), the Engineer may also review whether other physical conditions in similar parts of the Works (if any) were more favourable than could reasonably have been foreseen when the Contractor submitted the Bid. If and to the extent that these more favourable conditions were encountered, the Engineer may proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine the reductions in Cost which were due to these conditions, which may be included (as deductions) in the Contract Price and Payment Certificates. However, the net effect of all adjustments under sub-paragraph (b) and all these reductions, for all the physical conditions encountered in similar parts of the Works, shall not result in a net reduction in the Contract Price.

The Engineer may take account of any evidence of the physical conditions foreseen by the Contractor when submitting the Bid, which may be made available by the Contractor, but shall not be bound by any such evidence.

4.13 Rights of Way and Facilities

The Contractor shall bear all costs and charges for special and/or temporary rights-of-way which he may require, including those for access to the Site. The Contractor shall also obtain, at his risk and cost, any additional facilities outside the Site which he may require for the purposes of the Works.

In case any operation connected with traffic necessitates diversion, obstruction or closure of any road, railway or any other right of way, the approval of the Engineer and the concerned authorities shall be obtained well in advance by the Contractor.

Provided that if it is found necessary for the Contractor to move one or more loads of heavy constructional plants and equipment, materials or Pre-constructed units or parts of units of work over roads, highways, bridges on which such oversized and overweight items that are not normally to be moved, the contractor shall obtain prior permission from the concerned authorities.

Payments for complying with the requirements, if any, for protection or strengthening of the roads, highways or bridges shall be made by the contractor and such expenses shall be deemed to be included in his quoted

contract price.

4.14 Avoidance of Interference

The Contractor shall not interfere unnecessarily or improperly with:

(a) the convenience of the public, or

(b) the access to and use and occupation of all roads and footpaths, irrespective of whether they are public or in the possession of the Employer or of others or

(c) Passenger amenities at stations and station platforms.

The Contractor shall indemnify and hold the Employer harmless against and from all damages, losses and expenses (including legal fees and expenses) resulting from any such unnecessary or improper interference.

4.15 Access Route

The Contractor shall be deemed to have been satisfied as to the suitability and availability of access routes to the Site. The Contractor shall use reasonable efforts to prevent any road or bridge from being damaged by the Contractor's traffic or by the Contractor's Personnel. These efforts shall include the proper use of appropriate vehicles and routes.

Except as otherwise stated in these Conditions:

(a) the Contractor shall (as between the Parties) be responsible for any maintenance which may be required for his use of access routes;

(b) the Contractor shall provide all necessary signs or directions along access routes, and shall obtain any permission which may be required from the relevant authorities for his use of routes, signs and directions;

(c) the Employer shall not be responsible for any claims which may arise from the use or otherwise of any access route;

(d) the Employer does not guarantee the suitability or availability of particular access routes; and

(e) Costs due to non-suitability or non-availability, for the use required by the Contractor, of access routes shall be borne by the Contractor.

4.16 Transport of Goods

Unless otherwise stated in the Special Conditions of Contract:

(a) the Contractor shall give the Engineer not less than 21 days' notice of the date on which any Plant or a major item of other Goods will be delivered to the Site;

(b) the Contractor shall be responsible for packing, loading, transporting, receiving, unloading, storing and protecting all Goods and other things required for the Works; and

(c) the Contractor shall indemnify and hold the Employer harmless against and from all damages, losses and expenses (including legal fees and expenses) resulting from the transport of Goods, and shall negotiate and pay all claims arising from their transport.

4.17 Contractor's Equipment

The Contractor shall be responsible for all Contractors' Equipment. When brought on to the Site, Contractor's Equipment shall be deemed to be exclusively intended for the execution of the Works. The Contractor shall not remove from the Site any major items of Contractor's Equipment without the consent of the Engineer. However, consent shall not be required for vehicles transporting Goods or Contractor's Personnel off Site.

In the event of Contractor imports any equipment the following shall apply" :

(a) Custom Clearance: The Employer will assist the contractor, when required by furnishing letters of recommendation for obtaining expeditious clearance through customs of constructional plants, material and other things required for the works and then for re-export, if any. The following publications, may be referred to by the contractor for guidance about custom regulations etc :

(i) Import & export policy, together with amendments, if any, published by Govt. of India, Ministry of Commerce..

(j) Hand Book of Procedures, together with amendments, if any, Volume 1 and 2 published by Ministry of Commerce.

(iii) Customs Tariff, together with amendments, if any published by Central Customs.

The Contractor shall be responsible to follow the latest rules and regulations without any liability of the Employer.

(b) Re-export of contractors equipment: The contractor shall obtain all the relevant information regarding procedure for the import and subsequent re-export of his equipment and materials from the Chief Controller of Imports and Exports, New Delhi, and shall inform himself and keep himself informed on the details of custom charges and draw-back regulations as applicable to the items of Constructional plant. The contractor shall provide the necessary guarantee/bonds where these are required by the customs notwithstanding that import licenses may be granted in the name of Employer.

(c) Notwithstanding the provisions mentioned above, Contractor's Equipment, including essential spare parts therefore, imported by the Contractor for the sole purpose of executing the Contract shall be temporarily exempt from the payment of import duties and taxes upon initial importation, provided the Contractor shall post with the customs authorities at the port of entry an approved export bond or bank guarantee, valid until the Time for Completion plus six months, in an amount equal to the full import duties and taxeswhich would be payable on the assessed imported value of such Contractor's Equipment and spare parts, and **callable** in the event the Contractor's Equipment is not exported from the Country on completion of the Contract. A copy of the **bond** or bank guarantee endorsed by the custom authorities shall be provided by the Contractor to the Employer upon the importation of individual items of Contractor's Equipment and spare parts. Upon export of individual items of Contractor's Equipment or spare parts, or upon the completion of the Contract, Contractor shall prepare for approval by the customs authority the authorities, an assessment of the residual value of the Contractor's Equipment and spare parts to be exported based on the depreciation scale(s) and other criteria used by the customs authorities for such purposes under the provisions of the applicable Laws. Import duties and taxes shall be due and payable to the customs authorities by

the Contractor on (a) the difference between the initial imported value and the residual value of the contractor's equipment and spare parts to be exported and (b) on the initial imported value that contractor's equipments and spare parts remaining in the Country after completion of the Contract. Upon payment of such dues within 28 days of being invoiced, the bond or bank guarantee shall be reduced or released accordingly; otherwise the security shall be called in the full amount remaining in the Country.

(d) **Conditions of hire of the contractor's equipment:** A certified copy of the agreement in respect of any item of Equipment held by contractor under any agreement for hire or hire purchase thereof, shall be supplied to the Engineer/Employer."

4.18 Protection of the Environment

The Contractor shall take all reasonable steps to protect the environment (both on and off the Site) and to limit damage and nuisance to people and property resulting from pollution, noise and other results of his operations.

The Contractor shall ensure that emissions, surface discharges and effluent from the Contractor's activities shall not exceed the values stated in the Specification or prescribed by applicable Laws.

4.19 Electricity, Water and Gas

The Contractor shall, except as stated below, be responsible for the provision of all power, water and other services he may require.

The Contractor shall be entitled to use for the purposes of the Works such supplies of electricity, water, gas and other services as may be available on the Site and of which details and prices are given in the Specification. The Contractor shall, at his risk and cost, provide any apparatus necessary for his use of these services and for measuring the quantities consumed.

The quantities consumed and the amounts due (at these prices) for such services shall be agreed or determined by the Engineer in accordance with Sub-Clause 2.5 [Employer's Claims] and Sub-Clause 3.5 [Determinations]. The Contractor shall pay these amounts to the Employer.

4.20 Employer's Equipment and Free-Issue Material

The Employer shall make the Employer's Equipment (if any) available for the use of the Contractor in the execution of the Works in accordance with the details, arrangements and prices stated in the Specification. Unless otherwise stated in the Specification:

(a) the Employer shall be responsible for the Employer's Equipment, except that

(b) the Contractor shall be responsible for each item of Employer's Equipment whilst any of the Contractor's Personnel is operating it, driving it, directing it or in possession or control of it.

The appropriate quantities and the amounts due (at such stated prices) for the use of Employer's Equipment shall be agreed or determined by the Engineer in accordance with Sub-Clause 2.5 [Employer's Claims] and Sub-Clause 3.5 [Determinations]. The Contractor shall pay these amounts to the Employer.

The Employer shall supply, free of charge, the "free-issue materials" (if any) in accordance with the details stated in the Contract data. The Employer shall, at his risk and cost, provide these materials at the time and place specified in the Contract. The Contractor shall then visually inspect them, and shall promptly give notice to the Engineer of any shortage, defect or default in these materials. Unless otherwise agreed by both Parties, the Employer shall immediately rectify the notified shortage, defect or default.

In case materials are handed over, in accordance with the procedure prescribed by the Engineer, after proper measurement and accounted for, the contractor shall be solely liable for any shortage, damage, defect or default in such material, and shall indemnify the Employer until the final accountal of materials is made by the Contractor on completion of the work.

4.21 Progress Reports

Unless otherwise stated in the Special Conditions of Contract, monthly progress reports shall be prepared by the Contractor and submitted to the Engineer in six copies. The first report shall cover the period up to the end of the first calendar month following the Commencement Date. Reports shall be submitted monthly thereafter, each within 7 days after the last day of the period to which it relates.

Reporting shall continue until the Contractor has completed all work which is known to be outstanding at the completion date stated in the Taking-Over Certificate for the Works.

Each report shall include:

- charts and detailed descriptions of progress, including each stage of design (if any), Contractor's Documents, procurement, manufacture, delivery to Site, construction, erection and testing; and including these stages for work by each nominated Subcontractor (as defined in Clause 5 [Nominated Subcontractors]),
- photographs showing the status of manufacture and of progress on the Site;
- for the manufacture of each main item of Plant and Materials, the name of the manufacturer, manufacture location, percentage progress, and the actual or expected dates of:
  - (i) commencement of manufacture,
  - (ii) Contractor's inspections,

(iii) tests, and

(iv) shipment and arrival at the Site;

- the details described in Sub-Clause 6.10 [Records of Contractor's Personnel and Equipment];
- copies of quality assurance documents, test results and certificates of Materials;
- list of notices given under Sub-Clause 2.5 [Employer's Claims] and notices given under Sub-Clause 20.1 [Contractor's Claims];
- safety statistics, including details of any hazardous incidents and activities relating to environmental aspects and public relations; and
- comparisons of actual and planned progress of all activities, with details of any events or circumstances which may jeopardise the completion in accordance with the Contract, and the measures being (or to be) adopted to overcome delays.

Unless otherwise stated in the Special Conditions of Contract:

4.22 Security of the Site

(a) the Contractor shall be responsible for keeping unauthorised persons off the Site, and

(b) authorised persons shall be limited to the Contractor's Personnel and the Employer's Personnel; and to any other personnel notified to the Contractor, by the Employer or the Engineer, as authorised personnel of the Employer's other contractors on the Site.

4.23 Contractor's Operations on Site

The Contractor shall confine his operations to the Site, and to any additional areas which may be obtained by the Contractor and agreed by the Engineer as working areas. The Contractor shall take all necessary precautions to keep Contractor's Equipment and Contractor's Personnel within the Site and these additional areas, and to keep them off adjacent land.

During the execution of the Works, the Contractor shall keep the Site free from all unnecessary obstruction, and shall store or dispose of any Contractor's Equipment or surplus materials. The Contractor shall clear away and remove from the Site any wreckage, rubbish and Temporary Works which are no longer required.

Upon the issue of a Taking-Over Certificate, the Contractor shall clear away and remove, from that part of the Site and Works to which the Taking-Over Certificate refers, all Contractor's Equipment, surplus material, wreckage, rubbish and Temporary Works. The Contractor shall leave that part of the Site and the Works in a clean and safe condition. However, the Contractor may retain on Site, during the Defects Notification Period, such Goods as are required for the Contractor to fulfill obligations under the Contract.

4.24 Fossils

All fossils, coins, articles of value or antiquity, and structures and other remains or items of geological or archaeological interest found on the Site shall be placed under the care and authority of the Employer. The Contractor shall take reasonable precautions to prevent Contractor's Personnel or other persons from removing or damaging any of these findings.

The Contractor shall, upon discovery of any such finding, promptly give notice to the Engineer, who shall issue instructions for dealing with it. If the Contractor suffers delay and/or incurs Cost from complying with the instructions, the Contractor shall give a further notice to the Engineer and shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:

(a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion], and

(b) payment of any such Cost, which shall be included in the Contract Price.

After receiving this further notice, the Engineer shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these matters.

5. Nominated Subcontractors

5.1 Definition of nominated Subcontractor

In the Contract, "nominated Subcontractor" means a Subcontractor:

(a) who is stated in the Contract as being a nominated Subcontractor, or

(b) whom the Engineer, under Clause 13 [Variations and Adjustments], instructs the Contractor to employ as a Subcontractor.

5.2 Objection to Nomination

The Contractor shall not be under any obligation to employ a nominated Subcontractor against whom the Contractor raises reasonable objection by notice to the Engineer as soon as practicable, with supporting particulars. An objection shall be deemed reasonable if it arises from (among other things) any of the following matters, unless the Employer agrees to indemnify the Contractor against and from the consequences of the matter:

(a) there are reasons to believe that the Subcontractor does not have sufficient competence, resources or financial strength;

(b) the subcontract does not specify that the nominated Subcontractor shall indemnify the Contractor against and from any negligence or misuse of Goods by the nominated Subcontractor, his agents and employees; or

(c) the subcontract does not specify that, for the subcontracted work (including design, if any), the nominated Subcontractor shall:

(i) undertake to the Contractor such obligations and liabilities as will enable the Contractor to discharge his obligations and liabilities under the Contract, and

(ii) indemnify the Contractor against and from all obligations and liabilities arising under or in connection with the Contract and from the consequences of any failure by the Subcontractor to perform these obligations or to fulfil these liabilities.

5.3 Payments to nominated Subcontractors

The Contractor shall pay to the nominated Subcontractor the amounts which the Engineer certifies to be due in accordance with the subcontract. These amounts plus other charges shall be included in the Contract Price in accordance with sub-paragraph (b) of Sub-Clause 13.5 [Provisional Sums], except as stated in Sub-Clause 5.4 [Evidence of Payments].

5.4 Evidence of Payments

Before issuing a Payment Certificate which includes an amount payable to a nominated Subcontractor, the Engineer may request the Contractor to supply reasonable evidence that the nominated Subcontractor has received (Within 7 days of receipt of previous payment by the contractor) all amounts due in accordance with previous Payment Certificates, less applicable deductions for

retention or otherwise. Unless the Contractor:

(a) submits this reasonable evidence to the Engineer, or

(b)

(i) satisfies the Engineer in writing that the Contractor is reasonably entitled to withhold or refuse to pay these amounts, and

(ii) submits to the Engineer reasonable evidence that the nominated Subcontractor has been notified of the Contractor's entitlement,

then the Employer may (at his sole discretion) pay, direct to the nominated Subcontractor, part or all of such amounts previously certified (less applicable deductions) as are due to the nominated Subcontractor and for which the Contractor has failed to submit the evidence described in sub-paragraphs (a) or (b) above. The Contractor shall then repay, to the Employer, the amount which the nominated Subcontractor was directly paid by the Employer.

6. Staff and Labour

6.1 Engagement of Staff and Labour

Except as otherwise stated in the Specification, the Contractor shall make arrangements for the engagement of all staff and labour, local or otherwise, and for their payment, housing, feeding and transport.

The Contractor is encouraged, to the extent practicable and reasonable, to employ staff and labor with appropriate qualifications and experience from sources within the Country.

6.2 Rates of Wages and Conditions of Labour

The Contractor shall pay rates of wages, and observe conditions of labour, which are not lower than those established for the trade or industry where the work is carried out. If no established rates or conditions are applicable, the Contractor shall pay rates of wages and observe conditions which are not lower than the general level of wages and conditions observed locally by employers whose trade or industry is similar to that of the Contractor.

If the Employer is obliged to provide amenities or arrange payment of wages to contract labour employed by the contractor either directly or through sub contractor under the contract on account of failures on the part the contractor to provide the amenities and / or arrange payment of wages to the contract labour as required of him under the provision of the said act / rules made there under, the Engineer/Employer shall be at liberty without prejudice to the rights of Engineer/Employer under Section 20(2) and 21(4) of the contract labour (Regulation and Abolition) Act 1970 to recover the whole or part of the expenditure so incurred on the wages so paid by the Engineer/Employer/Railway from the security deposit and/or from any sum or sums due to the contractor whether under this contract or any other contract.

The Contractor shall inform the Contractor's Personnel about their liability to pay personal income taxes in the Country in respect of such of their salaries, wages, allowances, and any benefits as are subject to taxes under the Laws of the Country for the time being in force, and the Contractor shall perform such duties in regard to such deductions thereof as may be imposed on him by such Laws.

The Contractor shall keep the Employer indemnified in case any action is taken against the Employer by the competent authority on account of contravention

of any of the provisions of any Act or rules made there-under, regulation or notifications including amendment. If the Employer is caused to pay or reimburse, such amounts as may be necessary to cause or observe, or for non-observance of the provisions stipulated in the notifications/bye laws/Acts/Rules/ regulations including amendments, if any, on the part of the Contractor, the Engineer/Employer shall have the right to deduct any money due to the contractor including his amount of performance security. The Employer/Engineer shall also have right to recover from the Contractor any sum required or estimated to be required for making good the loss or damage suffered by the Employer.

The employees of the Contractor and the Sub-Contractor in no case shall be treated as the employees of the Employer at any point of time.

The Contractor shall duly comply with the provisions of the Apprentices Act 1961 (III of 1961), the rules made there under and the orders that may be issued from time to time under the said Act and the said Rules and on his failure or neglect to do so he shall be subject to all liabilities provide by the said Act and said Rules.

The Contractor and his Sub Contractors shall comply with all applicable Labour Laws, and should not employ Child Labour for construction and maintenance activities. The Contractor shall provide appropriate facilities for children in Construction Camp sites.

The Contractors shall not differentiate wages between men and women for work of equal value.

6.3 Persons in the Service of Employer

The Contractor shall not recruit, or attempt to recruit, staff and labour from amongst persons in the service of the Employer or the Engineer.

6.4 Labour Laws

The Contractor shall comply with all the relevant labour Laws applicable to the Contractor's Personnel, including Laws relating to their employment, health, safety, welfare, immigration, and emigration, and shall allow them all their legal rights. The contractor and his sub-contractors shall be responsible to ensure at his own cost, compliance 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 sub-contractors or petty contractors on the works, which shall include all the acts listed in Appendix – 1 but not limited to the same.

The Contractor shall require his employees to obey all applicable Laws, including those concerning safety at work.

During continuance of the Contract, the Contractor and his Sub-Contractors shall abide at all times by all existing labour enactments and rules made thereunder, regulations, notifications and bye laws of the State or Central government or local authority and any other labour laws (including rules), regulations, bye laws that may be passed or notification that may be issued under any labour law in future either by the State or the Central Government or the local authority. Salient features of some of the major labour laws that are applicable to construction industry are given in Appendix 1 to these Conditions of Contract.

6.5 Working Hours

No work shall be carried out on the Site on locally recognised days of rest, or outside the normal working hours stated in the Contract Data, unless:

(a) otherwise stated in the Contract,

(b) the Engineer gives consent, or

(c) the work is unavoidable, or necessary for the protection of life or property or for the safety of the Works, in which case the Contractor shall immediately advise the Engineer.

6.6 Facilities for Staff and Labour

Except as otherwise stated in the Specification, the Contractor shall provide and maintain all necessary accommodation and welfare facilities for the Contractor's Personnel. The Contractor shall also provide facilities for the Employer's Personnel as stated in the Specification.

The Contractor shall not permit any of the Contractor's Personnel to maintain any temporary or permanent living quarters within the structures forming part of the Permanent Works.

6.7 Health and Safety

The Contractor shall at all times take all reasonable precautions to maintain the health and safety of the Contractor's Personnel. In collaboration with local health authorities, the Contractor shall ensure that medical staff, first aid facilities, sick bay and a standing arrangement for ambulance service are available at a phone call at all times at the Site and at any accommodation for Contractor's and Employer's Personnel, and that suitable arrangements are made for all necessary welfare and hygiene requirements and for the prevention of epidemics.

In the event of any outbreak of illness of an epidemic nature, the Contractor shall comply with and carry out such regulations, orders and requirements as may be made by the Government or the local medical or sanitary authorities, for the purpose of dealing with and overcoming the same. The Contractor shall appoint an accident prevention officer at the Site, responsible for maintaining safety and protection against accidents. This person shall be qualified for this responsibility, and shall have the authority to issue instructions and take protective measures to prevent accidents. Throughout the execution of the Works, the Contractor shall provide whatever is required by this person to exercise this responsibility and authority.

The Contractor shall send, to the Engineer, details of any accident as soon as practicable after its occurrence.

HIV-AIDS Prevention. The Contractor shall conduct an HIV-AIDS awareness programme via an approved service provider, and shall undertake such other measures as are specified in this Contract to reduce the risk of the transfer of the HIV virus between and among the Contractor's Personnel and the local community, to promote early diagnosis and to assist affected individuals.

Epidemics

In the event of any outbreak of illness of an epidemic nature, the Contractor shall comply with and carry out such regulations, orders and requirements as may be made by the Government or the local medical or sanitary authorities, for the purpose of dealing with and overcoming the same.

Records of Safety and Health

The Contractor shall maintain such records and make such reports concerning safety, health and welfare of persons and damage to property as the Engineer may from time to time prescribe.

Submission of Returns: :

The contractor shall be responsible for timely submission of all returns and statements to the concerned authorities in full compliance of all rules, bye-laws and regulations for the time being in force.

The Contractor shall throughout the contract (including the Defects Notification Period): (i) conduct Information, Education and Consultation Communication (IEC) campaigns, at least every other month, addressed to all the Site staff and labor (including all the Contractor's employees, all Sub-Contractors and Consultants' employees, and all truck drivers and crew making deliveries to Site for construction activities) and to the immediate local communities, concerning the risks, dangers and impact, and appropriate avoidance behavior with respect to of Sexually Transmitted Diseases (STD)—or Sexually Transmitted Infections (STI) in general and HIV/AIDS in particular; (ii) provide male or female condoms for all Site staff and labor as appropriate; and (iii) provide for STI and HIV/AIDS screening, diagnosis, counseling and referral to a dedicated national STI and HIV/AIDS program, (unless otherwise agreed) of all Site staff and labor.

The Contractor shall include in the program to be submitted for the execution of the Works under Sub-Clause 8.3 an alleviation program for Site staff and labour and their families in respect of Sexually Transmitted Infections (STI) and Sexually Transmitted Diseases (STD) including HIV/AIDS. The STI, STD and HIV/AIDS alleviation program shall indicate when, how and at what cost the Contractor plans to satisfy the requirements of this Sub-Clause and the related specification. For each component, the program shall detail the resources to be provided or utilized and any related sub-contracting proposed. The program shall also include provision of a detailed cost estimate with supporting documentation. Payment to the Contractor for preparation and implementation this program shall not exceed the Provisional Sum dedicated for this purpose.

6.8 Contractor's Superintendence

Throughout the execution of the Works, and as long thereafter as is necessary to fulfil the Contractor's obligations, the Contractor shall provide all necessary superintendence to plan, arrange, direct, manage, inspect and test the work.

Superintendence shall be given by a sufficient number of persons having adequate knowledge of the language for communications (defined in Sub-Clause 1.4 [Law and Language]) and of the operations to be carried out (including the methods and techniques required, the hazards likely to be encountered and methods of preventing accidents), for the satisfactory and safe execution of the Works.

The Contractor shall employ the key personnel named in the Schedule of Personnel as referred to in the Contract Data to carry out the functions stated in the Schedule or other personnel approved by the Engineer. The Engineer will approve any proposed replacement of key personnel only if their qualifications, abilities and relevant experience are substantially equal to or better than those of the personnel listed in the Schedule.

The Contractor shall not employ any retired government Gazetted officer, who has either not completed one year after the date of retirement, or has not obtained permission to employment with the Contractor.

6.9 Contractor's Personnel

The Contractor's Personnel shall be appropriately qualified, skilled and experienced intheir respective trades or occupations. The Engineer may require the Contractor to remove (or cause to be removed) any person employed on the Site or Works, including the Contractor's Representative if

applicable, who:

(a) persists in any misconduct or lack of care,

(b) carries out duties incompetently or negligently,

(c) fails to conform with any provisions of the Contract, or

(d) persists in any conduct which is prejudicial to safety, health, or the protection of the environment.

If the Engineer asks the Contractor to remove a person who is a member of the Contractor's staff or his work force stating the reasons, the Contractor shall ensure that the person leaves the Site within seven (7) days and has no further connection with the work in the Contract. The replacement person shall be appointed within fourteen (14) days of the notification by the Engineer.

A reasonable proportion of the Contractor's Superintending Staff shall have a working knowledge of the English language or the Contractor shall have available on site at all times a sufficient number of competent interpreters to ensure the proper transmission of instructions and information. If appropriate, the Contractor shall then appoint (or cause to be appointed) a suitable replacement person.

6.10 Records of Contractor's Personnel and Equipment

The Contractor shall submit, to the Engineer, details showing the number of each class of Contractor's Personnel and of each type of Contractor's Equipment on the Site. Details shall be submitted each calendar month, in a form approved by the Engineer, until the Contractor has completed all work which is known to be outstanding at the completion date stated in the Taking-Over Certificate for the Works.

6.11 Disorderly Conduct

The Contractor shall at all times take all reasonable precautions to prevent any unlawful, riotous or disorderly conduct by or amongst the Contractor's Personnel, and to preserve peace and protection of persons and property on and near the Site.

6.12 Foreign Personnel

The Contractor may bring in to the country any foreign personnel who are necessary for the execution of the Works to the extent allowed by the applicable Laws. The Contractor shall ensure that these personnel are provided with the required residence visas and work permits. The Employer will,without any financial liability, if requested by the Contractor, use his best endeavours in a timely and expeditious manner to assist the Contractor in obtaining any local, state, national, or government permission required for bringing in the Contractor's personnel.

The Contractor shall be responsible for the return of these personnel to the place where they were recruited or to their domicile. In the event of the death in the Country of any of these personnel or members of their families, the Contractor shall similarly be responsible for making the appropriate arrangements for their return or burial. Contractor shall also be responsible for any legal liabilities during their stay.

6.13 Supply of Foodstuffs

The Contractor shall arrange for the provision of a sufficient supply of suitable food as may be stated in the Specification at reasonable prices for the Contractor's Personnel for the purposes of or in connection with the Contract.

6.14 Supply of Water

The Contractor shall, having regard to local conditions, provide on the Site an adequate supply of drinking and other water for the use of the Contractor's Personnel.

6.15 Measures against Insect and Pest Nuisance

The Contractor shall at all times take the necessary precautions to protect the Contractor's Personnel employed on the Site from insect and pest nuisance, and to reduce their danger to health. The Contractor shall comply with all the regulations of the local health authorities, including use of appropriate insecticide.

The Contractor shall provide his staff and labour with suitable prophylactics for the prevention of malaria, and take steps to prevent the formation of stagnant pools of water. He shall comply with all the regulations of the local health authorities in these respects and shall in particular arrange to spray thoroughly with approved insecticides all buildings erected on the site such treatment shall be carried out at least once a year or as instructed by the Engineer. The Contractor shall warn his staff and labour of the dangers of diseases like Malaria, Filaria and other contagious diseases etc. and also Scorpions, Snakes, Wild animals etc. and preventive actions required to be taken by the labour and staff.

6.16 Alcoholic Liquor or Drugs

The Contractor shall not, otherwise than in accordance with the Laws of the Country, import, sell, give barter or otherwise dispose of any alcoholic liquor or drugs, or permit or allow importation, sale, gift barter or disposal thereto by Contractor's Personnel.

6.17 Arms and Ammunition

The Contractor shall not give, barter, or otherwise dispose of, to any person, any arms or ammunition of any kind, or allow Contractor's Personnel to do so.

6.18 Festivals and Religious Customs

The Contractor shall respect the Country's recognized festivals, days of rest and religious or other customs.

6.19 Funeral Arrangements

The Contractor shall be responsible, to the extent required by local regulations, for making any funeral arrangements for any of his local employees who may die while engaged upon the Works.

6.20 Prohibition of Forced or Compulsory Labour

The contractor shall not employ "forced or compulsory labour" in any form. "Forced or compulsory labour" consists of all work or service, not voluntarily performed, that is extracted from an individual under threat of force or penalty.

6.21 Prohibition of Harmful Child Labour

The Contractor shall not employ any child to perform any work that is economically exploitative, or is likely to be hazardous to, or to interfere with, the child's education, or to be harmful to the child's health or physical, mental, spiritual, moral, or social development.

6.22 Employment Records of Workers

The Contractor shall keep complete and accurate records of the employment of labour at the Site. The records shall include the names, ages, genders, hours worked and wages paid to all workers. These records shall be summarized on a monthly basis and shall be available for inspection by the Engineer during

normal working hours. These records shall be included in the details to be submitted by the Contractor under Sub-Clause 6.10 [Records of Contractor's Personnel and Equipment].

7. Plant, Materials and Workmanship

7.1 Manner of Execution

The Contractor shall carry out the manufacture of Plant, the production andmanufacture of Materials, and all other execution of the Works:

(a) in the manner (if any) specified in the Contract,

(b) in a proper workmanlike and careful manner, in accordance with recognised good practice, and

(c) with properly equipped facilities and non-hazardous Materials, except as otherwise specified in the Contract.

7.2 Samples

The Contractor shall submit the following samples of Materials, and relevant information, to the Engineer for consent prior to using the Materials in or for the Works:

(a) manufacturer's standard samples of Materials and samples specified in the Contract, all at the Contractor's cost, and

(b) additional samples instructed by the Engineer as a Variation.

Each sample shall be labelled as to origin and intended use in the Works.

7.3 Inspection

The Employer's Personnel shall at all reasonable times:

(a) have full access to all parts of the Site and to all places from which natural Materials are being obtained, and

(b) during production, manufacture and construction (at the Site and elsewhere), be entitled to examine, inspect, measure and test the materials and workmanship, and to check the progress of manufacture of Plant and production and manufacture of Materials.

The Contractor shall give the Employer's Personnel full opportunity to carry out these activities, including providing access, facilities, permissions and safety equipment. No such activity shall relieve the Contractor from any obligation or responsibility.

The Contractor shall give notice to the Engineer whenever any work is ready and before it is covered up, put out of sight, or packaged for storage or transport. The Engineer shall then either carry out the examination, inspection, measurement or testing without unreasonable delay, or promptly give notice to the Contractor that the Engineer does not require to do so. If the Contractor fails to give the notice, he shall, if and when required by the Engineer, uncover the work and thereafter reinstate and make good, all at the Contractor's cost.

7.4 Testing

This Sub-Clause shall apply to all tests specified in the Contract, other than the Tests after Completion (if any).

The Contractor shall provide all apparatus, assistance, documents and other information, electricity, equipment, fuel, consumables, instruments, labour, materials, and suitably qualified and experienced staff, as are necessary to carry out the specified tests efficiently. The Contractor shall agree, with the Engineer, the time and place for the specified testing of any Plant, Materials

and other parts of the Works.

The Engineer may, under Clause 13 [Variations and Adjustments], vary the location or details of specified tests, or instruct the Contractor to carry out additional tests. If these varied or additional tests show that the tested Plant, Materials or workmanship is not in accordance with the Contract, the cost of carrying out this Variation shall be borne by the Contractor, notwithstanding other provisions of the Contract.

The Engineer shall give the Contractor not less than 24 hours' notice of the Engineer's intention to attend the tests. If the Engineer does not attend at the time and place agreed, the Contractor may proceed with the tests, unless otherwise instructed by the Engineer, and the tests shall then be deemed to have been made in the Engineer's presence.

If the Contractor suffers delay and/or incurs Cost from complying with these instructions or as a result of a delay for which the Employer is responsible, the Contractor shall give notice to the Engineer and shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:

(a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion], and

(b) payment of any such Cost , which shall be included in the Contract Price.

After receiving this notice, the Engineer shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these matters.

The Contractor shall promptly forward to the Engineer duly certified reports of the tests. When the specified tests have been passed, the Engineer shall endorse the Contractor's test certificate, or issue a certificate to him, to that effect. If the Engineer has not attended the tests, he shall be deemed to have accepted the readings as accurate.

7.5 Rejection

If, as a result of an examination, inspection, measurement or testing, any Plant, Materials or workmanship is found to be defective or otherwise not in accordance with the Contract, the Engineer may reject the Plant, Materials or workmanship by giving notice to the Contractor, with reasons. The Contractor shall then promptly make good the defect and ensure that the rejected item complies with the Contract.

If the Engineer requires this Plant, Materials or workmanship to be retested, the tests shall be repeated under the same terms and conditions. If the rejection and retesting cause the Employer to incur additional costs, the Contractor shall subject to Sub-Clause 2.5 [Employer's Claims] pay these costs to the Employer.

7.6 Remedial Work

Notwithstanding any previous test or certification, the Engineer may instruct the Contractor to:

(a) remove from the Site and replace any Plant or Materials which is not in accordance with the Contract,

(b) remove and re-execute any other work which is not in accordance with the Contract, and

(c) execute any work which is urgently required for the safety of the Works, whether because of an accident, unforeseeable event or otherwise.

The Contractor shall comply with the instruction within a reasonable time, which shall be the time (if any) specified in the instruction, or immediately if

urgency is specified under sub-paragraph (c).

If the Contractor fails to comply with the instruction, the Employer shall be entitled to employ and pay other persons to carry out the work. Except to the extent that the Contractor would have been entitled to payment for the work, the Contractor shall subject to Sub-Clause 2.5 [Employer's Claims] pay to the Employer all costs arising from this failure.

7.7 Ownership of Plant and Materials

Each item of Plant and Materials shall, to the extent consistent with the Laws of the Country, become the property of the Employer at whichever is the earlier of the following times, free from liens and other encumbrances:

(a) when it is delivered to the Site;

(b) when the Contractor is entitled to payment of the value of the Plant and Materials under Sub-Clause 8.10 [Payment for Plant and Materials in Event of Suspension].

7.8 Royalties

Unless otherwise stated in the Specification, the Contractor shall pay all royalties, rents and other payments for:

(a) natural Materials obtained from outside the Site, and

(b) the disposal of material from demolitions and excavations and of other surplus material (whether natural or man-made), except to the extent that disposal areas within the Site are specified in the Contract.

8. Commencement, Delays and Suspension

8.1 Commencement of Works

The Engineer shall give the Contractor not less than 7 days' notice of the Commencement Date. Unless otherwise stated in the Special Conditions of Contract, the Commencement Date shall be within the number of days after the Contractor receives the Letter of Acceptance as specified in Contract Data.

The Contractor shall commence the execution of the Works as soon as is reasonably practicable after the Commencement Date, and shall then proceed with the Works with due expedition and without delay.

8.2 Time for Completion

The Contractor shall complete the whole of the Works, and each Section (if any), within the Time for Completion for the Works or Section (as the case may be), including:

(a) achieving the passing of the Tests on Completion, and

(b) completing all work which is stated in the Contract as being required for whole of the Works or Section(s) to be considered to be completed for the purposes of taking-over under Sub-Clause 10.1 [Taking Over of the Works and Sections].

(c) The date of completion for works described in this sub-clause, shall be the earliest of the following :

(i) The date CRS recommends opening of the Section(s) for public carriage of passengers to Central Government, for speeds of not less than 75% of the designed operating speeds or,

(ii) The date CRS authorises the Railway Administration for opening of Section(s), subject to sanction of the Central Government for speeds of not less than 75% of the designed operating speeds, or,

(iii) The date CRS authorizes/sanctions openingof Section(s) without

inspection.

8.3 Programme

The Contractor shall submit a detailed time programme to the Engineer within 28 days after receiving the notice under Sub-Clause 8.1 *[Commencement of Works].* The program shall include the physical and Financial Progress vis-à-vis program and forecast cash flow adopting Project Management Software Primavera/Sure Track/MS Project or as mutually agreed. The program must identify the milestones, interface requirements and program reporting elements. The Contractor shall supply, free of cost one set of authorized software to the Engineer and the soft copy of structured program for the project. This shall be updated every month. The Contractor shall also submit a revised programme whenever the previous programme is inconsistent with actual progress or with the Contractor's obligations. Each programme shall include:

(a) the order in which the Contractor intends to carry out the Works, including the anticipated timing of each stage of design (if any), Contractor's Documents, procurement, manufacture of Plant, delivery to Site, construction, erection and testing,

(b) each of these stages for work by each nominated Subcontractor (as defined in Clause 5 [Nominated Subcontractors]),

(c) the sequence and timing of inspections and tests specified in the Contract, and

(d) a supporting report which includes:

(i) a general description of the methods which the Contractor intends to adopt, and of the major stages, in the execution of the Works, and

(ii) details showing the Contractor's reasonable estimate of the number of each class of Contractor's Personnel and of each type of Contractor's Equipment, required on the Site for each major stage.

Unless the Engineer, within 21 days after receiving a programme, gives notice to the Contractor stating the extent to which it does not comply with the Contract, the Contractor shall proceed in accordance with the programme, subject to his other obligations under the Contract. The Employer's Personnel shall be entitled to rely upon the programme when planning their activities.

The Contractor shall promptly give notice to the Engineer of specific probable future events or circumstances which may adversely affect the work, increase the Contract Price or delay the execution of the Works. The Engineer may require the Contractor to submit an estimate of the anticipated effect of the future event or circumstances, and/or a proposal under Sub-Clause 13.3 [Variation Procedure].

If, at any time, the Engineer gives notice to the Contractor that a programme fails (to the extent stated) to comply with the Contract or to be consistent with actual progress and the Contractor's stated intentions, the Contractor shall submit a revised programme to the Engineer within 15 days in accordance with this Sub-Clause.

8.4 Extension of Time for Completion

The Contractor shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to an extension of the Time for Completion if and to the extent that completion for the purposes of Sub-Clause 10.1 [Taking-Over of the Works and Sections] is or will be delayed by any of the following causes:

(a) a Variation (unless an adjustment to the Time for Completion has been

agreed under Sub-Clause 13.3 [Variation Procedure]) or other substantial change in the quantity of an item of work included in the Contract,

(b) a cause of delay giving an entitlement to extension of time under a Sub-Clause of these Conditions,

(c) exceptionally adverse climatic conditions,

(d) Unforeseeable shortages in the availability of personnel or Goods caused by epidemic or governmental actions, or

(e) any delay, impediment or prevention caused by or attributable to the Employer, the Employer's Personnel, or the Employer's other contractors.

If the Contractor considers himself to be entitled to an extension of the Time for Completion, the Contractor shall give notice to the Engineer in accordance with Sub-Clause 20.1 [Contractor's Claims]. When determining each extension of time under Sub-Clause 20.1, the Engineer shall review previous determinations and may increase, but shall not decrease, the total extension of time.

8.5 Delays Caused by Authorities

If the following conditions apply, namely:

(a) the Contractor has diligently followed the procedures laid down by the relevant legally constituted public authorities in the Country,

(b) these authorities delay or disrupt the Contractor's work, and

(c) the delay or disruption was Unforeseeable,

then this delay or disruption will be considered as a cause of delay under sub-paragraph (b) of Sub-Clause 8.4 [Extension of Time for Completion].

8.6 Rate of Progress

If, at any time:

(a) actual progress is too slow to complete within the Time for Completion, and/or

(b) progress has fallen (or will fall) behind the current programme under Sub-Clause 8.3 [Programme],

other than as a result of a cause listed in Sub-Clause 8.4 [Extension of Time for Completion], then the Engineer may instruct the Contractor to submit, under Sub-Clause 8.3 [Programme], a revised programme and supporting report describing the revised methods which the Contractor proposes to adopt in order to expedite progress and complete within the Time for Completion.

Unless the Engineer notifies otherwise, the Contractor shall adopt these revised methods, which may require increases in the working hours and/or in the numbers of Contractor's Personnel and/or Goods, at the risk and cost of the Contractor. If these revised methods cause the Employer to incur additional costs, the Contractor shall subject to Sub-Clause 2.5 [Employer's Claims] pay these costs to the Employer, in addition to delay damages (if any) under Sub-Clause 8.7 below.

8.7 Extension of Time for Completion with Delay Damages

If the Contractor fails to comply with Sub-Clause 8.2 [Time for Completion for entire work or for specified section wise completion period], and he is not entitled to an extension of time under sub clause 8.4 then the employer may grant extension of time with delay damage in such case, the Contractor shall subject to Sub-Clause 2.5 [Employer's Claims] pay delay damages to the Employer for this default. These delay damages shall be the sum stated in the Contract Data, which shall be paid for every day which shall elapse between

the relevant Time for Completion and the date stated in the Taking-Over Certificate. However, the total amount due under this Sub-Clause shall not exceed the maximum amount of delay damages (if any) stated in the Contract Data.

Further, if the contractor fails to achieve physical/financial targets as per the agreed programme for a consecutive period of 3 months without any valid reasons, other than attributable to the contractor, a provisional recovery of delay damages shall be made from the next interim payment certificate @ $1/10^{th}$ of the sum of delay damages stated in the contract data, for the entire period of 3 months. Such recovery shall continue from the further interim payment certificates till the contractor is able to make good the shortfall and achieve the cumulative targets as per agreed programme. On achieving the cumulative progress targets as per agreed programme, the entire amount recovered till that month, shall be refunded to the contractor in the next interim payment certificate. In case the contractor is unable to make good the shortfall and achieve the cumulative targets resulting in delay in completion of the project, then the provisional recoveries made shall be adjusted against the delay damages to be finally imposed on the contractor.

These delay damages shall be the only damages due from the Contractor for such default, other than in the event of termination under Sub-Clause 15.2 [Termination by Employer] prior to completion of the Works. These damages shall not relieve the Contractor from his obligation to complete the Works, or from any other duties, obligations or responsibilities which he may have under the Contract.

8.8 Suspension of Work

The Engineer may at any time instruct the Contractor to suspend progress of part or all of the Works. During such suspension, the Contractor shall protect, store and secure such part or the Works against any deterioration, loss or damage.

The Engineer may also notify the cause for the suspension. If and to the extent that the cause is notified and is the responsibility of the Contractor, the following Sub-Clauses 8.9, 8.10 and 8.11 shall not apply.

8.9 Consequences of Suspension

If the Contractor suffers delay and/or incurs Cost from complying with the Engineer's instructions under Sub-Clause 8.8 [Suspension of Work] and/or from resuming the work, the Contractor shall give notice to the Engineer and shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:

(a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion], and

(b) payment of any such Cost, which shall be included in the Contract Price.

After receiving this notice, the Engineer shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these matters.

The Contractor shall not be entitled to an extension of time for, or to payment of the Cost incurred in, making good the consequences of the Contractor's faulty design, workmanship or materials, or of the Contractor's failure to protect, store or secure in accordance with Sub-Clause 8.8 [Suspension of Work].

8.10 Payment for Plant and Materials in Event of Suspension

The Contractor shall be entitled to payment of the value (as at the date of suspension)of Plant and/or Materials, if:

(a) the work on Plant or delivery of Plant and/or Materials has been suspended for more than 28 days,

(b) the Contractor has marked the Plant and/or Materials as the Employer's property in accordance with the Engineer's instructions, and

(c) Such materials or plant is received at site.

8.11 Prolonged Suspension If the suspension under Sub-Clause 8.8 [Suspension of Work] has continued for more than 84 days, the Contractor may request the Engineer's permission to proceed. If the Engineer does not give permission within 28 days after being requested to do so, the Contractor may, by giving notice to the Engineer, treat the suspension as an omission under Clause 13 [Variations and Adjustments] of the affected part of the Works. If the suspension affects the whole of the Works, the Contractor may give notice of termination under Sub-Clause 16.2 [Termination by Contractor].

8.12 Resumption of Work After the permission or instruction to proceed is given, the Contractor and the Engineer shall jointly examine the Works and the Plant and Materials affected by the suspension. The Contractor shall make good any deterioration or defect in or loss of the Works or Plant or Materials, which has occurred during the suspension.

8.13 Bonus for early completion: If the Contractor achieves completion of the whole of the Works or any section(s) prior to the intended Completion Date prescribed in Contract data (Extension of time pursuant to Clause 8.4 or any other clause of these conditions will not be considered), the Employer shall pay to the Contractor a sum stated in the Contract data as bonus for early completion, for every calendar month which shall elapse between the date of completion of all items of works as stipulated in the contract, including variations ordered by the Engineer and the time prescribed in Clause 8.2.

For the purpose of calculating bonus payments, the time given in the Bid for completion of the whole works or any section(s) is fixed and unless otherwise agreed, no adjustment of the time by reasons of granting an extension of time pursuant to clause 8.4 or any other clause of these conditions will be allowed. Any period falling short of completed month shall be ignored for the purpose of computing the period relevant for the payment of bonus.

9. Tests on Completion

9.1 Contractor's Obligations The Contractor shall carry out the Tests on Completion in accordance with this Clause and Sub-Clause 7.4 [Testing], after providing the documents in accordance with sub-paragraph (d) of Sub-Clause 4.1 [Contractor's General Obligations].

The Contractor shall give to the Engineer not less than 21 days' notice of the date after which the Contractor will be ready to carry out each of the Tests on Completion. Unless otherwise agreed, Tests on Completion shall be carried out within 14 days after this date, on such day or days as the Engineer shall instruct.

In considering the results of the Tests on Completion, the Engineer shall make allowances for the effect of any use of the Works by the Employer on the performance or other characteristics of the Works. As soon as the Works, or a Section, have passed any Tests on Completion, the Contractor shall submit a certified report of the results of these Tests to the Engineer.

9.2 Delayed Tests If the Tests on Completion are being unduly delayed by the Employer, Sub-

Clause 7.4 [Testing] (fifth paragraph) and/or Sub-Clause 10.3 [Interference with Tests on Completion] shall be applicable.

If the Tests on Completion are being unduly delayed by the Contractor, the Engineer may by notice require the Contractor to carry out the Tests within 21 days after receiving the notice. The Contractor shall carry out the Tests on such day or days within that period as the Contractor may fix and of which he shall give notice to the Engineer.

If the Contractor fails to carry out the Tests on Completion within the period of 21 days, the Employer's Personnel may proceed with the Tests at the risk and cost of the Contractor. The Tests on Completion shall then be deemed to have been carried out in the presence of the Contractor and the results of the Tests shall be accepted as accurate.

9.3 Retesting

If the Works, or a Section, fail to pass the Tests on Completion, Sub-Clause 7.5 [Rejection] shall apply, and the Engineer or the Contractor may require the failed Tests, and Tests on Completion on any related work, to be repeated under the same terms and conditions.

9.4 Failure to Pass Tests on Completion

If the Works, or a Section, fail to pass the Tests on Completion repeated under Sub-Clause 9.3 [Retesting], the Engineer shall be entitled to:

(a) order further repetition of Tests on Completion under Sub-Clause 9.3;

(b) if the failure deprives the Employer of substantially the whole benefit of the Works or Section, reject the Works or Section (as the case may be), in which event the Employer shall have the same remedies as are provided in sub-paragraph (c) of Sub-Clause 11.4 [Failure to Remedy Defects]; or

(c) issue a Taking-Over Certificate, if the Employer so requests.

In the event of sub-paragraph (c), the Contractor shall proceed in accordance with all other obligations under the Contract, and the Contract Price shall be reduced by such amount as shall be appropriate to cover the reduced value to the Employer as a result of this failure. Unless the relevant reduction for this failure is stated (or its method of calculation is defined) in the Contract, the Employer may require the reduction to be (i) agreed by both Parties (in full satisfaction of this failure only) and paid before this Taking-Over Certificate is issued, or (ii) determined and paid under Sub-Clause 2.5 [Employer's Claims] and Sub-Clause 3.5 [Determinations].

9.5 Contractor's obligations

Notwithstanding the provisions of sub-clauses 4.1, 9.1 to 9.4 the provisions in subsequent sub-clauses shall apply for works of Permanent Way, signaling and telecommunication and railway electrification excluding General Electrical Services.

(a) The Contractor shall be responsible for the execution of temporary and/or permanent works which may require the prior sanction/approval of Commissioner of Railway Safety (CRS) in accordance with extant rules for " The Railways opening for Public Carriage of Passengers" was amended from time to time. And applicable as and when the works are undertaken. The Contractor shall initiate the process for approval at least **63** (sixty three) days prior to undertaking such works which require the approval of Commissioner of Railway Safety (CRS) and furnish draft documentation to the Engineer.

(b) The Contractor shall ensure that existing services and operations for

public carriage of passengers or goods, are not affected except those, which are essentially required to be regulated for execution of works. Such items of works shall be planned and coordinated through the Engineer.

(c) Prior to the commencement of commercial operations of passenger traffic :

(i) The Contractor may have to operate locomotives, track machines and any other rolling stock for track tamping, trial runs, etc. for which track, signaling or OHE works must comply with the specifications.

(ii) The Employer may permit freight train operations to Railway after certification by the authorized person of Zonal Railway

(iii) The Contractor shall be responsible for maintaining the facilities ensuring safety of operations under (i) & (ii) above as per specifications.

10. Employer's Taking Over

10.1 Taking Over of the Works and Sections

Except as stated in Sub-Clause 9.4 [Failure to Pass Tests on Completion], the Works shall be taken over by the Employer/Railwaywhen (i) the Works have been completed in accordance with the Contract, including the matters described in Sub-Clause 8.2 [Time for Completion] and except as allowed in sub-paragraph (a) below, and (ii) a Taking-Over Certificate for the Works has been issued, or is deemed to have been issued in accordance with this Sub-Clause.

The Contractor may apply by notice to the Engineer for a Taking-Over Certificate not earlier than 14 days before the Works will, in the Contractor's opinion, be complete and ready for taking over. If the Works are divided into Sections, the Contractor may similarly apply for a Taking-Over Certificate for each Section.

In case the works are to be taken over in accordance with sub-clause 9.5, the completed works shall be taken over by the Zonal Railway with the procedure specified by the Engineer.

The Engineer shall, within 28 days after receiving the Contractor's application:

(a) issue the Taking-Over Certificate to the Contractor, stating the date on which the Works or Section were completed in accordance with the Contract, except for any minor outstanding work and defects which will not substantially affect the use of the Works or Section for their intended purpose (either until or whilst this work is completed and these defects are remedied); or

(b) reject the application, giving reasons and specifying the work required to be done by the Contractor to enable the Taking-Over Certificate to be issued. The Contractor shall then complete this work before issuing a further notice under this Sub-Clause.

If the Engineer fails either to issue the Taking-Over Certificate or to reject the Contractor's application within the period of 28 days, and if the Works or Section (as the case may be) are substantially in accordance with the Contract, the Taking-Over Certificate shall be deemed to have been issued on the last day of that period.

10.2 Taking Over of

The Engineer may, at the sole discretion of the Employer, issue a Taking-Over

Parts of the Works

Certificate for any part of the Permanent Works.

The Employer shall not use any part of the Works (other than as a temporary measure which is either specified in the Contract or agreed by both Parties) unless and until the Engineer has issued a Taking-Over Certificate for this part. However, if the Employer does use any part of the Works before the Taking-Over Certificate is issued:

(a) the part which is used shall be deemed to have been taken over as from the date on which it is used,

(b) the Contractor shall cease to be liable for the care of such part as from this date, when responsibility shall pass to the Employer, and

(c) if requested by the Contractor, the Engineer shall issue a Taking-Over Certificate for this part.

After the Engineer has issued a Taking-Over Certificate for a part of the Works, the Contractor shall be given the earliest opportunity to take such steps as may be necessary to carry out any outstanding Tests on Completion. The Contractor shall carry out these Tests on Completion as soon as practicable before the expiry date of the relevant Defects Notification Period.

If the Contractor incurs Cost as a result of the Employer taking over and/or using a part of the Works, other than such use as is specified in the Contract or agreed by the Contractor, the Contractor shall (i) give notice to the Engineer and (ii) be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to payment of any such Cost, which shall be included in the Contract Price. After receiving this notice, the Engineer shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine this Cost and profit.

If a Taking-Over Certificate has been issued for a part of the Works (other than a Section), the delay damages thereafter for completion of the remainder of the Works shall be reduced. Similarly, the delay damages for the remainder of the Section (if any) in which this part is included shall also be reduced. For any period of delay after the date stated in this Taking-Over Certificate, the proportional reduction in these delay damages shall be calculated as the proportion which the value of the part so certified bears to the value of the Works or Section (as the case may be) as a whole. The Engineer shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these proportions. The provisions of this paragraph shall only apply to the daily rate of delay damages under Sub-Clause 8.7 [Delay Damages], and shall not affect the maximum amount of these damages.

10.3 Interference with Tests on Completion

If the Contractor is prevented, for more than 14 days, from carrying out the Tests on Completion by a cause for which the Employer/Engineer/other Contractors of the Employer,

are responsible, the Employer shall be deemed to have taken over the Works or Section (as the case may be) on the date when the Tests on Completion would otherwise have been completed.

The Engineer shall then issue a Taking-Over Certificate accordingly, and the Contractor shall carry out the Tests on Completion as soon as practicable, before the expiry date of the Defects Notification Period. The Engineer shall require the Tests on Completion to be carried out by giving 14 days' notice and in accordance with the relevant provisions of the Contract.

If the Contractor suffers delay and/or incurs Cost as a result of this delay in carrying out the Tests on Completion, the Contractor shall give notice to the

Engineer and shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:

(a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion], and

(b) payment of any such Cost, which shall be included in the Contract Price.

After receiving this notice, the Engineer shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these matters.

10.4 Surfaces Requiring Reinstatement

Except as otherwise stated in a Taking-Over Certificate, a certificate for a Section orpart of the Works shall not be deemed to certify completion of any ground or other surfaces requiring reinstatement.

11. Defects Liability

11.1 Completion of Outstanding Work and Remedying Defects

In order that the Works and Contractor's Documents, and each Section, shall be in the condition required by the Contract (fair wear and tear excepted) by the expiry date of the relevant Defects Notification Period or as soon as practicable thereafter, the Contractor shall:

(a) complete any work which is outstanding on the date stated in a Taking-Over Certificate, within such reasonable time as is instructed by the Engineer, and

(b) execute all work required to remedy defects or damage, as may be notified by (or on behalf of) the Employer on or before the expiry date of the Defects Notification Period for the Works or Section (as the case may be).

If a defect appears or damage occurs, the Contractor shall be notified accordingly, by (or on behalf of) the Employer.

11.2 Cost of Remedying Defects

All work referred to in sub-paragraph (b) of Sub-Clause 11.1 [Completion of Outstanding Work and Remedying Defects] shall be executed at the risk and cost of the Contractor, if and to the extent that the work is attributable to:

(a) any design for which the Contractor is responsible,

(b) Plant, Materials or workmanship not being in accordance with the Contract, or

(c) failure by the Contractor to comply with any other obligation.

If and to the extent that such work is attributable to any other cause, the Contractor shall be notified promptly by (or on behalf of) the Employer, and Sub-Clause 13.3 [Variation Procedure] shall apply.

11.3 Extension of Defects Notification Period

The Employer shall be entitled subject to Sub-Clause 2.5 [Employer's Claims] to an extension of the Defects Notification Period for the Works or a Section if and to the extent that the Works, Section or a major item of Plant (as the case may be, and after taking over) cannot be used for the purposes for which they are intended by reason of a defect or damage. However, a Defects Notification Period shall not be extended by more than two years.

If delivery and/or erection of Plant and/or Materials was suspended under Sub-Clause 8.8 [Suspension of Work] or Sub-Clause 16.1 [Contractor's Entitlement

to Suspend Work], the Contractor's obligations under this Clause shall not apply to any defects or damage occurring more than two years after the Defects Notification Period for the Plant and/or Materials would otherwise have expired.

11.4 Failure to Remedy Defects

If the Contractor fails to remedy any defect or damage within a reasonable time, a date may be fixed by (or on behalf of) the Employer, on or by which the defect or damage is to be remedied. The Contractor shall be given reasonable notice of this date.

If the Contractor fails to remedy the defect or damage by this notified date and this remedial work was to be executed at the cost of the Contractor under Sub-Clause 11.2 [Cost of Remedying Defects], the Employer may (at his option):

(a) Carry out the work himself or by others, in a reasonable manner and at the Contractor's cost, but the Contractor shall have no responsibility for this work; and the Contractor shall subject to Sub-Clause 2.5 [Employer's Claims] pay to the Employer the costs reasonably incurred by the Employer in remedying the defect or damage;

(b) require the Engineer to agree or determine a reasonable reduction in the Contract Price in accordance with Sub-Clause 3.5 [Determinations]; or

(c) if the defect or damage deprives the Employer of substantially the whole benefit of the Works or any major part of the Works, terminate the Contract as a whole, or in respect of such major part which cannot be put to the intended use. Without prejudice to any other rights, under the Contract or otherwise, the Employer shall then be entitled to recover all sums paid for the Works or for such part (as the case may be), plus financing costs and the cost of dismantling the same, clearing the Site and returning Plant and Materials to the Contractor.

11.5 Removal of Defective Work

If the defect or damage cannot be remedied expeditiously on the Site and theEmployer gives consent, the Contractor may remove from the Site for the purposesof repair such items of Plant as are defective or damaged. This consent may require the Contractor to increase the amount of the Performance Security by the full replacement cost of these items, or to provide other appropriate security.

11.6 Further Tests

If the work of remedying of any defect or damage may affect the performance of the Works, the Engineer may require the repetition of any of the tests described in the Contract. The requirement shall be made by notice within 28 days after the defect or damage is remedied.

These tests shall be carried out in accordance with the terms applicable to the previous tests, except that they shall be carried out at the risk and cost of the Party liable, under Sub-Clause 11.2 [Cost of Remedying Defects], for the cost of the remedial work.

11.7 Right of Access

Until the Performance Certificate has been issued, the Contractor shall have such right of access to the Works as is reasonably required in order to comply with this Clause, except as may be inconsistent with the Employer's reasonable security restrictions.

11.8 Contractor to Search

The Contractor shall, if required by the Engineer, search for the cause of any defect, under the direction of the Engineer. Unless the defect is to be remedied at the cost of the Contractor under Sub-Clause 11.2 [Cost of Remedying Defects], the Cost of the search shall be agreed or determined by the Engineer

in accordance with Sub-Clause 3.5 [Determinations] and shall be included in the Contract Price.

11.9 Performance Certificate

Performance of the Contractor's obligations shall not be considered to have been completed until the Employer has issued the Performance Certificate to the Contractor, stating the date on which the Contractor completed his obligations under the Contract.

The Employer shall issue the Performance Certificate within 28 days after the latest of the expiry dates of the Defects Notification Periods, or as soon thereafter as the Contractor has supplied all the Contractor's Documents and completed and tested all the Works, including remedying any defects.

Only the Performance Certificate shall be deemed to constitute acceptance of the Works.

11.10 Unfulfilled Obligations

After the Performance Certificate has been issued, each Party shall remain liable for the fulfilment of any obligation which remains unperformed at that time. For the purposes of determining the nature and extent of unperformed obligations, the Contract shall be deemed to remain in force.

11.11 Clearance of Site

Upon receiving the Performance Certificate, the Contractor shall remove any remaining Contractor's Equipment, surplus material, wreckage, rubbish and Temporary Works from the Site.

If all these items have not been removed within 28 days after the Employer receives a copy of the Performance Certificate, the Employer may sell or otherwise dispose of any remaining items. The Employer shall be entitled to be paid the costs incurred in connection with, or attributable to, such sale or disposal and restoring the Site.

Any balance of the moneys from the sale shall be paid to the Contractor. If these moneys are less than the Employer's costs, the Contractor shall pay the outstanding balance to the Employer.

12. Measurement and Evaluation

12.1 Works to be Measured

The Works shall be measured, and valued for payment, in accordance with this Clause.

Whenever the Engineer requires any part of the Works to be measured, reasonable notice shall be given to the Contractor's Representative, who shall:

(a) promptly either attend or send another qualified representative to assist the Engineer in making the measurement, and

(b) supply any particulars requested by the Engineer.

If the Contractor fails to attend or send a representative, the measurement made by (or on behalf of) the Engineer shall be accepted as accurate.

Except as otherwise stated in the Contract, wherever any Permanent Works are to be measured from records, these shall be prepared by the Engineer. The Contractor shall, as and when requested, attend to examine and agree the records with the Engineer, and shall sign the same when agreed. If the Contractor does not attend, the records shall be accepted as accurate.

If the Contractor examines and disagrees the records, and/or does not sign them as agreed, then the Contractor shall give notice to the Engineer of the

respects in which the records are asserted to be inaccurate. After receiving this notice, the Engineer shall review the records and either confirm or vary them. If the Contractor does not so give notice to the Engineer within 14 days after being requested to examine the records, they shall be accepted as accurate.

12.2 Method of Measurement

Except as otherwise stated in the Contract and notwithstanding local practice:

(a) measurement shall be made of the net actual quantity of each item of the Permanent Works, and

(b) the method of measurement shall be in accordance with the Bill of Quantities or other applicable Schedules.

12.3 Evaluation

Except as otherwise stated in the contract, the Engineer shall proceed in accordance with sub clause 3.5 (Determinations) to agree or determine the contract price by evaluating each item of work, applying the measurement agreed or determined in accordance with the above sub clause 12.1 and 12.2 and the appropriate rate or price for the item.

For each item of work, the appropriate rate or price for the item shall be the rate or price specified for such item in the contract or, if there is no such item, specified for similar work.

12.3.1 However, a new rate or price shall be appropriate for an item of work if :

(a) (i) the measured quantity of the item is increased by more than 50% from the quantity of this item in the Bill of Quantities or the Schedule,

(ii) this increase in quantity multiplied by specified rate for this item in the Bill of Quantities or the Schedule, exceeds 0.25% ofthe Accepted Contract Amount,

(iii) New rates in case of increase in quantity of the agreement items shall be applicable to the increase in quantities beyond the specified percentages under 12.3.1 (a) (i) & (ii) above, and

(iv) this item is not specified in the contract as a " fixed rate item";

OR

(b) (i) the work is instructed under clause 13[Variations and Adjustments],

(ii) no rate or price is specified in the contract for this item, and

(iii) no specified rate or price is appropriate because the item of work is not of similar character, or is not executed under similar conditions, as any item in the contract.

12.3.2

(i) Each new rate or price for item(s) as described in sub paragraph 12.3.1 (a) above shall be derived from an assessment of the reasonable cost of executing the work with an additional element of 15% towards overheads and profit of the Contractor.

(ii) Each new rate or price for item(s) as described in sub paragraph 12.3.1

(b) above shall be derived from an assessment of the reasonable cost of executing the work with an additional element of 15% towards overheads and profit of the Contractor, subject to the condition that such item(s) as described in sub paragraph 12.3.1 (b) above is/are not available in the "Standard Bill of Quantities of RVNL".

(iii) In case item(s) as described in sub paragraph 12.3.1 (b) above is/are available in the "Standard Bill of Quantities of RVNL (updated upto 28 days prior to deadline for submission of bids)", new rate or price for such items shall be the rate as available in the "Standard Bill of Quantities of RVNL (updated upto 28 days prior to deadline for submission of bids)", modified by the percentage above/below accepted in this contract for the respective schedule and also price variation shall be applicable in the same manner as applicable to items specified in the contract.

(iv) The assessment of reasonable cost of executing the work (except over heads and profit which shall be 15%) shall be arrived at based on the prevailing rates and by taking guidance from the following documents. The priority of the documents shall be in accordance with the following sequence:

a) Analysis of Unified SOR of Indian Railway;

b) Analysis issued by MORTH;

c) Analysis of Delhi Schedule of Rates issued by CPWD;

d) Market analysis.

(v) If the final rate decided by the competent authority as per RVNL SOP is not acceptable to the contractor, the contractor will be bound to execute the work at the rates as decided by the competent authority of RVNL but he may refer the dispute in rate for settlement as per provisions of clause 20 of General Conditions of Contract.

12.3.3 Until such time as an appropriate rate or price is agreed or determined, the Engineer shall make the Interim payment at the rate of 80% of the rate proposed by him and accepted by the Project Director (concerned CPM/GM in charge of the project).

12.4 Omissions Whenever the omission of any work forms part (or all) of a Variation, the value of which has not been agreed, if:

(a) the Contractor will incur (or has incurred) cost which, if the work had not been omitted, would have been deemed to be covered by a sum forming part of the Accepted Contract Amount;

(b) the omission of the work will result (or has resulted) in this sum not forming part of the Contract Price; and

(c) this cost is not deemed to be included in the evaluation of any substituted work;

then the Contractor shall give notice to the Engineer accordingly, with supporting particulars. Upon receiving this notice, the Engineer shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine this cost, which shall be included in the Contract Price.

13. Variations and Adjustments

13.1 Right to Vary

Variations may be initiated by the Employer at any time prior to issuing the Taking-Over Certificate for the Works, either by an instruction or by making a request to the Contractor to submit a proposal.

The Contractor shall execute and be bound by each Variation till the price does not exceed 50% of the agreemental value as specified in letter of acceptance / original agreement. For variation beyond the above the contractor shall be bound to execute, unless the Contractor promptly gives notice to the Engineer stating (with supporting particulars) that the Contractor cannot readily obtain the Goods required for the Variation. Upon receiving this notice, the Engineer shall cancel, confirm or vary the instruction.

Each Variation may include:

(a) changes to the quantities of any item of work included in the Contract,

(b) changes to the quality and other characteristics of any item of work,

(c) changes to the levels, positions and/or dimensions of any part of the Works,

(d) omission of any work unless it is to be carried out by others,

(e) any additional work, Plant, Materials or services necessary for the Permanent Works, including any associated Tests on Completion, boreholes and other testing and exploratory work, or

(f) changes to the sequence or timing of the execution of the Works.

The Contractor shall not make any alteration and/or modification of the Permanent Works, unless and until the Engineer instructs or approves a Variation.

13.2 Value Engineering

The Contractor may, at any time, submit to the Engineer a written proposal which (in the Contractor's opinion) will, if adopted, (i) accelerate completion, (ii) reduce the cost to the Employer of executing, maintaining or operating the Works, (iii) improve the efficiency or value to the Employer of the completed Works, or (iv) otherwise be of benefit to the Employer.

The proposal shall be prepared at the cost of the Contractor and shall include the items listed in Sub-Clause 13.3 [Variation Procedure].

If a proposal, which is approved by the Engineer, includes a change in the design of part of the Permanent Works, then unless otherwise agreed by both Parties:

(a) the Contractor shall design this part,

(b) sub-paragraphs (a) to (d) of Sub-Clause 4.1 [Contractor's General Obligations] shall apply, and

(c) if this change results in a reduction in the contract value of this part, the Engineer shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine a fee, which shall be included in the Contract Price. This fee shall be half (50%) of the difference between the following amounts:

(i) such reduction in contract value, resulting from the change, excluding adjustments under Sub-Clause 13.7 [Adjustments for Changes in Legislation] and Sub-Clause 13.8 [Adjustments for

Changes in Cost],and

(ii) the reduction (if any) in the value to the Employer of the varied works, taking account of any reductions in quality, anticipated life or operational efficiencies.

However, if amount (i) is less than amount (ii), there shall not be a fee.

13.3 Variation Procedure

If the Engineer requests a proposal, prior to instructing a Variation, the Contractor shall respond in writing as soon as practicable, either by giving reasons why he cannot comply (if this is the case) or by submitting:

(a) a description of the proposed work to be performed and a programme for its execution,

(b) the Contractor's proposal for any necessary modifications to the programme according to Sub-Clause 8.3 [Programme] and to the Time for Completion, and

(c) the evaluation of the Variation shall be as specified in Clause 12.3 Evaluation.

The Engineer shall, as soon as practicable after receiving such proposal (under Sub-Clause 13.2 [Value Engineering] or otherwise), respond with approval, disapproval or comments. The Contractor shall not delay any work whilst awaiting a response.

Each instruction to execute a Variation, with any requirements for the recording of Costs, shall be issued by the Engineer to the Contractor, who shall acknowledge receipt.

Each Variation shall be evaluated in accordance with Clause 12 [Measurement and Evaluation], unless the Engineer instructs or approves otherwise in accordance with this Clause.

13.4 Payment in Applicable Currencies

If the Contract provides for payment of the Contract Price in more than one currency, then whenever an adjustment is agreed, approved or determined as stated above, the amount payable in each of the applicable currencies shall be specified. For this purpose, reference shall be made to the actual or expected currency proportions of the Cost of the varied work, and to the proportions of various currencies specified for payment of the Contract Price.

13.5 Provisional Sums

Each Provisional Sum shall only be used, in whole or in part, in accordance with the Engineer's instructions, and the Contract Price shall be adjusted accordingly. The total sum paid to the Contractor shall include only such amounts, for the work, supplies or services to which the Provisional Sum relates, as the Engineer shall have instructed. For each Provisional Sum, the Engineer may instruct:

(a) work to be executed (including Plant, Materials or services to be supplied) by the Contractor and valued under Sub-Clause 13.3 [Variation Procedure]; and/or

(b) Plant, Materials or services to be purchased by the Contractor, from a nominated Subcontractor (as defined in Clause 5 [Nominated Subcontractors]) or otherwise; and for which these shall be included in the Contract Price:

(i) the actual amounts paid (or due to be paid) by the Contractor, and

(ii) a sum for overhead charges and profit, calculated as a percentage

of these actual amounts by applying the relevant percentage rate (if any) stated in the appropriate Schedule. If there is no such rate, the percentage rate stated in the Contract Data shall be applied.

The Contractor shall, when required by the Engineer, produce quotations, invoices, vouchers and accounts or receipts in substantiation.

13.6 Day work

For work of a minor or incidental nature, the Engineer may instruct that a Variation shall be executed on a daywork basis. The work shall then be valued in accordance with the Daywork Schedule included in the Contract, and the following procedure shall apply. If a Daywork Schedule is not included in the Contract, this Sub-Clause shall not apply.

Before ordering Goods for the work, the Contractor shall submit quotations to the Engineer. When applying for payment, the Contractor shall submit invoices, vouchers and accounts or receipts for any Goods.

Except for any items for which the Daywork Schedule specifies that payment is not due, the Contractor shall deliver each day to the Engineer accurate statements in duplicate which shall include the following details of the resources used in executing the previous day's work:

(a) the names, occupations and time of Contractor's Personnel,

(b) the identification, type and time of Contractor's Equipment and Temporary Works, and

(c) the quantities and types of Plant and Materials used.

One copy of each statement will, if correct, or when agreed, be signed by the Engineer and returned to the Contractor. The Contractor shall then submit priced statements of these resources to the Engineer, prior to their inclusion in the next Statement under Sub-Clause 14.3 [Application for Interim Payment Certificates].

13.7 Adjustments for Changes in Legislation

The Contract Price shall be adjusted to take account of any increase or decrease in Cost resulting from a change in the Laws of the Country (including the introduction of new Laws and the repeal or modification of existing Laws) or in the judicial or official governmental interpretation of such Laws, made after the Base Date, which affect the Contractor in the performance of obligations under the Contract.

If the Contractor suffers (or will suffer) delay and/or incurs (or will incur) additional Cost as a result of these changes in the Laws or in such interpretations, made after the Base Date, the Contractor shall give notice to the Engineer and shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:

(a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion], and

(b) payment of any such Cost, which shall be included in the Contract Price.

After receiving this notice, the Engineer shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these matters.

In case there is a decrease in cost as a result of changes of Law by Legislation after the Base Date, the Engineer shall proceed in accordance with Sub Clause 3.5 (determination) to agree or determine these matters without waiting for Contractor's / Employer's Notice.

Notwithstanding the foregoing, the Contractor shall not be entitled to such an extension of time if the same shall already have been taken into account in determining an extension and such Cost shall not be separately paid if the same shall already have been taken into account in the indexing of any inputs to the table of adjustment data in accordance with the provisions of Sub-Clause 13.8.

13.8 Adjustment for changes in cost.

(A) PRICE ADJUSTMENT

The amounts payable to the Contractor and valued at base rates and prices pursuant to Sub-Clause 14.3 (a) hereof shall be adjusted in respect of the rise or fall in the indexed costs for labour, Contractor's Equipment and plant, materials and other inputs to the Works, by the addition or subtraction of the amounts determined by the formulae prescribed in this clause.

(B) OTHER CHANGES IN COST

To the extent that full compensation for any rise or fall in the costs to the Contractor is not covered by the provisions of this or other Clauses in the Contract, the unit rates and prices included in the Contract shall be deemed to include amounts to cover the contingency of such other rise or fall in costs.

(C): ADJUSTMENT FORMULAE

Contract price shall be adjusted for increase or decrease in rates and price of labour, materials fuels and lubricants in accordance with the

following principles and procedures as per formulae given below. The amount certified in each payment certificate is adjusted by applying respective price adjustment factor to the payment amounts due in each currency:

a. Price adjustment shall apply only for work carried out within the stipulated time or extensions granted by the Employer and shall not apply to work carried out beyond the stipulated time: price adjustment for extensions for reasons attributable to the Contractor, shall be paid in accordance with sub-clause 13.8 (H)

b. Price adjustment shall be calculated for the local and foreign components of the payment for the work done as per formulae given below; and

c. Following expressions and meanings are assigned to the work done during each month:

R = Total value of work done during the month. It would include the value of materials on which secured advance has been granted, if any during the month less the value of materials in respect of which the secured advance has been recovered, if any, during the month. This excludes the cost of work on items for which rates were fixed under variations clause (12 and 13) for which the escalation will be regulated as mutually agreed at the time of fixation of rate.

R_l = Portion of 'R' as payable in Indian Rupees

R_f = Portion of 'R' as payable in Foreign currency (at fixed exchange rates)

= R_l+R_F

(i) Adjustment for Labour Component

Price adjustment for increase or decrease in the cost due to labour shall be paid in accordance with the following formula:

$V_L = P_l / 100 \times R_l \times (L_1 - L_0) / L_0$

V_L = Increase or decrease in the cost of work during the month under consideration due to changes in labour cost.

L_0 = Consumer price index Number for industrial workers All India – published in RBI (Reserve Bank of India) Bulletin in the month on the day 28 days prior to the closing date of submission of Bids.

L_1= Consumer price index Number for industrial workers All india- Published in RBI (Reserve Bank of india) Bulletin in the month on the day 28 days prior to the last day of the period to which a particular interim payment certificate is related.

P_l= Percentage of Labour component of the work.

(ii) Adjustment for Cement Component

Price adjustment for increase or decrease in the cost of cement procured by the contractor shall be paid in accordance with the following formula:

$V_c = P_c / 100 \text{ X } R_I \text{ X } (C_1-C_0) / C_0$

V_c = Increase or decrease in the cost of work during the month under consideration due to changes in the rates for cement.

C_0 = The index Number of Wholesale Prices in India by Groups and Sub Groups (Averages) for 'Manufacture of cement, lime and plaster'– published in RBI (Reserve Bank of India) Bulletin in the month on the day 28 days prior to the closing date of submission of Bids.

C_1 = The index Number of Wholesale Prices in India by Groups and Sub Groups (Averages) for 'Manufacture of cement, lime and plaster' – published in RBI (Reserve Bank of India) Bulletin in the month on the day 28 days prior to the last day of the period to which a particular interim payment certificate is related.

P_c = Percentage of Cement component of the work.

iii) Adjustment for Steel Component

Price adjustment for increase or decrease in the cost of Steel procured by the contractor under different schedules of BOQ shall be paid in accordance with the following formula:

Formulae-I (for all schedules of BOQ except schedule-2 C):

$V_s = P_s / 100 \text{ X } R_I \text{ X } (S_1-S_0) / S_0$

V_s = Increase or decrease in the cost of work on the date under consideration due to changes in the rates for Steel.

S_0 =The average price of

(i) 8mm diameter Fe 500 TMT reinforcement bar (*)

(ii) 65x65x6 mm angle IS 2062 E 250A SK

(iii) PM plates above 10-20 mm IS 2062 E 250A SK

(iv) Channel 200x75 mm IS 2062 E 250A SK

as per latest rate list of SAIL's ex-works / ex-plant base price as available on SAIL's website "www.sail.co.in" for the month on the day 28 days prior to the closing date of submission of bids and duly excluding any excise duty or GST included in the available price so as to bring S_0 and S_1 on same base.

S_1 = The average price of

(i) 8mm diameter Fe 500 TMT reinforcement bar (*)

(ii) 65x65x6 mm angle IS 2062 E 250A SK

(iii) PM plates above 10-20 mm IS 2062 E 250A SK

(iv) Channel 200x75 mm IS 2062 E 250A SK

as per latest rate list of SAIL's ex-works / ex-plant base price as available on SAIL's website "www.sail.co.in" for month on the day 28 days prior to the last day of the period to which a particular interim payment certificate is related and duly excluding any excise duty or GST included in the available price so as to bring S_0 and S_1 on same base.

P_s = Percentage of Steel component of the work.

Formulae-II (for schedule-2 C of BOQ):

$V_s = P_s / 100 \text{ X } R_I \text{ X } (S_1-S_0) / S_0$

V_s = Increase or decrease in the cost of work on the date under consideration due to changes in the rates for Steel.

S_0 = The price of 8mm diameter Fe 500 TMT reinforcement bar (*) as per latest rate list of SAIL's ex-works / ex-plant base price as available on SAIL's website "www.sail.co.in" for the month on the day 28 days prior to the closing date of submission of bids and duly excluding any excise duty or GST included in the available price so as to bring S_0 and S_1 on same base.

S_1 = The price of 8mm diameter Fe 500 TMT reinforcement bar (*) as per latest rate list of SAIL's ex-works / ex-plant base price as available on SAIL's website "www.sail.co.in" for month on the day 28 days prior to the last day of the period to which a particular interim payment certificate is related and duly excluding any excise duty or GST included in the available price so as to bring S_0 and S_1 on same base.

P_s = Percentage of Steel component of the work.

(*) **Note: In case the rate of 8mm diameter Fe 500 TMT reinforcement bar is not available from the source specified above, the rate of Fe 415 may be used in place of Fe 500 for calculating the Price Adjustment for Steel component. However, only one grade i.e. either Fe 500 or Fe 415 of reinforcement bar be used for calculation of S_0 and S_1 for a particular bill.**

(iv) Adjustment for Plant and Machinery and Spares Component

Price adjustment for increase or decrease in the cost of Plant and Machinery spares procured by the contractor shall be paid in accordance with the following formula:

$V_p = P_p / 100 \text{ X } R_I X (P_1-P_0) / P_0$

V_p = Increase or decrease in the cost of work during the month under consideration due to changes in the rates for Plant and Machinery spares.

P_0 = The index Number of Wholesale Prices in India by Groups and Sub Groups (Averages) for 'Manufacture of machinery for mining, quarrying and construction'– published in RBI (Reserve Bank of India) Bulletin in the month on the day 28 days prior to the closing date of submission of Bids.

P_1 = The index Number of Wholesale Prices in India by Groups and Sub Groups (Averages) for 'Manufacture of machinery for mining, quarrying and construction' – published in RBI (Reserve Bank of India) Bulletin in the month on the day 28 days prior to the last day of the period to which a particular interim payment certificate is related.

P_p = Percentage of Plant and Machinery spares component of the work.

(v) Adjustment for Fuel and Lubricants

Price adjustment for increase or decrease in the cost of POL(fuel and lubricants) shall be paid in accordance with the following formula:

$V_f = P_f / 100 \text{ X } R_I X (F_1-F_0) / F_0$

V_f = Increase or decrease in the cost of work on the date under consideration due to changes in the rates for Fuel and lubricants.

F_0 = The official price of High-Speed Diesel (HSD) available on the official website of Indian Oil Corporation, applicable on the day 28 days prior to the closing date of submission of Bids at the state capital specified in the contract data.

F_1 = The official retail price of High-Speed Diesel (HSD) available on the official website of Indian Oil Corporation, applicable on the day 28 days prior to the last day of the period to which a particular interim payment certificate is related at the state capital specified in contract data.

P_f = Percentage of Fuel and Lubricants component of the work.

(vi) Adjustment for Other Non Ferrous Component

Price adjustment for increase or decrease in the cost of Other Non Ferrous metal procured by the contractor shall be paid in accordance with the following formula:

$V_{NF} = P_{NF} / 100 \times R_I \times (NF_1 - NF_0) / NF_0$

V_{NF} = Increase or decrease in the cost of work during the month under consideration due to changes in the rates for Other Non Ferrousmetal.

NF_0 = The index Number of Wholesale Prices in India by Groups and Sub Groups (Averages) for 'Manufacture of non-ferrous metals incl. precious metals' – published in RBI (Reserve Bank of India) Bulletin in the month on the day 28 days prior to the closing date of submission of Bids.

NF_1 = The index Number of Wholesale Prices in India by Groups and Sub Groups (Averages) for 'Manufacture of non-ferrous metals incl. precious metals' – published in RBI (Reserve Bank of India) Bulletin in the month on the day 28 days prior to the last day of the period to which a particular interim payment certificate is related.

P_{NF} = Percentage of Other Non Ferrous metal component of the work.

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(vii) Adjustment for Other local Materials

Price adjustment for increase or decrease in the cost of local materials other than Cement and Steel, Plant Machinery &Spares, POL and Other Non Ferrous Metals procured by the contractor shall be paid in accordance with the following formula:

$V_m = P_m / 100 \times R_i \times (M_1 - M_0) / M_0$

V_m = Increase or decrease in the cost of work during the month under consideration due to changes in the rates for local material other than cement, steel, plant spares

and POL.

M_0 = The index Number of Wholesale Prices in India by Groups and Sub Groups (Averages) for All-Commodities-published in RBI (Reserve Bank of India) Bulletin in the month on the day 28 days prior to the closing date of submission of Bids.

M_1 = The index Number of Wholesale Prices in India by Groups and Sub Groups (Averages) for All -Commodities published in RBI (Reserve Bank of India) Bulletin in the month on the day 28 days prior to the last day of the period to which a particular interim payment certificate is related

Pm =Percentage of local material component (other than cement, steel, plant, spares and POL) of the work.

(viii) <u>Price Variation Clause for Contact and Catenary Wires</u>

The Price payable shall be subject to adjustment, up or down, in accordance with the following formula:

$$\mathbf{P_1 = Po + (L_2 - L_1)}$$

Po = Quoted ex-works price of contact/catenary wire.

L_1 = Average LME cash settlement quotation for Copper Grade A, 60 days prior to the date of opening of the tender.

L_2 = L_2 will be minimum of (i) & (ii) given below:-

(i) LME rates prevailing on 90 days prior to the date of offering for inspection of each lot.

(ii) Invoiced rate in invoice of actual imports.

Notes:

1. For prevailing LME rates, certified copy of LME rate downloaded from official LME website will be accepted as documentary evidence.
2. LME rate in L_1 & L_2 will be converted to Indian Rupees at SBI's Selling Bills rate of exchange on the date 30 days prior to the date of opening of tender and date of delivery respectively.
3. In case index/price data are not available for particular date due to any reason then the index/price data shall be calculated by drawing a graph of Ist working day before and Ist working day after that particular date. As per graphic line price data arrived at on that particular date may be taken. .

(ix) Adjustment for Fabricated and Galvanized Steel Structures:

(Item Nos. as specified in special conditions). The price adjustment of these items shall be paid as follows:

Price Variation Clause for Fabricated and Galvanized Steel Structures for Railway Electrification Works

The Price payable shall be subject to adjustment, up or down, in accordance with the following formula:

$$P = \frac{P_o}{100}\left[11 + 57\frac{SBLR}{SBLR_o} + 09\frac{Zn}{Zn_o} + 23\frac{W}{W_o}\right]$$

P = Price payable as adjusted in accordance with the above formula.

P_o = Price quoted

$SBLR_o$ = Price of Steel Blooms - Retail (refer notes)

This price is as applicable on the 1st working day of the month, one month prior to the deadline for submission of bids.

Zn_o = Price of electrolytic high grade zinc (refer notes).

This price is as applicable on the 1st working day of the month, one month prior to the deadline for submission of bids.

W_o = All India average consumer price index number for industrial workers, as published by the Labour Bureau, Ministry of Labour, Government of India(Base : 2001=100) (Refer notes). This index number is as applicable on the first working day of the month, three months prior to the deadline for submission of bids.

(For example, if date of tendering falls in May 2014, the applicable prices of Steel Blooms - Retail ($SBLR_o$) and electrolytic high grade zinc (Zn_o) should be for the month of April 2014 and all India average consumer price index number (W_o) should be for the month of February 2014.

The above prices and indices are as published by IEEMA vide circular reference number IEEMA (PVC)/TLT/2014one month prior to the deadline for submission of bids*.)*

SBLR= Price of Steel Blooms-Retail (refer notes).

This price is as applicable on the 1st working day of the month, two months prior to the date of delivery.

Zn=Prices of electrolytic high grade zinc (refer notes).

This price is as applicable on the first working day of the month,

two months prior to the date of delivery.

W = All India average consumer price index number for industrial workers, as published by the Labour Bureau, Ministry of Labour, Govt of India. (Base 2001=100)(refer notes).

This Index number is as applicable on the first working day of the month, four month prior to the date of delivery.

(For example, if date of delivery falls in December 2014, the applicable prices of steel bloom – Retail (SBLR) and Zinc (Zn) should be for the month of October 2014 and all India average consumer price index number (W) should be for the month of August 2014.

The date of delivery is the date on which transmission line towers are notified as being ready for inspection/dispatch (in the absence of such notification, the date of manufacturer's dispatch note is to be considered as the date of delivery) or the contracted delivery date (including any agreed extension thereto), whichever is earlier.)

Notes:

(a) All prices of raw materials are exclusive of GST and any other taxes, duties, levies etc

(b) All prices are as on first working day of the month.

(c) The details of prices are as under:

1) The prices of Steel Blooms are the average Retail price of Blooms of size 150mm x 150mm of all cities in Rs/MT as published by Joint Plant Committee (JPC), Kolkata.

2) The price of electrolytic high grade zinc (in Rs/MT) is ex-works price as quoted by the primary producer.

3) Cost weight age of re-rolling / conversion charges is included in labor weightage (W)

(x) Price Variation Clause for Traction Power Transformer complete with all accessories and components

The Price payable shall be subject to adjustment, up or down, in accordance with the following formula:

$$P = \frac{P_o}{100}\left[10 + 29\frac{C}{C_o} + 27\frac{ES}{ES_o} + 7\frac{IS}{IS_o} + 5\frac{IM}{IM_o} + 7\frac{TO}{TO_o} + 15\frac{W}{W_o}\right]$$

P = Price payable as adjusted in accordance with the above formula

P_o =Price quoted/Confirmed

C_o =Average LME settlement price of copper wire bars (refer notes)

This price is as applicable for the month, ONE month prior to the date of bid opening.

ES_o = Price of CRGO Electrical Steel Lamination (refer notes)

This price is as applicable on the 1st working day of the month, ONEmonth prior to the dead line for submission of bids.

IS_o = Average price of steel plates 10 mm thick (refer notes).

This price is as applicable on the 1st working day of the month,ONE month prior to the dead line for submission of bids.

IM_o=Price of Insulating Materials (refer notes).

This price is as applicable on the 1st working day of the month, one month prior to the dead line for submission of bids.

TO_o = Price of Transformer Oil (Refer notes)

This price is as applicable on the 1st working day of the month, ONE month prior to the dead line for submission of bids.

W_o = All India average Consumer price index Number for industrial workers, as published by the labour bureau, ministry of labour, Govt. of India(base 2001 =100)

This index number is as applicable on the 1st working day of the month THREE months prior to the dead line for submission of bids.

(For example, if date of bid opening falls in June 2015, applicable prices of Copper Wire Bars (C_o),Transformer Oil (TO_o), Steel Plates 10 mm thick (IS_o), CRGO Electrical Steel Laminations (ES_o) and Insulating material (IM_o) should be as on 1st May 2015 and all India average consumer price index no. (W_o) should be for the month of March 2015.

The above prices and indices are as published by IEEMA vide circular reference number IEEMA (PVC)/PWR_TRF/-/-ONE month prior to dead line for submission of bids.

C = Average LME settlement price of copper wire bars (refer notes).

This price is as applicable for the month, TWO months prior

to the date of delivery.

ES = Price of CRGO Electrical Steel Lamination (refer notes).

This price is as applicable on the 1st working day for the month, TWO months prior to the date of delivery

IS = Average price of steel plates 10 mm thick (refer notes).

This price is as applicable on the 1st working day of the month, ONE month prior to the date of delivery.

IM= Price of Insulating Materials (refer notes).

This price is as applicable on the 1st working day of the month, TWO months prior to the date of delivery.

TO= Price of transformer oil (Refer notes)

This price is as applicable on the 1st working day of the month, ONE month prior to the date of delivery

W = All India average Consumer price index Number for industrial workers, as published by the labour bureau, ministry of labour, Govt. of India(base 2001 =100)

This index number is as applicable on the 1st working day of the month THREE months prior to the date of delivery.

(For example, if date of delivery in terms of clause given below falls in December 2015, applicable prices of Copper Wire Bars (C), Insulating Material (IM), CRGO Electrical Steel Lamination (ES) should be as on 1st October 2015 and Transformer Oil (TO), Plates 10 mm thick (IS) should be 1st November 2015and All India average Consumer price index Number (W) should be for the month of September 2015.

The date of delivery is the date on which the transformer is notified as being ready for inspection/dispatch (in the absence of such notification, the date of manufacturer's dispatch note is to be considered as the date of delivery) or the contracted delivery date (including any agreed extension thereto), whichever is earlier.

Notes:

(a) All prices of raw materials are exclusive of GST and any other taxes, duties, leviesetc. Transformers manufacturers import major raw materials like copper, CRGO steel sheets and Plates etc. The landed cost of these imported raw materials includes applicable custom duty but exclusive of GST and any other taxes, duties, levies.

(b) All prices are as on first working day of the month.

(c) The details of prices are as under:

1) The LME price of Copper Wire Bars (in Rs/MT) is the LME average settlement price of Copper Wire Bars converted into Indian Rupees with applicable average exchange rate of SBI of the month. This price is the landed cost, inclusive of applicable customs duty only but exclusive of countervailing duty.

2) The price of CRGO is the price of CRGO Electrical Steel Lamination in Rs./MT suitable for transformers of ratings above 10MVA or Voltage above 33KV up to 400 KV.

3) The price of steel is the average retail price of steel plates 10 mm thick as published by Joint Plant Committee (JPC) in Rs./MT as on 1st working day of the month.

4) The price of Insulating materials (in Rs./Kg) of pre-compressed pressboards of size 10 mm thick, 3200 mm x 4100 mm is the average C&F price in free currency per MT converted into Indian Rupees with applicable exchange rates prevailing as on 1st working day of the month as quoted by primary suppliers. This price is the landed cost, inclusive of applicable customs duty only but exclusive of countervailing duty.

5) The price of Transformer Oil (in Rs./K.Ltr.) is the average price on ex-refinery basis as quoted by primary producers for supply in drums.

(xi) PRICE VARIATION CLAUSE FOR SIGNALING CABLE

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

For Signaling Copper Cables:
P= Po+CuF (Cu-Cuo) + CCFcu(CC-CCo) + FeF (Fe-Feo)

For Aluminum Power Cables:
P= Po+AlF (Al-Alo) + CCFAl(CC-CCo) + FeF (Fe-Feo)

Where,

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

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

CuF= Variation factor for Copper

Cuo= Price of copper Rod in Rs. Per MT

CCFCu= Variation factor for PVC Compound for Copper Signaling cable

CCo= Price of PVC Compound in Rs. Per MT

AlF= Variation factor for Aluminum

Alo= Price of EC grade LME Aluminum rods (Properzi rods) in Rs. Per MT.

CCFAl = Variation factor for PVC Compound for Aluminum power cable

FeF= Variation factor for Steel

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

(Prices per MT for Cuo, CCo, Feo, Alo as applicable on the 1st working day of the month, one month prior to the deadline for submission of bids. The above prices and indices are as published by IEEMA vide circular reference no. IEEMA (PVC) /CABLE --/--/-- one month prior to the deadline for submission of bids.)

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

CC= Price of PVC Compound in Rs. Per MT.

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

Al = Price of EC grade LME Aluminum rods (Properzi rods) in Rs. Per MT.

(Prices per MT for Cu, CC, Fe, Al as prevailing on 1st working day of the calendar month covering the date One month prior to the date of inspection call letter will be applicable for the calculation of updated price.The above prices and indices are as published by IEEMA vide circular reference no. IEEMA (PVC) /CABLE --/--/-- one month prior to the date of inspection.)

The value of variation factors for copper, steel and PVC Compound are different for different sizes of signaling cables. Accordingly, the PVC formula for some of the types of signaling cable is as given under:-

Underground Railway Signaling Cable unscreened and armoured copper conductor

(i) Size 30 C x 1.5 sq.mm.
P=Po+0.391(Cu-Cuo)+0.557(CC-CCo)+0.425(Fe-Feo)

For armouring, price of steel flat strip of size 4mmx0.8mm is to be taken into consideration.

(ii) Size 24C x 1.5 sq.mm
P= Po+0.313(Cu-Cuo)+ 0.481 (CC-CCo)+0.398(Fe-Feo)

For armouring, value of steel flat strip of size 4mmx0.8mm is to be taken into consideration.

(iii) Size 19C x 1.5 sq.mm
P= Po+0.248(Cu-Cuo) + 0.395(CC-CCo)+0.343(Fe-Feo)

For armouring, value of steel flat strip of size 4mmx0.8mm is to be taken into consideration.

(iv) Size 12C x 1.5 sq.mm
P=Po+0.157(Cu-Cuo) + 0.277(CC-CCu)+0.289(Fe-Feo)

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

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

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

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

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

(vii) Size 4Cx1.5 sq.mm
P=Po+0.052(Cu-Cuo)+0.152(CC-CCo)+0.277(Fe-Feo)

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

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

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

(ix) Size 12C x 2.5 sq.mm
P= Po+0.282 (Cu-Cuo)+0.371 (CC-CCo)+0.342 (Fe-Feo)

For armouring, value of steel flat stripof size 4mmx0.8mm is to be taken into consideration.

(x) Size 2C x 2.5 sq.mm

P= Po+0.047 (Cu-Cuo)+0.139 (CC-CCo)+0.277 (Fe-Feo)

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

(xi) Size 2C x 25 sq.mm PVC insulated, armoured, Aluminum power cable

P= Po+0.146 (Al-Alo)+0.303 (CC-CCo)+0.306 (Fe-Feo)

For armouring, value of steel flat stripof size 4mmx0.8mm is to be taken into consideration.

For the remaining varieties of signaling cables, the formula shall be the same as in use on Indian railways.

(xii) Adjustment for Foreign Currency Component

(for each of the foreign currencies in which the contract price is payable)

a. The foreign currency component of each payment which is convertible into foreign currency at fixed exchange rate shall be adjusted in accordance with the following formula:

$VF_c = 0.85 \times R_f \times (Fe_1-Fe_0) / Fe_0$

VF_c = Increase or decrease in the cost of work payable due to changes in the cost of foreign input.

Fe_0 = the index applicable for the foreign input(plant, material, engineer's salary etc. as the case may be) on the day 28 days prior to the date of submission of Bids, as published in the country of origin.

Fe_1 = corresponding index on the day 28 days prior to the last day of the period to which a particular interim payment certificate is related (average index in case indices are published at lesser intervals).

a. The bidder shall, in his tender, indicate the foreign input, (plant, material, engineer's salary etc.) and appropriate index, the source of which shall be a Government or Public Organization. The bidder shall also attach specimens of the publications of the last 12 months for

information of the Employer. If this index is not acceptable to the Employer, then he will specify as alternative index and the source of publishing of that index.

b. If the bidder has requested payment in more than one foreign currency, R_f shall be suitably broken up and the formula applied separately to each currency component by taking into account and corresponding indices(index and currency belonging to the same country).

c. The currency of foreign exchange payment and the index shall belong to the same country.

(D) If the contractor changes the country of origin of the source of supply of any input to the works, he shall immediately notify the Engineer who shall modify the price adjustment provisions subsequent to such change to reflect the relevant cost index from the actual country of origin of the input.

(E) If the currency in which the Contract price is expressed is different from the currencies of the sources of the relevant indices, the Engineer shall determine the correction to be applied in calculating the Price Adjustment Factor formula viii(a) in order to avoid distortions in the amount of price adjustment. Such correction shall be applied to the increment of price fluctuation in the base costs of the respective inputs and shall correspond to the ratio of the exchange rates between the respective currencies of the date of base indices and the date of current indices as defined in sub-clause viii(a).

(F) SOURCES OF INDICES

The sources of Indices for the foreign currency portion of the Contract (R_F) not stated in Sub-Clause 13.8 (C) shall be those as listed in the Contract Data, as approved by the Employer.

(G) BASE, CURRENT AND PROVISIONAL INDICES:

BASE, CURRENT AND PROVISIONAL INDICES, THE BASE COST INDICES OR PRICES SHALL BE THOSE PREVAILING ON THE DAY 28 DAYS PRIOR TO THE CLOSING DATE FOR SUBMISSION OF BIDS. CURRENT INDICES OR PRICES SHALL BE THOSE PREVAILING ON THE DAY 28 DAYS PRIOR TO LAST DAY OF THE PERIOD TO WHICH A PARTICULAR INTERIM PAYMENT CERTIFICATE IS RELATED. IF AT ANY TIME THE CURRENT INDICES ARE NOT AVAILABLE, PROVISIONAL INDICES AS DETERMINED BY

THE ENGINEER WILL BE USED, SUBJECT TO SUBSEQUENT CORRECTION OF THE AMOUNTS PAID TO THE CONTRACTOR WHEN THE CURRENT INDICES BECOME AVAILABLE. THE INDEX NUMBERS OF VARIOUS GROUPS AND SUB GROUPS AS PUBLISHED BY RESERVE BANK OF INDIA IN THE RBI BULLETIN WILL BE CONSIDERED FOR THIS PURPOSE.

(H) LIMIT OF PRICE ADJUSTMENT

Provided that, in determining all such price adjustment in accordance with the aforesaid Sub-Clauses:

a. No account will be taken of any amount by which any cost incurred by the Contractor has been increased by default or negligence of the Contractor.

If the Contractor fails to complete the work within time for completion prescribed under Clause 8.2, the adjustment of prices thereafter until the completion of the works shall be made using either the indices or prices, whichever is more favourable to the Employer, provided that if an extension of time is granted pursuant to Sub-Clause 8.4, the above position shall apply to the adjustments made after expiry of such extension of time.

(I) Percentages governing adjustments for change in cost

The percentages governing the price adjustment for the local currency portion (R_i) of the contract for various works is given in **Annexure 2.**

(J) Indices to be used in case of Interim Payment Certificate for a period more than a month

As per provisions of contract (Clause 14.3 of GCC) interim payments certificates are to be submitted by the contractor on monthly basis for the works/supply of items pertaining to a particular month. In such cases the monthly indices will be applied for the month on the day 28 days prior to the last day of the period to which a particular interim payment certificate is related. However, in case a bill is submitted for a period pertaining to more than a calendar month the average indices for those months on the day 28 days prior to last day of the period to which bill pertains and previous month(s) shall be used for calculation purpose.

14. Contract Price and Payment

14.1 The Contract Price

Unless otherwise stated in the Special Conditions of Contract:

(a) the Contract Price shall be agreed or determined under Sub-Clause 12.3 [Evaluation] and be subject to adjustments in accordance with the Contract;

(b) the Contractor shall pay all taxes, duties and fees required to be paid by him under the Contract, and the Contract Price shall not be adjusted for any of these costs except as stated in Sub-Clause 13.7 [Adjustments for

Changes in Legislation];

(c) any quantities which may be set out in the Bill of Quantities or other Schedule are estimated quantities and are not to be taken as the actual and final quantities:

(i) of the Works which the Contractor is required to execute, or

(ii) for the purposes of Clause 12 [Measurement and Evaluation]; and

(d) the Contractor shall submit to the Engineer, within 28 days after the Commencement Date, a proposed breakdown of each lump sum price in the Schedules, if applicable. The Engineer may take account of the breakdown when preparing Payment Certificates, but shall not be bound by it.

(e) It may be noted that in the event of the Contractornot making the due payments stated in sub-clause (b) above, and theconcerned party puts up a claim with the Employer / Engineer, then the Employer / Engineer may make such payments and deduct the same from the sums due to the Contractor.

14.2 Advance Payment

14.2.1 Mobilization Advance

The Employer shall make an advance payment, as an Interest bearing loan for mobilisation, when the Contractor submits a guarantee in accordance with this Sub-Clause. The total advance payment, the number and timing of instalments (if more than one), and the applicable currencies and proportions, shall be as stated in the Contract Data.

Unless and until the Employer receives this guarantee, or if the total advance payment is not stated in the Contract Data, this Sub-Clause shall not apply.

The Engineer shall process for the first instalment of mobilisation advance after receiving an application for advance payment as an Interest bearing loan and after the Employer receives (i) the Performance Security in accordance with Sub-Clause 4.2 [Performance Security] and (ii) a guarantee in amounts and currencies equal to the advance payment plus 10%. The next installment shall be released only when the contractor submits statement of having utilized the first installment of mobilisation advance and the Employer is satisfied that the utilization has been done in purposeful manner.

14.2.2 Advance against Plant and Machinery

The advance against plant and machinery, as an Interest bearing loan, is payable for procurement of plant, equipment and machinery to be utilized specifically for the subject works, provided the same have reached the site along with purchase order and the invoices against a guarantee in amounts and currencies equal to the advance payment plus 10%. The total advance payment under this sub-clause, including the applicable currencies and proportions, shall be as

stated in the Contract Data.

All such plant, equipment and machinery shall be used only for executing the works under this Contract. No such plant, equipment and machinery shall be removed from the site, unless advance equivalent to the advance against such machinery has been fully repaid and prior permission of the Engineer has been obtained.

The Engineer shall decide whether a particular plant, equipment or machinery is actually required to execute the work. No advance is payable against items identified as unnecessary. The plant and machinery admissible for advance payment and its valuation shall be done by the Engineer on following considerations;

(i) New items : 80% of purchase price

(ii) Used or Second hand items : Not to be considered

(iii) New Items valued at less than Rs. 10,00,000 each : Not to be considered.

14.2.3 Guarantees

Advances as mentioned in sub-clauses 14.2.1 & 14.2.2 above, shall be payable against acceptable Bank Guarantees from banks as specified in clause 4.2. The guarantees shall be in the form as given in Section 8 (Contract Forms) or in another form approved by the Employer. The Contractor shall ensure that the guarantees are valid and enforceable until the advance amount paid as has been repaid, but its amount may be progressively reduced by the amount repaid by the Contractor. If the terms of the guarantee specify its expiry date, and the advance payment has not been repaid by the date 28 days prior to the expiry date, the Contractor shall extend the validity of the guarantee until the advance payment has been repaid.

14.2.4 Recovery of Advances

The recovery of the advance shall be made on the due date irrespective of the progress of work. The Commencement date, duration and instalment of recovery of advances shall be as specified in the Contract Data. On the request of the contractor, the Bank Guarantee corresponding to the advance already repaid shall be released to the contractor.

In the event, an instalment is not paid by the due date the bank guarantee for the advance amount due including the accrued interest shall be encashed.

The contractor shall always have the option to start repayment earlier and/or to complete the repayment earlier than the due date.

If the advance payment has not been repaid prior to the issue of the Taking-Over Certificate for the Works or prior to termination under Clause 15 [Termination by Employer], Clause 16 [Suspension and Termination by Contractor] or Clause 19 [Force Majeure] (as the case may be), the whole of the balance then outstanding shall immediately become due and payable by the Contractor to the Employer.

14.2.5 Advances to be Used only for This Work

The advances shall be used by the Contractor strictly for the purpose of the Contract, and for the purpose for which they are paid. Under no circumstances, shall the advances be diverted for other purposes. Any such diversion shall be construed as a breach of the Contract and the Contractor shall be asked to return the advance at once and pay interest at 15% per annum till the advance is recovered back from him. The Contractor shall return the advance and pay the interest in one go without demur.

Employer retains the right for any other remedy prescribed for breach of Contract in this regard.

The Contractor, if required by the Engineer shall provide the details of utilisation of Mobilisation advance..

14.3 Application for Interim Payment Certificates

The Contractor shall submit a Statement in six copies to the Engineer in accordance with the payment procedure specified by the Engineer, after the end of each month, in a form approved by the Engineer, showing in detail the amounts to which the Contractor considers himself to be entitled, together with supporting documents which shall include the report on the progress during this month in accordance with Sub-Clause 4.21 [Progress Reports] and Record Measurement Sheets.

The Statement shall include the following items, as applicable, which shall be expressed in the various currencies in which the Contract Price is payable, in the sequence listed:

(a) the estimated contract value of the Works executed and the Contractor's Documents produced up to the end of the month (including Variations but excluding items described in sub-paragraphs (b) to (g) below);

(b) any amounts to be added and deducted for changes in legislation and changes in cost, in accordance with Sub-Clause 13.7 [Adjustments for Changes in Legislation] and Sub-Clause 13.8 [Adjustments for Changes in Cost];

(c) any amount to be deducted for retention, calculated by applying the percentage of retention stated in the Contract Data to the total of the above amounts, until the amount so retained by the Employer reaches the limit of Retention Money (if any) stated in the Contract Data;

(d) Deleted.

(e) any amounts to be added and deducted for Plant and Materials in accordance with Sub-Clause 14.5 [Plant and Materials intended for the Works];

(f) any other additions or deductions which may have become due under the Contract or otherwise, including those under Clause 20 [Claims, Disputes and Arbitration]; and

(g) the deduction of amounts certified in all previous Payment Certificates.

(h) for invoicing as per GST Laws, the estimated contract value of the Works executed in terms of (a) above and any amounts added or deducted as per (b), (e) to (g) above is to be broken up in two components i.e. (i) the base amount excluding GST (ii) GST component (calculated at the rate for works contract service as per GST Laws).

(i) Statement of interim payments certificates should be submitted by the Contractor to the Engineer by the 7th day of each month for the work executed upto the end of the previous month.

(j) An amount to be deducted for the payments to be made to different Departments towards payments liable to be made by the Contractor.

14.4 Schedule of Payments

If the Contract includes a schedule of payments specifying the instalments in which the Contract Price will be paid, then unless otherwise stated in this schedule:

(a) the instalments quoted in this schedule of payments shall be the estimated contract values for the purposes of sub-paragraph (a) of Sub-Clause 14.3 [Application for Interim Payment Certificates];

(b) Sub-Clause 14.5 [Plant and Materials intended for the Works] shall not apply; and

(c) if these instalments are not defined by reference to the actual progress achieved in executing the Works, and if actual progress is found to be less than that on which this schedule of payments was based, then the Engineer may proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine revised instalments, which shall take account of the extent to which progress is less than that on which the instalments were previously based.

If the Contract does not include a schedule of payments, the Contractor shall submit non-binding estimates of the payments which he expects to become due during each quarterly period. The first estimate shall be submitted within 42 days after the Commencement Date. Revised estimates shall be submitted at quarterly intervals, until the Taking-Over Certificate has been issued for the Works.

14.5 Plant and Materials intended for the Works

If this Sub-Clause applies, Interim Payment Certificates shall include, under sub-paragraph (e) of Sub-Clause 14.3:

(k) an amount for Plant and Materials which have been sent to the Site for incorporation in the Permanent Works, and

(ii) a reduction when the contract value of such Plant and Materials is included as part of the Permanent Works under sub-paragraph (a) of Sub-Clause 14.3 [Application for Interim Payment Certificates].

If the lists referred to in sub-paragraphs (b)(i) or (c)(i) below are not included in the Contract Data, this Sub-Clause shall not apply.

The Engineer shall determine and certify each addition if the following conditions are satisfied:

(a) the Contractor has:

(i) kept satisfactory records (including the orders, receipts, Costs and use of Plant and Materials) which are available for inspection, and

(ii) submitted a statement of the Cost of acquiring and delivering the Plant and Materials to the Site, supported by satisfactory evidence;

and either:

(b) the relevant Plant and Materials:

(i) are those listed in the Schedules for payment when shipped,

(ii) have been shipped to the Country, en route to the Site, in accordance with the Contract; and

(iii) are described in a clean shipped bill of lading or other evidence of shipment, which has been submitted to the Engineer together with evidence of payment of freight and insurance, any other documents reasonably required, and a bank guarantee in a form and issued by an entity approved by the Employer in amounts and currencies equal to the amount due under this Sub-Clause: this guarantee may be in a similar form to the form referred to in Sub-Clause 14.2 [Advance Payment] and shall be valid until the Plant and Materials are properly stored on Site and protected against loss, damage or deterioration;

or

(c) the relevant Plant and Materials:

(i) are those listed in the Schedules for payment when delivered to the Site,

(ii) the original 'Invoice' and the original 'Inspection Certificate' by the approved Inspection agency marked 'for payment' is furnished with the Application for IPC [sub-Clause 14.3].

(iii) have been delivered to and are properly stored on the Site, are protected against loss, damage or deterioration, and appear to be in accordance with the Contract.

The additional amount to be certified shall be the equivalent of eighty percent of the Engineer's determination of the cost of the Plant and Materials (including delivery to Site), taking account of the documents mentioned in this Sub-Clause and of the contract value of the Plant and Materials. The amount shall be certified on receipt of a Bank guarantee for the stated amount in the Form as given in Section 8 (Contract Forms) or in another form approved by the Employer.

The currencies for this additional amount shall be the same as those in which payment will become due when the contract value is included under sub-paragraph (a) of Sub-Clause 14.3 [Application for Interim Payment Certificates]. At that time, the Payment Certificate shall include the applicable reduction which shall be equivalent to, and in the same currencies and proportions as, this additional amount for the relevant Plant and Materials.

14.6 Issue of Interim No amount will be certified or paid until the employer has received and

Payment Certificates

approved the performance security. Thereafter, the Engineer shall within two days after receiving a statement and supporting documents, issue to the Employer a provisional interim payment certificate which shall state the amount which the Engineer determines to be due after preliminary check as per RVNL's procedure order. After this the Engineer shall, within 28 days after receiving a statement and supporting documents, issue to the employer an Interim Payment Certificate which shall state the amount which the Engineer fairly determines to be due, with supporting particulars.

However, prior to issuing the Taking-Over Certificate for the Works, the Engineer shall not be bound to issue the Interim Payment Certificate in an amount which would (after retention and other deductions) be less than the minimum amount of Interim Payment Certificates (if any) stated in the Contract Data. In this event, the Engineer shall give notice to the Contractor accordingly.

An Interim Payment Certificate shall not be withheld for any other reason, although:

(a) if any thing supplied or work done by the Contractor is not in accordance with the Contract, the cost of rectification or replacement may be withheld until rectification or replacement has been completed; and/or

(b) if the Contractor was or is failing to perform any work or obligation in accordance with the Contract, and had been so notified by the Engineer, the value of this work or obligation may be withheld until the work or obligation has been performed.

The Engineer may in any Payment Certificate make any correction or modification that should properly be made to any previous Payment Certificate. A Payment Certificate shall not be deemed to indicate the Engineer's acceptance, approval, consent or satisfaction.

14.7 Payment

The Employer shall pay to the Contractor:

(a) the first instalment of the advance payment within 42 days after issuing the Letter of Acceptance or within 21 days after receiving the documents in accordance with Sub-Clause 4.2 [Performance Security] and Sub-Clause 14.2 [Advance Payment], whichever is later;

(b) (i) After preliminary scrutiny and certifications by the Engineer, payment of 70% of the certified net payment due (after recoveries and deductions), shall be made by the Employer within 10 days of receiving a statement and supporting documents by the Engineer subject to the condition that last interim payment certificate has been settled after detailed check. In the event of the contractor submitting bills based on false measurements, Project Director should issue a written warning to him to the effect that the facility of 70% payment without detailed check will be withdrawn in future. If the contractor repeats the misconduct this facility should be withdrawn.

(ii). The amount certified in each Interim Payment Certificate within 56 days after the Engineer receives the Statement and supporting documents. Any discrepancy shall be rectified in the next payment to the Contractor; and

(c) the amount certified in the Final Payment Certificate within 56 days after the Employer receives this Payment Certificate or, the undisputed amount shown in the Final Statement, within 56 days after the date of notification of the suspension in accordance with Sub-Clause 16.2.

Payment of the amount due, unless specified in the Contract Data, shall be made in INR into the bank account, nominated by the Contractor.

However, in case of JV, direct payment to individual JV partners shall be made on joint certification (about the net amounts payable to individual partners) by the authorized representative of the JV and concerned respective authorized representative of individual JV partners, after making requisite recoveries/deductions from the gross payment. In case of any dispute regarding the net amounts payable to individual partners, the Engineer shall decide the same on the basis of the execution of items of works under Schedules/Bills indicated in the JV agreement as the responsibility of execution of each JV partner. Payment to individual JV partners shall be treated as payment made to the JV. The said payment shall not alter any obligation of the JV and its individual Partners under the Agreement and their obligations under the agreement shall remain joint and several.

A foreign company (either single entity or JV partner), shall have to submit proof of having opened their project office in India before any payment (including advance payment) is released to such a company. The required proof here shall be a copy of the report containing information as per format prescribed by Reserve Bank of India submitted to the Director General of Police (DGP) of the state concerned in which project office has been established.

14.8 Delayed Payment

If the Contractor does not receive payment in accordance with Sub-Clause 14.7 [Payment], the Contractor shall be entitled to receive interest compounded monthly on the amount unpaid during the period of delay. This period shall be deemed to commence on the date for payment specified in Sub-Clause 14.7 [Payment], irrespective (in the case of its sub-paragraph (b)) of the date onwhich any Interim Payment Certificate is issued.

Unless otherwise stated in the Special Conditions of Contract, the interest amount be calculated at the annual rate of seven percent.

The Contractor shall be entitled to this payment without formal notice or certification, and without prejudice to any other right or remedy.

14.9 Payment of Retention Money

The Retention Money shall be certified and paid with the final payment certificate or bank guarantee against retention money shall be released, after making required adjustments for recovery for shortage/excess materials, if any **(except those quantities which become surplus due to change in planning/scheme by Railway/RVNL) in case the recovery for surplus/excess materials is still balance after adjusting the amount payable in the final payment certificate.**

The contractor shall be entitled to substitute a bank guarantee in the form approved by the Employer with the retention money amount recovered upto the date of request. Such substitution shall be permissible maximum upto 3

times. The Bank Guarantee shall be valid upto end of Defect Liability Period. In case of extension of date of completion of contract, the Contractor shall extend the validity of the Bank Guarantee(s) until the revised end of Defect Liability Period.

Wherever the contract is terminated under Clause 15.2, the Retention Money shall be forfeited and the balance work should be got done separately.

14.10 Statement at Completion

Within 84 days after receiving the Taking-Over Certificate for the Works, the Contractor shall submit to the Engineer six copies of a Statement at completion with supporting documents, in accordance with Sub-Clause 14.3 [Application for Interim Payment Certificates], showing:

(a) the value of all work done in accordance with the Contract up to the date stated in the Taking-Over Certificate for the Works,

(b) any further sums which the Contractor considers to be due, and

(c) an estimate of any other amounts which the Contractor considers will become due to him under the Contract. Estimated amounts shall be shown separately in this Statement at completion.

The Engineer shall then certify in accordance with Sub-Clause 14.6 [Issue of Interim Payment Certificates].

Within 56 days after receiving the Performance Certificate, the Contractor shallsubmit, to the Engineer, six copies of a draft final statement as per procedure prescribed by the Engineer, with supporting documents showing in detail in a form approved by the Engineer:

14.11 Application for Final Payment Certificate

Within 56 days after receiving the Performance Certificate, the Contractor shallsubmit, to the Engineer, six copies of a draft final statement as per procedure prescribed by the Engineer, with supporting documents showing in detail in a form approved by the Engineer:

(a) the value of all work done in accordance with the Contract, and

(b) any further sums which the Contractor considers to be due to him under the Contract or otherwise.

If the Engineer disagrees with or cannot verify any part of the draft final statement, as per procedure prescribed by the Engineer the Contractor shall submit such further information as the Engineer may reasonably require and shall make such changes in the draft as may be agreed between them. The Contractor shall then prepare and submit to the Engineer the final statement as agreed. This agreed statement is referred to in these Conditions as the "Final Statement".

However if, following discussions between the Engineer and the Contractor and any changes to the draft final statement which are agreed, it becomes evident that a dispute exists, the Engineer shall deliver to the Employer (with a copy to the Contractor) an Interim Payment Certificate for the agreed parts of the draft final statement. Thereafter, if the dispute is finally resolved under Sub-Clause 20.3 [Obtaining Dispute Board's Decision] or Sub-Clause 20.2 [Amicable Settlement], the Contractor shall then prepare and submit to the Employer (with

a copy to the Engineer) a Final Statement.

14.12 Discharge

When submitting the Final Statement, the Contractor shall submit a discharge which confirms that the total of the Final Statement represents full and final settlement of all moneys due to the Contractor under or in connection with the Contract. This discharge may state that it becomes effective when the Contractor has received the Performance Security and the outstanding balance of this total, in which event the discharge shall be effective on such date.

14.13 Issue of Final Payment Certificate

Within 28 days after receiving the Final Statement and discharge in accordance with Sub-Clause 14.11 [Application for Final Payment Certificate] and Sub-Clause 14.12 [Discharge], the Engineer shall issue, to the Employer, the Final Payment Certificate which shall state:

(a) the amount which he fairly determines is finally due, and

(b) after giving credit to the Employer for all amounts previously paid by the Employer and for all sums to which the Employer is entitled, the balance (if any) due from the Employer to the Contractor or from the Contractor to the Employer, as the case may be.

If the Contractor has not applied for a Final Payment Certificate in accordance with Sub-Clause 14.11 [Application for Final Payment Certificate] and Sub-Clause 14.12 [Discharge], the Engineer shall request the Contractor to do so. If the Contractor fails to submit an application within a period of 28 days, the Engineer shall issue the Final Payment Certificate for such amount as he fairly determines to be due.

14.14 Cessation of Employer's Liability

The Employer shall not be liable to the Contractor for any matter or thing under or inconnection with the Contract or execution of the Works, except to the extent that the Contractor shall have included an amount expressly for it:

(a) in the Final Statement and also

(b) (except for matters or things arising after the issue of the Taking-Over Certificate for the Works) in the Statement at completion described in Sub-Clause 14.10 [Statement at Completion].

However, this Sub-Clause shall not limit the Employer's liability under his indemnification obligations, or the Employer's liability in any case of fraud, deliberate default or reckless misconduct by the Employer.

14.15 Currencies of Payment

The Contract Price shall be paid in Indian Rupees (INR).

15. Termination by Employer

15.1 Notice to Correct

If the Contractor fails to carry out any obligation under the Contract as mentioned below, but not limited to, the Engineer/ Employer may serve the contractor with a 14 days notice in writing calling upon the contractor to make good the failure and to remedy it. If the contractor;

(a) fails to comply with Sub-Clause 4.2 [Performance Security],

(b) abandons the Works or otherwise plainly demonstrates the intention not to continue performance of his obligations under the Contract,

(c) without reasonable excuse fails to:

(i) proceed with the Works in accordance with Clause 8 [Commencement, Delays and Suspension], or

(ii) comply with a notice issued under Sub-Clause 7.5 [Rejection] or Sub-Clause 7.6 [Remedial Work], within 28 days after receiving it, or

(iii) adhere to the agreed programme of work / activity on the critical path, by a margin of 10% of the stipulated period, or

(iv) take steps to deploy competent and adequate number of personnel, and equipment to achieve progress as per agreed programme or

(v) adhere to the instructions of Engineers/Employer persistently or

(vi) comply any provision of the contract or

(vii) provide the Engineer/Employer or their representative proper facilities for inspecting the works or any part thereof as required, under Clause 7.3 (Inspection) and 7.4 (Testing).

(d) subcontracts the whole or major part of the Works or assigns the Contract without prior written consent of the Employer.,

If the contractor does not, within 14 days of receipt of notice under this sub-clause, proceed to make good his default in so far as the same is capable of being made good and carry on the work of complying with such direction as contained in the notice under sub clause 15.1, to the entire satisfaction of the Engineer/Employer, the Employer shall be entitled to take action under sub-clause 15.1.1 or 15.1.2 or 15.2 below.

15.1.1 In case of contractor's repeated failure to adhere to the agreed program, and whereas the contractor has been served with a Notice to Correct under Clause 15.1 of GCC, if the contractor approaches RVNL with a revised program with specific monthly physical and financial targets along with the proposal to deploy matching inputs in the form of manpower and other resources to the satisfaction of the Employer, then the Employer may consider whether to proceed with termination of the contract under Clause 15.2 of GCC or to continue with the contract. However, the request to continue with the contract shall only be considered if the contractor supports his earnestness to adhere to the revised program by submitting additional Performance Security in the form of Bank Guarantee(s) of specified number and value as decided by the Employer (total value of which will not exceed 10% of the contract price). The encashment of these additional Bank Guarantee(s) shall be linked with the non achievement of agreed physical/financial targets agreed upon by the Contractor and the Employer.

15.1.2 In case the contractor's failure is limited to only some of the works, and in response to Notice to Correct under Clause 15.1 of GCC, the contractor approaches the Employer that such works may be offloaded from him

and got executed through another agency and additional cost incurred, if any, should be recovered from his dues, the Employer, on being convinced that the anticipated additional cost for such works will not be substantial and can be recovered from the dues of the contractor and that such offloading will help in improving the overall progress of the project, may agree to such offloading without any repercussion on the performance security and/or additional bank guarantees, if any, submitted by the contractor. However, the Employer will not be under any compulsion to agree to such a request. Before issuing LOA to another agency for such work, the contractor shall be informed of the rates at which the work will be got executed. The Contractor should give his consent to do so and certify that he would have no future claim on this account and that the extra expenditure so incurred, if any, by the Employer in getting the offloaded work done, shall be recovered from subsequent payment certificates or any other dues of the contractor. In case the contractor fails to give such consent within three working days, the Employer may proceed with termination of the contract as a whole or any part or parts under clause 15.2 of GCC.

15.2 Termination by Employer

The Employer shall be entitled to terminate the Contract as a whole or any part or parts (as may be specified in the Notice of Termination under any of the above Sub-Clause issue) if the Contractor:

(a) fails to comply with the directions contained in the notice under Sub-Clause 15.1 [Notice to Correct],

(b) becomes bankrupt or insolvent, goes into liquidation, has a receiving or administration order made against it by Court or Statutory Authority him, compounds with his creditors, or carries on business under a receiver, trustee or manager for the benefit of his creditors, or if any act is done or event occurs which (under applicable Laws) has a similar effect to any of these acts or events, or

(c) gives or offers to give (directly or indirectly) to any person any bribe, gift, gratuity, commission or other thing of value, as an inducement or reward:

(i) for doing or forbearing to do any action in relation to the Contract, or

(ii) for showing or forbearing to show favour or disfavour to any person in relation to the Contract,

or if any of the Contractor's Personnel, agents or Subcontractors gives or offers to give (directly or indirectly) to any person any such inducement or reward as is described in this sub-paragraph (c). However, lawful inducements and rewards to Contractor's Personnel shall not entitle termination

In any of these events or circumstances, the Employer may, by Notice Terminate the contract with immediate effect.

The Employer's election to terminate the Contract shall not prejudice any other rights of the Employer, under the Contract or otherwise.

The Contractor shall remove all his plants and machinery from the site then leave the Site and deliver any required Goods, all Contractors' Documents, and other design documents made by or for him, to the Engineer within 7 days from the issue of Notice of Termination, failing which Delay Damages as prescribed for delay in

completion of works shall be imposed as per provision of clause 8.7. However, the Contractor shall use his best efforts to comply immediately with any reasonable instructions included in the notice of Termination (i) for the assignment of any subcontract, and (ii) for the protection of life or property or for the safety of the Works.

After termination, the Employer may complete the Works and/or arrange for any other entities to do so. The Employer and these entities may then use any Goods, Contractor's Documents and other design documents made by or on behalf of the Contractor for completing the work.

15.3 Valuation at Date of Termination

As soon as practicable after a notice of termination under Sub-Clause 15.2 [Termination by Employer] has taken effect, the Engineer shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine the value of the Works, Goods and Contractor's Documents, and any other sums due to the Contractor for work executed in accordance with the Contract. For this purpose, the contractor shall be notified the date for witnessing of measurements and handing over of the materials for which contractor has already been paid. In case the contractor fails to attend or send a representative even after such notice, the Engineer shall ex parte proceed with measurements of the works executed and taking over of plants and materials etc. for which payment has already been made to the contractor, which shall be treated as final.

15.4 Payment after Termination

After a notice of termination under Sub-Clause 15.2 [Termination by Employer] has taken effect, the Employer may:

(a) proceed in accordance with Sub-Clause 2.5 [Employer's Claims],

(b) encash the Performance Guarantee and forfeit the Performance

Security:

i) In full including additional Performance Guarantee amount if any taken in terms of sub clause 35.5 of ITBand not due for release on the date of issue of termination letter, in case of termination of the contract as a whole; Or

ii) in part/parts proportionate to the contract price of the bill/schedule to which the terminated part of work belongs i.e.

P = (A x B) ÷ C where,

P = Proportionate Bank Guarantee Amount

A = Contract Price of the particular bill/schedule to which the terminated part of work belongs

B = Performance Guarantee amount in terms of GCC sub clause 4.2

C = Total Contract Price

Plus additional Performance Guarantee amount if any taken in terms of sub clause 35.5 of ITB and not due for release on the date of issue of termination letteragainst that particular bill/Schedule to which the terminated part of the work belongs in case of termination in part/parts.

(c) release any payment due to the contractor for works executed prior to termination and evaluation under clause 15.3 (valuation at date of termination, however, if by this time the Contractor has failed to make a payment due to the Employer, the same will be deducted from the payment due and any balance

remaining shall then be paid to the Contractor.).

15.5 Employer's Entitlement to Termination for Convenience

The Employer shall be entitled to terminate the Contract, at any time for the Employer's convenience, by giving notice of such termination to the Contractor. The termination shall take effect 28 days after the later of the dates on which the Contractor receives this notice or the Employer returns the Performance Security. The Employer shall not terminate the Contract under this Sub-Clause in order to execute the Works himself or to arrange for the Works to be executed by another contractor or to avoid a termination of the Contract by the Contractor under Clause 16.2 [Termination by Contractor].

After this termination, the Contractor shall proceed in accordance with Sub-Clause 16.3 [Cessation of Work and Removal of Contractor's Equipment] and shall be paid in accordance with Sub-Clause 19.1 [Payment and Release in case of Optional Termination].

15.6 Corrupt or Fraudulent Practices

If the Employer determines that the Contractor has engaged in corrupt, fraudulent, collusive or coercive practices, in competing for or in executing the Contract, then the Employer may, after giving 14 days notice to the Contractor, terminate the Contractor's employment under the Contract and expel him from the Site, and the provisions of Clause 15 shall apply as if such expulsion had been made under Sub-Clause 15.2.

For the purposes of this Sub-Clause:

(a) *"corrupt practice" means the offering, giving, receiving of soliciting of any thing of "value to influence the action of a public official in the procurement process or in the Contract execution.*

(b) *"fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of the Contract to the detriment of the Employer, and includes collusive practice among Bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the Employer of the benefits of free and open competition.*

(c) *"collusive practice" means a scheme or arrangement between two or more bidders, with or without the knowledge of the Employer, designed to establish bid prices at artificial, noncompetitive levels.*

(d) *"coercive practice" means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the procurement process or affect the execution of a contract.*

16. Suspension and Termination by Contractor

16.1 Contractor's Entitlement to Suspend Work

If the Engineer fails to certify in accordance with Sub-Clause 14.6 [Issue of Interim Payment Certificates] or the Employer fails to comply with Sub-Clause 2.4 [Employer's Financial Arrangements] or Sub-Clause 14.7 [Payment], the Contractor may, after giving not less than 21 days' notice to the Employer, suspend work (or reduce the rate of work) unless and until the Contractor has received the Payment Certificate, reasonable evidence or payment, as the case may be and as described in the notice.

The Contractor's action shall not prejudice his entitlements to interest under Sub-Clause 14.8 [Delayed Payment] and to termination under Sub-Clause 16.2 [Termination by Contractor].

If the Contractor subsequently receives such Payment Certificate, evidence or

payment (as described in the relevant Sub-Clause and in the above notice) before giving a notice of termination, the Contractor shall resume normal working as soon as is reasonably practicable.

If the Contractor suffers delay and/or incurs Cost as a result of suspending work (or reducing the rate of work) in accordance with this Sub-Clause, the Contractor shall give notice to the Engineer and shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:

(a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion], and

(b) payment of any such Cost plus profit, which shall be included in the Contract Price.

After receiving this notice, the Engineer shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these matters.

16.2 Termination by Contractor

The Contractor shall be entitled to terminate the Contract if:

(a) the Contractor does not receive the reasonable evidence within 42 days after giving notice under Sub-Clause 16.1 [Contractor's Entitlement to Suspend Work] in respect of a failure to comply with Sub-Clause 2.4 [Employer's Financial Arrangements],

(b) the Engineer fails, within 56 days after receiving a Statement and supporting documents, to issue the relevant Payment Certificate,

(c) the Contractor does not receive the amount due under an Interim Payment Certificate within 42 days after the expiry of the time stated in Sub-Clause 14.7 [Payment] within which payment is to be made (except for deductions in accordance with Sub-Clause 2.5 [Employer's Claims]),

(d) a prolonged suspension affects the whole of the Works as described in Sub-Clause 8.11 [Prolonged Suspension], or

(e) the Employer becomes bankrupt or insolvent, goes into liquidation, has a receiving or administration order made against him, compounds with his creditors, or carries on business under a receiver, trustee or manager for the benefit of his creditors, or if any act is done or event occurs which (under applicable Laws) has a similar effect to any of these acts or events.

In any of these events or circumstances, the Contractor may, upon giving 14 days' notice to the Employer, terminate the Contract. However, in the case of sub-paragraph (d) or (e), the Contractor may by notice terminate the Contract immediately.

The Contractor's election to terminate the Contract shall not prejudice any other rights of the Contractor, under the Contract or otherwise.

16.3 Cessation of Work and Removal of Contractor's Equipment

After a notice of termination under Sub-Clause 15.5 [Employer's Entitlement to Termination], Sub-Clause 16.2 [Termination by Contractor] or Sub-Clause 19.1 [Optional Termination, Payment and Release] has taken effect, the Contractor shall promptly:

(a) cease all further work, except for such work as may have been instructed by the Engineer for the protection of life or property or for the safety of the Works,

(b) hand over Contractor's Documents, Plant, Materials and other work, for

which the Contractor has received payment, and

(c) remove all other Goods from the Site, except as necessary for safety, and leave the Site.

16.4 Payment on Termination After a notice of termination under Sub-Clause 16.2 [Termination by Contractor] has taken effect, the Employer shall promptly:

(a) return the Performance Security to the Contractor,

(b) pay the Contractor in accordance with Sub-Clause 19.1 [Optional Termination, Payment and Release], and

(c) should the contract be terminated under sub-clause 15.5 of this clause and the contractor claims payment for expenditure incurred by him in the expectation of completing the whole of the work, the Employer shall admit and consider such claims as are deemed reasonable and are supported by vouchers to the satisfaction of the Engineer. The Employer's decision on the necessity and propriety of such expenditure shall be final and conclusive.

(d) 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 termination of contract.

17. Risk and Responsibility

17.1 Indemnities The Contractor shall indemnify and hold harmless the Employer, the Employer's Personnel, and their respective agents, against and from all claims, damages, losses and expenses (including legal fees and expenses) in respect of:

(a) bodily injury, sickness, disease or death, of any person including railway user whatsoever arising out of or in the course of or by reason of the Contractor's design (if any), the execution and completion of the Works and the remedying of any defects, unless attributable to any negligence, wilful act or breach of the Contract by the Employer, the Employer's Personnel, or any of their respective agents, and

(b) damage to or loss of any property, real or personal (other than the Works), to the extent that such damage or loss arises out of or in the course of or by reason of the Contractor's design (if any), the execution and completion of the Works and the remedying of any defects, unless and to the extent that any such damage or loss is attributable to any negligence, wilful act or breach of the Contract by the Employer, the Employer's Personnel,, their respective agents, or anyone directly or indirectly employed by any of them.

The Employer shall indemnify and hold harmless the Contractor, the Contractor's Personnel, and their respective agents, against and from all claims, damages, losses and expenses (including legal fees and expenses) in respect of (1) bodily injury, sickness, disease or death, which is attributable to any negligence, wilful act or breach of the Contract by the Employer, the Employer's Personnel, or any of their respective agents, and (2) the matters for which liability may be excluded from insurance cover, as described in sub-paragraphs (d)(i), (ii) and (iii) of Sub-Clause 18.3 [Insurance Against Injury to Persons and Damage to Property].

17.2 Contractor's Care of the Works

The Contractor shall take full responsibility for the care of the Works and Goods from the Commencement Date until the Taking-Over Certificate is issued (or is deemed to be issued under Sub-Clause 10.1 [Taking Over of the Works and Sections]) for the Works, when responsibility for the care of the Works shall pass to the Employer. If a Taking-Over Certificate is issued (or is so deemed to be issued) for any Section or part of the Works, responsibility for the care of the Section or part shall then pass to the Employer.

After responsibility has accordingly passed to the Employer, the Contractor shall take responsibility for the care of any work which is outstanding on the date stated in a Taking-Over Certificate, until this outstanding work has been completed.

If any loss or damage happens to the Works, Goods or Contractor's Documents during the period when the Contractor is responsible for their care, from any cause not listed in Sub-Clause 17.3 [Employer's Risks], the Contractor shall rectify the loss or damage at the Contractor's risk and cost, so that the Works, Goods and Contractor's Documents conform with the Contract.

The Contractor shall be liable for any loss or damage caused by any actions performed by the Contractor after a Taking-Over Certificate has been issued. The Contractor shall also be liable for any loss or damage which occurs after a Taking-Over Certificate has been issued and which arose from a previous event for which the Contractor was liable.

17.3 Employer's Risks

The risks referred to in Sub-Clause 17.4 below, insofar as they directly affect the execution of the works in the Country, are:

(a) war, hostilities (whether war be declared or not), invasion, act of foreign enemies,

(b) rebellion, terrorism, sabotage by persons other than the Contractor's Personnel, revolution, insurrection, military or usurped power, or civil war, within the Country,

(c) riot, commotion or disorder within the Country by persons other than the Contractor's Personnel,

(d) munitions of war, explosive materials, ionising radiation or contamination by radio-activity, within the Country, except as may be attributable to the Contractor's use of such munitions, explosives, radiation or radio-activity,

(e) pressure waves caused by aircraft or other aerial devices travelling at sonic or supersonic speeds,

(f) use or occupation by the Employer of any part of the Permanent Works, except as may be specified in the Contract,

(g) design of any part of the Works by the Employer's Personnel or by others for whom the Employer is responsible, and

(h) any operation of the forces of nature which is Unforeseeable or against which an experienced contractor could not reasonably have been expected to have taken adequate preventative precautions.

17.4 Consequences of Employer's Risks

If and to the extent that any of the risks listed in Sub-Clause 17.3 above results in loss or damage to the Works, Goods or Contractor's Documents, the Contractor shallpromptly give notice to the Engineer and shall rectify this loss or damage to the extent required by the Engineer.

If the Contractor suffers delay and/or incurs Cost from rectifying this loss or

damage, the Contractor shall give a further notice to the Engineer and shall be entitled subject to Sub-Clause 20.1 [Contractor's Claims] to:

(a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [Extension of Time for Completion], and

(b) payment of any such Cost, which shall be included in the Contract Price. In the case of sub-paragraphs (f) and (g) of Sub-Clause 17.3 [Employer's Risks], Cost shall be payable.

After receiving this further notice, the Engineer shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine these matters.

17.5 Intellectual and Industrial Property Rights

In this Sub-Clause, "infringement" means an infringement (or alleged infringement) ofany patent, registered design, copyright, trade mark, trade name, trade secret or other intellectual or industrial property right relating to the Works; and "claim" means a claim (or proceedings pursuing a claim) alleging an infringement.

Whenever a Party does not give notice to the other Party of any claim within 28 days of receiving the claim, the first Party shall be deemed to have waived any right to indemnity under this Sub-Clause.

The Employer shall indemnify and hold the Contractor harmless against and from any claim alleging an infringement which is or was:

(a) an unavoidable result of the Contractor's compliance with the Contract, or

(b) a result of any Works being used by the Employer:

(i) for a purpose other than that indicated by, or reasonably to be inferred from, the Contract, or

(ii) in conjunction with any thing not supplied by the Contractor, unless such use was disclosed to the Contractor prior to the Base Date or is stated in the Contract.

The Contractor shall indemnify and hold the Employer harmless against and from any other claim which arises out of or in relation to (i) the manufacture, use, sale or import of any Goods, or (ii) any design for which the Contractor is responsible.

If a Party is entitled to be indemnified under this Sub-Clause, the indemnifying Party may (at its cost) conduct negotiations for the settlement of the claim, and any litigation or arbitration which may arise from it. The other Party shall, at the request and cost of the indemnifying Party, assist in contesting the claim. This other Party (and its Personnel) shall not make any admission which might be prejudicial to the indemnifying Party, unless the indemnifying Party failed to take over the conduct of any negotiations, litigation or arbitration upon being requested to do so by such other Party.

17.6 Limitation of Liability

Neither Party shall be liable to the other Party for loss of use of any Works, loss of profit, loss of any contract or for any indirect or consequential loss or damage which may be suffered by the other Party in connection with the Contract, provided that this exclusion shall not apply to any obligation of the Contractor to pay Delay Damages to the Employer under Sub-Clause 8.7 [Delay Damages].

The total liability of the Contractor to the Employer, under or in connection with the Contract other than under Sub-Clause 4.19 [Electricity, Water and Gas],

Sub-Clause 4.20 [Employer's Equipment and Free-Issue Material], Sub-Clause 17.1 [Indemnities] and Sub-Clause 17.5 [Intellectual and Industrial Property Rights], shall not exceed the sum as specified in the Contract Data or if nothing is specified in the Contract Data, the accepted Contract Amount.

This Sub-Clause shall not limit liability in any case of fraud, deliberate default or reckless misconduct by the defaulting Party.

17.7 Use of Employer's Accommodation /Facilities

The Contractor shall take full responsibility for the care of the Employer provided accommodation and facilities, if any, as detailed in the Specification, from the respective dates of hand-over to the Contractor until cessation of occupation(where hand-over or cessation of occupation may take place after the date stated in the Taking-Over Certificate for the Works).

If any loss or damage happens to any of the above items while the Contractor is responsible for their care arising from any cause whatsoever other than those for which the Employer is liable, the Contractor shall, at his own cost, rectify the loss or damage to the satisfaction of the Engineer.

18. Insurance

18.1 General Requirements for Insurances

In this Clause, "insuring Party" means, for each type of insurance, the Party responsiblefor effecting and maintaining the insurance specified in the relevant Sub-Clause.

Wherever the Contractor is the insuring Party, each insurance shall be effected with insurers and in terms approved by the Employer. These terms shall be consistent with any terms agreed by both Parties before the date of the Letter of Acceptance. This agreement of terms shall take precedence over the provisions of this Clause.

Wherever the Employer is the insuring Party, each insurance shall be effected with insurers and in terms consistent with the details annexed to the Special Conditions of Contract.

If a policy is required to indemnify joint insured, the cover shall apply separately to each insured as though a separate policy had been issued for each of the joint insured. If a policy indemnifies additional joint insured, namely in addition to the insured specified in this Clause, (i) the Contractor shall act under the policy on behalf of these additional joint insured except that the Employer shall act for Employer's Personnel, (ii) additional joint insured shall not be entitled to receive payments directly from the insurer or to have any other direct dealings with the insurer, and (iii) the insuring Party shall require all additional joint insured to comply with the conditions stipulated in the policy.

Each policy insuring against loss or damage shall provide for payments to be made in the currencies required to rectify the loss or damage. Payments received from insurers shall be used for the rectification of the loss or damage.

The relevant insuring Party shall, within the respective periods stated in the Contract Data (calculated from the Commencement Date), submit to the other Party:

(a) evidence that the insurances described in this Clause have been effected, and

(b) copies of the policies for the insurances described in Sub-Clause 18.2 [Insurance for Works and Contractor's Equipment] and Sub-Clause 18.3 [Insurance against Injury to Persons and Damage to Property].

When each premium is paid, the insuring Party shall submit evidence of payment to the other Party. Whenever evidence or policies are submitted, the insuring Party shall also give notice to the Engineer.

Each Party shall comply with the conditions stipulated in each of the insurance policies. The insuring Party shall keep the insurers informed of any relevant changes to the execution of the Works and ensure that insurance is maintained in accordance with this Clause.

Neither Party shall make any material alteration to the terms of any insurance without the prior approval of the other Party. If an insurer makes (or attempts to make) any alteration, the Party first notified by the insurer shall promptly give notice to the other Party.

If the insuring Party fails to effect and keep in force any of the insurances it is required to effect and maintain under the Contract, or fails to provide satisfactory evidence and copies of policies in accordance with this Sub-Clause, the other Party may (at its option and without prejudice to any other right or remedy) effect insurance for the relevant coverage and pay the premiums due. The insuring Party shall pay the amount of these premiums to the other Party, and the Contract Price shall be adjusted accordingly.

Nothing in this Clause limits the obligations, liabilities or responsibilities of the Contractor or the Employer, under the other terms of the Contract or otherwise. Any amounts not insured or not recovered from the insurers shall be borne by the Contractor and/or the Employer in accordance with these obligations, liabilities or responsibilities. However, if the insuring Party fails to effect and keep in force an insurance which is available and which it is required to effect and maintain under the Contract, and the other Party neither approves the omission nor effects insurance for the coverage relevant to this default, any moneys which should have been recoverable under this insurance shall be paid by the insuring Party.

Payments by one Party to the other Party shall be subject to Sub-Clause 2.5 [Employer's Claims] or Sub-Clause 20.1 [Contractor's Claims], as applicable.

The Contractor shall be entitled to place all insurance relating to the Contract (including, but not limited to the insurance referred to Clause 18) with insurers from any eligible source country.

18.2 Insurance for Works and Contractor's Equipment

The Contractor shall insure the Works, Plant, Materials, including those issued by the Employer and Contractor's Documents for not less than the full reinstatement cost including the costs of demolition, removal of debris and professional fees and profit, subject to a maximum value indicated in Contract Data**.**. This insurance shall be effective from the date by which the evidence is to be submitted under sub-paragraph (a) of Sub-Clause 18.1 [General Requirements for Insurances], until the date of issue of the Taking-Over Certificate for the Works.

The insuring Party shall maintain this insurance to provide cover until the date of issue of the Performance Certificate, for loss or damage for which the Contractor is liable arising from a cause occurring prior to the issue of the Taking-Over Certificate, and for loss or damage caused by the Contractor in the course of any other operations (including those under Clause 11 [Defects Liability]).

The insuring Party shall insure the Contractor's Equipment for not less than the full replacement value, including delivery to Site. For each item of Contractor's Equipment, the insurance shall be effective while it is being transported to the

Site and until it is no longer required as Contractor's Equipment.

Unless otherwise stated in the Special Conditions of Contract, insurances under this Sub-Clause:

(a) shall be effected and maintained by the Contractor as insuring Party,

(b) shall be in the joint names of the Parties, who shall be jointly entitled to receive payments from the insurers, payments being held or allocated between the Parties for the sole purpose of rectifying the loss or damage,

(c) shall cover all loss and damage from any cause not listed in Sub-Clause 17.3 [Employer's Risks],

(d) shall also cover loss or damage to a part of the Works which is attributable to the use or occupation by the Employer of another part of the Works, and loss or damage from the risks listed in sub-paragraphs (c), (g) and (h) of Sub-Clause 17.3 [Employer's Risks], excluding (in each case) risks which are not insurable at commercially reasonable terms, with deductibles per occurrence of not more than the amount stated in the Contract Data (if an amount is not so stated, this sub-paragraph (d) shall not apply), and

(e) may however exclude loss of, damage to, and reinstatement of:

i) part of the Works which is in a defective condition due to a defect in its design, materials or workmanship (but cover shall include any other parts which are lost or damaged as a direct result of this defective condition and not as described in sub-paragraph (ii) below),

ii) a part of the Works which is lost or damaged in order to reinstate any other part of the Works if this other part is in a defective condition due to a defect in its design, materials or workmanship,

iii) a part of the Works which has been taken over by the Employer, except to the extent that the Contractor is liable for the loss or damage, and

iv) Goods while they are not in the Country, subject to Sub-Clause 14.5 [Plant and Materials intended for the Works].

If, more than one year after the Base Date, the cover described in sub-paragraph (d) above ceases to be available at commercially reasonable terms, the Contractor shall (as insuring Party) give notice to the Employer, with supporting particulars. The Employer shall then (i) be entitled subject to Sub-Clause 2.5 [Employer's Claims] to payment of an amount equivalent to such commercially reasonable terms as the Contractor should have expected to have paid for such cover, and (ii) be deemed, unless he obtains the cover at commercially reasonable terms, to have approved the omission under Sub-Clause 18.1 [General Requirements for Insurances].

18.3 Insurance against Injury to Persons and Damage to Property

The insuring Party shall insure against each Party's liability for any loss, damage, death or bodily injury which may occur to any physical property (except things insured under Sub-Clause 18.2 [Insurance for Works and Contractor's Equipment]) or to any person (except persons insured under Sub-Clause 18.4 [Insurance for Contractor's Personnel]), which may arise out of the Contractor's performance of the Contract and occurring before the issue of the Performance Certificate.

This insurance shall be for a limit per occurrence of not less than the amount stated in the Contract Data, with no limit on the number of occurrences. If an amount is not stated in the Contract Data, this Sub-Clause shall not apply.

Unless otherwise stated in the Special Conditions of Contract, the insurances specified in this Sub-Clause:

(a) shall be effected and maintained by the Contractor as insuring Party,

(b) shall be in the joint names of the Parties,

(c) shall be extended to cover liability for all loss and damage to the Employer's property including Railways Property (except things insured under Sub-Clause 18.2) arising out of the Contractor's performance of the Contract, and

(d) may however exclude liability to the extent that it arises from:

(i) the Employer's right to have the Permanent Works executed on, over, under, in or through any land, and to occupy this land for the Permanent Works,

(ii) damage which is an unavoidable result of the Contractor's

obligations to execute the Works and remedy any defects, and

(iii) a cause listed in Sub-Clause 17.3 [Employer's Risks], except to the extent that cover is available at commercially reasonable terms.

18.4 Insurance for Contractor's Personnel

The Contractor shall effect and maintain insurance against liability for claims,damages, losses and expenses (including legal fees and expenses) arising from injury, sickness, disease or death of any person employed by the Contractor or any other of the Contractor's Personnel.

The Employer and the Engineer shall also be indemnified under the policy of insurance, except that this insurance may exclude losses and claims to the extent that they arise from any act or neglect of the Employer or of the Employer's Personnel.

The insurance shall be maintained in full force and effect during the whole time that these personnel are assisting in the execution of the Works. For a Subcontractor's employees, the insurance may be effected by the Subcontractor, but the Contractor shall be responsible for compliance with this Clause.

19.Force Majeure

If at any time, during the continuance of this contract, the performance in whole or in part by either party of any obligation under this contract shall be prevented or delayed by reason of any war, hostility, acts of public enemy, civil commotion, sabotage, serious loss or damage by fire, explosions, epidemics, strikes, lockouts or acts of God (hereinafter referred to 'events') provided, notice of the happening of any such event is given by either party to the other within 14 days from the date of occurrence thereof, neither party shall by reason of such event, be entitled to terminate this contract nor shall either party have any claim for damages against the other in respect of such non-performance of delay in performance, and works under the contract shall be resumed as soon as practicable after such event has come to an end or ceased to exist, and decision of the Engineer as to whether the works have been so resumed or not shall be final and conclusive, PROVIDED FURTHER that if the performance in whole or in part of any obligation under this contract is prevented or delayed by reason of any such event for a continuous period exceeding 84 days, either party may at its option terminate the contract by giving notice to the other party.

19.1 Payment and Release in case of Optional Termination

Upon such termination, the Engineer shall determine the value of the work done and issue a Payment Certificate which shall include :

(a) Theamountspayable for any work carried out for which a price is stated in the contract;

(b) TheCost of Plant and Materials ordered for the Works which have been delivered to the Contractor, or of which the contractor is liable to accept delivery; this Plant and materials shall become the property of (and be at the risk of) the Employer when paid for by the Employer, the Contractor shall place the same at the Employer's disposal;

(c) OtherCosts or liabilities supported by necessary documentary evidence which in the circumstances were reasonably and necessarily incurred by the Contractor in the expectation of completing the Works as per mutually agreed programme.

(d) the Cost of removal of Temporary Works and Contractor's Equipment from the Site and the return of these items to the Contractor's works in his country (or to any other destination at no greater cost).

20. Claims, Disputes and Arbitration

20.1 Contractor's Claims

If the Contractor considers himself to be entitled to any extension of the Time for Completion and/or any additional payment, under any Clause of these Conditions or otherwise in connection with the Contract, the Contractor shall give notice to the Engineer, describing the event or circumstance giving rise to the claim. The notice shall be given as soon as practicable, and not later than 28 days after the Contractor became aware, or should have become aware, of the event or circumstance.

If the Contractor fails to give notice of a claim within such period of 28 days, the Time for Completion shall not be extended, the Contractor shall not be entitled to additional payment, and the Employer shall be discharged from all liability in connection with the claim. Otherwise, the following provisions of this Sub-Clause shall apply.

The Contractor shall also submit any other notices which are required by the Contract, and supporting particulars for the claim, all as relevant to such event or circumstance.

The Contractor shall keep such contemporary records as may be necessary to substantiate any claim, either on the Site or at another location acceptable to the Engineer. Without admitting the Employer's liability, the Engineer may, after receiving any notice under this Sub-Clause, monitor the record-keeping and/or instruct the Contractor to keep further contemporary records. The Contractor shall permit the Engineer to inspect all these records, and shall (if instructed) submit copies to the Engineer.

Within 42 days after the Contractor became aware (or should have become aware) of the event or circumstance giving rise to the claim, or within such other period as may be proposed by the Contractor and approved by the Engineer, the Contractor shall send to the Engineer a fully detailed claim which includes full supporting particulars of the basis of the claim and of the extension of time and/or additional payment claimed. If the event or circumstance giving rise to the claim has a continuing effect:

(a) this fully detailed claim shall be considered as interim;

(b) the Contractor shall send further interim claims at monthly intervals, giving the accumulated delay and/or amount claimed, and such further particulars as the Engineer may reasonably require; and

(c) the Contractor shall send a final claim within 28 days after the end of the effects resulting from the event or circumstance, or within such other period as may be proposed by the Contractor and approved by the Engineer.

Within 42 days after receiving a claim or any further particulars supporting a previous claim, or within such other period as may be proposed by the Engineer and approved by the Contractor, the Engineer shall respond with approval, or with disapproval and detailed comments. He may also request any

necessary further particulars, but shall nevertheless give his response on the principles of the claim within such time.

Each Payment Certificate shall include such amounts for any claim as have been reasonably substantiated as due under the relevant provision of the Contract. Unless and until the particulars supplied are sufficient to substantiate the whole of the claim, the Contractor shall only be entitled to payment for such part of the claim as he has been able to substantiate.

The Engineer shall proceed in accordance with Sub-Clause 3.5 [Determinations] to agree or determine (i) the extension (if any) of the Time for Completion (before or after its expiry) in accordance with Sub-Clause 8.4 [Extension of Time for Completion], and/or (ii) the additional payment (if any) to which the Contractor is entitled under the Contract.

The requirements of this Sub-Clause are in addition to those of any other Sub-Clause which may apply to a claim. If the Contractor fails to comply with this or another Sub-Clause in relation to any claim, any extension of time and/or additional payment shall take account of the extent (if any) to which the failure has prevented or prejudiced proper investigation of the claim, unless the claim is excluded under the second paragraph of this Sub-Clause.

20.2 Amicable Settlement

In case any dispute between the Engineer and the Contractor for which claim has already been made by the contractor, remains unresolved, the Contractor shall, then, give notice of dissatisfaction and intention to commence arbitration to the Employer duly specifyingthe subject of the dispute or difference as also the amount of claim item wise. The Parties shall make attempts to settle the dispute amicably before the commencement of arbitration. However, unless both Parties agree otherwise, demand for arbitration may be made by the contractor after ninety days from the day on which a notice of dissatisfaction and intention to commence arbitration was given, even if no attempt at amicable settlement has been made.

20.3 Arbitration

Any dispute, in respect of which amicable settlement has not been reached, arising between the Employer and the Domestic or Foreign Contractor related to any matter arising out of or connected with this contract, then the contractor, after 90 days but within 150 days from the day on which a notice of dissatisfaction and intention to commence arbitration was given under GCC 20.2, shall be entitled to demand in writing that the dispute or difference be referred to arbitration.

Only such dispute(s) or difference(s) in respect of which the demand had been made for amicable settlement under GCC 20.2 but could not be settled, together with counter claims or set off, given by the Employer, shall be referred to arbitration subject to the condition that total amount of claims in the contract is not exceeding 20% of the contract price. Other matters shall not be included in the reference.

The Arbitration proceedings shall be assumed to have commenced from the day, a written and valid demand for arbitration is received by Chairman and

Managing Director, Rail Vikas Nigam Limited, New Delhi (CMD/RVNL).

The disputes so referred to arbitration shall be settled in accordance with the Indian Arbitration & Conciliation Act, 1996 and any statutory modification or re-enactment thereof.

Further, it is agreed between the parties as under:

20.3.1 **Number of Arbitrators:** The arbitral tribunal shall consist of:

(i) Sole Arbitrator in cases where the total value of all claims in question added together does not exceed Rs. 2 Crore;

(ii) 3 (Three) arbitrators in all other cases.

20.3.2 **Procedure for Appointment of Arbitrators:** The arbitrators shall be appointed as per following procedure:

(i) In case of Sole Arbitrator: CMD/RVNL shall appoint an arbitrator within 60 days from the day when a written and valid demand for arbitration is received by CMD/RVNL.

(ii) In case of 3 Arbitrators:

(a) Within 60 days from the day when a written and valid demand for arbitration is received by CMD/RVNL, the Employer will forward a panel of 3 names to the contractor. The contractor will then give his consent for any one name out of the panel to be appointed as one of the Arbitrators within 30 days of dispatch of the request by the Employer.

(b) Employer will decide the second Arbitrator. CMD/RVNL shall appoint the two Arbitrators, including the name of one Arbitrator for whom consent was given by the contractor, within 30 days from the receipt of the consent for one name of the Arbitrator from the contractor. In case the contractor fails to give his consent within 30 days of dispatch of the request of the Employer then CMD/RVNL shall nominate both the Arbitrators from the panel.

(c) The third Arbitrator shall be chosen by the two Arbitrators so appointed by the parties and shall act as Presiding Arbitrator. In case of failure of the two Arbitrators appointed by the parties to reach upon consensus within a period of 30 days from the appointment of the Arbitrators subsequently appointed, then, upon the request of either or both parties, the Presiding Arbitrator shall be appointed by the Chairman and Managing Director, Rail Vikas Nigam Limited, New Delhi.

(d) If one or more of the arbitrators appointed as above refuses to act as arbitrator, withdraws from his office as arbitrator, or vacates his/their office/offices or is/are unable or unwilling to perform his functions as arbitrator for any reason whatsoever or dies or in the opinion of the CMD/RVNL fails to act without undue delay, the CMD/RVNL shall appoint new arbitrator/arbitrators to act in his/their place except in case of new Presiding Arbitrator who shall be chosen following the same procedure as mentioned in para (ii)(c) above. Such re-constituted Tribunal may, at its discretion, proceed with the reference from the stage at which it was left by the previous arbitrator(s).

20.3.3 **Qualification and Experience of Arbitrators (to be appointed as per sub-clause 20.3.2 above):** The arbitrators to be appointed shall have minimum qualification and experience as under:

Arbitrator shall be;

a working/retired officer (not below E-9 grade and above in a PSU with which RVNL has no business relationship) of any discipline of Engineering or Accounts/Finance department, having experience in Contract Management of construction contracts; or

a retired officer (retired not below the HAG level in Railways) of any Engineering Services of Indian Railways or Indian Railway Accounts Service, having experience in Contract Management of construction contracts; or a retired officer who should have retired more than 3 years previously from the date of appointment as Arbitrator (retired not below E-9 grade in RVNL or a PSU with which RVNL has a business relationship) of any Engineering discipline or Accounts/Finance department, having experience in Contract Management of construction contracts.

No person other than the persons appointed as per above procedure and having above qualification and experience shall act as Arbitrator.

20.3.4 No new claim shall be added during proceedings by either party. However, a party may amend or supplement the original claim or defence thereof during the course of arbitration proceedings subject to acceptance by Tribunal having due regard to the delay in making it.

20.3.5 Neither party shall be limited in the proceedings before such arbitrators to the evidence nor did arguments previously put before during amicable settlement.

20.3.6 The reference to arbitration may proceed, notwithstanding that the Works shall not then be or be alleged to be complete, provided always that the obligations of the Employer, the Engineer and the Contractor shall not be altered by the

reason of the arbitration being conducted during the progress of the Works. Neither party shall be entitled to suspend the Works, nor shall payment to the Contractor be withheld on account of such proceedings

20.3.7 If the contractor(s) does/do not prefer his/their specific and final claims in writing, within a period of 90 days of receiving the intimation from the Employer/Engineer that the final bill is ready for signature of the contractor(s), he/they will be deemed to have waived his/their claim(s) and the Employer shall be discharged and released of all liabilities under the contract in respect of these claims.

20.3.8 Arbitration proceedings shall be held at New Delhi, India or at a place where CPM/RVNL's (dealing the contract) office is located, and the language of the arbitration proceedings and that of all documents and communications between the parties shall be in English.

20.3.9 The Arbitral Tribunal should record day to day proceedings. The proceedings shall normally be conducted on the basis of documents and written statements

All arbitration awards shall be in writing and shall state item wise, the sum and detailed reasons upon which it is based.

20.3.10 Any ruling on award shall be made by a majority of members of Tribunal. In the absence of such a majority, the views of the Presiding Arbitrator shall prevail.

A party may apply for correction of any computational errors, any typographical or clerical errors or any other error of similar nature occurring in the award of a tribunal and interpretation of specific point of award to tribunal within 60 days of the receipt of award**.**

A party may apply to tribunal within 60 days of receipt of award to make an additional award as to claims presented in the arbitral proceedings but omitted from the arbitral award.

20.3.11 Where the Arbitral award is for the payment of money, no interest shall be payable on whole or any part of the money for any period till the date on which the award is made.

20.3.12 The fees and other charges of the conciliator/arbitrators shall be as per the scales fixed by the employer from time to time irrespective of the fact whether the Arbitrator(s) is/are appointed by the Employer or by the Court of law unless specifically directed by Hon'ble Court otherwise on the matter, and shall be shared equally by the Employer and the Contractor. However, the expenses incurred by each party in connection with the preparation,

presentation will be borne by itself.

21. Jurisdiction of courts

The Contract Agreement shall be subject to exclusive jurisdiction of Courts as indicated in the Contract Data.

APPENDIX 1

SALIENT FEATURES OF SOME MAJOR LABOUR LAWS APPLICABLE TO ESTABLISHMENTS ENGAGED IN BUILDING AND OTHER CONSTRUCTION WORK

(The laws as current on the date of bid opening will apply)

a) **Workmen Compensation Act 1923**: The Act provides for compensation in case of injury by accident arising out of and during the course of employment.

b) **Payment of Gratuity Act 1972**: Gratuity is payable to an employee under the Act on satisfaction of certain conditions on separation if an employee has completed 5 years service or more or on death the rate of 15 days wages for every completed year of service. The Act is applicable to all establishments employing 10 or more employees.

c) **Employees P.F. and Miscellaneous Provision Act 1952 (since amended):** The Act Providesfor monthly contributions by the employer plus workers @ 10% or 8.33%. The benefits payable under the Act are :

   (i) Pension or family pension on retirement or death, as the case may be.

   (ii) Deposit linked insurance on the death in harness of the worker.

   (iii) payment of P.F. accumulation on retirement/death etc.

d) **Maternity Benefit Act 1951**: The Act provides for leave and some other benefits to women employees in case of confinement or miscarriage etc.

e) **Contract Labour (Regulation & Abolition) Act 1970**: The Act provides for certain welfare measures to be provided by the Contractor to contract labour and in case the Contractor fails to provide, the same are required to be provided, by the Principal Employer by Law. The Principal Employer is required to take Certificate of Registration and the Contractor is required to take license from the designated Officer. The Act is applicable to the establishments or Contractor of Principal Employer if they employ 20 or more contract labour.

f) **Minimum Wages Act 1948**: The Employer is supposed to pay not less than the Minimum Wages fixed by appropriate Government as per provisions of the Act if the employment is a scheduled employment. Construction of Buildings, Roads, Runways are scheduled employments.

g) **Payment of Wages Act 1936:** It lays down as to by what date the wages are to be paid, when it will be paid and what deductions can be made from the wages of the workers.

h) **Equal Remuneration Act 1979**: The Act provides for payment of equal wages for work of equal nature to Male and Female workers and for not making discrimination against Female employees in the matters of transfers, training and promotions etc.

i) **Payment of Bonus Act 1965**: The Act is applicable to all establishments employing 20 or more employees. The Act provides for payments of annual bonus subject to a minimum of 8.33% of wages and maximum of 20% of wages to employees drawing Rs.3500/-per month or less. The bonus to be paid to employees getting Rs.2500/- per month or above upto Rs.3500/- per month shall be worked out by taking wages as Rs.2500/-per month only. The Act does not apply to certain establishments. The newly set-up establishments are exempted for five years in certain circumstances. Some of the State Governments have reduced the employment size from 20 to 10 for the purpose of applicability of this Act.

j) **Industrial Disputes Act 1947**: The Act lays down the machinery and procedure for resolution of Industrial disputes, in what situations a strike or lock-out becomes illegal and what are the requirements for laying off or retrenching the employees or closing down the establishment.

k) **Industrial Employment (Standing Orders) Act 1946**: It is applicable to all establishments employing 100 or more workmen (employment size reduced by some of the States and Central Government to 50). The Act provides for laying down rules governing the conditions of employment by the Employer on matters provided in the Act and get the same certified by the designated Authority.

l) **Trade Unions Act 1926:** The Act lays down the procedure for registration of trade unions of workmen and employers. The Trade Unions registered under the Act have been given certain immunities from civil and criminal liabilities.

m) **Child Labour (Prohibition & Regulation) Act 1986**:The Act prohibits employment of children below 14 years of age in certain occupations and processes and provides for regulation of employment of children in all other occupations and processes. Employment of Child Labour is prohibited in Building and Construction Industry.

n) **Inter-State Migrant workmen's (Regulation of Employment & Conditions of Service) Act 1979:** The Act is applicable to an establishment which employs 5 or more inter-state migrant workmen through an intermediary (who has recruited workmen in one state for employment in the establishment situated in another state). The Inter-State migrant workmen, in an establishment to which this Act becomes applicable, are required to be provided certain facilities such as housing, medical aid, travelling expenses from home upto the establishment and back, etc.

o) **The Building and Other Construction workers (Regulation of Employment and Conditions of Service) Act 1996 and the Cess Act of 1996:** All the establishments who carry on any building or other construction work and employs 10 or more workers are covered under this Act. All such establishments are required to pay cess at the rate not exceeding 2% of the cost of construction as may be modified by the Government. The Employer of the establishment is required to provide safety measures at the Building or construction work and other welfare measures, such as Canteens, First-Aid facilities, Ambulance, Housing accommodations for workers near the work place etc. The Employer to whom the Act applies has to obtain a registration certificate from the Registering Officer appointed by the Government.

As per Central Government's Notification No.S.O.2899 dated 26.09.1996 under this act, the cess shall be levied @1% of cost of construction works which shall be deducted from each bill of the payment due to the contractor.

p) **Factories Act 1948**: The Act lays down the procedure for approval at plans before setting up a factory, health and safety provisions, welfare provisions, working hours, annual earned leave and rendering information regarding accidents or dangerous occurrences to designated authorities. It is applicable to premises employing 10 persons or more with aid of power or 20 or more persons without the aid of power engaged in manufacturing process.

Section 7

Special/Particular Conditions of Contract

Part A: Contract Data

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Section 7 - Special Conditions of Contract

The following Special Conditions of Contract (SCC) shall supplement the General Conditions of Contract (GCC). Whenever there is a conflict, the provisions herein shall prevail over those in the GCC

Part A - Contract Data

Conditions	Reference to GCC	Data	
Employer's name and address	1.1.2.2 & 1.3	Rail Vikas Nigam Limited (A Government of India Enterprise) 1St Floor, August Kranti Bhavan, Bhikaji Cama Place,R K Puram New Delhi -110 066 Tele: 91-11-26182963/69/70/72 Fax: 91-11-26182957	
Employer's Representative	1.1.2.6	Chief Project Manager(West) Rail Vikas Nigam Ltd., Amsri Faust, 5th floor, Door No. 9-1-164/A, 165 & 166, Sarojini Devi Road, SECUNDERABAD – 500 003. Phone No.040 - 27710153 & 27710154 Fax: +91 40 - 27710755 E-mail: cpmwestsc@rvnl.org	
Engineer's name and address	1.1.2.4 & 1.3 (b)	Will be notified later	
Defects Notification Period	1.1.3.7	180 days.	
Sections	1.1.5.6; 1.1.3.3 & 8.2	**Project Sections Name/Description** (Sub-Clause 1.1.5.6**)**	**Time for Completion** (Sub-Clause1.1.3.3 & 8.2**)**
		Entire Works:	**24 Months**
Electronic transmission systems	1.3 (a)	Not permitted	
Address for Communication to Employer	1.3 (b)	Chief Project Manager(West) Rail Vikas Nigam Ltd., Amsri Faust, 5th floor, Door No. 9-1-164/A, 165 & 166, Sarojini Devi Road, SECUNDERABAD – 500 003. Phone No.040 - 27710153 & 27710154 Fax: +91 40 - 27710755 E-mail: cpmwestsc@rvnl.org	
Governing Law	1.4	The Laws of Republic of India	
Ruling language	1.4	English	
Language for communications	1.4	English	
Time for access to Site	2.1	Starting from the Date of Commencement, the	

Conditions	Reference to GCC	Data
(after the date of commencement)		site will be progressively handed over in 90 days.
Performance Security	4.2 & 11.9	(a) The Performance Security shall be for an amount of 10% (Ten percent) of the Accepted Contract Amount and in the same currency(ies) of the Accepted Contract amount in the prescribed form for the stated amount valid for a period of 28 days beyond issue of performance certificate. (b) Additional Performance Security, if any, shall be for an amount as determined by Employer in terms of ITB 35.5 and informed through letter of award and in the same currency(ies) of the Accepted Contract amount in the prescribed form valid for a period of 28 days beyond issue of performance certificate.
Normal working hours	6.5	Sunrise to Sunset (This may be modified to suit the work requirements).
Commencement of works	8.1	Within forty-two (42) days from the date Contractor receives Letter of acceptance.
Delay damages for the Works	8.7	(i) 1/25000 of the Contract Price per day in the currencies and proportions in which the Contract Price is payable in case of delay in completion for entire works; (ii) Physical targets have been indicated in Contract Key dates at Para 2.17 of Section 5. In case the contractor fails to meet the commitment of any specified key dates, the contractor shall be liable to pay the delay damages at the rate specified for failure to achieve physical/financial targets at Clause 8.7 of GCC.
Maximum amount of delay damages	8.7	10% (ten percent) of the Contract Price.
Amount of bonus for early completion	8.13	(i) 1% of initial Contract Price per month (part of the month to be excluded) for completion of entire works.
Maximum limit of bonus	8.13	(i) 5% of Contract Price
State Capital Applicable		Mumbai

<table>
<tr><th>Conditions</th><th>Reference to GCC</th><th>Data</th></tr>
<tr><td>Mobilization advance payment</td><td>14.2.1</td><td>Comprises of the percentage of Accepted Contract Amount payable in the currencies and proportions in which the Accepted Contract Amount is payable and in installments as mentioned below;

<table><tr><th>Mobilisation Advance</th><th>Installments</th></tr><tr><td>As per request of the Contractor subject to a maximum of 5%</td><td>Two Equal</td></tr></table></td></tr>
<tr><td>Timing of Mobilization Advance Payment</td><td>14.2.1</td><td>First Installment within 21 (Twenty one) days from the date of receipt of guarantee acceptable to Employer.

Second Installment shall be released only when the contractor submits statement of having utilized the First Installment of mobilization Advance and the Employer is satisfied that the utilization has been done in purposeful manner. This shall be released within 21 days from the date of receipt of guarantee acceptable to the Employer.</td></tr>
<tr><td>Advance Payment against Plant and Machinery</td><td>14.2.2</td><td>The total advance for Plant and Machinery shall be limited to 5.% of the Contract price. Each time advance shall be paid within 21 days from the date of receipt of guarantee acceptable to the Employer subject to the fulfillment of other conditions of the sub-clause.</td></tr>
<tr><td>Interest on Advance Payment</td><td>14.2.1 & 14.2.2</td><td>At the rate of 8.7% (Eight point seven percent) simple interest per annum on reducing balances.</td></tr>
</table>

Conditions	Reference to GCC	Data
Repayment rate of Advance payment	14.2.4	Repayment of each instalment of advance payment shall be made in {**0.8T- (3+A)}** equal monthly instalments. Where **'T'** is the completion period in months and **'A'** is number of calendar months elapsed from the date of commencement till the release of instalment of advance payment. Any fraction of number of instalment shall be ignored for this purpose. It is clarified that if the number of instalments for repayment works out to be less than one, no payment of advance shall be payable. The due date for repayment shall be 10th of the succeeding month in which the monthly instalment becomes due. The repayment shall include the amount of monthly instalment plus accrued interest on reducing balance till the end of preceding month of the due date. The repayment can be either through electronic transfer or through Demand Draft, failing which the bank guarantee for the advance amount due including the accrued interest will be encashed.
Percentage of Retention Money	14.3	Retention money shall be deducted @ 2% of the total value of 'exclusive supply items' of BOQ; i. against which last installment of stage payment is included in the interim payment certificate for items having stage payment condition; ii. full payment against items (not having any stage payment condition) included in the interim payment certificate. It is clarified that retention money is not applicable to advance payment under clause 14.5(c).
Limit of Retention Money	14.3	2% of the Contract Price
Plant and Materials	14.5 (b) (i)	Not applicable
	14.5(c) (i)	Plant and materials when delivered at site are : 1.Cement 2. Reinforcement steel 3. Bridge bearings 4. Pre-stressed cables (High Tensile steel) 5. SSI 6. Axle counter 7.All types of insulators 8.Substation and switch gear items 9. M&P items

Conditions	Reference to GCC	Data
Minimum Amount of Interim Payment Certificates	14.6	**INR 2.66 crore** for first six months of the Time of completion and **INR 10.64** crores for rest of the period.
Maximum Total Liability of the Contractor	17.6	Accepted Contract Amount
Periods for submission of insurance: **a) evidence of insurance** **b) relevant policies**	18.1	a) 14 days b) 28 days
Maximum amount of deductibles for insurance of Employer's risks.	18.2 (d)	NIL
Minimum amount of insurance by the Contractor for Works and Contractor's Plant and Materials including loss or damage to equipment.	18.2	100 (hundred) percent of Contract price
Minimum amount of insurance by the Contractor for Third party insurance including damage to Other Property and personal injury or death insurance for: a) for other people, and b) for Contractor's Employees.	18.3	Rs.2 (two) crores per occurrence without any limit for number of occurrences.
Jurisdiction of Courts	21	Delhi.

Section 7

Special/Particular Conditions of Contract

Part B: Specific Provisions

SECTION – 7
PART B

PARTICULAR CONDITIONS OF CONTRACT

Whenever there is a conflict or inconsistency between the provisions of the Particular Conditions of Contract–Section 7 PART B and the General Conditions of Contract–Section 6, the provisions stipulated in Particular Conditions of Contract–Section 7 PART B shall prevail and supersede those appearing in the General Conditions of Contract–Section 6.

Section 7 – PART B - Particular Conditions of Contract

The following Particular Conditions of Contract (PCC) Section 7-Part B shall supplement the General Conditions of Contract (GCC) Section 6. Whenever there is a conflict, the provisions herein shall prevail over those in the GCC Section 6.

Table of Clauses

Reference to Sub Clause	Subject	Page No.	Remarks
4.8	Annexure 1 – Safety Provisions	4	Amended
13.8	Annexure 2 – Adjustments for changes in cost, Percentages governing Price Adjustment	8	
13.8 (c) (v)		62	State capital= Mumbai

Annexure 1 to Section 7

Safety Provisions

(1) The Contractor shall comply with all the precautions as required for the safety of the workmen by the I.L.O Convention No.62 as far as they are applicable to the Contract. The Contractor shall provide all necessary safety appliances; such as safety goggles, helmets, masks, etc to the workmen and the staff.

(2) Suitable scaffolds shall be provided for workmen for all work that cannot safely be done from the ground, or from solid construction except for such short period work as can be done safely from ladders. When a ladder is used, an extra labourer shall be engaged for holding the ladder and if the ladder is used for carrying materials as well, suitable foot-holds and hand-holds shall be provided on the ladder, which shall be given an inclination not steeper than 1/4 to 1 (1/4 horizontal in 1 vertical)

(3) Scaffolding or staging more than 3.25 metres above the ground or floor, swung or suspended from an overhead support or erected with stationary support, shall have a guard rail properly attached, bolted, braced and otherwise secured at least 1 metre high above the floor or platform of such scaffolding or staging and extending along the entire length of the outside and ends thereof with only such openings as maybe necessary for the delivery of materials. Such scaffolding or staging shall be so fastened as to prevent it from swaying in from the support or structure.

(4) Working platforms, gangways and stairways shall be so constructed that they do not sag unduly or unequally, and if the height of any platform or gangway or stairway is more than 3.25 metres above ground level or floor level, it shall have closely spaced boards, have adequate width and be suitably provided with guard rails as described in (3) above.

(5) Every opening in the floor of a structure or in a working platform shall be provided with suitable means to prevent fall of persons or materials by providing suitable fencing or railing with a minimum height of one metre.

(6) Safe means of access and egress shall be provided to all working platforms and other working places. Every ladder shall be securely fixed. No portable single ladder shall be over 9 metres in length. The width between side rails in a rung ladder shall in no case be less than 30 cm for ladders up to and including 3 metres in length. For longer ladders the width shall be increased at least 6 mm for each additional 30 cm of length. Spacing of steps shall be uniform and shall not exceed 30 cm.

(7) Adequate precautions shall be taken to prevent danger from electrical equipment. Adequate safety measures shall be taken when any work is undertaken near any live highly charged electric wire. Necessary shutdown may be arranged, where and whenever essential. All rules in force in this connection shall be fully complied with. The Contractor shall ensure all precautions to prevent any accidents due to electrocution or otherwise.

(8) No materials on any of the sites shall be so stacked or placed as to cause danger or inconvenience to any person or the public. The Contractor shall provide all necessary fencing and lights to protect the public from accidents and shall be bound to bear the

expenses of defending every suit, action or other proceedings at law that may be brought by any person for injury sustained owing to neglect of the above precautions and to pay any damages and costs which may be awarded in any such suit, action or proceedings to any such person or which may with the consent of the Contractor be paid to compromise any claim by any such person.

(9) Excavation and Trenching : All trenches, 1.5 metres or more in depth, shall at all times be supplied with at least one ladder for each 20 metres in length or fraction thereof, Ladders shall be extended from the bottom of the trench to at least 1 metre above the surface of the ground. The sides of a trench, which is 1.5 metres or more in depth shall be stepped back to provide a suitable slope, or be securely held by timber bracing so as to avoid the danger of side collapse. Excavated material shall not be placed within 1.5 metres of the edge of any trench or half the depth of the trench, whichever is more. Excavation shall be made from the top to the bottom. Under no circumstances shall undermining or undercutting be done.

(10) Demolition : Before any demolition work is commenced and also during the process of the work :

(a) All roads and open areas adjacent to the work site shall either be closed or suitably protected.

(b) No electric cable or apparatus, which is liable to be a source of danger other than a cable or apparatus used by operators, shall remain electrically charged:

(c) All practical steps shall be taken to prevent danger to persons employed by the Employer, from risk of fire or explosion, or flooding. No floor, roof or other part of a building shall be so overloaded with debris or materials as to render it unsafe.

(11) All necessary personal safety equipment as considered adequate by the Engineer shall be available for use of persons employed on the site and maintained in a condition suitable for immediate use; and the Contractor shall take adequate steps to ensure proper use of such equipment by those concerned.

(a) Workers employed on mixing asphaltic materials, cement, lime mortars, concrete etc. shall be provided with protective footwear and protective goggles.

(b) Those engaged in handling any material, which is injurious to the eyes, shall be provided with protective goggles.

(c) Those engaged in welding works shall be provided with welder's protective eye-shield.

(d) Stone breakers shall be provided with protective goggles and protective clothing and seated at sufficiently safe intervals.

(e) When workers are employed in sewers and manhole, which are in use, the contractor shall ensure that manhole covers are open and manholes are

ventilated at least for an hour before workers are allowed to go into them. Manholes so open shall be cordoned off with suitable railing and provide warning signals or boards to prevent accidents to the public.

(12) The Contractor shall not employ men below the age of 18 years and women, on the work of painting with products containing lead in any form. Whenever men above the age of 18 years are employed on the work of lead painting, the following precautions shall be taken:

(a) No paint containing lead or lead products shall be used except in the form of paste or ready made paint.

(b) Suitable face masks shall be supplied for use by workers when paint is applied in the form of spray or a surface having lead paint dry rubbed and scrapped.

(c) Overalls shall be supplied by the Contractor to workmen and adequate facilities shall be provided to enable workers to wash during and at the close of any day's work.

(13) When work is performed near any place where there is risk of drowning all necessary equipment shall be provided and kept ready for use and all necessary steps taken for prompt first aid treatment of all injuries likely to be sustained during the course of the work.

(14) Use of hoisting machines and tackle including their attachments, anchorage and supports shall conform to the following:

(a) (i) These shall be of good mechanical construction, sound material and adequate strength and free from patent defects and shall be kept in good working order, be regularly inspected and properly maintained.

(ii) Every rope used in hoisting or lowering materials or as a means of suspension shall be of durable quality and adequate strength, and free from defects

(b) Every crane driver or hoisting appliance operator shall be properly qualified and no person under the age of 21 shall be in charge of any hoisting machine including scaffold equipment. Only trained men over the age of 21 shall be permitted to give signals to such plant and appliance operators.

(c) For every hoisting machine and every chain hook, shackle, swivel and pulley block used in hoisting, lowering or as means of suspension, safe working load shall be ascertained by adequate means. Every hoisting machine and all gear referred to above shall be plainly marked with safe working load. In case of a hoisting machine or a variable safe working load, each safe working load and conditions under which it is applicable shall be clearly indicated. No part of any machine or any gear referred to in the paragraph above shall be loaded beyond safe working load except for the purpose of testing.

(d) In case of the Employer's machine, safe working load shall be notified by the Engineer or his Representative. As regards Contractor's machines, the

Contractor shall notify safe working load of each machine to the Engineer or his Representative, whenever he brings it to the site of work and get it verified by him.

(15) Motors, gearing, transmission, electric wiring and other dangerous parts of hoisting appliances shall be provided with efficient safeguards; hoisting appliances shall be provided with such means as will reduce the risk of accident during descent of load to the minimum. Adequate precautions shall be taken to reduce to the minimum risk of any part of a suspended load becoming accidentally displaced. When workers are employed on electrical installations, which are already energised, insulating mats, working apparel such as gloves, sleeves and boots, as may be necessary, shall be provided. Workers shall not wear any rings, watches and carry keys or other materials which are good conductor of electricity.

(16) All scaffolds, ladders and other safety devices mentioned or described herein shall be maintained in a safe condition and no scaffold, ladder or equipment shall be altered or removed while it is in use. Adequate washing facilities shall be provided at or near places of work.

(17) These safety provisions shall be brought to the notice of all concerned by displaying on a notice board at a prominent place at the work location. Persons responsible for ensuring compliance with the Safety Code shall be named therein by the Contractor.

(18) To ensure effective enforcement of the rules and regulations relating to safety precautions, arrangements made by the contractor shall be open to inspection by the Engineer or his Representative.

(19) Notwithstanding anything contained in conditions (1) to (17) above, the Contractor shall at its own costs, remain liable to comply with the provisions of all acts, rules, regulations, and bylaws for the time being in force in India and applicable in this matter.

(20) For work carried out in the vicinity of any wharf or quay, the Contractor shall abide by all the provisions of the Dock Workers (Safety, Health and Welfare) Scheme, 1961.

(21) The Contractor shall at his own expense provide protective safety Equipment like gloves and footwear for all labour engaged on concrete mixing work and all other types of working involving the use of tar, cement, etc. to the satisfaction of the Engineer or his Representative, and on his failure to do so, the employer shall be entitled to provide the same and recover the cost from the Contractor.

(22) The Contractor shall be responsible for observance, by the sub-contractors, of the foregoing provisions.

"Clause 13, Sub – Clause 13.8: Adjustment for changes in cost

Annexure 2 to Section 7

Percentages governing Price adjustment

Coefficients governing the adjustment of changes in cost

S. No.	Cost Element	Symbol	Bill of Quantity wise % component											
			Bill No. 1, 2A, 3, 5A, 7A	Bill No. 4B	Bill No. 2C	Bill No. 6, 9, 10 & 4A	Bill No. 2B, 5B, 7B	Bill No. 8	Bill No. 16 to 33	Bill No. 11 Gr A	Bill No. 11 Gr B	Bill No. 11 Gr C	Bill No. 11 Gr D	Bill 13 A to 13 E
1	Fixed	Px	15	15	15	15	15	15	15	15	As per Clause 13.8 (xi) of GCC.	15	15	No price variation applicable
2	Labour	Pl	15	5	5	25	15	5	15	5		5	65	
3a	Steel Formulae-I	P_s	0	75	0	20	50	0	20	35		35	0	
3b	Steel Formulae-II	P_s	0	0	75	0	0	0	0	0		0	0	
4	Cement	P_c	0	0	0	15	0	75	10	0		0	10	
5	Plant Machinery & Spares	P_p	20	0	0	0	10	0	10	0		0	0	
6	Fuel and Lubricants	P_f	35	5	5	10	5	5	5	5		5	10	
7	Other materials	P_m	15	0	0	15	5	0	15	0		0	0	
8	Other Non Ferrous Metals	P_{cp}	0	0	0	0	0	0	10	40		40	0	
	Total		**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**		**100**	**100**	**100**

Bill No.1: Earthwork in formation.
Bill No.: 2 A: Civil Works (other than steel items)
2 B: Civil Works (steel items involving fabrication and erection)
2 C: Supply of steel items
Bill No.3: Ballast supply
Bill No. 4 A: P. Way supply(Other than Steel Items
4 B: P. Way supply (steel items)
Bill No.5 A: P. Way Linking (installation work)
5 B: P. Way Linking (supply & installation work)
Bill No.6: Buildings
Bill No.7 A: Miscellaneous works (other than steel items)

7 B: Miscellaneous works (steel items)
Bill No 8: Supply of cement
Bill No 9: Site facilities
Bill No.10 : Miscellaneous items of SCR's USSOR 2010

Bill No 11 : Group A Series 36 & NS,
Group B Series 37 &
Group C Series 38, 40 (Item No.40001 to 40356) & NS; S&T (Supply)
Bill No 11 : Group D Series 39, 40 (Item No. 40501 to 40851) & NS ; S&T (Installation)
Bill No 13 A- Supply, installation, testing and commissioning of major machines and Plants
Bill 13 B- Supply, installation, testing and commissioning of other machinery and plants
Bill 13 C- Supply, installation, testing and commissioning of pipe lines
Bill 13 D- Supply and commissioning of office equipment and furniture
Bill 13 E- Supply and commissioning of tools and instruments

Bill No 16: RE/ General
Bill No 17: Switching Post Building
Bill No 19: OHE/ Ferrous- other than steel structure and SPS.
Bill No 20: OHE/ Non-Ferrous-A
Bill No 21: OHE/ Non- Ferrous-B
Bill No 24: Traction Substation.
Bill No 28: Tools and Plants
Bill No 30: Common Item for OHE/TSS
Bill No 33: General Services Electrical Works

Note:- The price variation will be as per relevant clause no. 13.8 (C) (viii), (ix), & (x) of GCC for catenary wire, contact wire, steel structures & traction transformer.

Section 8 - Contract Forms

This Section contains forms which, once completed, will form part of the Contract. The forms for Performance Security and Advance Payment Security, when required, shall only be completed by the successful Bidder after contract award.

All italicized text is for guidance how to prepare the various forms and shall be deleted from the final documents.

Table of Forms

Letter of Acceptance Form No. COF/1…….. 2

Contract Agreement Form No. COF/2…..…… 3

Form of Contract Performance Security Form No. COF/3 …… 5

Form of additional Performance Security……..…… 8

Advance Payment Security…… . 11

Proforma for Bank Guarantee for Advance against Supply of Plant and Materials ….. 15

Form of Bank Guarantee For Release of Balance Retention Money……..….. 18

FORM No. COF/1

Letter of Acceptance

[on letterhead paper of the Employer]

. . . . . date. . . . . .

To: . …. . .*[name and address of the Contractor]* . . . . . .

Subject:. . . . . [*Insert Name and Identification number]……..[Notification of Award]…..*

This is to notify you that your Bid dated . . . . *[Insert Date]*. . . for execution of the . . . *[name of the contract and identification number, as given in the Contract Data] . . .* for the Accepted Contract Amount of the equivalent of INR *. . . [Insert amount in numbers and words and name of the currency]*. . , as corrected and modified in accordance with the Instructions to Bidders, is hereby accepted.

You are requested to furnish the Performance Security within 28 days in accordance with theConditions of Contract, using for that purpose the *of* the Performance Security Form No. COF/3 included in Section 8 (Contract Forms) of the Bidding Document.

Authorized Signature: .....

Name and Title of Signatory: .....

Contract Agreement

THIS AGREEMENT made the . . . . . .day of . . . ., between . . . . . [N*ame of the Employer. . .. .* (hereinafter "the Employer"), of the one part, and . . . . . [*name of the Contractor***]***. .* [1]*. . .*(hereinafter "the Contractor"), of the other part:

WHEREAS the *Employer* desires that the Works known as . . . . . [*name of the Contract***]***. . . . .*should be executed by the Contractor, and has accepted a Bid by the Contractor for the execution and completion of these Works and the remedying of any defects therein,

The Employer and the Contractor agree as follows:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Contract documents referred to.

2. The following documents shall be deemed to form and be read and construed as part of this Agreement. This Agreement shall prevail over all other Contract documents.

   - the Letter of Acceptance
   - the Letter of Technical Bid
   - the Letter of Price Bid
   - the Addenda Nos. . . . . [***insert addenda numbers if any]****. . . . .*
   - the Special Conditions of Contract

     Part A : Contract Data

     Part B : Specific Provisions
   - the General Conditions of Contract;
   - the Specification
   - the Drawings*;*
   - the Work's Requirements
   - the completed Schedules including (priced Bill of Quantities)
   - Any other documents

3. In consideration of the payments to be made by the Employer to the Contractor as indicated in this Agreement, the Contractor hereby covenants with the Employer to execute the Works and to remedy defects therein in conformity in all respects with the provisions of the Contract.

4. The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying of defects therein, the Contract Price or such other sum as may become payable under the

[1] *In case Contractor is a Joint Venture the 'name of the contractor' shall be inserted as under : "the Joint Venture under the name and title of ……, comprising of ….[Lead Partner] ;…….; and ….."*

provisions of the Contract at the times and in the manner prescribed by the Contract.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with the laws of . . . . . [*name of the borrowing country]. . . . .*on the day, month and year indicated above.

Signed by	Signed by .....
for and on behalf of the Employer in the presence of	for and on behalf the Contractor in the presence of
Witness, Name, Signature, Address, Date	Witness, Name, Signature, Address, Date

FORM OF CONTRACTPERFORMANCE SECURITY
(BANK GUARANTEE)

[*Refer Clause 41 of Instructions to Bidders]*

(*On non-judicial stamp paper of the appropriate value in accordance with stamp Act. The stamp paper to be in the name of Executing Bank).*

From:
Name and Address of the Bank…..
…….
To:
The Chairman and ManagingDirector,
Rail Vikas Nigam Limited,
1st Floor, August Kranti Bhawan,
Bhikaji Cama Place, R. K. Puram,
New Delhi-110 066.

WHEREAS**,** Rail Vikas Nigam Limited, hereinafter called the **Employer,** acting through ***[Insert Designation and address of the Employer's Representative]***, has accepted the bid of ***[Insert Name and address of the Contractor]***, hereinafter called the **Contractor,** for the work of ***[Insert Nameof Work]***, vide Notification of Award No.***[Insert Notification of Award No.]***.

AND

WHEREAS, the contractor is required to furnish Performance Security for the sum of ***[Insert Value of Performance Security required]***, in the form of bank guarantee, being a condition precedent to the signing of the contract agreement.

WHEREAS, ***[Insert Nameof the Bank]***,with its Branch ***[Address]***having its Headquarters office at ***[Address]***, hereinafter called the **Bank,** acting through ***[Designation(s) of the authorised person of the Bank]***, have, at the request of the*[Insert name of the JV partner]*, a JV partner on behalf of the contractor, agreed to give guarantee for performance security and additional performance security as hereinafter contained:

1 KNOW ALL MEN by these present that I/We the undersigned ***[Insert name(s) of authorized representatives of the Bank],***being fully authorized to sign and incur obligations for and on behalf of the Bank**,**confirm that the Bank, hereby, unconditionally and irrevocably guarantee to pay the Employer the full amount in the sum of ***[Insert Value of Performance Security required]***as above stated.

2 The Bank undertakes to immediately pay on presentation of demand by the Employer any amount up to and including aforementioned full amount without any demur, reservation or recourse. Any such demand made by the Employer on the Bank shall be final, conclusive and binding, absolute and unequivocal notwithstanding any disputes raised/ pending before any Court, Tribunal, Arbitration or any Authority or any threatened litigation by the Employer of Bank.

3 On payment of any amount less than aforementioned full amount, as per demand of the Employer, the guarantee shall remain valid for the balance amount i.e. the aforementioned full amount less the payment made to the Employer.

4 The Bank shall pay the amount as demanded immediately on presentation of the demand by Employer without any reference to the contractor and without the

Employer being required to show grounds or give reasons for its demand or the amount demanded.

5. The Bank Guarantee shall be unconditional and irrevocable.

6 The guarantee hereinbefore shall not be affected by any change in the constitution of the Bank or in the constitution of the Contractor.

7 The Bank agrees that no change, addition, modifications to the terms of the Contract Agreement or to any documents, which have been or may be made between the Employer and the Contractor, will in any way release us from the liability under this guarantee; and the Bank, hereby, waives any requirement for notice of any such change, addition or modification to the Bank.

8 This guarantee is valid and effective from the date of its issue, which is ***[insert date of issue]***. The guarantee and our obligations under it will expire on ***[Insert the date twenty eight days after the expected end of defect liability period]***. All demands for payment under the guarantee must be received by us on or before that date.

9 The Bank agrees that the Employers right to demand payment of aforementioned full amount in one instance or demand payments in parts totaling up to the aforementioned full amount in several instances will be valid until either the aforementioned full amount is paid to the Employer or the guarantee is released by Employer before the Expiry date.

10 The Bank agrees that itsobligation to pay any amount demanded by the Employer before the expiry of this guarantee will continue until the amount demanded has been paid in full.

11 The expressions Bank and Employer herein before used shall include their respective successors and assigns.

12 The Bank hereby undertakes not to revoke the guarantee during its currency, except with the previous consent in writing of the employer. This guarantee is subject to the Uniform Rules for Demand Guarantees, ICC Publication No. 758.

13 The Guarantee shall be in addition to and without prejudice to any other security Guarantee(s) of the contractor in favour of the Employer available with the Employer. The Bank, under this Guarantee, shall be deemed as Principal Debtor of the Employer.

Date …… ……
Place……. [*Signature of Authorised person of Bank]*

…….
[Name in Block letters]

…….
[Designation]

…….
[P/Attorney] No.

…….
Bank's Seal

[P/Attorney] No…….

Witness:

1. *Signature*
   Name & Address & Seal

2. *Signature*
   Name & address & Seal

Note :

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

2 *In case the guarantee is issued by a foreign Bank, which does not have operations in India, the said bank shall have to provide a counter-guarantee by State Bank of India.*

3, *The Bank Guarantee should be duly attested by Notary public with notarial stamp of appropriate value affixed thereon.*

4. *In case the Contractor is a JV, the Performance Security is required to be furnished on behalf of the JV in favour of the Employer by the JV Partners in proportion of their respective percentage share specified in the JV Agreement. The percentage share of M/s [**Insert Name of the JV Partner**] in the JV is [**Fill share % in the JV**] percent. All the Bank Guarantee of JV Partners are liable to be encashed cumulatively.*

FORM OF ADDITIONAL PERFORMANCE SECURITY
(BANK GUARANTEE)

[Refer Clause 35.5 of Instructions to Bidders]

(On non-judicial stamp paper of the appropriate value in accordance with stamp Act. The stamp paper to be in the name of Executing Bank)

From:
Name and Address of the Bank…..
…….
To:
The Chairman and Managing Director,
Rail Vikas Nigam Limited,
1st Floor, August Kranti Bhawan,
Bhikaji Cama Place, R. K. Puram,
New Delhi-110 066.

WHEREAS**,** Rail Vikas Nigam Limited, hereinafter called the **Employer,** acting through ***[Insert Designation and address of the Employer's Representative]***, has accepted the bid of ***[Insert Name and address of the Contractor]***, hereinafter called the **Contractor,** for the work of ***[Insert Name of Work]***, vide Notification of Award No.***[Insert Notification of Award No.]***.

AND

WHEREAS, the contractor is required to furnish additional Performance Security for the sum of ***[Insert Value of additional Performance Security required]***, in the form of bank guarantee, being a condition precedent to the signing of the contract agreement.

WHEREAS, ***[Insert Name of the Bank]***, with its Branch ***[Address]*** having its Headquarters office at ***[Address]***, hereinafter called the **Bank,** acting through ***[Designation(s) of the authorised person of the Bank]***, have, at the request of the [Insert name of the JV partner], a JV partner on behalf of the contractor, agreed to give guarantee for additional performance security as hereinafter contained:

1 KNOW ALL MEN by these present that I/We the undersigned ***[Insert name(s) of authorized representatives of the Bank],***being fully authorized to sign and incur obligations for and on behalf of the Bank**,** confirm that the Bank, hereby, unconditionally and irrevocably guarantee to pay the Employer the full amount in the sum of ***[Insert Value of additional Performance Security required]***as above stated.

2 The Bank undertakes to immediately pay on presentation of demand by the Employer any amount up to and including aforementioned full amount without any demur, reservation or recourse. Any such demand made by the Employer on the Bank shall be final, conclusive and binding, absolute and unequivocal notwithstanding any disputes raised/ pending before any Court, Tribunal, Arbitration or any Authority or any threatened litigation by the Employer of Bank.

3 On payment of any amount less than aforementioned full amount, as per demand of the Employer, the guarantee shall remain valid for the balance amount i.e. the aforementioned full amount less the payment made to the Employer.

4 The Bank shall pay the amount as demanded immediately on presentation of the demand by Employer without any reference to the contractor and without the Employer being required to show grounds or give reasons for its demand or the amount demanded.

5 The Bank Guarantee shall be unconditional and irrevocable.

6 The guarantee hereinbefore shall not be affected by any change in the constitution of the Bank or in the constitution of the Contractor.

7 The Bank agrees that no change, addition, modifications to the terms of the Contract Agreement or to any documents, which have been or may be made between the Employer and the Contractor, will in any way release us from the liability under this guarantee; and the Bank, hereby, waives any requirement for notice of any such change, addition or modification to the Bank.

8 This guarantee is valid and effective from the date of its issue, which is ***[insert date of issue]***. The guarantee and our obligations under it will expire on ***[Insert the date twenty eight days after the expected end of defect liability period]***. All demands for payment under the guarantee must be received by us on or before that date.

9 The Bank agrees that the Employers right to demand payment of aforementioned full amount in one instance or demand payments in parts totaling up to the aforementioned full amount in several instances will be valid until either the aforementioned full amount is paid to the Employer or the guarantee is released by Employer before the Expiry date.

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

11 The expressions Bank and Employer herein before used shall include their respective successors and assigns.

12 The Bank hereby undertakes not to revoke the guarantee during its currency, except with the previous consent in writing of the employer. This guarantee is subject to the Uniform Rules for Demand Guarantees, ICC Publication No. 758.

13 The Guarantee shall be in addition to and without prejudice to any other security Guarantee(s) of the contractor in favour of the Employer available with the Employer. The Bank, under this Guarantee, shall be deemed as Principal Debtor of the Employer.

Date …… ……
Place……. *[Signature of Authorised person of Bank]*

…….
[Name in Block letters]

…….
[Designation]

……
[P/Attorney] No.

…….
Bank's Seal

[P/Attorney] No……

Witness:

1. *Signature*

Name & Address & Seal

2. *Signature*
   Name & address & Seal

Note :

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

2 *In case the guarantee is issued by a foreign Bank, which does not have operations in India, the said bank shall have to provide a counter-guarantee by State Bank of India.*

3 *The Bank Guarantee should be duly attested by Notary public with notarial stamp of appropriate value affixed thereon.*

4 *In case the Contractor is a JV, the additional Performance Security is required to be furnished on behalf of the JV in favour of the Employer by the JV Partner(s) who is responsible for execution of schedule(s) (as per JV agreement) against which additional Performance Security is required to be submitted in terms of ITB 35.5. All the Bank Guarantee of JV Partners are liable to be encashed cumulatively.*

Advance Payment Security

[Refer Clause 14.2 of GCC]

(On non-judicial stamp paper of appropriate value in accordance with stamp Act. The stamp paper to be in the name of Executing Bank)

From
[Name and Address of the Bank]

To
The Chairman and Managing Director,
Rail Vikas Nigam Limited,
1st Floor, August KrantiBhawan,
BhikajiCama Place, R. K.Puram,
New Delhi – 110 066

Beneficiary: Rail Vikas Nigam Limited.

Guarantee No.: *[…..reference number of the guarantee….]***Dated:** *[……..]*

WHEREAS, Rail Vikas Nigam Limited **(hereinafter called the Employer)** has entered into Contract No. [….*reference number of the Contract….]*dated *[……..]* for the execution of *[name of the contract]* **(hereinafter called the Contract)** with*[….name of the Contractor….]***(hereinafter called the Contractor)**.

WHEREAS, according to the Conditions of the Contract, an advance payment is admissible to the contractor against submission of bank guarantee(s).

At the request of the Contractor, we *[….name of the Bank….]* with our branch at*[….address….],*having our Head Office at *[….address….]* ***(*hereinafter called the Bank)** have, at the request of *[……Insert name of the JV partner…..]*, a JV partner on behalf of the Contractor, agreed to give the said guarantee as hereinafter contained:

1. KNOW ALL MEN by these present that I/We the undersigned *[….Insert name(s) of authorized representative(s) of the Bank….]***,** being fully authorized to sign and incur obligations for and on behalf of the Bank**,** confirm that the Bank, hereby, unconditionally and irrevocably guarantees to pay the Employer the sum of Rs.*[….value in figure….]*(Rupees [….*value in words….] only***(hereinafter called the Full Amount)**.
2. The Bank undertakes to immediately pay to the Employer, without any demur, reservation or recourse, any amount up to and including aforementioned full amount upon first written demand/demands from the Employer.
3. On payment of any amount less than aforementioned full amount, as per demand of the Employer, the guarantee shall remain valid for the balance amount i.e. the aforementioned full amount less the payment made to the Employer.

4. The Bank shall pay the amount so demanded without any reference to the contractor and without the Employer being required to show grounds or give reasons for its demand or the amount demanded.

5. The guarantee hereinbefore shall not be affected by any change in the constitution of the Bank, the Contractor or the Employer.

6. The Bank agrees that no change, addition, modification to the terms of the Contract Agreement or to any document, which have been or may be made between the Employer and the Contractor, will in any way release us from the liability under this guarantee; and the Bank, hereby, waives any requirement for notice of any such change, addition or modification to the Bank.

7. This guarantee is valid and effective from the date of it's issue, which is *[….date of issue….]*. The guarantee and our obligations under it will expire on dated ……..*[….Please refer note 4 & 5….]*. All demands for payment under the guarantee must be received by us on or before that date.

8. The Bank agrees that the Employer's right to demand payment of aforementioned full amount in one instance or demand payments in parts totaling up to the aforementioned full amount in several instances will continue until either the aforementioned full amount is paid to the Employer or the guarantee validity period expires.

9. The Bank agrees that it's obligation to pay any amount demanded by the Employer before the expiry of this guarantee will continue until the amount demanded has been paid in full.

10. The expressions Bank and Employer herein before used shall include their respective successors and assigns.

11. The Bank hereby undertakes not to revoke the guarantee during its currency, except with the previous consent in writing of the employer. This guarantee is subject to the Uniform Rules for Demand Guarantees, ICC Publication No. 758.

Dated[.....]

Place[.....]

……
(Signature of the Authorized Person of the Bank)

.....
(Name in Block Letters)

.....
(Designation)

.....
(Bank's Seal)

.....
(Authorization No.)

Witness:

.....

1. *Signature, Name & Address*

.....

2. *Signature, Name & Address*

Note:

1. *All italicized text in brackets [….text….] is for guidance on how to prepare this bank guarantee and shall be deleted from the final document.*

2. *In case the guarantee is issued by a foreign Bank, the said bank shall have operations in India and should be issued by Indian operations branch of the said bank.*

3. *The Bank Guarantee should be duly attested by Notary Public with notarial stamps of appropriate value affixed thereon.*

4. ***Mobilization Advance under GCC 14.2.1**:*

(a) For Single Entity

For the 1st Installment of Advance, two Bank Guarantees of equal amounts (each equal to half of the first installment of advance plus 10%) shall be furnished. One Bank Guarantee shall be valid for a period equal to 40% of the stipulated completion period of the contract and the second Bank Guarantee shall be valid for a period equal to 60% of the stipulated completion period of the contract.

For the 2nd Installment of Advance, two Bank Guarantees of equal amounts (each equal to half of the second installment of advance plus 10%) shall be furnished. One Bank Guarantee shall be valid for a period equal to 80% of the stipulated completion period of the contract and the second Bank Guarantee shall be valid for the stipulated completion period of the contract.

OR

(b) For JV

For the 1st Installment of Advance, individual JV partner shall furnish Bank Guarantee equal to his share in the 1st installment of Advance plus 10%. Each Bank Guarantee shall be valid for a period equal to 60% of the stipulated completion period of the contract.

For the 2nd Installment of Advance, individual JV partner shall furnish Bank Guarantee equal to his share in the second installment of advance plus 10%. Each Bank Guarantee shall be valid for the stipulated completion period of the contract.

5. ***Advance against Plant and Machinery under GCC 14.2.2:***

(a) For Single Entity

For each Installment of Advance, one Bank Guarantee equal to the installment of advance plus 10% shall be furnished. Each Bank Guarantee shall be valid for the stipulated completion period of the contract.

OR

(b) For JV

For each Installment of Advance, individual JV partner shall furnish a Bank Guarantee equal to his share in the installment of advance plus 10%. Each Bank Guarantee shall be valid for the stipulated completion period of the contract.

Proforma for Bank Guarantee for Advance against Supply of Plant and Materials

[Refer Clause 14.5 of GCC]

(On non-judicial stamp paper of appropriate value in accordance with stamp Act. The stamp paper to be in the name of Executing Bank)

From
[Name and Address of the Bank]

To
The Chairman and Managing Director,
Rail Vikas Nigam Limited,
1st Floor, August Kranti Bhawan,
Bhikaji Cama Place, R. K. Puram,
New Delhi – 110 066

Beneficiary: Rail Vikas Nigam Limited.

Guarantee No.: *[…..reference number of the guarantee….]***Dated:***[……..]*

WHEREAS, Rail Vikas Nigam Limited **(hereinafter called the Employer)** has entered into Contract No. *[….reference number of the Contract….]* dated*[……]* for the execution of *[name of the contract]***(hereinafter called the Contract)** with *[….name of the Contractor….]***(hereinafter called the Contractor)**.

WHEREAS, according to the Conditions of the Contract, an amount at the rate of 80% of the cost of the Plant and Materials (including delivery at site) is admissible to the contractor against submission of bank guarantee of equivalent amount.

At the request of the Contractor, we *[….name of the Bank….]*with our branch at *[….address….],* having our Head Office at*[….address….]***(hereinafter called the Bank)** have, at the request of the Contractor, agreed to give the said guarantee as hereinafter contained:

1. KNOW ALL MEN by these present that I/We the undersigned *[….Insert name(s) of authorized representative(s) of the Bank….]***,** being fully authorized to sign and incur obligations for and on behalf of the Bank**,** confirm that the Bank, hereby, unconditionally and irrevocably guarantees to pay the Employer the sum of Rs. *[….value in figure….]* (Rupees *[….value in words….]* only **(hereinafter called the Full Amount)**.
2. The Bank undertakes to immediately pay to the Employer, without any demur, reservation or recourse, any amount up to and including aforementioned full amount upon first written demand/demands from the Employer.
3. On payment of any amount less than aforementioned full amount, as per demand of the Employer, the guarantee shall remain valid for the balance amount i.e. the aforementioned full amount less the payment made to the Employer.
4. The Bank shall pay the amount so demanded without any reference to the contractor and without the Employer being required to show grounds or give reasons for its demand or the amount demanded.

5. The guarantee hereinbefore shall not be affected by any change in the constitution of the Bank, the Contractor or the Employer.

6. The Bank agrees that no change, addition, modification to the terms of the Contract Agreement or to any document, which have been or may be made between the Employer and the Contractor, will in any way release us from the liability under this guarantee; and the Bank, hereby, waives any requirement for notice of any such change, addition or modification to the Bank.

7. This guarantee is valid and effective from the date of its issue, which is *[….date of issue….]*. The guarantee and our obligations under it will expire on dated ……..***[Insert the date twenty eight days after the specified completion period of the contract]…….***. All demands for payment under the guarantee must be received by us on or before that date.

8. The Bank agrees that the Employer's right to demand payment of aforementioned full amount in one instance or demand payments in parts totaling up to the aforementioned full amount in several instances will continue until either the aforementioned full amount is paid to the Employer or the guarantee validity period expires.

9. The Bank agrees that its obligation to pay any amount demanded by the Employer before the expiry of this guarantee will continue until the amount demanded has been paid in full.

10. The expressions Bank and Employer herein before used shall include their respective successors and assigns.

11. The Bank hereby undertakes not to revoke the guarantee during its currency, except with the previous consent in writing of the employer. This guarantee is subject to the Uniform Rules for Demand Guarantees, ICC Publication No. 758.

Dated*[.....]*
Place *[.....]*

……
(Signature of the Authorized Person of the Bank)

.....
(Name in Block Letters)

.....
(Designation)

.....
(Bank's Seal)

.....
(Authorization No.)

Witness:

.....
1. Signature, Name & Address

.....

2. Signature, Name & Address

Note:

1. *All italicized text in brackets [….text….] is for guidance on how to prepare this bank guarantee and shall be deleted from the final document.*
2. *In case the guarantee is issued by a foreign Bank, which does not have operations in India, the said bank shall have to provide a counter-guarantee by State Bank of India.*
3. *The Bank Guarantee should be duly attested by Notary Public with notarial stamps of appropriate value affixed thereon.*

FORM OF BANK GUARANTEE FOR RELEASE OF BALANCE RETENTION MONEY

(On non-judicial stamp paper of the appropriate value in accordance with stamp Act. The stamp paper to be in the name of Executing Bank).

From:

…….
…….*Name and Address of the Bank*…..
…….

To:

The Chairman and Managing Director,
Rail Vikas Nigam Limited,
1st Floor, August KrantiBhawan,
BhikajiCama Place, R. K. Puram,
New Delhi-110 066.

a) WHEREAS**,** Rail Vikas Nigam Limited, (hereinafter called the **Employer),** acting through ***[Insert Designation and address of the Employer's Representative]***, has entered into a contract with ***[Insert Name and address of the Contractor's Representative]***,, (hereinafter called the **Contractor),** for the work of ***[Insert Name of Work]***, vide Notification of Award No.***[Insert Notification of Award No.].***

b) WHEREAS as per conditions of contract Employer has deducted an amount of RS____***[Insert Amount deducted as retention money]***towards retention money till date, and WHEREAS now the contractor has requested the Employer for releasing the said amount on submission of a bank guarantee of equivalent amount which has been accepted by the Employer.****

OR

WHEREAS as per conditions of contract Employer has deducted an amount of RS____ ***[Insert Amount deducted as retention money]***towards retention money till date, out of a total amount of Rs____ [***Insert total Amount of retention money deductable as specified in the contract]***which is due to be deducted as retention money as per Contract agreement and WHEREAS now the Contractor has requested the Employer to accept a bank guarantee of the equivalent amount of the total retention money due as per contract agreement so that the amount already deducted may be released in favour of the contractor and that no further deduction towards retention money will be made in future which has been accepted by the Employer. ****

c) WHEREAS, ***[Insert Name of the Bank]***, with its Branch ***[Address]*** having its Headquarters office at ***[Address]***, hereinafter called the **Bank,** acting through ***[Designation(s) of the authorised person of the Bank]***, have, at the request of the contractor, agreed to give guarantee as hereinafter contained:

1. KNOW ALL MEN by these present that I/We the undersigned ***[Insert name(s) of authorized representatives of the Bank],***being fully authorized to sign and incur obligations for and on behalf of the Bank**,** confirm that the Bank, hereby, unconditionally and irrevocably guarantee the Employer to pay the full amount in the sum of ***[Insert Value of the Bank Guarantee being submitted]*** as above stated.

2. The Bank undertakes to immediately pay to the Employer any amount up to and including aforementioned full amount upon written order/orders from the Employer without any demur, reservation or recourse.

3. On payment of any amount less than aforementioned full amount, as per demand of the Employer, the guarantee shall remain valid for the balance amount i.e. the aforementioned full amount less the payment made to the Employer.

4. The Bank shall pay the amount so demanded without any reference to the contractor and without the Employer being required to show grounds or give reasons for its demand or the amount demanded.

5. The guarantee hereinbefore shall not be affected by any change in the constitution of the Bank or in the constitution of the Contractor.

6. The Bank agrees that no change, addition, modifications to the terms of the Contract Agreement or to any documents, which have been or may be made between the Employer and the Contractor, will in any way release us from the liability under this guarantee; and the Bank, hereby, waives any requirement for notice of any such change, addition or modification to the Bank.

7. This guarantee is valid and effective from the date of it's issue, which is ***[insert date of issue]***. The guarantee and our obligations under it will expire on [***Insert the date twenty eight days after the expected end of defect liability period.]***. All demands for payment under the guarantee must be received by us on or before that date.

8. The Bank agrees that the Employers right to demand payment of aforementioned full amount in one instance or demand payments in parts totaling up to the aforementioned full amount in several instances will continue until either the aforementioned full amount is paid to the Employer or the guarantee expires.

9. The Bank agrees that it's obligation to pay any amount demanded by the Employer before the expiry of this guarantee will continue until the amount demanded has been paid in full.

10. The expressions Bank and Employer herein before used shall include their respective successors and assigns.

11. The Bank hereby undertakes not to revoke the guarantee during its currency, except with the previous consent in writing of the employer. This guarantee is subject to the Uniform Rules for Demand Guarantees, ICC Publication No. 758.

Date …… ……

Place……. [*Signature of Authorised person of Bank]*

[Name in Block letters] ……

[Designation] ……

Address ……..

…….

Witness :

1. *Signature*
   Name & Address & Seal
2. *Signature* *Bank's Seal*
   Name & address & Seal *Authorisation No……..*

Note :

1) *All italicized text is for guidance on how to prepare this bank guarantee and shall be deleted from the final document.*
2) *In case the guarantee is issued by a foreign Bank, the said bank shall have operations in India and should be countersigned by Indian operations branch of the said bank.*
3) *The Bank Guarantee should be duly attested by Notary public with notarial stamps of appropriate value affixed thereon.*
4) ***** strike out whichever is not applicable.*