

HARYANA RAIL INFRASTRUCTURE DEVELOPMENT CORPORATION



TENDER DOCUMENT

FOR

Tender No: HRIDC/GGN/S&T/MSIL/2024

Subject: "Design, Manufacture, Supply, Installation, Testing & Commissioning of Electronics Interlocking with associated Indoor and Outdoor Signaling & Telecom works at Maruti Suzuki India Limited (MSIL) Yard at Manesar and connectivity with HARC line up to Patli Station (NR)."

FEBRUARY -2024

Estimate Cost of work: **12.17 Cr.**
Date of Opening of Tender: **13.03.2024**
Completion Period: **6 Months**

HARYANA RAIL INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED

Corporate Office: SCO 17-19, 3rd Floor, Sector 17, Chandigarh.

Website: www.hridc.co.in

<https://etendershry.nic.in>

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PART -1
HARYANA RAIL INFRASTRUCTURE DEVELOPMENT
CORPORATION LIMITED (HRIDC)
Tender Document
(TOP SHEET)

(A) Details to be filled in by HRIDC:

Mode of Tender	E-tender (Two Packet System)
Tender Notice No.	HRIDC/GGN/S&T/MSIL/2024
Full Name of work	“Design, Manufacture, Supply, Installation, Testing & Commissioning of Electronics Interlocking with associated Indoor and Outdoor Signalling & Telecom works at Maruti Suzuki India Limited (MSIL) Yard at Manesar and connectivity with HORC line up to Patli Station (NR).”
Approx. Cost	₹ 12,17,65,453/- (Rupees Twelve Crore Seventeen Lakhs Sixty Five Thousand four Hundred Fifty-three only)
Completion period	Six (6) Months
Bid Security/ Earnest money amount	INR 7,58,900/- (Rupees Seven Lakhs Fifty-Eight Thousand nine Hundred Only)
Issue of Tender Notice	Issue of Tender Notice on HRIDC website (www.hridc.co.in)
Sale/availability of tender document on e-procurement portal of Haryana Govt.	Tender documents will be available on e-procurement portal Government of Haryana i.e. https://etenders.hry.nic.in and HRIDC website i.e. www.hridc.co.in on 28.02.2024 at 05:00 PM to 13.03.2024 up to 03:00 PM
Site visit and other related details	The prospective tenderers may contact the following for further details: General Manager/IE&A/HRIDC (Email: horc.etendering@gmail.com)
Start date for submission of offer on the e-procurement portal of Haryana Govt. i.e. https://etenders.hry.nic.in	06.03.2024 at 05:00 PM

Last date/Time of uploading of tenders	13.03.2024 up to 03:00 PM
Date/Time of Opening of Tender	Technical Bids will be opened after closing of uploading of tender i.e. 13.03.2024 at 03:30 PM. Financial bids of the eligible tenderers would be opened subsequently on the date & time to be notified later on.

(B) PRECAUTIONS TO BE TAKEN FOR PREPARING LEGAL DOCUMENTS (For guidance to Tenderer):

1. Non-Judicial Stamp Paper

- i) Should have been purchased in the name of the Company/firm/executants
- ii) Should be purchased from the Place/State where the document is being executed.
- iii) Values of the non-judicial stamp paper (NJSP) should be as mentioned in Tender conditions, where value of NJSP is not mentioned in the tender conditions, value of NJSP should as per the law of the state in which the document is being executed.
- iv) Date of purchase of Non-Judicial stamp paper should be prior from the date of execution of document.

2. Signature on the document

- i) The document should be signed on each page and also at the appropriate place meant for signature of executants/deponent.
- ii) Signatory/executants should ensure that on the date of signing the document he/she has valid authority/attorney in his/her favour for signing.
- iii) In affidavit declaration clause as well as verification clause both should be signed by deponent/executants.
- iv) Where the document requires witnessing, it should be duly signed by witnesses along with their names and addresses.
- v) On Power of Attorney, signatures of the Attorney holder should also be got done and attested by executants.

3. Format of the document

- i) Where the format has been prescribed by HRIDC, the document should be executed in that format.
- ii) Date and place of execution should always be mentioned on the document.

4. Notarization of document

- i) The document should be duly attested (signed and stamped) by notary public on each page.
- ii) The seal of the notary public should contain his name, area of practice and Registration number.
- iii) Notarial stamps of appropriate value wherever required should be affixed on the document.

TENDER NOTICE

1.0 The **General Manager/IE&A**, for and on behalf of **Haryana Rail Infrastructure Development Corporation** invites open e-tender under **Two-Packet System** for the following work:

S. No.	Name of work	Approx. Cost/ Earnest Money	Similar nature of work/ Period of completion	Cost of tender document/ E-service Fee
1	“Design, Manufacture, Supply, Installation, Testing & Commissioning of Electronics Interlocking with associated Indoor and Outdoor Signalling & Telecom works at Maruti Suzuki India Limited (MSIL) Yard at Manesar and connectivity with HORE line up to Patli Station (NR).”	(i)Approx. Cost: ₹ 12,17,65,453/- (Rupees Twelve Crore Seventeen Lakhs Sixty Five Thousand four Hundred Fifty-three only) (ii)Earnest Money/Bid Security: Rs INR 7,58,900/- (Rupees Seven Lakhs Fifty-Eight Thousand nine Hundred Only)	(i)Following works will be treated as of similar nature: “S&T work including commissioning of station with EI system as per IR Standard.” (ii)Completion Period: Six (6) Months	(i)Cost of tender document: INR 20,000/- only (including GST @18%) (ii)E-service Fee: INR 1,180/- (including GST @18%)

NOTE:

- (i) Tender/offer without Bid Security/Earnest Money will be summarily rejected subject to Exemptions provided under para 5.1 of part-1 (ITT) of this document.
- (ii) The Bid Security/ Earnest Money of the requisite amount is required to be deposited online only. Due to technical limitations of E-Tender Portal of Haryana Govt, acceptance of Bid Security/EMD through BG/ST has been marked as yes but only online submission of Bid Security/EMD is allowed.

2.0 CRITICAL DATES: -

Code	Activity	Date
D	Issue of Tender Notice on HRIDC Website (i.e. www.hridc.co.in)	21.02.2024
D1= D + 6 days	Availability of tender documents on e-procurement portal of Government of Haryana (i.e. www.etenders.hry.nic.in) and HRIDC website (i.e. www.hridc.co.in)	28.02.2024
D2 = D +14 days	Start of submission of offer on e-procurement portal i.e. https://etenders.hry.nic.in	06.03.2024
D3 = D + 21 days	<ul style="list-style-type: none"> End of availability of tender documents at https://etenders.hry.nic.in Opening of tender/ offer <p>Note: <i>This is also the last date of uploading of completed offers by the bidders</i></p>	13.03.2024
The reference time for all the above activities is indicated in Top Sheet above.		
NOTE: In case the intended date for opening of tenders is declared a holiday, the tenders will be opened on the next working day at the same time.		

3.0 Validity of Offer: 90 days from the date of opening of Technical Bid (D3).

4.0 Tender Documents to be Submitted by Tenderer(s) and information regarding Tender:

- (i) The tenders are to be uploaded up to date D3 along with scanned copy of all the requisite documents mentioned in “**General Tender Conditions and instructions to tenderers**” and **Annexure-A of Tender Notice** by all Tenderer(s) failing which the offer will be considered incomplete and action shall be taken as given in **Annexure-A of Tender Notice**.
- (ii) Bids will be opened on Date D3 immediately after closing of uploading of tenders.
- (iii) Financial bids of the eligible tenderers would be opened subsequently on the date and time to be notified later on.
- (iv) Requisite Bid security/ Earnest Money Cost of tender document and E-service fee shall be deposited by all the tenderer(s) via **ONLINE MODE** failing which the offer will be **summarily rejected**.
- (v) Tenderer(s) to please note that after opening of tender, any document/credential pertaining to technical, financial eligibility, constitution of firm etc. shall neither be asked nor be

HRIDC/GGN/S&T/MSIL/2024

entertained/considered under any circumstances and no claim or representation whatsoever from the tenderer in this regard shall be entertained. **Scanned copy of the documents, uploaded by the Tenderer, shall be clear & readable.** However, HRIDC reserves the right to ask for any clarification on the documents/credentials already submitted by the tenderer along with the offer.

- (vi) Tenderer may have to submit the original documents in physical form at short notice whenever asked by HRIDC at any stage of tender evaluation process or even after finalization of tender.
- (vii) The tenderers are requested to carefully peruse the Tender Documents and upload all requisite documents/credentials along with the offer. **Documents submitted/uploaded previously or along with another tender currently under consideration shall not be considered while evaluating the present tender.**
- (viii) After opening of the tender, any document pertaining to the constitution of Sole Proprietorship Firm / Partnership Firm / Registered Company/ Registered Trust / Registered Society / HUF etc. shall neither be asked nor be considered, if submitted. Further, no suomoto cognizance of any document available in public domain (i.e., on internet etc.) or in HRIDC record/office files etc. will be taken for consideration of the tender, if no such mention is available in tender offer submitted.
- (ix) In E-tender, all submissions of documents are to be uploaded on the e-procurement portal as indicated in the tender document. There may be last minute hic-cups and delay in uploading the Earnest Money and documents etc. Tenderer(s)/Prospective bidders are advised to upload their offer well in time. HRIDC will not be responsible for any delay/non submission of offer due to any reason whatsoever.
- (x) The tenderer (s) shall visit the site of work and acquaint himself/themselves with the conditions of work viz. approach roads and accessibility, nature of soil/rock, availability of materials, electric power, water for work and drinking purposes, site for labour camps, stores, godowns, extent of lead/lift in work, availability of skilled and unskilled labour etc. that may be encountered in the course of execution of work. In short, he/they should familiarize himself/themselves fully with the conditions of the site and furnish a certificate to this effect, in the Proforma appended as **Annexure-XXXII**.
- (xi) **Two Packet System**
The tender uploaded by the tenderer(s) will consist of TWO Packets/Files i.e. Packet-I / File-I and Packet-II/File-II.
 1. **“Packet-I/File-I” – Technical Bid** will be opened after closing of uploading of tender (D3) i.e. 13.03.2024 at 03:30 PM. The Bid shall contain (a) Tender form (First sheet);
(b) All requisite documents mentioned in “ANNEXURE-A and INSTRUCTIONS TO

TENDERER(S) (ITT)” of Tender Document; (c) Complete Tender document duly signed by competent authority at each page. Tenderers are requested to ensure that all such documents and Annexures duly filled and signed by legally authorized signatory are uploaded, completed in all respects with their Packet-I/File-I failing which his/their offer is likely to be rejected/summarily rejected, as applicable.

- 2. Packet II/File II-FINANCIAL BID (SECOND PACKET)** shall contain the Financial Bid only and will be uploaded along with File-I/Packet-I on or before the tender opening date D3. Financial Bid of only those tenderer(s) will be opened whose Packet-I/File-I (Technical Bid) is found eligible as per Tender Conditions. The time, date and venue of opening of Packet-II/File-II (Financial Bids) shall be notified to the successful tenderer(s) after evaluation of Packet-I/File-I (Technical Bids). The same shall be opened on due date in the presence of tenderers/their representatives as may wish to attend the same.

Further, offered rates should be filled up in the BoQ at specified space i.e. Financial Bid Sheet (Packet-II/File-II). Rates offered in any other Proforma/Form shall be summarily rejected.

- (xii) Tenderer should keep the validity of their offer for **90 days**. Any deviation will not be accepted under any circumstances.
- (xiii) **Tenderer(s) participating in this tender are deemed to have accepted all the conditions given in Tender document.**
- (xiv) The tenderer(s) may note that the HRIDC reserves its right to either accept or reject any Bid/s without assigning any reasons whatsoever and tenderer(s) shall have no claim(s) on this account.
- (xv) Prospective tenderer(s) may contact **General Manager/IE&A, Haryana Rail Infrastructure Development Corporation 5th Floor, Tower no.2 Ircon international tower, sector -32 Gurugram Haryana -122003**.for obtaining further clarifications, if required, **during the working hours.**
- (xvi) **Instructions regarding GST**
- Works contracts shall be treated as supply of services as per Schedule–II GST Act.
 - GST Act and Rules issued from time to time by the Government/ concerned authorities shall be applicable
 - Contractor/ suppliers/ service providers/ parties shall register their firms State wise under GSTIN (GST Identification Number) and submit at the time of opening of tender or before the signing the agreement and shall mention place of business, registered office address and email id.

Note:

- 1.The contractor is responsible for paying all the taxes {including goods and services tax (GST as applicable)}, duties, cess, etc. as per the statutory requirements. However, GST

- levied on the invoices raised by the contractor will be temporarily withheld at the time of making payment for the invoice.
2. GST withheld will be released by HRIDC/HORCL on submission of proof i.e., copy of forms GSTR-1 (reflecting the particular invoice) after due verification from the GST portal by the Employer.
- (xvii) The cost of the Tender Documents is non-refundable and Tender Document is not transferable.
- (xviii) The detailed e-tender notice is available on e-procurement portal of Government of Haryana i.e. <https://etenders.hry.nic.in>.
- (xix) As the work indicated in this tender document is to be executed in close vicinity to the running railway track, the Tenderers are expected to meet the required safety guidelines (also mentioned in this document) and keep a constant vigil on safety related aspects. Tenderers are also advised to visit the site before submission of their tenders to understand the need for adopting safety related precautions at the work site.
- (xx) Provisions of Make in India Policy 2017 issued by Govt. of India, as amended from time to time, shall be followed for consideration of tenders.
- (xxi) The tenderers who desire to participate against e-tenders, are advised to electronically register themselves on website <https://etenders.hry.nic.in> for which they would require to obtain Class III digital certificate (if already not obtained) issued by CCA under IT Act-2000. The detailed process for the same is explained in the **Annexure-XXXIII** (Instructions regarding electronic tendering system)
- (xxii) All other terms and conditions in respect of above tender are given in the tender document.
- (xxiii) Only e-tenders will be accepted, and tenders submitted in any other form will be summarily rejected.
- (xxiv) **The tenderer(s) shall abide by the Indian Railways Standard General Conditions of Contract (April-2022) with all corrections slips issued time to time, wherever applicable, in addition to the conditions mentioned in this tender document.**

General Manager/ IE&A
Haryana Rail Infrastructure Development Corporation
5th Floor, Tower no.2
Ircon international tower, sector -32 Gurugram haryana -122003

Scanned copy of the Documents to be uploaded along with offer

S.No.	Document	Required in the form	If Not submitted along with the tender, then
1.	Cost of Tender Document (in terms of Clause 1.4 of Part-1, chapter-1 of ITT)	ONLINE MODE (No documentary proof required)	Summarily Rejected
2.	Bid security/ Earnest Money Deposit (in terms of Clause 5.4 of Part-1, chapter-1 of ITT)	ONLINE MODE (No documentary proof required)	Summarily Rejected
3.	E-Service Fee	ONLINE MODE (No documentary proof required)	Summarily Rejected
4.	Constitution of Firm documents		Summarily Rejected
(A)	In case of Sole Proprietorship Firm	(i) A copy of notarized Affidavit certifying the Sole Proprietorship of the firm. (Standard Affidavit as per Annexure-XVII)	
(B)	In case of HUF	i) A copy of notarized affidavit on Stamp Paper declaring that he who is submitting the tender on behalf of HUF is in the position of 'Karta' of Hindu Undivided Family (HUF) and he has the authority, power and consent given by other members to act on behalf of HUF.	
(C)	In case of a "Partnership Firm/Concern"	(i) Notary certified copy of the Partnership Deed. OR Document(s) in support of Registration of firm with Registrar of	

		<p>firms viz. Registration certificate/ Form- A & Form-B/ Form C (as applicable) etc. issued by Registrar of firms.</p> <p>(ii) Power of Attorney (duly notarized/registered) in favors of the individual signing the tender documents, agreement and create liability against the Firm. (Standard Performa as per Annexure-XVIII)</p>	
(D)	<p>In case of a “JV Firm”</p> <p>(Note:- JV is not Allowed for this Tender.)</p>		
(E)	<p>In case of a “Company” registered under Companies Act-2013</p>	<p>(i) Copy of the MOA (Memorandum of Association)/AOA (Articles of Association) of the Company;</p> <p>(ii) A copy of Certificate of Incorporation</p> <p>(iii) A copy of notarized/registered Power of Attorney (Standard Performa as per Annexure-XXIX) by the Company (backed by the resolution of Board of Directors) (Standard Performa as per Annexure-XXX) in favors of the individual signing the tender on behalf of the Company and create liability against the company.</p>	
(F)	<p>In case of a “LLP (Limited Liability Partnership)”</p>	<p>(i) Notarized copy of the LLP Agreement;</p> <p>(ii) A Copy of Certificate of Incorporation; and</p> <p>(iii) A copy of notarized/registered Power of Attorney/authorization issued by the LLP in favors of the individual to sign the tender on behalf of the LLP and create liability against the LLP. (Standard Performa as per Annexure-XXXI)</p>	

(G)	In case of a Registered Society/ Registered Trust.	(i)A notarized copy of the Certificate of Registration; (ii)Notarized copy of Deed of Formation; and (iii)A notarized/registered copy of Power of Attorney in favors of the individual to sign the tender documents and create liability against the Society/Trust.	
6.	<u>Technical Eligibility Criteria</u> – As per Clause 10.1 of Tender Form.	Copy	Summarily Rejected
7.	<u>Financial Eligibility Criteria</u> – As per Clause 10.2 of Tender Form. the tenderers shall submit requisite information as per Annexure-VIB along with copies of audited balance sheets duly certified by the chartered Accountant/Certificate from chartered accounted duly supported by Audited Balance sheet.	Copy	Summarily Rejected
8.	Tender Form (First Sheet) Annexure-I	Copy	Liabile to be rejected
9.	Annexure-XXXII Declaration form regarding site etc.	Copy	Liabile to be rejected
10.	Annexure-XXXIV Declaration regarding constitution of firm	Copy	Liabile to be rejected
11.	Annexure-XXXV (Plant and Machinery)	Copy	Liabile to be rejected

12.	Annexure-XXXVI (Engineers/ Personnel)	Copy	Liabile to be rejected
13.	Annexure-XXXVII (Works executed during last seven years ending last day of the month previous to the one in which tender is opened)	Copy	Liabile to be rejected
14.	Annexure-XXXVIII Work in Hand - in support of Credentials.	Copy	Liabile to be rejected
15.	Annexure-XXXIX (Detail of Contractual Payment received in previous three financial years and the current financial year)	Copy	Liabile to be rejected
16.	Annexure-XL (Bank Detail/ RTGS)	Copy	Liabile to be rejected
17.	Completion Certificate*	Copy	Summarily Rejected
18.	Annexure-V Mandatory Affidavit to be submitted by tenderer along with the tender documents	Copy	Summarily Rejected
19.	Annexure-XLII Mandatory Undertaking Regarding Employment/ Partnership of Retired Government of India/ Haryana Employees.	Copy	Summarily Rejected

* Tenderer should make all efforts to submit the Completion certificate as per **Annexure-XLI**.

**HARYANA RAIL INFRASTRUCTURE DEVELOPMENT
CORPORATION LIMITED**

TENDER FORMS (FIRST SHEET)

Tender No: HRIDC/GGN/S&T/MSIL/2024

Name of work **“Design, Manufacture, Supply, Installation, Testing & Commissioning of Electronics Interlocking with associated Indoor and Outdoor Signaling & Telecom works at Maruti Suzuki India Limited (MSIL) Yard at Manesar and connectivity with HORC line up to Patli Station (NR)”**.

To,

GM/IE&A

Haryana Rail Infrastructure Development Corporation Limited (HRIDC),

5th Floor, Tower no.2 Ircon international tower, sector -32 Gurugram haryana -122003

[Email: horc.etendering@gmail.com](mailto:horc.etendering@gmail.com)

1. Dear Sir, I/We, _____ have read the various conditions to tender attached hereto and agree to abide by the said conditions. I/We also agree to keep this tender open for acceptance for a period of 90 (Ninety) days from the date fixed for opening the same and in default thereof, I/We will be liable for forfeiting of my/our “Bid Security”. I/We offer to do the work **“Design, Manufacture, Supply, Installation, Testing & Commissioning of Electronics Interlocking with associated Indoor and Outdoor Signaling & Telecom works at Maruti Suzuki India Limited (MSIL) Yard at Manesar and connectivity with HORC line up to Patli Station (NR)”**. For Haryana Rail Infrastructure Development Corporation Limited, at the rates quoted in the attached schedule and hereby bind myself/ourselves to complete the work in all respects within **6 (Six)** months from the date of issue of letter of acceptance of the tender.
2. I/We also hereby agree to abide by the Indian Railways Standard General Conditions of Contract (April ,2022), with all correction slips issued from time to time and to carry out the work according to the Special Conditions of Contract, Technical Specifications, specifications of materials and Schedule of Rates as laid down by HRIDC in the present contract.
3. **Bid Security INR 7,58,900/- (Rupees Seven Lakhs Fifty-Eight Thousand Nine Hundred Only)** has already been deposited online. Bid security may be forfeited without prejudice to any other right or remedies in case my/our Tender is accepted and if:

- a) I/We do not submit the Performance Guarantee within the time specified in the Tender document;
- b) I/We do not execute the contract documents within seven (7) days after receipt of notice issued by HRIDC that such documents are ready; and
- c) I/We do not commence the work within fifteen (15) days after receipt of orders to that effect. without prejudice to any other right or remedies in case my/our Tender is accepted and if:
 - i) I/We do not submit the Performance Guarantee within the time specified in the Tender document;
 - ii) I/We do not execute the contract documents within seven (7) days after receipt of notice issued by HRIDC that such documents are ready; and
 - iii) I/We do not commence the work within fifteen (15) days after receipt of orders to that effect.

4. I/We am/are a Start-up firm registered by Department of Industrial Policy and Promotion (DIPP) and my registration number is valid up to (Copy enclosed) and hence exempted from submission of Bid security/Earnest Money.

5. We are a Labour Cooperative Society and our Registration No. is withand hence required to deposit only 50% of Bid security/Earnest Money.

6. Until a formal Contract Agreement is prepared and executed, acceptance of this tender shall constitute a binding contract between us subject to modifications, as may be mutually agreed to between us and indicated in the letter of acceptance of my/our offer for this work.

Signature of Witnesses:

- (1)
- (2)

.....

Signature of Tenderer(s)

Date.....

Address of the Tenderer(s)

(Complete postal address)

INSTRUCTIONS TO TENDERER(S) (ITT)	
1.0	Applicability: These instructions and conditions of contract shall be applicable for all the tenders and contracts of Railway/HRIDC for execution of ‘Works’ as defined in GFR 2017.
1.01	<p>Order of Precedence of Documents: In a contract agreement, in case of any difference, contradiction, discrepancy, with regard to conditions of tender/contract, specifications, drawings, Bill(s) of Quantities etc., forming part of the tender/contract, the following shall be the order of precedence:</p> <ol style="list-style-type: none"> i. Letter of Award/Acceptance(LOA) ii. Bill(s) of Quantities iii. Special Conditions of Contract iv. Technical Specifications as given in tender documents v. Drawings vi. Indian Railways Standard General Conditions of Contract updated with correction slips issued up to date of inviting tender or as otherwise specified in the tender documents. vii. Indian Railways Unified Standard Specification (IRUSS-2019) updated with correction slips issued up to date of inviting tender or as otherwise specified in the tender documents, if applicable in the contract. viii. CPWD Specifications 2019 Vol I & II updated with correction slips issued up to date of inviting tender or as otherwise specified in the tender documents, if applicable in the contract. ix. Indian Railways Unified Standard Specifications (Works and Material) 2010 updated with correction slips issued up to date of inviting tender or as otherwise specified in the tender documents, if applicable in the contract. x. IR Specifications/Guidelines updated with correction slips issued up to date of inviting tender or as otherwise specified in the tender documents.

	<p>xi. Relevant B.I.S. Codes updated with correction slips issued up to date of inviting tender or as otherwise specified in the tender documents.</p>
<p>1.1</p>	<p>Interpretation: These Instructions to Tenderers shall be read in conjunction with the Standard General Conditions of Contract which are referred to herein and shall be subject to modifications additions or suppression by Special Conditions of Contract and/or Special Specifications, if any, annexed to the Tender Forms.</p>
<p>1.2</p>	<p>Definition: In these Instructions to Tenderers, the following terms shall have the meanings assigned hereunder except where the context otherwise requires:</p> <p>(a) The expression “Department”/ “Client”/ “HRIDC”/ “Corporation”/ “Employer”/ “Engineer” as used in the tender papers shall mean Haryana Rail Infrastructure Development Corporation (HRIDC) which expression shall also include its legal successors and permitted assignees. GM (IE & ADMIN) /HRIDC/Gurugram will act as Employer Engineer in this tender.</p> <p>(b) “RAILWAY” shall mean the President of the Republic of India or the administrative officers of the Railway or Successor Railway authorized to deal with any matter, which these presents are concerned on his behalf.</p> <p>(c) "MANAGING DIRECTOR" shall mean the Officer in-charge of the General Superintendence and Control of the HRIDC and include their successors. His postal address shall be intimated to the successful Tenderers in due course.</p> <p>(d) “GCC” mean the General Conditions of Contract.</p> <p>(e) “ENGINEER” shall mean the General Manager/IE&A in executive charge of the HRIDC S&T works and shall include the superior officers of the HRIDC S&T Project. He is responsible for ensuring that all field works covered by the contract are carried out in accordance with approved designs, drawings and specifications and conditions of contract as agreed to. He is also responsible for prices and terms of payment.</p> <p>(e) "PURCHASER" Means the President of India acting through his accredited officers or any one of them The MD, In-charge of this HRIDC Project (whose address will be intimated in due course) shall be deemed to be one of such accredited officers</p> <p>(f) “TENDERER” shall mean the person / firm / co-operative or company whether incorporated or not who tenders for the works with a view to execute the works on contract with the HRIDC and shall include their representatives, successors and permitted assigns.</p>

(i) **“WORKS”** shall mean the works contemplated in the drawings and Bill(s) of Quantities set forth in the tender forms and required to be executed according to the specifications.

(j) **“SPECIFICATIONS”** shall mean the Specifications for Materials and Works of the HRIDC as specified under the authority of HRIDC as amplified, added to or superseded by special specifications if any, appended to the Tender Forms.

(k) The **“Contract sum” / “Contract price”** shall mean the sum for which the tender is accepted. -

(l) **“DRAWINGS”** shall mean the maps, drawings, plans and tracings, or prints thereof annexed to the Tender Forms.

(m) **“CONTRACTOR’S AUTHORIZED ENGINEER”** shall mean a graduate engineer or equivalent, having more than 3 years’ experience in the relevant field of construction work involved in the contract, duly approved by the Engineer.

(n) **Date of inviting tender** shall be the date of publishing tender notice on website if tender is published on website or the date of publication in newspaper in case tender is not published on website.

(o) **“Bill of Quantities”** shall mean Schedule of Item(s) included in the tender document along with respective quantities.

(p) **"PURCHASER'S ENGINEERS"** means the Engineers appointed by the Purchaser, who will decide all matters relating to design, manufacture, installation and commissioning of the plant and equipment at site.

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

(r) **"CONTRACTOR"** shall mean the Person/Firm/LLP/Trust/Co-operative Society or Company whether incorporated or not who enters into the contract with the HRIDC and shall include their executors, administrators, successors and permitted assigns.

(s) **"CONTRACT"** shall mean and include the Agreement, the Work Order, the accepted Bill(s) of Quantities or Chapter(s) HRIDC modified by the tender percentage for items of works quantified, or not quantified, the Standard General Conditions of Contract, the Special Conditions of Contracts, if any; the Drawing, the Specifications, the Special Specifications, if any and Tender Forms, if any.

	<p>(t) "CONSTRUCTIONAL PLANT" shall mean all appliances or things of whatsoever nature required for the execution, completion or maintenance of the works or temporary works (as hereinafter defined) but does not include materials or other things intended to form or forming part of the permanent work.</p> <p>(u) "TEMPORARY WORKS" shall mean all temporary works of every kind required for the execution completion and/or maintenance of the works.</p> <p>(v) "MAINTENANCE PERIOD " shall mean the specified period of maintenance from the date of completion of the works, as certified by the Engineer.</p> <p>(w) "Letter of Acceptance" means the formal acceptance letter from the HRIDC of the Tender.</p>
1.3	Words importing the singular number shall also include the plural and vice versa where the context requires
1.4	<p>COST OF TENDER DOCUMENT:</p> <p>Tender Documents will be available on the e-procurement portal https://etenders.hry.nic.in from 28.02.2024 at 05:00 PM to 13.03.2024 up to 03:00 PM (D3). The cost of Tender Document will have to be deposited ONLINE. The cost of tender document is Rs. 20,000/- (including GST @ 18%). This should be paid separately and not included in the Earnest Money of tender.</p>
1.5	<p>PERIOD OF COMPLETION: -</p> <p>The entire modification work shall be completed within 6 Months from the date of issue of the 'Letter of Acceptance' to the tenderer.</p>
1.6	<p>DESIGN CRITERIA: -</p> <p>All the Design and Drawing related to this modification work will be as per Latest IR Standard/ Specification or as per instruction of HRIDC Engineer.</p>
1.7	Joint Venture (JV): Not Allowed in this tender.
	CREDENTIALS OF CONTRACTORS
2.0	Application for Registration :

<p>2.1</p>	<p>Works of construction and of supply of material shall be entrusted for execution to contractors whose capabilities and financial status have been investigated and approved to the satisfaction of the HRIDC. furnishing particulars regarding:</p> <p>(a) His position as an independent contractor specifying Engineering organization available with details of partners / staff / engineers employed with qualifications and experience;</p> <p>(b) His capacity to undertake and carry out works satisfactorily as vouched for by a responsible official or firm; details about the transport equipment, construction tools and plants etc. required for the work, maintained by him;</p> <p>(c) His previous experience of works similar to that to be contracted for, in proof of which original certificates or testimonials may be called for and their genuineness verified, if needs be, by reference to the signatories thereof;</p> <p>(d) His knowledge from actual personal investigation of the resources of the area/zone or zones in which he offers to work;</p> <p>(e) His ability to supervise the work personally or by competent and duly authorized agent;</p> <p>(f) His financial position;</p>
	<p>TENDERS FOR WORKS</p>
<p>3.0</p>	<p>Tender Form: Tender Forms shall embody the contents of the contract documents either directly or by reference and shall be as per specimen form, Annexure-I. e-Tender Forms shall be issued free of cost to all tenderers.</p>
<p>4.0</p>	<p>Omissions & Discrepancies: Should a tenderer find discrepancies in or omissions from the drawings or any of the Tender Forms or should he be in doubt as to their meaning, he should at once notify the authority inviting tenders. The tender inviting authority may, if deemed necessary, clarify the same to all tenderers. It shall be understood that every endeavor has been made to avoid any error which can materially affect the basis of tender and successful tenderer shall take upon himself and provide for the risk of any error which may subsequently be discovered and shall make no subsequent claim on account thereof.</p>

5.0	Bid Security/Earnest Money :-				
5.1	<p>(a) The tenderer shall be required to submit the Bid Security with the tender for the due performance with the stipulation to keep the offer open till such date as specified in the tender, under the conditions of tender. The Bid Security shall be as under:</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="text-align: center;">Value of the Work</th> <th style="text-align: center;">Bid Security</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Rs 12.17 Cr.</td> <td style="text-align: center;">Rs 7,58,900/-</td> </tr> </tbody> </table> <p>Note: -</p> <ul style="list-style-type: none"> (i) The Bid Security shall be rounded off to the nearest ₹100. This Bid Security shall be applicable for all modes of tendering. (ii) Any firm recognized by Department of Industrial Policy and Promotion (DIPP) as ‘Startups’ shall be exempted from payment of Bid Security detailed above. (iii) Labour Cooperative Societies shall submit only 50% of above Bid Security detailed above. (iv) All Micro and Small Enterprises (MSEs) (Current Status on the date of opening of tender shall be checked) who are having UDYAM registration Certificate/Udyog Aadhar Memorandum shall be given all benefits towards Tender Fee and Earnest Money (EMD) in terms of Railway Board Letter No.2010/RS/(G)/363/1 dated 31.3.2016. The Tenderers who fail to submit UDYAM registration certificate/Udyog Aadhar Memorandum (UAM) number shall not be able the benefits available to MSEs as contained in public procurement policy for MSEs. <p>(b) It shall be understood that the tender documents have been issued to the tenderer and the tenderer is permitted to tender in consideration of stipulation on his part, that after submitting his tender he will not resile from his offer or modify the terms and conditions thereof in a manner not acceptable to the Engineer. Should the tenderer fail to observe or comply with the said stipulation, the aforesaid amount shall be liable to be forfeited to the HRIDC.</p> <p>(c) If his tender is accepted, this Bid Security mentioned in sub para (a) above will be retained as part security for the due and faithful fulfillment of the contract in terms of Clause 16 of the Standard General Conditions of Contract. The Bid Security of</p>	Value of the Work	Bid Security	Rs 12.17 Cr.	Rs 7,58,900/-
Value of the Work	Bid Security				
Rs 12.17 Cr.	Rs 7,58,900/-				

	<p>other Tenderers shall, save as herein before provided, be returned to them, but the HRIDC shall not be responsible for any loss or depreciation that may happen thereto while in their possession, nor be liable to pay interest thereon.</p>
5.2	<p>The Bid Security shall be deposited via online mode failing which the offer will be summarily rejected.</p>
5.3	<p>Submission of Bid Security/EMD in the form of Bank Guarantee will not applicable for this tender.</p>
5.4	<p>The tender must be accompanied by a sum of ₹ 7,58,900/- (Rupees Seven Lakhs Fifty-Eight Thousand Nine Hundred Only) as Bid security/ Earnest Money deposited via online mode, failing which the tender shall not be considered.</p>
6.0	<p>Care in Submission of Tenders</p>
a(i)	<p>Before submitting a tender, the tenderer will be deemed to have satisfied himself by actual inspection of the site and locality of the works, that all conditions liable to be encountered during the execution of the works are taken into account and that the rates he enters in the tender forms are adequate and all-inclusive to accord with the provisions in Clause-37 of the Standard General Conditions of Contract for the completion of works to the entire satisfaction of the Engineer.</p>
a(ii)	<p>Tenderers will examine the various provisions of The Central Goods and Services Tax Act, 2017(CGST)/ Integrated Goods and Services Tax Act, 2017(IGST)/ Union Territory Goods and Services Tax Act, 2017(UTGST)/ respective state's State Goods and Services Tax Act (SGST) also, as notified by Central/State Govt.& as amended from time to time and applicable taxes before bidding. Tenderers will ensure that full benefit of Input Tax Credit (ITC) likely to be availed by them is duly considered while quoting rates.</p>

(a)(iii)	The successful tenderer who is liable to be registered under CGST/IGST/UTGST/SGST Act shall submit GSTIN along with other details required under CGST/IGST/UTGST/SGST Act to HRIDC immediately after the award of contract, without which no payment shall be released to the Contractor. The Contractor shall be responsible for deposition of applicable GST to the concerned authority.
(a)(iv)	In case the successful tenderer is not liable to be registered under CGST/IGST/UTGST/SGST Act, the HRIDC shall deduct the applicable GST from his/their bills under reverse charge mechanism (RCM) and deposit the same to the concerned authority.
(b)	When work is tendered for by a firm or company, the tender shall be signed by the individual legally authorized to enter into commitments on their behalf.
(c)	The HRIDC will not be bound by any power of attorney granted by the tenderer or by changes in the composition of the firm made subsequent to the execution of the contract. It may, however, recognize such power of attorney and changes after obtaining proper legal advice, the cost of which will be chargeable to the Contractor.
6.1	The tenderers shall submit a copy of certificate stating that all their statements/documents submitted along with bid are true and factual. Standard format of certificate to be submitted by the bidder is enclosed as Annexure-V . In addition to Annexure- V, in case of other than Company/Proprietary firm, Annexure –V(A) shall also be submitted by each member of a partnership firm/Joint Venture (JV)/ Hindu Undivided Family (HUF)/Limited Liability Partnership (LLP)etc. as the case may be. Non submission of above certificate(s) by the bidder shall result in summarily rejection of his/their bid. It shall be mandatorily incumbent upon the tenderer to identify state and submit the supporting documents duly self-attested/digitally signed by which they/he is qualifying the Qualifying Criteria mentioned in the Tender Document.
6.2	<p>TENDER DOCUMENTS: One set of complete tender documents contains the following:</p> <p>Packet I – Technical Bid It consists of Top sheet, Tender Notice, Addendum/Corrigendum, if any, Tender form (first sheet) and Instructions to Tenderer(s) along with related Annexures, Special Conditions related to Site Data and Specifications along with related Annexures. The</p>

	<p>above documents must be uploaded along with all mandatory documents/credentials as directed in Annexure-A of Tender Notice and Instructions to Tenderer(s).</p> <p>Packet II – Financial Bid It consists of Schedule of Items and Quantities with provision for quoting of rates in excel sheet (BoQ) online by tenderers. All rates given in BoQ are inclusive of GST and all other taxes.</p>
6.3	<p>SUBMISSION OF TENDERS: The offer is to be uploaded online as per date mentioned in Top Sheet & Tender Notice (NIT) along with scanned copy of all the requisite documents mentioned in “Annexure-A and Instructions to Tenderer(s) (ITT)” of Tender Document.</p> <ul style="list-style-type: none"> • Tenderer may have to submit the original documents in physical form at short notice whenever asked by HRIDC at any stage of tender evaluation process or even after finalization of tender. • In E-tender, all submissions of documents are to be uploaded on the eprocurement portal of Government of Haryana i.e. https://etenders.hry.nic.in. <p>There may be last minute hic-cups and delay in uploading the Documents and payment of Earnest Money etc. Tenderer’s/ Prospective bidders are advised to upload their offer well in time. HRIDC will not be responsible for any delay/non submission of offer due to any reason whatsoever.</p>
	<p>CONSIDERATION OF TENDERS</p>
7.	<p>Right of HRIDC to Deal with Tenders: The HRIDC reserves the right of not to invite tenders for any of HRIDC work or works or to invite open or limited tenders and when tenders are called to accept a tender in whole or in part or reject any tender or all tenders without assigning reasons for any such action. In case if tender is accepted in part by HRIDC administration, Letter of Acceptance shall be issued as counter offer to the Tenderer, which shall be subject to acceptance by the Tenderer.</p>
7A.	<p>Double Packets System of Tendering: Two Packet System applicable for this tender.</p> <p>“Packet-I/File-I” – Technical Bid will be opened after closing of uploading of tender (D3) i.e. 13.03.2024 at 03:30 PM. The Bid shall contain (a) Tender form (First sheet); (b) All requisite documents mentioned in “ANNEXURE-A and INSTRUCTIONS TO TENDERER(S) (ITT)” of Tender Document; (c) Complete Tender document duly</p>

	<p>signed by competent authority at each page. Tenderers are requested to ensure that all such documents and Annexures duly filled and signed by legally authorized signatory are uploaded, completed in all respects with their Packet-I/File-I failing which his/their offer is likely to be rejected/summarily rejected, as applicable.</p> <p>Packet II/File II-FINANCIAL BID (SECOND PACKET) shall contain the Financial Bid only and will be uploaded along with File-I/Packet-I on or before the tender opening date D3. Financial Bid of only those tenderer(s) will be opened whose Packet-I/File-I (Technical Bid) is found eligible as per Tender Conditions. The time, date and venue of opening of Packet-II/File-II (Financial Bids) shall be notified to the successful tenderer(s) after evaluation of Packet-I/File-I (Technical Bids). The same shall be opened on due date in the presence of tenderers/their representatives as may wish to attend the same.</p> <p>Further, offered rates should be filled up in the BoQ at specified space i.e. Financial Bid Sheet (Packet-II/File-II). Rates offered in any other Proforma/Form shall be summarily rejected.</p>
<p>7B.</p>	<p>Pre Bid Conference: Not applicable</p>
<p>7C.</p>	<p>Make in India Policy: Provisions of Make in India Policy 2017 issued by Govt. of India, as amended from time to time, shall be followed for consideration of tenders.</p>
<p>7D.</p>	<p>Permission to Bid for a bidder from a country which shares Land boundary with India: Any bidder from the countries sharing a land border with India will be eligible to bid in any procurement of works (including turnkey projects) only if the bidder is registered with the Competent Authority. The Competent Authority for registration will be the Registration Committee constituted by the Department for Promotion of Industry and Internal Trade (DPIIT), Government of India. For interpretation of this para, Department of Expenditure, Ministry of Finance, Government of India letter F.No.6/18/2019-PPD dated 23/07/2020 shall be referred.</p>
<p>7E.</p>	<p>Clarification of Bids: To assist in the examination, evaluation & comparison and pre-qualification of the Tender, the HRIDC 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 HRIDC shall not be entertained or considered. The HRIDC request for clarification and the response of the bidder in this regard shall be in writing. However, if a Bidder does not provide clarification of its bid by the date and</p>

	time communicated in the HRIDC request for clarification, the bid shall be evaluated as per the documents submitted along with the bid.
8.	Execution of Contract Document: The Tenderer whose tender is accepted shall be required to appear in person at the office of General Manager/IE&A , as the case may be, or if tenderer is a firm or corporation, a duly authorized representative shall appear (there would be no need for appear in person if agreement is signed digitally) and execute the contract agreement within seven days of notice from HRIDC that the Contract Agreement is ready. Failure to do so shall constitute a breach of the agreement affected by the acceptance of the tender. The Contract Agreement shall be entered into by HRIDC only after submission of valid Performance Guarantee by the Contractor. In such cases the HRIDC may determine that such tenderer has abandoned the contract and there upon his tender and acceptance thereof shall be treated as cancelled and the HRIDC shall be entitled to forfeit the full amount of the Bid Security and other dues payable to the Contractor under this contract. The failed Contractor shall be debarred from participating in the re-tender for that work.
9.	Form of Contract Document: Every contract shall be complete in respect of the document it shall so constitute. Not less than 2 copies of the contract document shall be signed by the competent authority and the Contractor and one copy given to the Contractor (there would be no need of signing two copies if agreement is signed digitally).
(a)	For Zone Contracts, awarded on the basis of the percentage above or below the applicable chapter(s) of Standard Schedule of Rates (SSOR) for the whole or part of financial year, the contract agreement required to be executed by the tenderer whose tender is accepted shall be as per specimen form, Annexure-II. During the currency of the Zone Contract, work orders as per specimen form Annexures-III, for works not exceeding ₹ 5,00,000 each, shall be issued by the Engineer under the agreement for Zone Contract.
(b)	For contracts for specific works, the contract document required to be executed by the tenderer whose tender is accepted shall be an agreement as per specimen form Annexure- IV .

TENDER FORM (Second sheet)	
1.	<p>Instructions to Tenderers and Conditions of Tender: The following documents form part of Tender / Contract:</p> <ul style="list-style-type: none"> (a) Tender Forms – First Sheet and Second Sheet (b) Special Conditions/Specifications (enclosed) (c) Bill(s) of quantities (enclosed) (d) Standard General Conditions of Contract and Standard Specifications (Works and Materials) of Indian Railways as amended/corrected up to latest correction slips, copies of which can be seen in the General Manager/IE& A office, Gurugram on payment of prescribed charges. (e) All general and detailed drawings pertaining to this work which will be issued by the Engineer or his representatives (from time to time) with all changes and modifications.
2.	<p>Drawings for the Work: All the Design and Drawing related to this modification work will be as per Latest IR Standard/ Specification or as per satisfaction of HRIDC Engineer. The Drawing for the work can be seen in the office of the General Manager/IE& A office, Gurugram (Furnished by Contractor) at any time during the office hours. The drawings are only for the guidance of Tenderer(s). Detailed working drawings (if required) based generally on the drawing mentioned above, will be given by the Engineer or his representative from time to time.</p>
3.	<p>The Tenderer(s) shall quote his / their rates as a percentage above/below or at par the Estimated cost of this tender shown in the Bill(s) of Quantities. The quantities shown in the attached Bill(s) of Quantities are given as a guide and are approximate only and are subject to variation according to the needs of the HRIDC. The HRIDC does not guarantee work under each item of the Bill(s) of Quantities. The tenderer(s) shall quote rates / rebates only at specified place in Tender Form supplied by HRIDC. Any revision of rates / rebates submitted (quoted) through a separate letter whether enclosed with the bid (Tender Form) or submitted separately or mentioned elsewhere in the document other than specified place shall be summarily ignored and will not be considered.</p>

<p>4.</p>	<p>Tenders containing erasures and / or alterations of tender documents are liable to be rejected. Any correction made by tender(s) in his/their entries must be attested by him / them.</p>
<p>5.</p>	<p>The works are required to be completed within a period of 6 months from the date of issue of acceptance letter.</p>
<p>6.</p>	<p>Bid Security/EMD :-</p>
	<p>(a) Subject to exemptions provided under para 5(1) (a) of Part-1 (ITT) of this document, the tender must be accompanied by a Bid Security as mentioned in tender documents, failing which the tender shall be summarily rejected.</p> <p>(b) The Tenderer(s) shall keep the offer open for a minimum period of 90 days from the date of closing of the Tender. It is understood that the tender documents have been issued to the Tenderer(s) and the Tenderer(s), is / are permitted to tender in consideration of the stipulation on his / their part that after submitting his / their tender subject to the period being extended further, if required by mutual agreement from time to time, he will not resile from his offer or modify the terms and conditions thereof in a manner not acceptable to HRIDC. Should the tenderer fail to observe or comply with the foregoing stipulation, the amount deposited or Bank guarantee bond submitted as Bid Security for the due performance of the above stipulation, shall be forfeited to the HRIDC.</p> <p>(c) If his tender is accepted,</p> <p>(i) The Bid Security mentioned in sub para(a) above deposited in cash through e-payment gateway will be retained as part security for the due and faithful fulfilment of the contract in terms of Clause 16 of the Standard General Conditions of Contract;</p> <p>(ii) The Bid Security mentioned in sub para(a) above submitted as Bank guarantee bond, will be encashed as part security for the due and faithful fulfilment of the contract in terms of Clause 16 of the Standard General Conditions of Contract. The Bid Security of other Tenderers shall, save as herein before provided, be returned to them, but the HRIDC shall not be responsible for any loss or depreciation to the Bid Security that may happen thereto while in their possession, nor be liable to pay interest thereon.</p> <p>(d) In case Contractor submits the Term Deposit Receipt/Bank Guarantee Bond</p>

	<p>towards either the Full Security Depositor the Part Security Deposit equal to or more than Bid Security, the HRIDC shall return the Bid Security so retained as per sub para(c) above, to the Contractor.</p>
7.	<p>Rights of the HRIDC to deal with Tender: The authority for the acceptance of the tender will rest with the HRIDC. It shall not be obligatory on the said authority to accept the lowest tender or any other tender, and tenderer(s) shall neither demand any explanation for the cause of rejection of his/ their tender nor the HRIDC to assign reasons for declining to consider or reject any particular tender or tenders.</p>
8.	<p>If the tenderer(s) deliberately gives / give wrong information in his / their tender or creates / create circumstances for the acceptance of his / their tender, the HRIDC reserves the right to reject such tender at any stage.</p>
9.	<p>If any partner(s) of a partnership firm expires after the submission of its tender or after the acceptance of its tender, the HRIDC shall deem such tender as cancelled/contract as terminated under clause 61 of the Standard General Conditions of Contract, unless the firm retains its character as per partnership agreement. If a sole proprietor expires after the submission of tender or after the acceptance of tender, the HRIDC shall deem such tender as cancelled / contract as terminated under clause 61 of the Standard General Conditions of Contract.</p>
10.0	<p>Eligibility Criteria:</p>
10.1	<p>Technical Eligibility Criteria:</p> <ul style="list-style-type: none"> (a) The tenderer must have successfully completed or substantially completed any one of the following categories of work(s) during last 07 (seven) years, ending last day of month previous to the one in which tender is invited: <ul style="list-style-type: none"> (i) Three similar works each costing not less than the amount equal to 30% of advertised value of the tender, or (ii) Two similar works each costing not less than the amount equal to 40% of advertised value of the tender, or

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

(b) (1) In case of tenders for composite works (e.g. works involving more than one distinct component, such as Civil Engineering works, S&T works, Electrical works, OHE works etc. and in the case of major bridges – substructure, superstructure etc.), tenderer must have successfully completed or substantially completed any one of the following categories of work(s) during last 07 (seven) years, ending last day of month previous to the one in which tender is invited:

- (i) Three similar works each costing not less than the amount equal to 30% of advertised value of each component of tender, or
- (ii) Two similar works each costing not less than the amount equal to 40% of advertised value of each component of tender, or
- (iii) One similar work each costing not less than the amount equal to 60% of advertised value of each component of tender.

Note for b (1): Separate completed works of minimum required values shall also be considered for fulfillment of technical eligibility criteria for different components.

(b) (2) In such cases, what constitutes a component in a composite work shall be clearly pre-defined with estimated tender cost of it, as part of the tender documents without any ambiguity.

(b) (3) To evaluate the technical eligibility of tenderer, only components of work as stipulated in tender documents for evaluation of technical eligibility, shall be considered. The scope of work covered in other remaining components shall be either executed by tenderer himself if he has work experience as mentioned in clause 7 of the Standard General Conditions of Contractor through subcontractor fulfilling the requirements as per clause 7 of the Standard General Conditions of Contract or jointly i.e., partly himself and remaining through subcontractor, with prior approval of Engineer in writing.

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

The subcontractor shall have successfully completed at least one work similar to work proposed for subcontract, costing not less than 35% value of work to be subletted,

in last 5 years, ending last day of month previous to the one in which tender is invited through a works contract.

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

In case after award of contract or during execution of work it becomes necessary for contractor to change subcontractor, the same shall be done with subcontractor(s) fulfilling the requirements as per clause 7 of the Standard General Conditions of Contract, with prior approval of General Manager in writing.

Note for Item 10.1:

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

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

(c) Definition of SIMILAR Work: -

“S&T work including commissioning of station with EI system as per IR Standard.”

The following will be applicable in evaluating the eligibility:

Similar nature of work physically completed within the qualifying period i.e., the last Seven years ending last day of month previous to the one in which tender is invited (even though the work might have commenced before the qualifying period) should only be considered in evaluating the eligibility criteria.

10.2.

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

V= Advertised value of the tender in crores of Rupees.

	<p>N= Number of years prescribed for completion of work for which bids have been invited.</p> <p>The average annual contractual turnover shall be calculated as an average of “total contractual payments” in the previous three financial years, as per the audited balance sheet. However, in case balance sheet of the previous year is yet to be prepared/ audited, the audited balance sheet of the fourth previous year shall be considered for calculating average annual contractual turnover.</p> <p>The tenderers shall submit requisite information as per Annexure-VIB along with copies of Audited Balance Sheets duly certified by the Chartered Accountant/ Certificate from Chartered Accountant duly supported by Audited Balance Sheet.</p>
<p>10.3</p>	<p>Bid Capacity: These criteria shall not be applicable for this tender.</p>
<p>10.4</p>	<p>No Technical and Financial credentials are required for tenders having advertised value up to Rs 50 lakh.</p>
<p>10.5</p>	<p>Credentials if submitted in foreign currency shall be converted into Indian currency i.e., Indian Rupee as under:</p> <p>The conversion rate of US Dollars into Rupees shall be the daily representative exchange rates published by the Reserve Bank of India or entity authorized by RBI to do so for the relevant date or immediately previous date for which rates have been published. Where, relevant date shall be as on the last day of month previous to the one in which tender is invited. In case of any other currency, the same shall first be converted to US Dollars as on the last day of month previous to the one in which tender is invited, and the amount so derived in US Dollars shall be converted into Rupees at the aforesaid rate. The conversion rate of such currencies shall be the daily representative exchange rates published by the International Monetary Fund for the relevant date or immediately previous date for which rates have been published.</p> <p>[Explanation for Para 10 of the Tender Form (Second Sheet) including Para 10.1 to 10.5 - Eligibility Criteria:</p> <ol style="list-style-type: none"> 1. Substantially Completed Work means an ongoing work in which payment equal to or more than 90% of the present contract value (excluding the payment made for adjustment of Price variation (PVC), if any) has been made to the contractor in that ongoing contract and no proceedings of termination of contract on Contractor’s default has been initiated. The credential certificate in this regard should have been issued not prior to 60 days of date of invitation of present tender.

2. In case a work is started prior to 07 (seven) years, ending last day of month previous to the one in which tender is invited, but completed in last 07 (seven) years, ending last day of month previous to the one in which tender is invited, the completed work shall be considered for fulfillment of credentials.
3. If a work is physically completed and completion certificate to this extent is issued by the concerned organization but final bill is pending, such work shall be considered for fulfillment of credentials
4. In case of completed work, the value of final bill (gross amount) including the PVC amount (if paid) shall be considered as the completion cost of work. In case final bill is pending, only the total gross amount already paid including the PVC amount (if paid) shall be considered as the completion cost of work.

In case of substantially completed work, the total gross amount already paid including the PVC amount (if paid), as mentioned in the certificate, shall be considered as the cost of substantially completed work.

5. If a bidder has successfully completed a work as subcontractor and the work experience certificate has been issued for such work to the subcontractor by a Govt. Organization or public listed company as defined in Note for Item 10.1 Para 10 of the Tender Form (Second Sheet), the same shall be considered for the purpose of fulfillment of credentials.
6. In case a work is considered similar in nature for fulfillment of technical credentials, the overall cost including the PVC amount (if paid) of that completed work or substantially completed work, shall be considered and no separate evaluation for each component of that work shall be made to decide eligibility.
7. In case of newly formed partnership firm, the credentials of individual partners from previous propriety firm(s) or dissolved previous partnership firm(s) or split previous partnership firm(s), shall be considered only to the extent of their share in previous entity on the date of dissolution / split and their share in newly formed partnership firm. For example, a partner A had 30% share in previous entity and his share in present partnership firm is 20%. In the present tender under consideration, the credentials of partner A will be considered to the extent of $0.3 \times 0.2 \times$ value of the work done in the previous entity. For this purpose, the tenderer shall submit along with his bid all the relevant documents which include copy of previous partnership deed(s), dissolution deed(s) and proof of surrender of PAN No.(s) in case of dissolution of partnership firm(s) etc.
8. In case of existing partnership firm, if any one or more partners quit the partnership firm, the credentials of remaining partnership firm shall be re-worked out i.e., the quitting partner(s) shall take away his credentials to the extent of his share on the

date of quitting the partnership firm(e.g. in a partnership firm of partners A, B & C having share 30%, 30% & 40% respectively and credentials of Rs 10 crore; in case partner C quits the firm, the credentials of this partnership firm shall remain as Rs 6 crore). For this purpose, the tenderer shall submit along with his bid all the relevant documents which include copy of previous partnership deed(s), dissolution deed(s) and proof of surrender of PAN No.(s) in case of dissolution of partnership firm(s) etc.

9. In case of existing partnership firm if any new partner(s) joins the firm without any modification in the name and PAN/TAN no. of the firm, the credentials of partnership firm shall get enhanced to the extent of credentials of newly added partner(s) on the same principles as mentioned in item 6 above. For this purpose, the tenderer shall submit along with his bid all the relevant documents which include copy of previous partnership deeds, dissolution/splitting deeds and proof of surrender of PAN No.(s) in case of dissolution of partnership firm etc.
10. Any partner in a partnership firm cannot use or claim his credentials in any other firm without leaving the partnership firm i.e., In a partnership firm of A&B partners, A or B partner cannot use credentials of partnership firm of A&B partners in any other partnership firm or propriety firm without leaving partnership firm of A&B partners.
11. In case a partner in a partnership firm is replaced due to succession as per succession law, the proportion of credentials of the previous partner will be passed on to the successor.
12. If the percentage share among partners of a partnership firm is changed, but the partners remain the same, the credentials of the firm before such modification in the share will continue to be considered for the firm as it is without any change in their value. Further, in case a partner of partnership firm retires without taking away any credentials from the firm, the credentials of partnership firm shall remain the same as it is without any change in their value.
13. In a partnership firm “AB” of A&B partners, in case A also works as propriety firm “P” or partner in some other partnership firm “AX”, credentials of A in propriety firm “P” or in other partnership firm “AX” earned after the date of becoming a partner of the firm AB shall not be added in partnership firm AB.
14. In case a tenderer is LLP, the credentials of tenderer shall be worked out on above lines similar to a partnership firm.
15. In case company A is merged with company B, then company B would get the credentials of company A also.

11.	<p>Tenderer Credentials :-</p> <p>Documents testifying tenderer previous experience and financial status should be produced along with the tender.</p> <p>Tenderer(s) shall submit along with his / their tender:</p> <ul style="list-style-type: none"> (i) Certificates and testimonials regarding contracting experience for the type of job for which tender is invited with list of works carried out in the past. (ii) Audited Balance Sheet duly certified by the Chartered Accountant regarding contractual payments received in the past. (iii) The list of personnel / organization on hand and proposed to be engaged for the tendered work. Similarly list of Plant & Machinery available on hand and proposed to be inducted and hired for the tendered work. (iv) A copy of certificate stating that they are not liable to be disqualified and all their statements/documents submitted along with bid are true and factual. Standard format of the certificate to be submitted by the bidder is enclosed as Annexure-V. In addition to Annexure-V, in case of other than Company/Proprietary firm Annexure- V(A) shall be submitted by each member of a partnership firm/Joint venture(JV)/Hindu Undivided Family(HUF)/Limited Liability Partnership(LLP) etc. as the case may be. Non submission of a copy of certificate by the bidder shall result in summarily rejection of his/their bid. It shall be mandatorily incumbent upon the tenderer to identify state and submit the supporting documents duly self-attested / digitally signed by which they/he are/is qualifying the Qualifying Criteria mentioned in the Tender Document. (v) The HRIDC reserves the right to verify all statements, information and documents submitted by the bidder in his tender offer, and the bidder shall, when so required by the HRIDC, make available all such information, evidence and documents as may be necessary for such verification. Any such verification or lack of such verification, by the HRIDC shall not relieve the bidder of its obligations or liabilities hereunder nor will it affect any rights of the HRIDC there under. (vi) (a) In case of any information submitted by tenderer is found to be false, forged or incorrect at any time during process for evaluation of tenders, it shall lead to forfeiture of the tender Bid Security besides banning of business for a period of up to two years.
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	<p>(b) In case of any information submitted by tenderer is found to be false, forged or incorrect after the award of contract, the contract shall be terminated. Bid Security, Performance Guarantee and Security Deposit available with the HRIDC shall be forfeited. In addition, other dues of the contractor, if any, under this contract shall be forfeited and agency shall be banned for doing business for a period of up to two years.</p>
12.	<p>Non-compliance with any of the conditions set forth therein above is liable to result in the tender being rejected.</p>
13.	<p>Execution of Contract Documents: The successful Tenderer(s) shall be required to execute an agreement with the President of India acting through the General Manager/IE&A, HRIDC, Gurugram for carrying out the work according to the Standard General Conditions of Contract, Special Conditions / Specifications annexed to the tender and Standard Specifications (Works and Materials) of HRIDC as amended/corrected up to latest correction slips, mentioned in tender form (First Sheet).</p>
14.	<p>Documents to be submitted Along with Tender :-</p>
	<p>(i)The tenderer shall clearly specify whether the tender is submitted on his own (Proprietary Firm) or on behalf of a Partnership Firm / Company / Joint Venture (JV) / Registered Society / Registered Trust / Hindu Undivided Family (HUF) / Limited Liability Partnership (LLP) etc. The tenderer(s) shall enclose the attested copies of the constitution of their concern, and copy of PAN Card along with their tender. Tender Documents in such cases are to be signed by such persons as may be legally competent to sign them on behalf of the firm, company, association, trust or society, as the case may be.</p> <p>(ii) Following documents shall be submitted by the tenderer:</p> <p>(a) Sole Proprietorship Firm:</p> <p>(i) All documents in terms of Para 4(A) of Annexure-A .</p> <p>(b) HUF:</p> <p>(i) A copy of notarized affidavit on Stamp Paper declaring that he who is submitting the tender on behalf of HUF is in the position of ‘Karta’ of Hindu Undivided Family (HUF) and he has the authority, power and consent given by other members to act on behalf of HUF.</p>

	<ul style="list-style-type: none">(ii) All documents in terms of Para 4(B) of Annexure-A.(c) Partnership Firm:<ul style="list-style-type: none">(i) All documents in terms of Para 4(C) of Annexure-A.(d) Joint Venture (JV): Not Applicable for this Tender.(e) Company registered under Companies Act 2013:<ul style="list-style-type: none">(i) The copies of MOA (Memorandum of Association) / AOA (Articles of Association) of the company(ii) A copy of Certificate of Incorporation(iii) A copy of Authorization/Power of Attorney issued by the Company (backed by the resolution of Board of Directors) in favour of the individual to sign the tender on behalf of the company and create liability against the company.(iv) All other documents in terms Para 4(E) of Annexure-A.(f) LLP (Limited Liability Partnership):<ul style="list-style-type: none">(i) A copy of LLP Agreement(ii) A copy of Certificate of Incorporation(iii) A copy of Power of Attorney/Authorization issued by the LLP in favour of the individual to sign the tender on behalf of the LLP and create liability against the LLP.(iv) All other documents in terms of Para 4(F) of Annexure-A.(g) Registered Society & Registered Trust:<ul style="list-style-type: none">(i) A copy of Certificate of Registration(ii) A copy of Memorandum of Association of Society/Trust Deed(iii) A copy of Power of Attorney in favour of the individual to sign the tender documents and create liability against the Society/Trust.(iv) A copy of Rules & Regulations of the Society(v) All other documents in terms of Para 4(G) of Annexure-A.(iii) If it is NOT mentioned in the submitted tender that tender is being submitted on behalf of a Sole Proprietorship firm / Partnership firm / Joint Venture / Registered Company etc., then the tender shall be treated as having been submitted by the individual who has signed the tender.(iv) After opening of the tender, any document pertaining to the constitution of Sole Proprietorship Firm / Partnership Firm / Registered Company/ Registered Trust / Registered Society / HUF/LLP etc. shall be neither asked nor considered, if submitted. Further, no suo moto cognizance of any document available in public
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	<p>domain (i.e., on internet etc.) or in HRIDC record/office files etc. will be taken for consideration of the tender, if no such mention is available in tender offer submitted.</p> <p>(v) A tender from JV shall be considered only where permissible as per the tender conditions.</p> <p>(vi) The HRIDC will not be bound by any change of power of attorney or in the composition of the firm made subsequent to the submission of tender. HRIDC may, however, recognize such power of attorney and changes after obtaining proper legal advice, the cost of which will be chargeable to the Contractor.</p>
<p>15.</p>	<p>The tenderer whether sole proprietor / a company or a partnership firm/registered society / registered trust / HUF / LLP etc if they want to act through agent or individual partner(s), should submit along with the tender, a copy of power of attorney duly stamped and authenticated by a Notary Public or by Magistrate in favour of the specific person whether he/they be partner(s) of the firm or any other person, specifically authorizing him/them to sign the tender, submit the tender and further to deal with the Tender/ Contract up to the stage of signing the agreement except in case where such specific person is authorized for above purposes through a provision made in the partnership deed / Memorandum of Understanding / Article of Association /Board resolution, failing which tender shall be summarily rejected.</p> <p>A separate power of attorney duly stamped and authenticated by a Notary Public or by Magistrate in favour of the specific person whether he/they be partner(s) of the firm or any other person, shall be submitted after award of work, specifically authorizing him/them to deal with all other contractual activities subsequent to signing of agreement, if required.</p> <p>Note: A Power of Attorney executed and issued overseas, the document will also have to be legalized by the Indian Embassy and notarized in the jurisdiction where the Power of Attorney is being issued. However, the Power of Attorney provided by Bidders from countries that have signed The Hague Legislation Convention 1961 are not required to be legalized by the Indian Embassy if it carries a conforming Apostille certificate.</p>
<p>16.</p>	<p>Employment/Partnership etc. of Retired Railway Employees :-</p>
	<p>(a) Should a tenderer</p>

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

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

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

AND

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

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the tenderer will give full information as to the date of retirement of such Engineer or gazetted officer from the said service and as to whether permission for taking such contract, or if the Contractor be a partnership firm or an incorporated company, to become a partner or director as the case may be, has been obtained by the tenderer or the Engineer or officer, as the case may be from the President of India or any officer, duly authorized by him in this behalf, shall be clearly stated in writing at the time of submitting the tender.

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

	<p>member(s) of the family of partner(s)/shareholder(s) having share of more than 1% in the tendering entity employed in gazetted capacity in the Engineering or any other department of the railway, then the tenderer at the time of submission of tender, will inform the authority inviting tenders the details of such persons.</p> <p>Note: -If information as required as per 16.a), b), c) above has not been furnished, contract is liable to be dealt in accordance with provision of clause 62 of the Standard General Condition of contract.</p>
	<p>JOINT VENTURE (JV) IN WORKS TENDERS :-</p>
17.	<p>Participation of Joint Venture (JV) in Works Tender: Joint Venture is not applicable for this tender.</p>
18.	<p>Participation of Partnership Firms in works tenders:-</p>
18.1	<p>The Partnership Firms participating in the tender should be legally valid under the provisions of the Indian Partnership Act.</p>
18.2	<p>The partnership firm should have been in existence or should have been formed prior to submission of tender. Partnership firm should have either been registered with the Registrar or the partnership deed should have been notarized as per the Indian Partnership Act, prior to submission of tender.</p>
18.3	<p>Separate identity / name should be given to the partnership firm. The partnership firm should have PAN / TAN number in its own name and PAN / TAN number in the name of any of the constituent partners shall not be considered. The valid constituents of the firm shall be called partners.</p>
18.4	<p>Once the tender has been submitted, the constitution of the firm shall not normally be allowed to be modified / altered / terminated during the validity of the tender as well as the currency of the contract except when modification becomes inevitable due to succession laws etc., in which case prior permission should be taken from HRIDC and in any case the minimum eligibility criteria should not get vitiated. The re-constitution of firm in such cases should be followed by a notary certified Supplementary Deed.</p>

	<p>The approval for change of constitution of the firm, in any case, shall be at the sole discretion of the HRIDC and the tenderer shall have no claims what-so-ever. Any change in the constitution of Partnership firm after submission of tender shall be with the consent of all partners and with the signatures of all partners as that in the Partnership Deed. Failure to observe this requirement shall render the offer invalid and full Bid Security shall be forfeited.</p> <p>i) If any Partner/s withdraws from the firm after submission of the tender and before the award of the contract, the offer shall be rejected and Bid Security of the tenderer will be forfeited. If any new partner joins the firm after submission of tender but prior to award of contract, his / her credentials shall not qualify for consideration towards eligibility criteria either individually or in proportion to his share in the previous firm. In case the tenderer fails to inform HRIDC beforehand about any such changes / modification in the constitution which is inevitable due to succession laws etc. and the contract is awarded to such firm, then it will be considered a breach of the contract conditions liable for determination of the contract under Clause 62 of the Standard General Conditions of Contract.</p>
18.5	<p>A partner of the firm shall not be permitted to participate either in his individual capacity or as a partner of any other firm in the same tender.</p>
18.6	<p>The tender form shall be submitted only in the name of partnership firm. The Bid Security shall be submitted by partnership firm. The Bid Security submitted in the name of any individual partner or in the name of authorized partner (s) shall not be considered.</p>
18.7	<p>On issue of Letter of Acceptance (LOA) to the partnership firm, all the guarantees like Performance Guarantee, Guarantee for various Advances to the Contractor shall be submitted only in the name of the partnership firm and no splitting of guarantees among the partners shall be acceptable.</p>
18.8	<p>On issue of Letter of Acceptance (LOA), contract agreement with partnership firm shall be executed in the name of the firm only and not in the name of any individual partner.</p>

18.9	<p>In case the Letter of Acceptance (LOA) is issued to a partnership firm, the following undertakings shall be furnished by all the partners through a notarized affidavit, before signing of contract agreement.</p> <p>a) Joint and several liabilities:</p> <p>The partners of the firm to which the Letter of Acceptance (LOA) is issued, shall be jointly and severally liable to the HRIDC for execution of the contract in accordance with General and Special Conditions of the Contract. The partners shall also be liable jointly and severally for the loss, damages caused to the HRIDC during the course of execution of the contract or due to non-execution of the contract or part thereof.</p>
	<p>(b) Duration of the partnership deed and partnership firm agreement: The partnership deed/partnership firm agreement shall normally not be modified/alterd/terminated during the currency of contract and the maintenance period after the work is completed as contemplated in the conditions of the contract. Any change carried out by partners in the constitution of the firm without permission of HRIDC, shall constitute a breach of the contract, liable for determination of the contract under Clause 62 of the Standard General Conditions of Contract.</p> <p>(c) Governing laws: The partnership firm agreement shall in all respect be governed by and interpreted in accordance with the Indian laws.</p> <p>(d) No partner of the firm shall have the right to assign or transfer the interest right or liability in the contract without the written consent of the other partner/s and that of the HRIDC.</p>

<p>18.10</p>	<p>The tenderer shall clearly specify that the tender is submitted on behalf of a partnership firm. The following documents shall be submitted by the partnership firm, with the tender:</p> <ul style="list-style-type: none"> (i) A notarized copy of the Partnership Deed or a copy of the Partnership deed registered with the Registrar. (ii) A notarized or registered copy of Power of Attorney in favour of the individual to tender for the work, sign the agreement etc. and create liability against the firm. (iii) An undertaking by all partners of the partnership firm that they are not blacklisted or debarred by Railways or any other Ministry / Department of the Govt. of India from participation in tenders / contracts as on the date of submission of bids, either in their individual capacity or in any firm/LLP in which they were / are partners/members. Any Concealment / wrong information in regard to above shall make the bid ineligible or the contract shall be determined under Clause 62 of the Standard General Conditions of Contract. (iv) All other documents in terms of Para 10 of the Tender Form (Second Sheet) above.
<p>18.11</p>	<p>Evaluation of eligibility of a partnership firm:</p> <p>Technical and financial eligibility of the firm shall be adjudged based on satisfactory fulfillment of the eligibility criteria laid down in Para 10 of the Tender Form (Second Sheet) above.</p>
<p>19.0</p>	<p>Advances to Contractor – Not Applicable</p>

	<p>PART -II</p> <p>STANDARD GENERAL CONDITIONS OF CONTRACT</p>
1.1	<p>Singular and Plural: Words importing the singular number shall also include the plural and vice versa where the context requires.</p>
1.2	<p>Headings and Marginal Headings: The headings and marginal headings in these Standard General Conditions are solely for the purpose of facilitating reference and shall not be deemed to be part thereof or be taken into consideration in the interpretation or construction thereof the contract.</p>
	<p>GENERAL OBLIGATIONS :-</p>
2.1	<p>Execution Co-Relation and Intent of Contract Documents: The contract documents shall be signed in triplicate by the HRIDC and the Contractor. The contract documents are complementary and what is called for by anyone shall be as binding as if called for by all, the intention of the documents is to include all labour and materials, equipments and transportation necessary for proper execution of work. Materials or works not covered by or properly inferable from any heading or class of the specifications shall not be supplied by the HRIDC to the Contractors unless distinctly specified in the contract documents. Materials or works described in words which so applied have a well-known technical or trade meaning, shall be held to refer to such recognized standards.</p>
2.2	<p>If a work is transferred from the jurisdiction of one Railway to another Railway or to a Project authority or vice versa while contract is in subsistence, the contract shall be binding on the Contractor and the Successor Railway/Project in the same manner & take effect in all respects as if the Contractor and the Successor Railway/Project were parties thereto from the inception and the corresponding officer or the Competent Authority in the Successor Railway/Project will exercise the same powers and enjoy the same authority as conferred to the Predecessor Railway/Project under the original contract/agreement entered into.</p>
2.3	<p>If for administrative or other reasons the contract is transferred to the Successor Railway, the contract shall, notwithstanding any things contained herein contrary there to, be binding on the Contractor and the Successor Railway in the same manner and take effect in all respects as if the Contractor and the Successor Railway had been parties thereto from the date of this contract.</p>
3.1	<p>Law Governing the Contract: The contract shall be governed by the law for the time being in force in the Republic of India.</p>

<p>3.2</p>	<p>Compliance to Regulations and Bye-Laws: The Contractor shall conform to the provision of any statute relating to the works and regulations and bye-laws of any local authority and of any water and lighting companies or undertakings, with whose system the work is proposed to be connected and shall before making any variation from the drawings or the specifications that may be necessitated by so confirming give to the Engineer notice specifying the variation proposed to be made and the reason for making the variation and shall not carry out such variation until he has received instructions from the Engineer in respect thereof. The Contractor shall be bound to give all notices required by statute, regulations or bye-laws as aforesaid and to pay all fees and taxes payable to any authority in respect thereof.</p>
<p>3.3</p>	<p>Environmental and Forest clearances: The HRIDC represents and warrants that the environmental and forest clearances pertaining to the work commensurate with the progress of work/agreed programme, will be obtained by Engineer. In the event of any delay in securing respective clearances leading to delay in execution of work, the Contractor shall be entitled to Extension of Time for the period of such delay in accordance with the provisions of Clause-17A(ii).</p>
<p>4.</p>	<p>Communications to be in Writing: All notices, communications, reference and complaints made by the HRIDC or the Engineer or the Engineer's Representative or the Contractor inter-se concerning the works shall be in writing or e-mail on registered e-mail IDs i.e. the e mail id provided for correspondence in the contract agreement, and no notice, communication, reference or complaint not in writing or through e-mail, shall be recognized.</p>
<p>5.</p>	<p>Service of Notices on Contractors: The Contractor shall furnish to the Engineer the name, designation and address of his authorized agent and all complaints, notices, communications and references shall be deemed to have been duly given to the Contractor, if delivered to the Contractor or his authorized agent or left at or posted to the address so given and shall be deemed to have been so given in the case of posting on day on which they would have reached such address in the ordinary course of post/ e-mail or on the day on which they were so delivered or left. In the case of contract by partners, any change in the constitution of the firm shall be forthwith notified by the Contractor to the Engineer.</p>
<p>6.</p>	<p>Occupation and Use of Land: No land belonging to or in the possession of the HRIDC shall be occupied by the Contractor without the permission of the HRIDC. The Contractor shall not use, or allow to be used the site for any purposes other than that of executing the works. Whenever non-HRIDC bodies/persons are permitted to use HRIDC premises with competent authority's approval, conservancy charges as applicable from time to time may be levied.</p>
<p>7.</p>	<p>Assignment or Subletting of Contract: The Contractor shall not assign or sublet the contract or any part thereof or allow any person to become interested therein in any</p>

manner whatsoever without the special permission in writing of the Engineer, save as provided below. Any breach of this condition shall entitle the HRIDC to rescind the contract under Clause 62 of these Conditions and also render the Contractor liable for payment to the HRIDC in respect of any loss or damage arising or ensuing from such cancellation; provided always that execution of the details of the work by petty Contractor under the direct and personal supervision of the Contractor or his agent shall not be deemed to be sub-letting under this clause.

In case Contractor intends to subcontract part of work, he shall submit a proposal in writing seeking permission of Engineer for the same. While submitting the proposal to HRIDC, Contractor shall ensure the following:

- (a) Total value of work to be assigned to sub-contractor(s) shall not be more than 50% of total contract value.

(i) The subcontractor shall have successfully completed at least one work similar to work proposed for subcontract in last 5 years, ending date of submission of proposal by Contractor to HRIDC, costing not less than 35% value of work to be subletted, through a works contract. For fulfilment of above, Work Experience Certificate issued by a Govt. Department/Organisation shall be considered. Further, Work Experience Certificate issued by a Public listed company shall be considered provided the company is having average annual turnover of Rs 500 crore and above in last 3 financial years excluding the current financial year, listed on National Stock Exchange or Bombay Stock Exchange, registered at least 5 years back from the date of submission of proposal by Contractor to HRIDC and work experience certificate issued by a person authorised by the Public Listed Company to issue such certificates.

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

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

- (ii) There is no banning of business with the sub-contractor in force over HRIDC.

- (b) The Contractor shall provide to the Engineer a copy of the agreement to be entered into by Contractor with subcontractor. No subcontractor shall be permitted without a formal agreement between Contractor and subcontractor. This agreement shall clearly define the scope of work to be carried out by subcontractor and the terms of payment in clear & unambiguous manner.

- (c) On receipt of approval from Engineer, Contractor shall enter into a formal agreement legally enforceable in Court of Law with subcontractor and submit a copy of the same to the Engineer.
- (d) The Contractor shall intimate to the Engineer not less than 7 days in advance, the intended date of commencement of subcontractor's work.
- (e) Once having entered into above arrangement, Contractor shall discontinue such arrangement, if he intends to do so at his own or on the instructions of HRIDC, with prior intimation to Engineer.
- (f) The Contractor shall indemnify HRIDC against any claim of subcontractor.
- (g) The Contractor shall release payment to the Sub-contractor(s) promptly and shall endeavour to resolve all issues amicably and speedily with the Sub-contractor(s), so that the execution of work is not affected in any manner whatsoever.
- (h) In addition to issuance of work experience certificate to Contractor, the Engineer, when, based on documents, is satisfied that subcontracted work has been carried out by subcontractor, shall issue work experience certificate to the subcontractor also for the portion of work subcontracted and successfully completed by the sub-contractor.
- (i) *Note: Work Experience Certificate to the subcontractor shall be issued only when the contractor's work is complete and contractor is entitled for the issuance of Work Experience Certificate. However, in the same contract, when the Engineer, based on documents, is satisfied that the subcontractor has successfully carried out subletted work; without issuance of work experience certificate to subcontractor at this stage, the Engineer can, **only once**, consider the successfully completed subletted work for the fulfilment of eligibility for further subletting of work to the subcontractor in the same contract. When the contractor's work is complete and contractor is entitled for the issuance of work experience certificate, the subcontractor shall be issued one Work Experience Certificate for the total scope of work executed by the subcontractor in the contract.*
- (j) The responsibility of successful completion of work by subcontractor shall lie with Contractor. Subcontracting will in no way relieve the Contractor to execute the work as per terms of the Contract.
- (k) Further, in case Engineer is of the view that subcontractor's performance is not satisfactory, he may instruct the Contractor to remove the subcontractor from the work and Contractor has to comply with the above instructions with due promptness. Contractor shall intimate the actual date of discontinuation of subcontract to Engineer. No claim of Contractor whatsoever on this account shall

	<p>be entertained by the HRIDC and this shall be deemed as ‘excepted matter’ (matter not arbitrable).</p> <p>(l) The permitted subcontracting of work by the Contractor shall not establish any contractual relationship between the sub-contractor and the HRIDC and shall not relieve the Contractor of any responsibility under the Contract.</p>
8.	<p>Representation on Works: The Contractor shall, when he is not personally present on the site of the works place, keep a responsible agent at the works during working hours who shall on receiving reasonable notice, present himself to the Engineer and orders given by the Engineer or the Engineer's representative to the agent shall be deemed to have the same force as if they had been given to the Contractor. Before absenting himself, the Contractor shall furnish the name and address of his agent for the purpose of this clause and failure on the part of the Contractor to comply with this provision at any time will entitle the HRIDC to rescind the contract under Clause 62 of these Conditions.</p>
9.	<p>Excavated Material: The Contractor shall not sell or otherwise dispose of or remove except for the purpose of this contract, the sand, stone, clay ballast, earth, trees, rock or other substances or materials which may be obtained from any excavation made for the purpose of the works or any building or produced upon the site at the time of delivery of the possession thereof but all the substances, materials, buildings and produce shall be the property of the HRIDC/Railway provided that the Contractor may, with the permission of the Engineer, use the same for the purpose of the works either free of cost or pay the cost of the same at such rates as may be determined by the Engineer.</p>
10.	<p>Indemnity by Contractors: The Contractor shall indemnify and save harmless the HRIDC from and against all actions, suit, proceedings, losses, costs, damages, charges, claims and demands of every nature and description brought or recovered against the HRIDC by reason of any act or omission of the Contractor, his agents or employees, in the execution of the works or in his guarding of the same. All sums payable by way of compensation under any of these conditions shall be considered as reasonable compensation to be applied to the actual loss or damage sustained, and whether or not any damage shall have been sustained.</p>
10.1	<p>Security Deposit: The Security Deposit shall be 5% of the contract value. The Bid Security submitted by the Contractor with his tender will be retained/encashed by the HRIDCs as part of security for the due and faithful fulfilment of the contract by the Contractor. Provided</p>

	<p>further that, if Contractor submits the Cash or Term Deposit Receipt issued from a Scheduled commercial bank of India or irrevocable Bank Guarantee Bond from a Scheduled commercial bank of India, either towards the Full Security Depositor the Part Security Deposit equal to or more than Bid Security, the HRIDC shall return the Bid Security, to the Contractor.</p> <p>Balance of Security Deposit may be deposited by the Contractor in cash or Term Deposit Receipt issued from Scheduled commercial bank of India or irrevocable Bank Guarantee bond issued from Scheduled commercial bank of India, or may be recovered at the rate of 6% of the bill amount till the full Security Deposit is recovered. Provided also that in case of defaulting Contractor, the HRIDC may retain any amount due for payment to the Contractor on the pending "on account bills" so that the amounts so retained (including amount guaranteed through Performance Guarantee) may not exceed 10% of the total value of the contract.</p> <p>The Irrevocable Bank Guarantee submitted towards Security deposit shall be initially valid up to the stipulated date of Maintenance period plus 60 days and shall be extended from time to time, depending upon extension of contract granted in terms of Clause 17A and 17B of the Standard General Conditions of Contract.</p> <p>Note: Security Deposit deposited in cash by the Contractor or recovered from the running bills of a Contractor or submitted by contractor as Term Deposit Receipt(s) can be refunded/returned to the contractor, in lieu of irrevocable Bank Guarantee bond issued from scheduled commercial bank of India, to be submitted by him, for an amount equal to or more than the already available Security Deposit, provided however that, in a contract of value less than Rs. 50 Crore, such refund/ return of the already available Security Deposit is permitted up to two times and in a contract of value equal to or more than Rs. 50 Crore, such refund / return of the already available Security Deposit is permitted up to three times.</p>
<p>10.2(i)</p>	<p>Refund of Security Deposit: Security Deposit mentioned in sub clause (1) above shall be returned to the Contractor along with or after, the following:</p> <p>(a) Final Payment of the Contract as per clause 51. (1) and (b) Execution of Final Supplementary Agreement or Certification by Engineer that HRIDC has No Claim on Contractor and (c) Maintenance Certificate issued, on expiry of the maintenance period/Guarantee Period as per clause 50(1), in case applicable.</p>
<p>10.2 (ii)</p>	<p>Forfeiture of Security Deposit: Whenever the contract is rescinded as a whole under clause 62 (1) of these conditions, the Security Deposit already with HRIDCs under the</p>

	<p>contract shall be forfeited. However, in case the contract is rescinded in part or parts under clause 62 (1) of these conditions, the Security Deposit shall not be forfeited.</p>
<p>10.3</p>	<p>No interest shall be payable upon the Bid Security and Security Deposit or amounts payable to the Contractor under the Contract, but Government Securities deposited in terms of Sub-Clause 16.(4)(b) of this clause will be payable with interest accrued thereon.</p>
<p>10.4</p>	<p>Performance Guarantee</p> <p>The procedure for obtaining Performance Guarantee is outlined below:</p> <p>(a) The successful bidder shall have to submit a Performance Guarantee (PG) within 21 (Twenty-one) days from the date of issue of Letter of Acceptance (LOA). Extension of time for submission of PG beyond 21 (Twenty-one) days and up to 60 days from the date of issue of LOA may be given by the Authority who is competent to sign the contract agreement. However, a penal interest of 12% per annum shall be charged for the delay beyond 21(Twenty-one) days, i.e. from 22nd day after the date of issue of LOA. Further, if the 60th day happens to be a declared holiday in the concerned office of the HRIDC, submission of PG can be accepted on the next working day.</p> <p>In all other cases, if the Contractor fails to submit the requisite PG even after 60 days from the date of issue of LOA, the contract is liable to be terminated. In case contract is terminated HRIDC shall be entitled to forfeit Bid Security and other dues payable to the contractor against that particular contract, subject to maximum of PG amount. In case a tenderer has not submitted Bid Security on the strength of their registration as a Startup recognized by Department of Industrial Policy and Promotion (DIPP) under Ministry of Commerce and Industry, DIPP shall be informed to this effect.</p> <p>The failed Contractor shall be debarred from participating in re-tender for that work.</p> <p>(b) The successful bidder shall submit the Performance Guarantee (PG) in any of the following forms, amounting to 5% of the original contract value: -</p> <p>(i) A deposit of Cash;</p> <p>(ii) Irrevocable Bank Guarantee (ANNEXURE – VI);</p> <p>(iii) Government Securities including State Loan Bonds at 5% below the market value;</p> <p>(iv) Pay Orders and Demand Drafts tendered by any Scheduled Commercial Bank of India;</p> <p>(v) Guarantee Bonds executed or Deposits Receipts tendered by any Scheduled Commercial Bank of India;</p>

	<p>(vi) Deposit in the Post Office Saving Bank;</p> <p>(vii) Deposit in the National Savings Certificates;</p> <p>(viii) Twelve years National Defence Certificates;</p> <p>(ix) Ten years Defence Deposits;</p> <p>(x) National Defence Bonds and</p> <p>(xi) Unit Trust Certificates at 5% below market value or at the face value whichever is less. Also, FDR in favour of FA&CAO (free from any encumbrance) may be accepted.</p> <p>(c) The Performance Guarantee shall be submitted by the successful bidder after the Letter of Acceptance (LOA) has been issued, but before signing of the contract agreement. This P.G. shall be initially valid upto the stipulated date of completion plus 60 days beyond that. In case, the time for completion of work gets extended, the Contractor shall get the validity of P.G. extended to cover such extended time for completion of work plus 60 days.</p> <p>(d) The value of PG to be submitted by the Contractor is based on original contract value and shall not change due to subsequent variation(s) in the original contract value.</p> <p>(e) The Performance Guarantee (PG) shall be released after physical completion of the work based on 'Completion Certificate' issued by the competent authority stating that the Contractor has completed the work in all respects satisfactorily.</p> <p>(f) Whenever the contract is rescinded, the Performance Guarantee already submitted for the contract shall be encashed.</p> <p>(g) The Engineer shall not make a claim under the Performance Guarantee except for amounts to which the President of India is entitled under the contract (not withstanding and/or without prejudice to any other provisions in the contract agreement) in the event of:</p> <p>(i) Failure by the Contractor to extend the validity of the Performance Guarantee as described herein above, in which event the Engineer may claim the full amount of the Performance Guarantee.</p> <p>(ii) Failure by the Contractor to pay President of India any amount due, either as agreed by the Contractor or determined under any of the Clauses/Conditions of the Agreement, within 30 days of the service of notice to this effect by Engineer.</p> <p>(iii) The Contract being determined or rescinded under clause 62 of these conditions.</p>
<p>11.</p>	<p>Force Majeure Clause: If at any time, during the continuance of this contract, the performance in whole or in part by either party of any obligation under this contract shall be prevented or delayed by reason of any war, hostility, acts of public enemy, civil commotion, sabotage, serious loss or damage by fire, explosions, epidemics/pandemics, strikes, lockouts or acts of God (hereinafter, referred to events) provided, notice of the happening of any such event is given by either party to the other</p>

	<p>within 30 days from the date of occurrence thereof, neither party shall by reason of such event, be entitled to terminate this contract nor shall either party have any claim for damages against the other in respect of such non-performance or delay in performance, and works under the contract shall be resumed as soon as practicable after such event has come to an end or ceased to exist, and the decision of the Engineer as to whether the works have been so resumed or not shall be final and conclusive, PROVIDED FURTHER that if the performance in whole or in part of any obligation under this contract is prevented or delayed by reason of any such event for a period exceeding 120 days, either party may at its option terminate the contract by giving notice to the other party.</p>
<p>11A</p>	<p>Extension of Time in Contracts: Subject to any requirement in the contract as to completion of any portion or portions of the works before completion of the whole, the Contractor shall fully and finally complete the whole of the works comprised in the contract (with such modifications as may be directed under conditions of this contract) by the date entered in the contract or extended date in terms of the following clauses:</p> <ul style="list-style-type: none"> (i) Extension due to Modification: If any modifications have been ordered which in the opinion of the Engineer have materially increased the magnitude of the work, then such extension of the contracted date of completion may be granted as shall appear to the Engineer to be reasonable in the circumstances, provided moreover that the Contractor shall be responsible for requesting such extension of the date as may be considered necessary as soon as the cause thereof shall arise. (ii) Extension for Delay not due to HRIDC or Contractor: If in the opinion of the Engineer, the progress of work has any time been delayed by any act or neglect of HRIDC employees or by other Contractor employed by the HRIDC under Sub-Clause (4) of Clause 20 of these Conditions or in executing the work not forming part of the contract but on which Contractor's performance necessarily depends or by reason of proceeding taken or threatened by or dispute with adjoining or to neighbouring owners or public authority arising otherwise through the Contractor's own default etc. or by the delay authorized by the Engineer pending arbitration or in consequences of the Contractor not having received in due time necessary instructions from the HRIDC for which he shall have specially applied in writing to the Engineer or his authorized representative then upon happening of any such event causing delay, the Contractor shall immediately give notice thereof in writing to the Engineer within 15 days of such happening, but shall nevertheless make constantly his best endeavours to bring down or make good the delay and shall do all that may be reasonably required of him to the satisfaction of the Engineer to proceed with the works. The Contractor may also indicate the period for which the work is likely to be delayed and shall be bound to ask for necessary extension of time. (iii) Extension for Delay due to HRIDC: In the event of any failure or delay by the HRIDC to hand over the Contractor possession of the lands necessary for the execution of the works or to give the necessary notice to commence the works or

	<p>to provide the necessary drawings or instructions or any other delay caused by the HRIDC due to any other cause whatsoever, then such failure or delay shall in no way affect or vitiate the contract or alter the character thereof or entitle the Contractor to damages or compensation therefor, but in any such case, the HRIDC may grant such extension or extensions of the completion date as may be considered reasonable.</p> <p>The Contractor shall indicate the period for which the work is likely to be delayed and shall seek extension of time as may be considered necessary under clause 17A(i) or/and 17A(ii) or/ and 17A(iii) above, as soon as the cause thereof shall arise and, in any case, not less than 15 days before the expiry of the date fixed for completion of the works. The Engineer shall consider the same and shall grant and communicate such extension of time as in his opinion is reasonable having regard to the nature and period of delay and the type and quantum of work affected thereby. No other compensation shall be payable for works so carried forward to the extended period of time; the same rates, terms and conditions of contract being applicable, as if such extended period of time was originally provided in the original contract itself.</p> <p>The non-submission of request for extension or submission of request within less than 15 days before the expiry of the date fixed for completion of the works, shall make him ineligible for extension under these sub clauses, subject to final decision of Engineer.</p>
<p>11B</p>	<p>Extension of Time with Liquidated Damages (LD) for delay due to Contractor: The time for the execution of the work or part of the works specified in the contract documents shall be deemed to be the essence of the contract and the works must be completed not later than the date(s) as specified in the contract. If the Contractor fails to complete the works within the time as specified in the contract for the reasons other than the reasons specified in Clause 17 and 17A, the HRIDC may, if satisfied that the works can be completed by the Contractor within reasonable short time thereafter, allow the Contractor for further extension of time (Proforma at Annexure-VII) as the Engineer may decide. On such extension the HRIDC will be entitled without prejudice to any other right and remedy available on that behalf, to recover from the Contractor as agreed damages and not by way of penalty for each week or part of the week, a sum calculated at the rate of Liquidated Damages as decided by Engineer, between 0.05% to 0.30% of contract value of the work for each week or part of the week.</p> <p>For the purpose of this Clause, the contract value of the works shall be taken as value of work as per contract agreement including any supplementary work order/contract agreement issued. Provided also, that the total amount of liquidated damages under this condition shall not exceed 5% of the contract value or of the total value of the item or groups of items of work for which a separate distinct completion period is specified in the contract.</p>

S.No	Duration of extension of time under Clause 17B	Rate of Liquidated Damages
(i)	Up to Twenty Five percent of original period of completion including period of extension of time granted under Section 17A(i).	As decided by Engineer, between 0.01% to 0.05% of contract value for each week or part of the week.
(ii)	Above Twenty Five percent but upto Fifty percent of original period of completion including period of extension of time granted under Section 17A(i)	0.10 % of contract value for each week or part of the week.
(iii)	Above Fifty percent of original period of completion including period of extension of time granted under Section 17A(i)	0.30 % of contract value for each week or part of the week

Provided further, that if the HRIDC is not satisfied that the works can be completed by the Contractor and in the event of failure on the part of the contractor to complete the work within further extension of time allowed as aforesaid, the HRIDC shall be entitled without prejudice to any other right or remedy available in that behalf, to appropriate the contractor's Security Deposit and rescind the contract under Clause 62 of these Conditions, whether or not actual damage is caused by such default.

NOTE:

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

11C	Bonus for Early Completion of Work: Not Applicable
12.1	Illegal Gratification: Any bribe, commission, gift or advantage given, promised or offered by or on behalf of the Contractor or his partner or agent or servant or anyone on his behalf, to any officer or employee of the HRIDC or to any person on his behalf in relation to obtaining or execution of this or any other contract with the HRIDC shall, in addition to any criminal liability which he may incur, subject Contractor to the rescission of the contract and all other contracts with the HRIDC and to the payment of any loss or damage resulting from such decision and the HRIDC shall be entitled to deduct the amounts so payable from the Contractor's bills/Security Deposit or any other dues of Contractor with the Government of India.

<p>12.2</p>	<p>The Contractor shall not lend or borrow from or have or enter into any monetary dealings or transactions either directly or indirectly with any employee of the HRIDC and if he shall do so, the HRIDC shall be entitled forthwith to rescind the contract and all other contracts with the HRIDC. Any question or dispute as to the commission of any such offence or compensation payable to the HRIDC under this Clause shall be settled by the HRIDC Administration, in such a manner as he shall consider fit & sufficient and his decision shall be final & conclusive. In the event of rescission of the contract under this Clause, the Contractor will not be paid any compensation whatsoever except payments for the work done up to the date of rescission.</p>
	<p>EXECUTION OF WORKS :-</p>
<p>13.1</p>	<p>Contractor's understanding: It is understood and agreed that the Contractor has, by careful examination, satisfied himself as to the nature and location of the work, the conformation of the ground, the character, quality and quantity of the materials to be encountered, the character of equipment and facilities needed preliminary to and during the progress of the works, the general and local conditions, the labour conditions prevailing therein and all other matters which can in any way affect the works under the contract.</p>
<p>13.2</p>	<p>Commencement of Works: The Contractor shall commence the works within 15 days after the receipt by him of an order in writing to this effect from the Engineer and shall proceed with the same with due expedition and without delay</p>
<p>13.3</p>	<p>Accepted Programme of Work: The Contractor who has been awarded the work shall as soon as possible but not later than 20 days after the date of receipt of the acceptance letter in respect of contracts with initial completion period of two years or less or not later than 90 days for other contracts have to submit the detailed programme of work indicating the time schedule of various items of works in the form of Bar Chart/PERT/CPM. He shall also submit the details of organisation (in terms of labour and supervisors), plant and machinery that he intends to utilize (from time to time) for execution of the work within stipulated date of completion. The programme of work amended as necessary by discussions with the Engineer, shall be treated as the agreed programme of the work for the purpose of this contract and the Contractor shall endeavor to fulfill this programme of work. The progress of work will be watched accordingly and the liquidated damages will be with reference to the overall completion date. Nothing stated herein shall preclude the Contractor in achieving earlier completion of item or whole of the works than indicated in the programme.</p> <p>In Contracts for works of New Line/Gauge Conversion/Doubling/Railway Electrification, finalized through Tenders having advertised value more than Rs.100 crores, the Contractor shall submit a detailed time programme to the Engineer within 30 days after issue of LOA. The program shall include the physical and Financial</p>

	<p>Progress vis-à-vis program and forecast cash flow adopting Project Management Software such as Primavera/Sure Track/MS Project etc. The program must identify the milestones, interface requirements and program reporting elements. The Contractor shall supply, free of cost one set of authorized software to the Engineer and the soft copy of structured program for the project. This shall be updated every month. The Contractor shall also submit a revised programme whenever the previous programme is inconsistent with actual progress. Each programme shall include: The order in which the Contractor intends to carry out the Works, including the anticipated timing of each stage, Contractor’s Documents, procurement, manufacture of Plant, delivery to Site, construction, erection and testing, each of these stages for work by each Subcontractor, if any, the sequence and timing of inspections and tests specified in the Contract, and a supporting report which includes: a general description of the methods which the Contractor intends to adopt, and of the major stages, in the execution of the Works, and details showing the Contractor’s reasonable estimate for the number of each class of Contractor’s Personnel & 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 Engineer shall be entitled to rely upon the programme when planning their activities. 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.</p>
<p>13.4</p>	<p>Setting out of Works: The Contractor shall be responsible for the correct setting out of all works in relation to original points, lines and levels of reference at his cost. The Contractor shall execute the work true to alignment, grade, levels and dimensions as shown in the drawing and as directed by the Engineer's representative and check these at frequent intervals. The Contractor shall provide all facilities like labour and instruments and shall co-operate with the Engineer's representative for checking of all alignment, grades, levels and dimensions. If, at any time, during the progress of the works any error appear or arise in any part of the work, the Contractor, on being required so to do by the Engineer's representative shall, at his own cost rectify such errors, to the satisfaction of the Engineer's representative.</p> <p>Such checking shall not absolve the Contractor of his own responsibility of maintaining accuracy in the work. The Contractor shall carefully protect and preserve all bench marks, sight rails, pegs and other things used in setting out the work.</p>

<p>14.1</p>	<p>Compliance to Engineer’s Instructions: The Engineer shall direct the sequence in which the several parts of the works shall be executed and the Contractor shall execute without delay all orders given by the Engineer from time to time; but the Contractor shall not be relieved thereby from responsibility for the due performance of the works in all respects.</p>
<p>14.2</p>	<p>Alterations to be Authorized: No alterations in or additions to or omissions or abandonment of any part of the works shall be deemed authorised, except under written instructions from the Engineer.</p>
<p>14.3</p>	<p>Extra Works: Should works over and above those included in the contract require to be executed at the site, the Contractor shall have no right to be entrusted with the execution of such works which may be carried out by another Contractor or Contractors or by other means at the option of the HRIDC.</p>
<p>14.4</p>	<p>Separate Contracts in Connection with Works: The HRIDC shall have the right to let other contracts in connection with the works. The Contractor shall afford other Contractors reasonable opportunity for the storage of their materials and the execution of their works and shall properly connect and coordinate his work with theirs. If any part of the Contractor’s work depends upon proper execution or result upon the work of another Contractor(s), the Contractor shall inspect and promptly report to the Engineer any defects in such works that render it unsuitable for such proper execution and results. The Contractor's failure so-to inspect and report shall constitute an acceptance of the other Contractor's work as fit and proper for the reception of his work, except as to defects which may develop in the other Contractor's work after the execution of his work.</p>
<p>15.</p>	<p>Instruction of Engineer's Representative: Any instructions or approval given by the Engineer's representative to Contractor in connection with the works shall bind the Contractor as though it had been given by the Engineer provided always as follows:</p> <ul style="list-style-type: none"> (a) Failure of the Engineer's representative to disapprove any work or materials shall not prejudice the power of the Engineer thereafter to disapprove such work or material and to order the removal or breaking up thereof. (b) If the Contractor shall be dissatisfied by reason of any decision of the Engineer's representative, he shall be entitled to refer the matter to the Engineer who shall there upon confirm or vary such decision.

<p>16.(1)</p>	<p>Adherence to Specifications and Drawings: The site and the detailed drawings shall be made available to the contractor commensurate with the accepted programme of work submitted under clause 19(3). The whole of the works shall be executed in perfect conformity with the specifications and drawings of the contract. If Contractor performs any works in a manner contrary to the specifications or drawings or any of them and without such reference to the Engineer, he shall bear all the costs arising or ensuing therefrom and shall be responsible for all loss to the HRIDC.</p>
<p>16.(2)</p>	<p>Drawings and Specifications of the Works: The Contractor shall keep one copy of Drawings and Specifications at the site, in good order, and such contract documents as may be necessary, available to the Engineer or the Engineer's Representative</p>
<p>16.(3)</p>	<p>Ownership of Drawings and Specifications: All Drawings and Specifications and copies thereof furnished by the HRIDC to the Contractor are deemed to be the property of the HRIDC. They shall not be used on other works and with the exception of the signed contract set, shall be returned by the Contractor to the HRIDC on completion of the work or termination of the Contract.</p>
<p>16.(4)</p>	<p>Compliance with Contractor's Request for Details: The Engineer shall furnish with reasonable promptness, after receipt by him of the Contractor's request, additional instructions by means of drawings or otherwise, necessary for the proper execution of the works or any part thereof. All such drawings and instructions shall be consistent with the Contract Documents and reasonably inferable there from.</p>
<p>16.(5)</p>	<p>Meaning and Intent of Specification and Drawings: If any ambiguity arises as to the meaning and intent of any portion of the Specifications and Drawings or as to execution or quality of any work or material, or as to the measurements of the works the decision of the Engineer thereon shall be final subject to the appeal (within 7 days of such decision being intimated to the Contractor) to the Engineer who shall have the power to correct any errors, omissions, or discrepancies in aforementioned items and whose decision in the matter in dispute or doubt shall be final and conclusive.</p>
<p>17.</p>	<p>Working during Night: The Contractor shall not carry out any work between sun-set and sun-rise without the previous permission of the Engineer. However, if the Engineer is satisfied that the work is not likely to be completed in time except by resorting to night work, he may order the same without confirming any right on the Contractor for claiming any extra payment for the same.</p>

<p>18.</p>	<p>Damage to HRIDC Property or Private Life and Property: The Contractor shall be responsible for all risk to the work and for 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 HRIDC or the lives, persons or property of others from whatsoever cause in connection with the works until they are taken over by the HRIDC, although all reasonable and proper precautions may have been taken by the Contractor. In case the HRIDC shall be called upon to make good any costs, loss or damages, or to pay any compensation, including that payable under the provisions of the Workmen's Compensation Act or any statutory amendments thereof to any person or persons sustaining damages as aforesaid by reason of any act, or any negligence or omissions on the part of the Contractor; the amount of any costs or charges including costs and charges in connection with legal proceedings, which the HRIDC may incur in reference thereto, shall be charged to the Contractor. The HRIDC 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 expenses shall not be called in question by the Contractor.</p>
<p>19.</p>	<p>Sheds, Storehouses and Yards: The Contractor shall at his own expense provide himself with sheds, storehouses and yards in such situations and in such numbers as in the opinion of the Engineer is requisite for carrying on the works and the Contractor shall keep at each such sheds, storehouses and yards a sufficient quantity of materials and plant in stock as not to delay the carrying out of the works with due expedition and the Engineer and the Engineer's representative shall have free access to the said sheds, store houses and yards at any time for the purpose of inspecting the stock of materials or plant so kept in hand, and any materials or plant which the Engineer may object to shall not be brought upon or used in the works, but shall be forthwith removed from the sheds, storehouses or yards by the Contractor. The Contractor shall at his own expenses provide and maintain suitable mortar mills, soaking vats or any other equipments necessary for the execution of the works.</p>
<p>20.</p>	<p>Provision of Efficient and Competent Staff at Work Sites by the Contractor:-</p>

<p>21.1</p>	<p>The Contractor shall place and keep on the works at all times efficient and competent staff to give the necessary directions to his workmen and to see that they execute their work in sound & proper manner and shall employ only such supervisors, workmen & labourers in or about the execution of any of these works as are careful and skilled in the various trades.</p>
<p>21.2</p>	<p>The Contractor shall at once remove from the works any agents, permitted sub-contractor, supervisor, workman or labourer who shall be objected to by the Engineer and if and whenever required by the Engineer, he shall submit a correct return showing the names of all staff and workmen employed by him.</p>
<p>21.3</p>	<p>In the event of the Engineer being of the opinion that the Contractor is not employing on the works a sufficient number of staff and workmen as is necessary for proper completion of the works within the time prescribed, the Contractor shall forthwith on receiving intimation to this effect deploy the additional number of staff and labour as specified by the Engineer within seven days of being so required and failure on the part of the Contractor to comply with such instructions will entitle the HRIDC to rescind the contract under Clause 62 of these conditions.</p>
<p>22A.</p>	<p>Deployment of Qualified Engineers at Work Sites by the Contractor :-</p>
<p>22A.1</p>	<p>The Contractor shall also employ qualified electronics Graduate Engineer, having at least 10 years of experience in Railway Signalling works as Project Manager and Degree/Diploma Electronics Engineer having 5 years of Railway Signalling works as site-supervisor</p>
<p>22A.2</p>	<p>In case the Contractor fails to employ the Engineer, as aforesaid above, he shall be liable to pay Rs. 50,000/- per month for Project manager and Rs. 25,000/- per month at the rates.</p>
<p>22A.3</p>	<p>No. of qualified Engineers required to be deployed by the Contractor for various activities contained in the works .</p>
<p>23.1</p>	<p>Workmanship and Testing: The whole of the works and/or supply of materials specified and provided in the contract or that may be necessary to be done in order to</p>

	<p>form and complete any part thereof shall be executed in the best and most substantial workman like manner with materials of the best and most approved quality of their respective kinds, agreeable to the particulars contained in or implied by the specifications and as referred to in and represented by the drawings or in such other additional particulars, instructions and drawings given during the carrying on of the works and to the entire satisfaction of the Engineer according to the instructions and directions which the Contractors may from time to time receive from the Engineer. The materials may be subjected to tests by means of such machines, instruments and appliances as the Engineer may direct and wholly at the expense of the Contractor.</p>
<p>23.2</p>	<p>Removal of Improper Work and Materials: The Engineer or the Engineer's Representative shall be entitled to order from time to time:</p> <p>(a) The removal from the site, within the time specified in the order, of any materials which in his opinion are not in accordance with the specifications or drawings.</p> <p>(b) The substitution of proper and suitable materials, and</p> <p>(c) The removal and proper re-execution, notwithstanding any previous tests thereof or on account payments therefor, of any work which in respect of materials or workmanship is not in his opinion in accordance with the specifications and in case of default on the part of the Contractor in carrying out such order, the HRIDC shall be entitled to rescind the contract under Clause 62 of these conditions.</p> <p>(d) The provision of Construction and Demolition Waste Management Rule 2016 issued by Ministry of Environment Forest and Climate Change dated 29.03.2016 and published in the Gazette of India, Part – II, Section -3, Sub-section (ii) are binding upon the Contractor. Contractor shall implement these provisions at worksites, for which no extra payment will be payable.</p>
<p>24.</p>	<p>Facilities for Inspection: The Contractor shall afford the Engineer and the Engineer's Representative every facility for entering in and upon every portion of the work at all hours for the purpose of inspection or otherwise and shall provide all labour, materials, planks, ladders, pumps, appliances and things of every kind required for the purpose and the Engineer and the Engineer's Representative shall at all times have free access to every part of the works and to all places at which materials for the works are stored or being prepared.</p>
<p>25.</p>	<p>Examination of Work before Covering Up: The Contractor shall give 7 days' notice to the Engineer or the Engineer's Representative whenever any work or materials are intended to be covered up in the earth, in bodies or walls or otherwise to be placed beyond the reach of measurements in order that the work may be inspected or that</p>

	<p>correct dimensions may be taken before being so covered, placed beyond the reach of measurement in default whereof, the same shall at the option of the Engineer or the Engineer's Representative be uncovered and measured at the Contractor's expense or no allowance shall be made for such work or materials.</p>
26.	<p>Temporary Works: All temporary works necessary for the proper execution of the works shall be provided and maintained by the Contractor and subject to the consent of the Engineer shall be removed by him at his expenses when they are no longer required and in such manner as the Engineer shall direct. In the event of failure on the part of the Contractor to remove the temporary works, the Engineer will cause them to be removed and cost as increased by supervision and other incidental charges shall be recovered from the Contractor. If temporary huts are provided by the Contractor on the HRIDC land for labour engaged by him for the execution of works, the Contractor shall arrange for handing over vacant possession of the said land after the work is completed; if the Contractor's labour refuse to vacate, and have to be evicted by the HRIDC, necessary expenses incurred by the HRIDC in connection therewith shall be borne by the Contractor.</p>
27.1	<p>Contractor to Supply Water for Works: The Contractor shall be responsible for the arrangements to obtain supply of water necessary for the works.</p>
27.2	<p>Water Supply from Railway/HRIDC System: The Railway/HRIDC may supply to the Contractor part or whole of the quantity of the water required for the execution of works from the Railway's existing water supply system at or near the site of works on specified terms and conditions and at such charges as shall be determined by the HRIDC and payable by the Contractor, provided that the Contractor shall arrange, at his own expense, to effect the connections and lay additional pipelines and accessories on the site and that the Contractor shall not be entitled to any compensation for interruption or failure of the water supply.</p>
27.3	<p>Water Supply by Railway Transport: In the event of the Railway arranging supply of water to the Contractor at or near the site of works by travelling water tanks or other means, the freight and other charges incurred thereby, including demurrage charges that may be levied, shall be paid by the Contractor in addition to the charges referred to in Sub-Clause (2) of the Clause provided that the Contractor shall not be entitled to any compensation for interruption or failure of the water supply.</p>
27.4(a)	<p>Contractor to Arrange Supply of Electric Power for Works: The Contractor shall be responsible for arrangements to obtain supply of Electric Power for the works.</p>
27.4(b)	<p>Electric Supply from the Railway/HRIDC System: The Railway/HRIDC may supply to the Contractor part or whole of the electric power wherever available and possible, required for execution of works from the Railway's existing electric supply systems at or near the site of works on specified terms and conditions and such charges</p>

	<p>as shall be determined by the Railway/HRIDC and payable by the Contractor provided the cost of arranging necessary connections to the Railway's Electric Supply systems and laying of underground/overhead conductor, circuit protection, electric power meters, transmission structure, shall be borne by the Contractor and that the Contractor shall not be entitled to any compensation for interruption or failure of the Electric supply system.</p>
28.	<p>Property in Materials and Plant: The materials and plant brought by the Contractor upon the site or on the land occupied by the Contractor in connection with the works and intended to be used for the execution thereof shall immediately be deemed to be the property of the HRIDC. Such of them as during the progress of the works are rejected by the Engineer under Clause 25 of these conditions or are declared by him not to be needed for the execution of the works or such as on the grant of the certificate of completion remain unused shall immediately on such rejection, declaration or grant cease to be deemed the property of the HRIDC and the Contractor may then (but not before) remove them from the site or the said land. This clause shall not in any way diminish the liability of the Contractor nor shall the HRIDC be in any way answerable for any loss or damage which may happen to or in respect of any such materials or plant either by the same being lost, stolen, injured or destroyed by fire, tempest or otherwise.</p>
28.1	<p>Tools, Plant and Materials Supplied by HRIDC: The Contractor shall take all reasonable care of all tools, plant and materials or other property whether of a like description or not belonging to the HRIDC and committed to his charge for the purpose of the works and shall be responsible for all damage or loss caused by him, his agents, permitted sub-contractor, or his workmen or others while they are in his charge. The Contractors shall sign accountable receipts for tools, plants and materials made over to him by the Engineer and on completion of the works shall hand over the unused balance of the same to the Engineer in good order and repair, fair wear and tear excepted, and shall be responsible for any failure to account for the same or any damage done thereto.</p>
28.2	<p>Hire of HRIDC Plant: The HRIDC may hire to the Contractor such plant as concrete mixers, compressors and portable engines for use during execution of the works on such terms as may be specified in the special conditions or in a separate agreement for Hire of Plant.</p>
29.1	<p>Precaution During Progress of Works: During the execution of works, unless otherwise specified, the Contractor shall at his own cost provide the materials for and execute all shoring, timbering and strutting works as is necessary for the stability and safety of all structures, excavations and works and shall ensure that no damage, injury or loss is caused or likely to be caused to any person or property.</p>
29.2	<p>Roads and Water Courses: Existing roads or water courses shall not be blocked cut through, altered, diverted or obstructed in any way by the Contractor, except with the</p>

	<p>permission of the Engineer. All compensations claimed for any unauthorized closure, cutting through, alteration, diversion or obstruction to such roads or water courses by the Contractor or his agent or his staff shall be recoverable from the Contractor's bills/Security Deposit or any other dues of Contractor with the Government of India.</p>
29.3	<p>Provision of Access to Premises: During progress of work in any street or thoroughfare, the Contractor shall make adequate provision for the passage of traffic, for securing safe access to all premises approached from such street or thoroughfare and for any drainage, water supply or means of lighting which may be interrupted by reasons of the execution of the works and shall erect and maintain at his own cost barriers, lights and other safeguards as prescribed by the Engineer, for the regulation of the traffic, and provide watchmen necessary to prevent accidents. The works shall in such cases be executed night and day, if so ordered by the Engineer and with such vigour so that the traffic way be impeded for as short a time as possible.</p>
29.4	<p>Safety of Public: The Contractor shall be responsible to take all precautions to ensure the safety of the public whether on public or HRIDC property and shall post such look out men as may, in the opinion of the Engineer, be required to comply with regulations appertaining to the work. Contractor shall ensure placement of barricading / partitions at the place of work to ensure safety of habitants of adjacent area, failing which Engineer may advise stoppage of work as per his discretion.</p>
29.5	<p>Display Board: The Contractor shall be responsible for displaying the details of works i.e. name of work, approximate cost, expected date of completion, name and address of the Contractor and address of Engineer on a proper steel Board of size not less than 1m x 1m.</p>
30	<p>Use of Explosives: Explosives shall not be used on the works or on the site by the Contractor without the permission of the Engineer and then also only in the manner and to the extent to which such permission is given. Where explosives are required for the works, they shall be stored in a special magazine to be provided by and at the cost of the Contractor in accordance with the Explosive Rules. The Contractor shall obtain the necessary license for the storage and the use of explosives. All operations in which or for which explosives are employed shall be at the sole risk and responsibility of the Contractor and the Contractor shall indemnify the HRIDC in respect thereof.</p>
31.(1)	<p>Suspension of Works: The Contractor shall on the order of the Engineer, suspend the progress of the works or any part thereof for such time or times and in such manner as the Engineer may consider necessary and shall during such suspension properly protect and secure the work so far as is necessary in the opinion of the Engineer. If such suspension is:</p> <p>(a) Provided for in the contract, or</p>

	<ul style="list-style-type: none"> (b) Necessary for the proper execution of the works or by the reason of weather conditions or by some default on the part of the Contractor, and or (c) Necessary for the safety of the works or any part thereof, or (d) Necessary for the safety of adjoining public or other property or safety of the public or workmen or those who have to be at the site, or (e) Necessary to avoid disruption of traffic and utilities, as also to permit fast repair and restoration of any damaged utilities, or (f) Due to instruction of The National Green Tribunal or any other statutory authority due to high level of pollution in the city of worksite.
<p>31.(2)</p>	<p>The Contractor shall not be entitled to the extra costs, if any, incurred by him during the period of suspension of the works, but in the event of any suspension ordered by the Engineer for reasons other than aforementioned and when each such period of suspension exceeds 14 days, the Contractor shall be entitled to such extension of time for completion of the works as the Engineer may consider proper having regard to the period or periods of such suspensions and to such compensations as the Engineer may consider reasonable in respect of salaries or wages paid by the Contractor to his employees during the periods of such suspension.</p>
<p>31.(3)</p>	<p>Suspension Lasting More than 3 Months: If the progress of the works or any part thereof is suspended on the order of the Engineer for more than three months at a time, the Contractor may serve a written notice on the Engineer requiring permission within 15 days from the receipt thereof to proceed with the works or that part thereof in regard to which progress is suspended and if such permission is not granted within that time the Contractor by further written notice so served may, but is not bound to, elect to treat the suspension where it affects part only of the works as an omission of such part or where it affects the whole of the works, as an abandonment of the contract by the HRIDC.</p>
<p>32.</p>	<p>Rates for Items of Works: (i) The rates, entered in the accepted Bill(s) of Quantities of the Contract are intended to provide for works duly and properly completed in accordance with the General and Special (if any) Conditions of the Contract and the Specifications and drawings together with such enlargements, extensions, diminutions, reductions, alterations or additions as may be ordered in terms of Clause 42 of these conditions and without prejudice to the generality thereof and shall be deemed to include and cover superintendence and labour, supply, including full freight of materials, stores, patterns, profiles, moulds, fittings, centerings, scaffolding, shoring props, timber, machinery, barracks, tackle, roads, pegs, posts, tools and all apparatus and plant required on the works, except such tools, plant or materials as may be specified in the contract to be supplied to the Contractor by the HRIDC, the erection, maintenance and removal of all temporary works and buildings, all watching, lighting, bailing, pumping and draining, all prevention of or compensation for trespass, all</p>

	<p>barriers and arrangements for the safety of the public or of employees during the execution of works, all sanitary and medical arrangements for labour camps as may be prescribed by the HRIDC, the setting of all work and of the construction, repair and upkeep of all center lines, bench marks and level pegs thereon, site clearance, all fees duties, royalties, rent and compensation to owners for surface damage or taxes and impositions payable to local authorities in respect of land, structures and all material supplied for the work or other duties or expenses for which the Contractor may become liable or may be put to under any provision of law for the purpose of or in connection with the execution of the contract and all such other incidental charges or contingencies as may have been specially provided for in the Specifications.</p> <p>However, if rates of existing GST or cess on GST for Works Contract is increased or any new tax /cess on Works Contract is imposed by Statute after the date of opening of tender but within the original date of completion/date of completion extended under clause 17 & 17A and the Contractor thereupon properly pays such taxes/cess, the Contractor shall be reimbursed the amount so paid.</p> <p>Further, if rates of existing GST or cess on GST for Works Contract is decreased or any tax/cess on Works Contract is decreased / removed by Statute after the date of opening of tender, the reduction in tax amount shall be recovered from Contractor's bills/Security Deposit or any other dues of Contractor with the Government of India.</p>
<p>33.</p>	<p>Demurrage and Wharfage Dues: Demurrage charges calculated in accordance with the scale in force for the time being on the HRIDC and incurred by the Contractor failing to load or unload any goods or materials within the time allowed by the HRIDC for loading as also wharfage charges, of materials not removed in time, as also charges due on consignments booked by or to him shall be paid by the Contractor, failing which such charges shall be debited to the Contractor's account in the hands of the HRIDC and shall be deducted from any sums which may become due to him in terms of the contracts.</p>
<p>34.1</p>	<p>Rates for Extra Item(s) of Works:</p> <p>(a) Standard Schedule of Rates (SSOR) Items: Any item of work carried out by the Contractor on the instructions of the Engineer which is not included in the accepted Bill(s) of Quantities but figures in the Standard Schedule of Rates (SSOR), shall be executed at the rates set forth in the "Standard Schedule of Rates (SSOR)" modified by the tender percentage as accepted in the contract for that chapter of Standard Schedule of Rates (SSOR).</p> <p>For item(s) not covered in this sub clause, the rate shall be decided as agreed upon between the Engineer and the Contractor before the execution of such items of work as per sub clause (b).</p> <p>(b) Other Items: For any item of work to be carried out by the Contractor but not included in the accepted Bill(s) of Quantities and also not covered under sub clause (a) above, the Contractor shall be bound to notify the Engineer at least seven days before the necessity arises for the execution of such items of works that the accepted Bill(s)</p>

	<p>of Quantities does not include rate or rates for such extra work involved. The rates payable for such items shall be decided at the meeting to be held between the Engineer and Contractor, in as short a period as possible after the need for the special item has come to the notice. In case the Contractor fails to attend the meeting after being notified to do so or in the event of no settlement being arrived at, the HRIDC shall be entitled to execute the extra works by other means and the Contractor shall have no claim for loss or damage that may result from such procedure.</p> <p>The assessment of rates for extra item(s) shall be arrived at based on the prevailing market rates of labour, machinery & materials and by taking guidance from the following documents in order of priority:</p> <ul style="list-style-type: none"> i. Analysis of Rates for “Unified Standard Schedule of Rates of Indian Railways (USSOR)” ii. Analysis of Rates for “Delhi Schedule of Rates issued by CPWD (DSR)” <p>Market Analysis</p>
<p>34.2</p>	<p>Provided that if the Contractor commences work or incurs any expenditure in regard thereto before the rates as determined and agreed upon as lastly hereunto fore-mentioned, then and in such a case the Contractor shall only be entitled to be paid in respect of the work carried out or expenditure incurred by him prior to the date of determination of the rates as aforesaid according to the rates as shall be fixed by the Engineer. However, if the Contractor is not satisfied with the decision of the Engineer in this respect, he may appeal to the MD/HRIDC within 30 days of getting the decision of the Engineer, supported by analysis of the rates claimed. The MD/HRIDC decision after hearing both the parties in the matter would be final and binding on the Contractor and the HRIDC.</p>
<p>35.1</p>	<p>Handing over of Works: The Contractor shall be bound to hand over the works executed under the contract to the HRIDC complete in all respects to the satisfaction of the Engineer. The Engineer shall determine the date on which the work is considered to have been completed, in support of which his certificate shall be regarded as sufficient evidence for all purposes. The Engineer shall determine from time to time, the date on which any particular section of the work shall have been completed, and the Contractor shall be bound to observe any such determination of the Engineer.</p>
<p>35.2</p>	<p>Clearance of Site on Completion: On completion of the works, the Contractor shall clear away and remove from the site all constructional plant, surplus materials, rubbish and temporary works of every kind and leave the whole of the site and works clean and in a workman like condition to the satisfaction of the Engineer. No final payment in settlement of the accounts for the works shall be paid, held to be due or shall be made to the, Contractor till, in addition to any other condition necessary for final payment, site clearance shall have been affected by him, and such clearance may be made by the Engineer at the expense of the Contractor in the event of his failure to comply with this provision within 7 days after receiving notice to that effect. Should it become necessary</p>

	<p>for the Engineer to have the site cleared at the expenses of the Contractor, the HRIDC shall not be held liable for any loss or damage to such of the Contractor's property as may be on the site and due to such removal there from which removal may be affected by means of public sales of such materials and property or in such a way as deemed fit and convenient to the Engineer.</p>
<p>36A</p>	<p>Offloading of Part(s) of Work: At the final stage of completion/ commissioning of work, in case the contractor fails to complete the final part(s) of the work and the value of such part(s) of the work is limited to 5% of the original contract value, the Engineer may allow/decide for offloading of such part(s) of works, either after the Contractor's request in writing to do so or after serving a 14 (Fourteen) days suo-moto notice (as per annexure- VIIA), if the Engineer is of the opinion that :-</p> <ul style="list-style-type: none"> (i) Such Offloading of works (up to 5% of original contract value) would enable successful completion of contract/work, (ii) Termination/ Part termination of the contract at this stage is not be in the interest of the HRIDC/work; and (iii) The anticipated additional cost for execution of such works through other mode would not be substantial and can be recovered from the pending dues of the contractor; <p>The Contractor shall be informed, in due course, by the Engineer of the mode and cost of execution of such offloaded work through other agency(ies) (as per Annexure- VIIB). The extra expenditure so incurred in execution of the offloaded work, shall be recovered from subsequent Bill(s) or any other dues of the Contractor, but not exceeding the value of Performance Guarantee available in the contract. There shall be no other repercussion of such offloading on execution of the balance contract. The Contractor shall have no claim on account of above mentioned offloading of works.</p>
	<p>VARIATIONS IN EXTENT OF CONTRACT</p>
<p>37.</p>	<p>Modification to Contract to be in Writing: In the event of any of the provisions of the contract required to be modified after the contract documents have been signed, the modifications shall be made in writing and signed by the HRIDC and the Contractor and no work shall proceed under such modifications until this has been done. Any verbal or written arrangement abandoning, modifying, extending, reducing or supplementing the contract or any of the terms thereof shall be deemed conditional and shall not be binding on the HRIDC unless and until the same is incorporated in a formal instrument and signed by the HRIDC and the Contractor, and till then the HRIDC shall have the right to repudiate such arrangements.</p>

<p>38.1</p>	<p>Powers of Modification to Contract: The Engineer on behalf of the HRIDC shall be entitled by order in writing to enlarge or extend, diminish or reduce the works or make any alterations in their design, character position, site, quantities, dimensions or in the method of their execution or in the combination and use of materials for the execution thereof or to order any additional work to be done or any works not to be done and the Contractor will not be entitled, to any compensation for any increase/reduction in the quantities of work but will be paid only for the actual amount of work done and for approved materials supplied against a specific order.</p>
<p>38.2</p>	<p>(i) Unless otherwise specified in the special conditions of the contract, the accepted variation in quantity of each individual item of the contract would be upto 25% of the quantity originally contracted, except in case of foundation work (in which no variation limit shall apply). However, the rates for the increased quantities shall be as per sub-para (iii) below.</p> <p>(ii) The Contractor shall be bound to carry out the work at the agreed rates and shall not be entitled to any claim or any compensation whatsoever upto the limit of 25% variation in quantity of individual item of works.</p> <p>(iii) In case an increase in quantity of an individual item by more than 25% of the agreement quantity is considered unavoidable, then same shall be executed at following rates</p> <ol style="list-style-type: none"> a. Quantities operated in excess of 125% but upto 140% of the agreement quantity of the concerned item, shall be paid at 98% of the rate awarded for that item in that particular tender; b. Quantities operated in excess of 140% but upto 150% of the agreement quantity of the concerned item shall be paid at 96% of the rate awarded for that item in that particular tender; c. Variation in quantities of individual items beyond 150% will be avoided and would be permitted only in exceptional unavoidable circumstances and shall be paid at 96% of the rate awarded for that item in that particular tender. d. Variation to quantities of Minor Value Item: The limit for varying quantities for minor value items shall be 100% (as against 25% prescribed for other items). A minor value item for this purpose is defined as an item whose original agreement value is less than 1 % of the total original contract value.

	<p>d.(i) Quantities operated upto and including 100% of the agreement quantity of the concerned minor value item, shall be paid at the rate awarded for that item in that particular tender;</p> <p>d.(ii) Quantities operated in excess of 100% but up to 200% of the agreement quantity of the concerned minor value item, shall be paid at 98% of the rate awarded for that item in that particular tender;</p> <p>d.(iii) Variation in quantities of individual minor value item beyond 200% will be avoided and would be permitted only in exceptional unavoidable circumstances and shall be paid at 96% of the rate awarded for that item in that particular tender.</p> <p>(iv) In case of earthwork items, the variation limit of 25% shall apply to the gross quantity of earthwork items and variation in the quantities of individual classifications of soil shall not be subject to this limit.</p> <p>(v) As far as Standard Schedule of Rates (SSOR) items are concerned, the variation limit of 25% would apply to the value of SSOR schedule(s) as a whole and not on individual SSOR items. However, in case of Non Standard Schedule of Rates (SSOR) items, the limit of 25% would apply on the individual items irrespective of the manner of quoting the rate (single percentage rate or individual item rate).</p>
<p>38.3</p>	<p>Valuation of Variations: The enlargements, extensions, diminution, reduction, alterations or additions referred to in Sub-Clause (2) of this Clause shall in no degree affect the validity of the contract; but shall be performed by the Contractor as provided therein and be subject to the same conditions, stipulations and obligations as if they had been originally and expressively included and provided for in the Specifications and Drawings and the amounts to be paid therefor shall be calculated in accordance with the accepted Bill(s) of Quantities. Any extra item(s)/quantities of work falling outside the purview of the provisions of Sub-Clause (2) above shall be paid for at the rates determined under Clause-39 of these Conditions.</p>
	<p>CLAIMS :-</p>
<p>39.1</p>	<p>Quarterly Statement of Claims: The Contractor shall prepare and furnish to the Engineer once in every quarter commencing from the month following the month of issue of Letter of Acceptance, an account giving full and detailed particulars of all claims for any additional expenses to which the Contractor may consider himself entitled to and of all extra or additional works ordered by the Engineer which he has executed during the preceding quarter and no claim for payment for such work will be considered which has not been included in such particulars.</p>

<p>39.2</p>	<p>Signing of "No Claim" Certificate: The Contractor shall not be entitled to make any claim whatsoever against the HRIDC under or by virtue of or arising out of this contract, nor shall the HRIDC entertain or consider any such claim, if made by the Contractor, after he shall have signed a "No Claim" Certificate in favour of the HRIDC in such form as shall be required by the HRIDC after the works are finally measured up. The Contractor shall be debarred from disputing the correctness of the items covered by "No Claim" Certificate or demanding a clearance to arbitration in respect thereof.</p>
	<p>MEASUREMENTS, CERTIFICATES AND PAYMENTS :-</p>
<p>40.</p>	<p>Quantities in Bill(s) of Quantities Annexed to Contract: The quantities set out in the accepted Bill(s) of Quantities with items of works quantified are the estimated quantities of the works and they shall not be taken as the actual and correct quantities of the work to be executed by the Contractor in fulfillment of his obligations under the contract.</p>
<p>41(i).</p>	<p>Measurement of Works by HRIDC: The Contractor shall be paid for the works at the rates in the accepted Bill(s) of Quantities and for extra works at rates determined under Clause 39 of these Conditions on the measurements taken by the Engineer or the Engineer's representative in accordance with the rules prescribed for the purpose by the HRIDC. The quantities for items the unit of which in the accepted Bill(s) of Quantities is 100 or 1000 shall be calculated to the nearest whole number, any fraction below half being dropped and half and above being taken as one; for items the unit of which in the accepted Bill(s) of Quantities is single, the quantities shall be calculated to two places of decimals. Such measurements will be taken of the work in progress from time to time and at such intervals as in the opinion of the Engineer shall be proper having regard to the progress of works. The date and time on which 'on account' or 'final' measurements are to be made shall be communicated to the Contractor who shall be present at the site and shall sign the results of the measurements (which shall also be signed by the Engineer or the Engineer's representative) recorded in the official measurements book as an acknowledgement of his acceptance of the accuracy of the measurements. Failing the Contractor's attendance, the work may be measured up in his absence and such measurements shall, notwithstanding such absence, be binding upon the Contractor whether or not he shall have signed the measurement books provided always that any objection made by him to measurement shall be duly investigated and considered in the manner set out below:</p> <p>(a) It shall be open to the Contractor to take specific objection to any recorded measurements or Classification on any ground within seven days of the date of such measurements. Any re-measurement taken by the Engineer or the Engineer's representative in the presence of the Contractor or in his absence after due notice has been given to him in consequence of objection made by the Contractor shall be final</p>

	<p>and binding on the Contractor and no claim whatsoever shall thereafter be entertained regarding the accuracy and Classification of the measurements. (b) If an objection raised by the Contractor is found by the Engineer to be incorrect the Contractor shall be liable to pay the actual expenses incurred in measurements.</p>
<p>41(ii).</p>	<p>Measurement of Works by Contractor’s Authorized Representative (in case the contract provides for the same):</p> <p>(a) The Contractor shall be paid for the works at the rates in the accepted Bill(s) of Quantities and for extra works at rates determined under Clause 39 of these Conditions on the measurements taken by the Contractor’s authorized Engineer in accordance with the rules prescribed for the purpose by the HRIDC. The quantities for items the unit of which in the accepted Bill(s) of Quantities is 100 or 1000 shall be calculated to the nearest whole number, any fraction below half being dropped and half and above being taken as one; for items the unit of which in the accepted Bill(s) of Quantities is single, the quantities shall be calculated to two places of decimals. Such measurements will be taken of the work in progress from time to time. The date and time on which ‘on account’ or ‘final’ measurements are to be made shall be communicated to the Engineer.</p> <p>The date and time of test checks shall be communicated to the Contractor who shall be present at the site and shall witness the test checks, failing the Contractor’s attendance the test checks may be conducted in his absence and such test checks shall not be withstanding such absence be binding upon Contractor provided always that any objection made by Contractor to test check shall be duly investigated and considered in the manner set out below:</p> <p>(i) It shall be open to the Contractor to take specific objection to test checks of any recorded measurement within 7 days of date of such test checks. Any re-test check done by the concerned HRIDC’s authority in the presence of the Contractor or in his absence after due notice given to him in consequent of objection made by the Contractor shall be final and binding on the Contractor and no claim whatsoever shall thereafter be entertained regarding the accuracy and classification of the measurements.</p> <p>(ii) If an objection raised by the Contractor is found by the Engineer to be incorrect the Contractor shall be liable to pay the actual expenses incurred in measurements.</p> <p>(b) Incorrect measurement, actions to be taken: If in case during test check or otherwise, it is detected by the Engineer that agency has claimed any exaggerated measurement or has claimed any false measurement for the works which have not been executed; amounting to variation of 5% or more of claimed gross bill amount, action shall be taken as following:</p> <p>(i) On first occasion of noticing exaggerated/ false measurement, Engineer shall recover liquidated damages equal to 10% of claimed gross bill value.</p>

	<p>(ii) On any next occasion of noticing any exaggerated/false measurement, HRIDC shall recover liquidated damages equal to 15% of claimed gross bill value. In addition, the facility of recording of measurements by Contractor as well as release of provisional payment shall be withdrawn. Once withdrawn, measurements shall be done by HRIDC as per clause 45(i) above.</p>
42.1	<p>"On-Account " Payments: The Contractor shall be entitled to be paid from time to time by way of "On-Account" payment only for such works as in the opinion of the Engineer he has executed in terms of the contract. All payments due on the Engineer's/Engineer's Representative's certificates of measurements or Engineer's certified "Contractor's authorized Engineer's measurements" shall be subject to any deductions which may be made under these presents and shall further be subject to, unless otherwise required by Clause 16 of these Conditions, a retention of six percent by way of Security Deposits, until the amount of Security Deposit by way of such retentions shall amount to 5% of the total value of the contract provided always that the Engineer may by any certificate make any correction or modification in any previous certificate which shall have been issued by him and that the Engineer may withhold any certificate, if the works or any part thereof are not being carried out to his satisfaction.</p>
42.2	<p>Rounding off Amounts: The total amount due on each certificate shall be rounded off to the nearest rupee, i.e. sum less than 50 paise shall be omitted and sums of 50 paise and more upto ₹1 will be reckoned as ₹ 1.</p>
42.3	<p>On Account Payments not Prejudicial to Final Settlement: "On-Account" payments made to the Contractor shall be without prejudice to the final making up of the accounts (except where measurements are specifically noted in the Measurement Book as "Final Measurements" and as such have been signed by the Contractor and Engineer/Engineer's Representative) and shall in no respect be considered or used as evidence of any facts stated in or to be inferred from such accounts nor of any particular quantity of work having been executed nor of the manner of its execution being satisfactory.</p>
43.4	<p>If payment(s) of Advances are applicable in the contract, as mentioned in the Tender Documents, HRIDC shall make payment(s) of Interest bearing advances, on the request of contractor. The payment and recovery of such Advances shall be made as under:</p> <p style="padding-left: 40px;">(a) Mobilisation Advance – Not Applicable</p> <p style="padding-left: 40px;">(b) Advance Against Machinery and Equipment – Not Applicable</p>
43.5	<p>Manner of Payment: The Contractor will be transferred electronically to his bank account.</p>

<p>44.</p>	<p>Price Variation Clause (PVC):</p>
<p>44A.1</p>	<p>Applicability: Price Variation Clause (PVC) shall be applicable only in tender having advertised value above Rs. 2 Crores. Provided further that, in a contract where PVC is applicable, following shall be outside the purview of price adjustments (i.e. shall be excluded from the gross value of the work for the purpose of price variation):</p> <ul style="list-style-type: none"> a) Materials supplied by HRIDC to the Contractors, either free or at fixed rate; b) Any extra item(s) included in subsequent variation falling outside the purview of the Bill(s) of Quantities of tender, under clause 39. (1)(b) of these Standard General Conditions, unless applicability of PVC and ‘Base Month’ has been specially agreed, while fixing the rates of such extra item(s).
<p>44A.2</p>	<p>Base Month: The Base Month for ‘Price Variation Clause’ shall be taken as the one month prior to closing of tender, unless otherwise stated elsewhere. The quarter for applicability of PVC shall commence from the month following the Base month. The Price Variation shall be based on the average Price Index of the quarter under consideration.</p>
<p>44A.3</p>	<p>Validity: Rates accepted by HRIDC Administration shall hold good till completion of work and no additional individual claim shall be admissible except:</p> <ul style="list-style-type: none"> (a) Payment/recovery for increase/decrease in GST on works contract or imposition/removal of any tax/cess on Works Contract as per Clause 37, (b) Payment/recovery for overall market situation as per Price Variation Clause given hereunder.
<p>44A.4</p>	<p>Components of various items in a contract on which variation in prices be admissible, shall be steel, cement, ferrous material, non-ferrous material, insulators, zinc and other materials, labour, plant & machinery, fuel, explosives, detonators etc. Adjustment for variation in prices of these items shall be determined in the manner prescribed.</p>
<p>44A.5</p>	<p>No price variation shall be admissible for fixed components.</p>
<p>44A.6</p>	<p>The percentages of various components in various type of works shall be as specified for all item (s)/ Bill(s) of Quantities in tender document and the same shall be fixed as per table & classifications given below:</p> <p>(I). <u>For S&T Works</u></p>

S N	Classification		Supply of S&T Items	Execution of S&T items
	Components			
1	Fixed	*	15	15
2	Labour	L _c	5	65
3	Steel	S _c	35	0
4	Cement	C _c	0	10
5	Plant Machinery & Spares	PM _c	0	0
6	Fuel & Lubricants	F _c	5	10
7	Other materials	M _c	0	0
8	Other Non ferrous Metals	E _c	40	0
Total			100	100

44A.7	<p>Formulae: The Amount of variation in prices in various components (labour, material etc.) shall be worked out by the following formulae:</p> <p>(i) $L = \frac{(W \text{ or } W_{SF} \text{ or } W_F \text{ or } W_{SFL} \text{ or } W_{FL}) \times (L_Q - L_B) \times L_C}{L_B \times 100}$</p> <p>(ii) $M = \frac{(W \text{ or } W_{SF} \text{ or } W_F \text{ or } W_{SFL} \text{ or } W_{FL}) \times (M_Q - M_B) \times M_C}{M_B \times 100}$</p> <p>(iii) $F = \frac{(W \text{ or } W_S \text{ or } W_C \text{ or } W_{SF} \text{ or } W_F \text{ or } W_{SFL} \text{ or } W_{FL}) \times (F_Q - F_B) \times F_C}{F_B \times 100}$</p> <p>(iv) $E = \frac{(W \text{ or } W_S \text{ or } W_C \text{ or } W_{SF} \text{ or } W_F \text{ or } W_{SFL} \text{ or } W_{FL}) \times (E_Q - E_B) \times E_C}{E_B \times 100}$</p> <p>(v) $PM = \frac{(W \text{ or } W_S \text{ or } W_C \text{ or } W_{SF} \text{ or } W_F \text{ or } W_{SFL} \text{ or } W_{FL}) \times (PM_Q - PM_B) \times PM_C}{PM_B \times 100}$</p>
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$$(vi) S = \frac{(W \text{ or } W_S \text{ or } W_{SF}) \times (S_Q - S_B) \times S_C}{S_B \times 100}$$

$$(vii) C = \frac{(W \text{ or } W_C) \times (C_Q - C_B) \times C_C}{C_B \times 100}$$

(II) For Railway Electrification Works:

$$(viii) T = [0.4136 \times (C_Q - C_B) / C_B] \times 85$$

$$(ix) R = [0.94 \times (R_T - R_O) / R_O + 0.06 \times (Z_T - Z_O) / Z_O] \times 85$$

$$(x) N = [(P_T - P_O) / P_O] \times 85$$

$$(xi) I = [(I_T - I_O) / I_O] \times 85$$

$$(xii) G = [(M_Q - M_B) / M_B] \times 85$$

$$(xiii) Er = [(L_Q - L_B) / L_B] \times 85$$

Where,

L Amount of price variation in Labour

M Amount of price variation in Materials

F Amount of price variation in Fuel

E Amount of price variation in Explosives

PM Amount of price variation in Plant, Machinery and Spares

S Amount of price variation in Steel Supply Item

C Amount of price variation in Cement Supply Item

T Percentage variation payable on the gross value of bill of Concreting (Bill(s) of Quantities for concrete items)

R Percentage variation payable on the gross value of bill of Ferrous Items (Bill(s) of Quantities for ferrous items)

N Percentage variation payable on the gross value of bill of Non-Ferrous Items (Bill(s) of Quantities for non-ferrous items)

I Percentage variation payable on the gross value of bill of Insulator (Bill(s) of Quantities for Insulator items)

G Percentage variation payable on the gross value of bill of General Works (Bill(s) of Quantities for General items)

Er Percentage variation payable on the gross value of erection (Bill(s) of Quantities for Erection Item)

Lc % of Labour Component in the item(s)

Mc % of Material Component in the item(s)

Fc % of Fuel Component in the item(s)

	<p>EC % of Explosive Component in the item(s)</p> <p>PM_C % of Plant, Machinery and Spares Component in the item(s)</p> <p>S_C % of Steel Supply item Component in the item(s)</p> <p>C_C % of Cement Supply item Component in the item(s)</p> <p>W Gross value of work done by Contractor as per on-account bill(s) excluding the Gross value of work under W_S or/and W_C or/and W_{SF} or/and W_F or/and W_{SFL} or/and W_{FL} and cost of materials supplied by HRIDC either free or at fixed rate,</p> <p>W_S Gross value of work done by Contractor for item(s) of supply of steel.</p> <p>W_C Gross value of work done by Contractor for item(s) of supply of cement and /or supply of grout material.</p> <p>W_{SF} Gross value of work done by Contractor for item(s) of Fabrication & Erection of Structures including supply of Steel.</p> <p>W_F Gross value of work done by Contractor for Fabrication & Erection of Structures excluding supply of Steel.</p> <p>W_{SFL} Gross value of work done by Contractor for item(s) of Fabrication, Assembly, Erection / Launching of Girders including supply of Steel.</p> <p>W_{FL} Gross value of work done by Contractor for item(s) of Fabrication, Assembly, Erection / Launching of Girders excluding supply of Steel.</p> <p>L_B Consumer Price Index for Industrial Workers - All India: Published in R.B.I. Bulletin for the base period</p> <p>L_Q Consumer Price Index for Industrial Workers - All India: Published in R.B.I. Bulletin for the average price index of the 3 months of the quarter under consideration</p> <p>M_B Wholesale Price Index: All commodities – as published in the R.B.I. Bulletin for the base period</p> <p>M_Q Wholesale Price Index: All commodities – as published in the R.B.I. Bulletin for the average price index of the 3 months of the quarter under consideration</p> <p>F_B The average of official prices of Diesel available on the official website of ‘Petroleum Planning and Analysis cell’ under Ministry of Petroleum and Natural Gas for Delhi, Kolkata, Mumbai & Chennai, for the base period</p> <p>F_Q The average of official prices of Diesel available on the official website of ‘Petroleum Planning and Analysis cell’ under Ministry</p>
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	<p>of Petroleum and Natural Gas for Delhi, Kolkata, Mumbai & Chennai, for the 3 months of the quarter under consideration</p>
E _B	<p>Index number of Monthly Whole Sale Price Index for the category ‘Explosive’ of (g). Manufacture of other chemical products under (J) MANUFACTURE OF CHEMICALS AND CHEMICAL PRODUCTS, published by Office of Economic Adviser, Govt. of India, Ministry of Commerce & Industry, Department of Industrial Policy & Promotion (DIPP), for the base period.</p>
E _Q	<p>Index number of Monthly Whole Sale Price Index for the category ‘Explosive’ of (g). Manufacture of other chemical products under (J) MANUFACTURE OF CHEMICALS AND CHEMICAL PRODUCTS, published by Office of Economic Adviser, Govt. of India, Govt. of India, Ministry of Commerce & Industry, Department of Industrial Policy & Promotion (DIPP), for the average price index of 3 months of the quarter under consideration.</p>
PM _B	<p>Index Number of Wholesale Prices in India by Groups and Sub Groups (Averages) for ‘Manufacture of machinery for mining, quarrying and construction’– published in RBI (Reserve Bank of India) Bulletin, for the base period.</p>
PM _Q	<p>Index Number of Wholesale Prices in India by Groups and Sub Groups (Averages) for ‘Manufacture of machinery for mining, quarrying and construction’– published in RBI (Reserve Bank of India) Bulletin, for the average price index of 3 months of the quarter under consideration.</p>
S _B	<p>The average rate provided by the Joint Plant Committee for the relevant category of steel item as mentioned in Clause 46A.9; for the base period.</p>
S _Q	<p>The average rate provided by the Joint Plant Committee for the relevant category of steel item as mentioned in Clause 46A.9; for the 3 months of the quarter under consideration.</p>
C _B	<p>Index No. of Wholesale Price Index of sub-group Cement, Lime & Plaster as published in RBI Bulletin for the base period</p>
C _Q	<p>No. of Wholesale Price Index of sub-group Cement, Lime & Plaster as published in RBI Bulletin for the average price index of the 3 months of the quarter under consideration</p>
R _T	<p>IEEMA price index for Steel Blooms (size 150mmx150mm) for the month which is two months prior to date of inspection of material.</p>
R _O	<p>IEEMA price index for Steel Blooms (size 150mmx150mm)for the month which is one month prior to date of opening of tender.</p>
P _T	<p>IEEMA price index for Copper wire rods for the month which is two months prior to date of inspection of material.</p>

	<p>P_O IEEMA price index for Copper wire rods for the month which is one month prior to date of opening of tender.</p> <p>Z_T IEEMA price index for Zinc for the month which is two months prior to date of inspection of material</p> <p>Z_O IEEMA price index for Zinc for the month which is one month prior to date of opening of tender</p> <p>I_T RBI wholesale price index for the sub-group “Insulators” for the month which is two months prior to date of inspection of material</p> <p>I_O RBI wholesale price index for the sub-group “Insulators” for the month which is one month prior to date of opening of tender.</p>
<p>44A.8</p>	<p>The demands for escalation of cost shall be allowed on the basis of provisional indices as mentioned above in Clause 46A.7. Any adjustment needed to be done based on the finally published indices shall be made as and when they become available.</p>
<p>44A.9</p>	<p>Price Variation during Extended Period of Contract The price adjustment as worked out above, i.e. either increase or decrease shall be applicable upto the stipulated date of completion of work including the extended period of completion where such extension has been granted under Clause 17A of the Standard General Conditions of Contract. However, where extension of time has been granted due to Contractor’s failure under Clause 17B of the Standard General Conditions of Contract, price adjustment shall be done as follows:</p> <ul style="list-style-type: none"> a. In case the indices increase above the indices applicable to the last month of original completion period or the extended period under Clause 17A, the price adjustment for the period of extension granted under Clause 17B shall be limited to the amount payable as per the Indices applicable to the last month of the original completion period or the extended period under Clause 17A of the Standard General Conditions of Contract; as the case may be. b. In case the indices fall below the indices applicable to the last month of original/ extended period of completion under Clause 17A, as the case may be; then the lower indices shall be adopted for the price adjustment for the period of extension under Clause 17B of the Standard General Conditions of Contract.
<p>45</p>	<p>Maintenance of Works: The Contractor shall at all times during the progress and continuance of the works and also for the period of maintenance/Guarantee Period specified in the Special condition of contract, after the date of issue of the certificate of completion by the Engineer or any other earlier date subsequent to the completion of the works that may be fixed by the Engineer, be responsible for and effectively maintain and uphold in good substantial, sound and perfect condition all and every part of the works and shall make good from time to time and at all times as often as the Engineer shall require, any damage or defect that may during the above period arise in</p>

	<p>or be discovered or be in any way connected with the works, provided that such damage or defect is not directly caused by errors in the contract documents, act of providence or insurrection or civil riot, and the Contractor shall be liable for and shall pay and make good to the HRIDC or other persons legally entitled thereto whenever required by the Engineer so to do, all losses, damages, costs and expenses they or any of them may incur or be put or be liable to by reasons or in consequence of the operations of the Contractor or of his failure in any respect.</p>
46.(1)	<p>Certificate of Completion of Works: As soon as in the opinion of the Engineer, the work has been completed and has satisfactorily passed any final test or tests that may be prescribed, the Engineer shall issue a certificate of completion duly indicating the date of completion in respect of the work and the period of maintenance of the work shall commence from the date of completion mentioned in such certificate. The certificate, inter alia, should mention that the work has been completed in all respects and that all the contractual obligations have been fulfilled by the Contractor and that there is no due from the Contractor to HRIDCs against the contract concerned. The Engineer may also issue such a certificate indicating date of completion with respect to any part of the work (before the completion of the whole of work), which has been both completed to the satisfaction of the Engineer and occupied or used by the HRIDC. When any such certificate is given in respect of part of a work, such part shall be considered as completed and the period of maintenance of such part shall commence from the date of completion mentioned in the completion certificate issued for that part of the work.</p>
46.(2)	<p>Contractor not Absolved by Completion Certificate: The Certificate of Completion in respect of the works referred to in Sub-Clause (1) of this Clause shall not absolve the Contractor from his liability to make good any defects imperfections, shrinkages or faults which may appear during the period of maintenance specified in the tender arising in the opinion of the Engineer from materials or workmanship not in accordance with the drawings or specifications or instruction of the Engineer, which defects, imperfections, shrinkages or faults shall upon the direction in writing of the Engineer be amended and made good by the Contractor at his own cost; and in case of default on the part of Contractor, the Engineer may employ labour and materials or appoint another Contractor to amend and make good such defects, imperfections, shrinkages and faults and all expenses consequent thereon and incidental thereto shall be borne by the Contractor and shall be recoverable from any moneys due to him under the contract.</p>
46.3	<p>Final Supplementary Agreement: After the work is completed or otherwise concluded by the parties with mutual consent, and taken over by the HRID as per terms and conditions of the contract agreement, and there is unequivocal no claim on either side under the Contract other than as mentioned in item 4 of Annexure XIV, the parties shall execute the Final Supplementary Agreement as per Annexure XIV.</p>
47.	<p>Approval only by Maintenance Certificate: No certificate other than Maintenance Certificate, if applicable, referred to in Clause 50 of the Conditions shall be deemed to</p>

	<p>constitute approval of any work or other matter in respect of which it is issued or shall be taken as an admission of the due performance of the contract or any part thereof.</p>
<p>48.1</p>	<p>Maintenance Certificate: The Contract shall not be considered as completed until a Maintenance Certificate, if applicable, shall have been signed by the Engineer stating that the works have been completed and maintained to his satisfaction. The Maintenance Certificate shall be given by the Engineer upon the expiration of the period of maintenance/ Guarantee Period or as soon thereafter as any works ordered during such period pursuant to Sub Clause (2) to Clause 48 of these Conditions shall have been completed to the satisfaction of the Engineer, and full effect shall be given to this Clause notwithstanding the taking possession of or using the works or any part thereof by the HRIDC.</p> <p>The Competent Authority to issue above Maintenance Certificate shall normally be the authority who is competent to sign the contract. If this Competent Authority is of the rank lower than JA Grade, then a JA Grade Officer (concerned with the work) should issue the Certificate. The Certificate, inter alia, should mention that the work has been completed in all respects and that all the contractual obligations have been fulfilled by the Contractor and that there is no due from the Contractor to HRIDC against the contract concerned.</p>
<p>48.2</p>	<p>Cessation of HRIDC Liability: The HRIDC shall not be liable to the Contractor for any matter arising out of or in connection with the contract for execution of the works unless the Contractor has made a claim in writing in respect thereof before the issue of the Maintenance Certificate under this clause.</p>
<p>48.3</p>	<p>Unfulfilled Obligations: Notwithstanding the issue of the Maintenance Certificate the Contractor and (subject to Sub-Clause (2) of this Clause) the HRIDC shall remain liable for the fulfillment of any obligation incurred under the provision of the contract prior to the issue of the Maintenance Certificate which remains unperformed at the time such Certificate is issued and for the purposes of determining the nature and extent of any such obligations, the contract shall be deemed to remain in force between the parties thereto.</p>
<p>49.1</p>	<p>Final Payment: On the Engineer's certificate of completion in respect of the works, adjustment shall be made and the balance of account based on the Engineer or the Engineer's representative's certified measurements or Engineer's certified "contractor's authorized engineer's measurements" of the total quantity of work executed by the Contractor upto the date of completion and on the rates accepted in Bill(s) of Quantities and for extra works on rates determined under Clause 39 of these Conditions shall be paid to the Contractor subject always to any deduction which may be made under these presents and further subject to the Contractor having signed delivered to the Engineer enclosing either a full account in detail of all claims he may have on the HRIDC in respect of the works or having delivered No Claim Certificate and the Engineer having after the receipt of such account given a certificate in writing that such claims are not covered under excepted matter i.e. Clauses 7(j), 8, 18, 22(5),</p>

	<p>39.1, 39.2, 40A, 43(2), 45(i)(a), 55, 55-A(5), 57, 57A, 61(1), 61(2) and 62(1), 63(iv) and 63.2.11 of the Standard General Conditions of Contract or in any Clause (stated as excepted matter) of the Special Conditions of the Contract, that the whole of the works to be done under the provisions of the Contracts have been completed, that they have been inspected by him since their completion and found to be in good and substantial order, that all properties, works and things, removed, disturbed or injured in consequence of the works have been properly replaced and made good and all expenses and demands incurred by or made upon the HRIDC for or in the respect of damage or loss by from or in consequence of the works, have been satisfied agreeably and in conformity with the contract.</p>
<p>49.2</p>	<p>Post Payment Audit: It is an agreed term of contract that the HRIDC reserves to itself the right to carry out a post-payment audit and/ or technical examination of the works and the Final Bill including all supporting vouchers, abstracts etc. and to make a claim on the Contractor for the refund of any excess amount paid to him till the release of security deposit or settlement of claims, whichever is later, if as a result of such examination any over-payment to him is discovered to have been made in respect of any works done or alleged to have been done by him under the contract.</p>
<p>50-A.</p>	<p>Production of Vouchers etc. by the Contractor:</p> <ul style="list-style-type: none"> (i) For a contract of more than one crore of rupees, the Contractor shall, whenever required, produce or cause to be produced for examination by the Engineer any quotation, invoice, cost or other account, book of accounts, voucher, receipt, letter, memorandum, paper of writing or any copy of or extract from any such document and also furnish information and returns verified in such manner as may be required in any way relating to the execution of this contract or relevant for verifying or ascertaining cost of execution of this contract (the decision of the Engineer on the question of relevancy of any documents, information or return being final and binding in the parties). The Contractor shall similarly produce vouchers etc., if required to prove to the Engineer, that materials supplied by him, are in accordance with the specifications laid down in the contract. (ii) If any portion of the work in a contract of value more than one crore of rupees be carried out by a sub-contractor or any subsidiary or allied firm or company (as per Clause 7 of the Standard General Conditions of Contract), the Engineer shall have power to secure the books of such sub-contract or any subsidiary or allied firm or company, through the Contractor, and such books shall be open to his inspection. (iii) The obligations imposed by Sub Clause (i) & (ii) above is without prejudice to the obligations of the Contractor under any statute rules or orders binding on the Contractor.

<p>51.</p>	<p>Withholding and Lien in Respect of Sums Claimed: Whenever any claim or claims for payment of a sum of money arises out of or under the contract against the Contractor, the HRIDC shall be entitled to withhold and also have a lien to retain such sum or sums in whole or in part from the security, if any, deposited by the Contractor and for the purpose aforesaid, the HRIDC shall be entitled to withhold the said cash Security Deposit or the Security if any, furnished as the case may be and also have a lien over the same pending finalization or adjudication of any such claim. In the event of the security being insufficient to cover the claimed amount or amounts or if no security has been taken from the Contractor, the HRIDC shall be entitled to withhold and have a lien to the extent of the such claimed amount or amounts referred to supra, from any sum or sums found payable or which at any time thereafter may become payable to the Contractor under the same contract or any other contract with this or any other Railway/HRIDC or any Department of the Central Government pending finalization or adjudication of any such claim.</p> <p>It is an agreed term of the contract that the sum of money or moneys so withheld or retained under the lien referred to above, by the HRIDC will be kept withheld or retained as such by the HRIDCs till the claim arising out of or under the contract is determined by the arbitrator (if the contract governed by the Arbitration Clause) or by the competent court as the case may be and that the Contractor will have no claim for interest or damages whatsoever on any account in respect of such withholding or retention under the lien referred to supra and duly notified as such to the Contractor. For the purpose of this clause, where the Contractor is a partnership firm or a company, the HRIDC shall be entitled to withhold and also have a lien to retain towards such claimed amount or amounts in whole or in part from any sum found payable to any partner / company, as the case may be whether in his individual capacity or otherwise.</p>
<p>52-A</p>	<p>Lien in Respect of Claims in other Contracts:</p> <p>(i) Any sum of money due and payable to the Contractor (including the Security Deposit returnable to him) under the contract may be withheld or retained by way of lien by the HRIDC, against any claim of this or any other HRIDC or any other Department of the Central Government in respect of payment of a sum of money arising out of or under any other contract made by the Contractor with this or any other Department of the Central Government.</p> <p>(ii) However, recovery of claims of HRIDC in regard to terminated contracts may be made from the Final Bill, Security Deposits and Performance Guarantees of other contract or contracts, executed by the Contractor. The Performance Guarantees submitted by the Contractor against other contracts, if required, may be withheld and encashed. In addition, 10% of each subsequent ‘on-account bill’ may be withheld, if required, for recovery of HRIDC dues against the terminated contract.</p> <p>(iii) It is an agreed term of the contract that the sum of money so withheld or retained under this Clause by the HRIDC will be kept withheld or retained as such by the HRIDC till the claim arising out of or under any other contract is either mutually</p>

	<p>settled or determined by arbitration, if the other contract is governed by Arbitration Clause or by the competent court as the case may be and Contractor shall have no claim for interest or damages whatsoever on this account or on any other ground in respect of any sum of money withheld or retained under this Clause and duly notified as such to the Contractor.</p>
<p>53.</p>	<p>Signature on Receipts for Amounts: Every receipt for money which may become payable or for any security which may become transferable to the Contractors under these presents, shall, if signed in the partnership name by anyone of the partners of a Contractor's firm be a good and sufficient discharge to the HRIDC in respect of the moneys or security purported to be acknowledged thereby and in the event of death of any of the Contractor, partners during the pendency of the contract, it is hereby expressly agreed that every receipt by anyone of the surviving Contractor partners shall if so signed as aforesaid be good and sufficient discharge as aforesaid provided that nothing in this Clause contained shall be deemed to prejudice or effect any claim which the HRIDC may hereafter have against the legal representative of any Contractor partner so dying for or in respect to any breach of any of the conditions of the contract, provided also that nothing in this clause contained shall be deemed to prejudice or effect the respective rights or obligations of the Contractor partners and of the legal representatives of any deceased Contractor partners interest.</p>
	<p>LABOUR :-</p>
<p>54.</p>	<p>Wages to Labour: The Contractor shall be responsible to ensure compliance with the provision of the Minimum Wages Act, 1948 (hereinafter referred to as the “said Act”) and the Rules made thereunder in respect of any employees directly or through petty Contractors or sub-contractors employed by him for the purpose of carrying out this contract.</p> <p>If, in compliance with the terms of the contract, the Contractor supplied any labour to be used wholly or partly under the direct orders and control of the HRIDC whether in connection with any work being executed by the Contractor or otherwise for the purpose of the HRIDC such labour shall, for the purpose of this Clause, still be deemed to be persons employed by the Contractor.</p> <p>If any moneys shall, as a result of any claim or application made under the said Act be directed to be paid by the HRIDC, such money shall be deemed to be moneys payable to the HRIDC by the Contractor and on failure by the Contractor to repay the HRIDC any moneys paid by it as aforesaid within seven days after the same shall have been demanded, the HRIDCs shall be entitled to recover the same from Contractor’s bills/Security Deposit or any other dues of Contractor with the Government of India.</p>

<p>54-A.</p>	<p>Apprentices Act: The Contractor shall be responsible to ensure compliance with the provisions of the Apprentices Act, 1961 and the Rules and Orders issued thereunder from time to time in respect of apprentices directly or through petty Contractors or sub-contractors employed by him for the purpose of carrying out the Contract.</p> <p>If the Contractor directly or through petty Contractors or sub-contractors fails to do so, his failure will be a breach of the contract and the HRIDC may, in its discretion, rescind the contract. The Contractor shall also be liable for any pecuniary liability arising on account of any violation of the provisions of the Act.</p>
<p>55.</p>	<p>Provisions of Payments of Wages Act: The Contractor shall comply with the provisions of the Payment of Wages Act, 1936 and the rules made thereunder in respect of all employees employed by him either directly or through petty Contractors or sub-contractors in the works. If in compliance with the terms of the contract, the Contractor directly or through petty Contractors or sub-contractors shall supply any labour to be used wholly or partly under the direct orders and control of the Engineer whether in connection with the works to be executed hereunder or otherwise for the purpose of the Engineer, such labour shall nevertheless be deemed to comprise persons employed by the Contractor and any moneys which may be ordered to be paid by the Engineer shall be deemed to be moneys payable by the Engineer on behalf of the Contractor and the Engineer may on failure of the Contractor to repay such money to the HRIDCs deduct the same from any moneys due to the Contractor in terms of the contract. The HRIDC shall be entitled to recover the same from Contractor's bills/Security Deposit or any other dues of Contractor with the Government of India all moneys paid or payable by the HRIDC by way of compensation of aforesaid or for costs of expenses in connection with any claim thereto and the decision of the Engineer upon any question arising out of the effect or force of this Clause shall be final and binding upon the Contractor.</p>
<p>55-A.</p>	<p>Provisions of Contract Labour (Regulation and Abolition) Act, 1970:</p>
<p>55-A.(1)</p>	<p>The Contractor shall comply with the provision of the contract labour (Regulation and Abolition) Act, 1970 and the Contract labour (Regulation and Abolition) Central Rules 1971 as modified from time to time, wherever applicable and shall also indemnify the HRIDC from and against any claims under the aforesaid Act and the Rules.</p>
<p>55-A.(2)</p>	<p>The Contractor shall obtain a valid license under the aforesaid Act as modified from time to time before the commencement of the work and continue to have a valid license until the completion of the work. Any failure to fulfill the requirement shall attract the penal provision of the Act.</p>
<p>55-A.(3)</p>	<p>The Contractor shall pay to the labour employed by him directly or through sub-contractors the wages as per provision of the aforesaid Act and the Rules wherever applicable. The Contractor shall notwithstanding the provisions of the contract to the contrary, cause to be paid the wages to labour, indirectly engaged on the works</p>

	including any engaged by sub-contractors in connection with the said work, as if the labour had been immediately employed by him.
55-A.(4)	In respect of all labour directly or indirectly employed in the work for performance of the Contractor's part of the contract, the Contractor shall comply with or cause to be complied with the provisions of the aforesaid Act and Rules wherever applicable.
55-A.(5)	In every case in which, by virtue of the provisions of the aforesaid Act or the rules, the HRIDC is obliged to pay any amount of wages to a workman employed by the Contractor or his sub-contractor in execution of the work or to incur any expenditure on account of the contingent, liability of the HRIDC due to the Contractor's failure to fulfill his statutory obligations under the aforesaid Act or the rules, the HRIDC will recover from the Contractor, the amount of wages so paid or the amount of expenditure so incurred and without prejudice to the rights of the HRIDC under the Section 20, Sub-Section (2) and Section 2, Sub-Section (4) of the aforesaid Act, the HRIDC shall be at liberty to recover such amount or part thereof from Contractor's bills/Security Deposit or any other dues of Contractor with the Government of India. The HRIDC shall not be bound to contest any claim made against it under Sub-Section (1) of Section 20 and Sub-Section (4) of Section 21 of the aforesaid Act except on the written request of the Contractor and upon his giving to the HRIDC full security for all costs for which the HRIDC might become liable in contesting such claim. The decision of the Engineer regarding the amount actually recoverable from the Contractor as stated above shall be final and binding on the Contractor.
55-B.	Provisions of Employees Provident Fund and Miscellaneous Provisions Act, 1952: The Contractor shall comply with the provisions of Para 30 & 36-B of the Employees Provident Fund Scheme, 1952; Para 3 & 4 of Employees' Pension Scheme, 1995; and Para 7 & 8 of Employees Deposit Linked Insurance Scheme, 1976; as modified from time to time through enactment of "Employees Provident Fund & Miscellaneous Provisions Act, 1952", wherever applicable and shall also indemnify the HRIDC from and against any claims under the aforesaid Act and the Rules.
55-C	(i) Contractor is to abide by the provisions of various labour laws in terms of above clause 54, 55, 55-A and 55-B of the Standard General Conditions of Contract.
55-D.	Provisions of "The Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996" and "The Building and Other Construction Workers' Welfare Cess Act, 1996": The tenderers, for carrying out any construction work, shall get themselves registered with the Registering Officer under Section-7 of the Building and Other Construction Workers Act, 1996 and Rules made thereto by the concerned State Govt., and submit Certificate of Registration issued by Registering Officer of the concerned State Govt.

	(Labour Dept.). The Cess shall be deducted from contractor's bills as per provisions of the Act.
56.	Reporting of Accidents: The Contractor shall be responsible for the safety of all employees directly or through petty Contractors or sub-contractor employed by him on the works and shall report serious accidents to any of them however and wherever occurring on the works to the Engineer or the Engineers Representative and shall make every arrangement to render all possible assistance.
59.1	Labour Camps: The Contractor shall at his own expense make adequate arrangements for the housing, supply of drinking water and provision of latrines and urinals for his staff and workmen, directly or through the petty Contractors or sub-contractors and for temporary creche (Bal-Mandir) where 50 or more women are employed at a time. Suitable sites on HRIDC land, if available, may be allotted to the Contractor for the erection of labour camps, either free of charge or on such terms and conditions that may be prescribed by the. All camp sites shall be maintained in clean and sanitary conditions by the Contractor at his own cost.
59.2	Compliance to Rules for Employment of Labour: The Contractor(s) shall conform to all laws, bye-laws rules and regulations for the time being in force pertaining to the employment of local or imported labour and shall take all necessary precautions to ensure and preserve the health and safety of all staff employed directly or through petty contractors or sub-contractors on the works.
59.3	Preservation of Peace: The Contractor shall take requisite precautions and use his best endeavours to (i) Prevent any riotous or unlawful behaviour by or amongst his workmen and other employed directly or through the petty Contractors or sub-contractors on the works and for the preservation of peace and protection of the inhabitants and (ii) Security of property in the neighbourhood of the works. In the event of the HRIDC requiring the maintenance of a Special Police Force at or in the vicinity of the site during the tenure of works, the expenses thereof shall be borne by the Contractor and if paid by the HRIDC shall be recoverable from the Contractor.
59.7	Medical Facilities at Site: The Contractor shall provide medical facilities at the site as may be prescribed by the Engineer on the advice of the Railway or any authorised Medical Authority in relation to the strength of the Contractor's resident staff and workmen.
59.8	Use of Intoxicants: The sale of ardent spirits or other intoxicating beverages upon the work or in any of the buildings, encampments or tenements owned, occupied by or within the control of the Contractor or any of his employees shall be forbidden and the Contractor shall exercise his influence and authority to the utmost extent to secure strict compliance with this condition.

59.9	<p>Restrictions on the Employment of Retired Engineers of Railway Services Within One Year of their Retirement: The Contractor shall not, if he is a retired Government Engineer of Gazetted rank, himself engage in or employ or associate a retired Government Engineer of Gazetted rank, who has not completed one year from the date of retirement, in connection with this contract in any manner whatsoever without obtaining prior permission of the President and if the Contractor is found to have contravened this provision it will constitute a breach of contract and administration will be entitled to terminate the contract and forfeit his Performance Guarantee as well as Security Deposit.</p>
60.1	<p>Non-Employment of Labourers below the age of 15: The Contractor shall not employ children below the age of 15 as labourers directly or through petty Contractors or sub-contractors for the execution of work.</p>
60.2	<p>Medical Certificate of Fitness for Labour: It is agreed that the Contractor shall not employ a person above 15 and below 19 years of age for the purpose of execution of work under the contract unless a medical certificate of fitness in the prescribed form (Proforma at Annexure-VIII) granted to him by a certifying surgeon certifying that he is fit to work as an adult, is obtained and kept in the custody of the Contractor or a person nominated by him in this behalf and the person carries with him, while at work; a token giving a reference to such certificate. It is further agreed that the responsibility for having the adolescent examined medically at the time of appointment or periodically till he attains the age of 19 years shall devolve entirely on the Contractor and all the expenses to be incurred on this account shall be borne by him and no fee shall be charged from the adolescent or his parent for such medical examination.</p>
60.3	<p>Period of Validity of Medical Fitness Certificate: A certificate of fitness granted or renewed for the above said purposes shall be valid only for a period of one year at a time. The certifying surgeon shall revoke a certificate granted or renewed if in his opinion the holder of it, is no longer fit for work in the capacity stated therein. Where a certifying surgeon refuses to grant or renew a certificate or revoke a certificate, he shall, if so required by the person concerned, state his reasons in writing for doing so.</p>
60.4	<p>Medical Re-Examination of Labourer: Where any official appointed in this behalf by the Ministry of Labour is of the opinion that any person employed in connection with the execution of any work under this contract in the age group 15 to 19 years is without a certificate of fitness or is having a certificate of fitness but no longer fit to work in the capacity stated in the certificate, he may serve on the Contractor, or on the person nominated by him in this regard, a notice requiring that such persons shall be examined by a certifying surgeon and such person shall not if the concerned official so directs, be employed or permitted to do any work under this contract unless he has been medically examined and certified that he is fit to work in the capacity stated in the certificate.</p> <p>EXPLANATIONS:</p>

	<p>(1) Only Qualified Medical Practitioners can be appointed as "Certifying Surgeons" and the term "Qualified Medical Practitioners" means a person holding a qualification granted by an authority specified in the Schedule to the Indian Medical Degrees Act, 1916 (VII to 1916) or in the Schedule to the Indian Medical Council Act, 1933 (XXVII) of 1933.</p> <p>(2) The Certifying surgeon may be a medical officer in the service of State or Municipal Corporation.</p>
	<p>DETERMINATION OF CONTRACT :-</p>
<p>61.1</p>	<p>Right of HRIDC to Determine the Contract: The HRIDC shall be entitled to determine and terminate the contract at any time should, in the HRIDC opinion, the cessation of work becomes necessary owing to paucity of funds or from any other cause whatever, in which case the value of approved materials at site and of work done to date by the Contractor will be paid for in full at the rate specified in the contract. Notice in writing from the HRIDC of such determination and the reasons therefor shall be conclusive evidence thereof.</p>
<p>61.2</p>	<p>Payment on Determination of Contract: Should the contract be determined under sub clause (1) of this clause and the Contractor claims payment for expenditure incurred by him in the expectation of completing the whole of the work, the HRIDC shall admit and consider such claims as are deemed reasonable and are supported by vouchers to the satisfaction of the Engineer. The HRIDC decision on the necessity and propriety of such expenditure shall be final and conclusive.</p>
<p>61.3</p>	<p>The Contractor shall have no claim to any payment of compensation or otherwise, howsoever on account of any profit or advantage which he might have derived from the execution of the work in full but which he did not derive in consequence of determination of contract.</p>
<p>62.1</p>	<p>Determination of Contract owing to Default of Contractor: If the Contractor should:</p> <ul style="list-style-type: none"> (i) Becomes bankrupt or insolvent, or (ii) Make an arrangement for assignment in favour of his creditors, or agree to carry out the contract under a Committee of Inspection of his creditors, or (iii) Being a Company or Corporation, go into liquidation (other than a voluntary liquidation for the purposes of amalgamation or reconstruction), or (iv) Have an execution levied on his goods or property on the works, or (v) Assign the contract or any part thereof otherwise than as provided in Clause 7 of these Conditions, or

- (vi) Abandon the contract, or
- (vii) Persistently disregard the instructions of the Engineer, or contravene any provision of the contract, or
- (viii) Fail to adhere to the agreed programme of work by a margin of 10% of the stipulated period, or
- (ix) Fail to Execute the contract documents in terms of Para 8 of the Instructions to Tenderers.
- (x) Fail to submit the documents pertaining to identity of JV and PAN in terms of Para 17.11 of Tender Form (Second Sheet) of Annexure I available in the Instructions to Tenderers.
- (xi) Fail to remove materials from the site or to pull down and replace work after receiving from the Engineer notice to the effect that the said materials or works have been condemned or rejected under Clause 25 and 27 of these Conditions, or
- (xii) Fail to take steps to employ competent or additional staff and labour as required under Clause 26 of these Conditions, or
- (xiii) Fail to afford the Engineer or Engineer's representative proper facilities for inspecting the works or any part thereof as required under Clause 28 of these Conditions, or
- (xiv) Promise, offer or give any bribe, commission, gift or advantage either himself or through his partner, agent or servant to any officer or employee of the HRIDC or to any person on his or on their behalf in relation to the execution of this or any other contract with this HRIDC.
- (xv) Fail to adhere to the provisions of Para 16 of Tender Form (Second Sheet) of Annexure I of the Instructions to Tenderers, or provision Clause 59(9) of these Conditions.
- (xvi) Submits copy of fake documents / certificates in support of credentials, submitted by the tenderer

Then and in any of the **said Clause**, the Engineer on behalf of the HRIDC may serve the Contractor with a notice (Proforma at Annexure-IX) in writing to that effect and if the Contractor does not within seven days after the delivery to him of such notice proceed to make good his default in so far as the same is capable of being made good and carry on the work or comply with such directions as aforesaid of the entire satisfaction of the Engineer, the HRIDC shall be entitled after giving 48 hours' notice (Proforma at Annexure-X or XII, as the case may be) in writing under the hand of the Engineer to rescind the contract as a whole or in part or parts (as may be specified in such notice) and after expiry of 48 hours' notice, a final termination notice (Proforma at Annexure-XI or XIII, as the case may be) should be issued.

Note: Engineer at his discretion may resort to the part termination of contract with notices (Proforma at Annexure- IX, XII and XIII), only in cases where progress of work is more than or equal to 80% of the original scope of work.

62.2

Right of HRIDC after Rescission of Contract owing to Default of Contractor: In the event of any or several of the courses, referred to in Sub-Clause (1) of this Clause, being adopted:

(a) The Contractor shall have no claim to compensation for any loss sustained by him by reason of his having purchased or procured any materials or entered into any commitments or made any advances on account of or with a view to the execution of the works or the performance of the contract and Contractor shall not be entitled to recover or be paid any sum for any work thereto for actually performed under the contract unless and until the Engineer shall have certified the performance of such work and the value payable in respect thereof and the Contractor shall only be entitled to be paid the value so certified.

(b) In the contract which has been rescinded as a whole, the Security Deposit already with HRIDC under the contract shall be encashed/ forfeited and the Performance Guarantee already submitted for the contract shall be encashed. The balance work shall be got done independently without risk & cost of the failed Contractor. The failed Contractor shall be debarred from participating in the tender for executing the balance work. If the failed Contractor is a JV or a Partnership firm, then every member/partner of such a firm shall be debarred from participating in the tender for the balance work in his/her individual capacity or as a partner of any other JV /partnership firm.

Further the authorized representative of failed Contractor cannot be accepted as authorized representative in new contract.

(c) In the contract rescinded in part or parts,

(i) The full Performance Guarantee available for the contract shall be recovered. No additional Performance Guarantee shall be required for balance of work being executed through the part terminated contract. The contract value of part terminated contract stands reduced to the balance value of work under the contract.

(ii) The Security Deposit of part terminated contract shall be dealt as per clause 16(2) of these Conditions.

(iii) The defaulting Contractor shall not be issued any completion certificate for the contract.

(iv) The balance work shall be got done independently without risk & cost of the failed Contractor. The failed Contractor shall be debarred from participating in the tender for executing the balance work. If the failed Contractor is a JV or a Partnership firm, then every member/partner of such a firm shall be debarred from participating in the tender for the balance work in his/her individual capacity or as a partner of any other JV /partnership firm.

(v) Further the authorized representative of failed Contractor will not be accepted as authorized representative in new contract.

(d) The Engineer or the Engineer's Representative shall be entitled to take possession of any materials, tools, implements, machinery and buildings on the works or on the property on which these are being or ought to have been executed, and to retain and employ the same in the further execution of the works or any part thereof until the completion of the works without the Contractor being entitled to any compensation for the use and employment thereof or for wear and tear or destruction thereof.

	<p>(e) The Engineer shall as soon as may be practicable after removal of the Contractor fix and determine ex-parte or by or after reference to the parties or after such investigation or enquiries as he may consider fit to make or institute and shall certify what amount (if any) had at the time of rescission of the contract been reasonably earned by or would reasonably accrue to the Contractor in respect of the work then actually done by him under the contract and what was the value of any unused, or partially used materials, any constructional plant and any temporary works upon the site. The legitimate amount due to the Contractor after making necessary deductions and certified by the Engineer should be released expeditiously.</p>
	<p align="center">SETTLEMENT OF DISPUTES – INDIAN RAILWAY ARBITRATION AND CONCILIATION RULES :-</p>
<p>63.</p>	<p>Conciliation of Disputes:</p> <p>(i) This clause is applicable in the tender having advertised value less than or equal to Rs 50 Crore.</p> <p>(ii) All disputes and differences of any kind whatsoever arising out of or in connection with the contract, whether during the progress of the work or after its completion and whether before or after the determination of the contract, shall be referred by the Contractor to the "MD/HRIDC " through “Notice of Dispute” provided that no such notice shall be served later than 30 days after the date of issue of Completion Certificate by the Engineer. The MD/HRIDC shall, within 30 days after receipt of the Contractor’s “Notice of Dispute”, notify the name of conciliator(s) to the Contractor.</p> <p>(iii)The Conciliator(s) shall assist the parties to reach an amicable settlement in an independent and impartial manner within the terms of contract.</p> <p>(iv)If the parties reach agreement on a settlement of the dispute, they shall draw up and sign a written settlement agreement duly signed by Engineer In-charge, Contractor and conciliator(s). When the parties sign the settlement agreement, it shall be final and binding on the parties.</p> <p>(v) The parties shall not initiate, during the conciliation proceedings, any arbitral or judicial proceedings in respect of a dispute that is the subject matter of the conciliation proceedings.</p> <p>(vi)The conciliation proceedings shall be terminated as per Section 76 of ‘The Arbitration and Conciliation Act, 1996.</p>

<p>63.1</p>	<p>Matters Finally Determined by the HRIDC: All disputes and differences of any kind whatsoever arising out of or in connection with the contract, whether during the progress of the work or after its completion and whether before or after the determination of the contract, shall be referred by the Contractor to the Engineer and the Engineer shall, within 120 days after receipt of the Contractor’s representation, make and notify decisions on all matters referred to by the Contractor in writing provided that matters for which provision has been made in Clauses 7(j), 8, 18, 22(5),39.1, 39.2, 40A,43(2), 45(i)(a), 55, 55-A(5), 57, 57A,61(1), 61(2),62(1), 63(iv) and 63.2.11 of the Standard General Conditions of Contract or in any Clause (stated as excepted matter) of the Special Conditions of the Contract, shall be deemed as ‘excepted matters’ (matters not arbitrable)and decisions of the HRIDC authority, thereon shall be final and binding on the Contractor; provided further that ‘excepted matters’ shall stand specifically excluded from the purview of the Dispute Adjudication Board (DAB) and Arbitration.</p>
<p>63.2</p>	<p>Dispute Adjudication Board (DAB): This clause is applicable in the tender having advertised value more than Rs 50 Crore.</p>
<p>63.2.1</p>	<p>Any dispute/s if not settled with the Engineer, shall be referred to DAB.</p> <p>The DAB shall consist of a panel of three Retired Railway Officers, retired not below senior administrative grade (SAG). The DAB shall be formed within 90 days of signing of Contract Agreement. For this purpose, a panel of DAB members shall be maintained in the MD/HRIDC office. The complete panel, which shall not be less than five members, shall be sent by MD/HRIDC to the Contractor to nominate one member of the DAB from the panel as Contractor’s nominee within two weeks of receipt of the panel. On receipt of Contractor’s nominee, the MD/HRIDC shall nominate one member from the same panel as HRIDC nominee for the DAB. Both above nominees shall jointly select presiding member of the DAB from the same panel.</p>
<p>63.2.2</p>	<p>The appointment of DAB shall be effectuated by way of a tri-partite agreement among the HRIDC, Contractor and the respective DAB members. The terms of the remuneration of each member shall be as fixed by Ministry of Railways from time to time. Each party shall be responsible for paying one-half of this remuneration.</p>
<p>63.2.3</p>	<p>If one or more of the members appointed refuses to act as DAB member, or is unable or unwilling to perform his functions as DAB member for any reason whatsoever or dies or in the opinion of the MD/HRIDC fails to act without undue delay, the parties</p>

	shall terminate the mandate of such DAB member and thereupon new DAB member shall be appointed in the same manner, as the outgoing DAB member had been appointed.
63.2.4	The appointment of any member may be terminated by mutual agreement of both Parties, but not by the HRIDC or the Contractor acting alone. Unless otherwise agreed by both the Parties, the appointment of the DAB (including each member) shall expire upon expiry of this Contract Agreement.
63.2.5	<p>Before start of DAB proceedings, each DAB member shall give the following certificate to the HRIDC and the Contractor:</p> <p style="text-align: center;"><i>“I have no any past or present relationship in relation to the subject matter in dispute, whether financial, business, professional or other kind. Further, I have no any past or present relationship with or interest in any of the parties whether financial, business, professional or other kind, which is likely to give rise to justifiable doubts as to my independence or impartiality.”</i></p>
63.2.6	DAB proceedings shall be conducted as decided by the DAB. The DAB shall give its decision within 90 days of a Dispute referred to it by any of the Parties, duly recording the reasons before arriving at the decision. The DAB shall decide the issue within terms and conditions of the contract. This time limit shall be extendable subject to the Parties mutual agreement.
63.2.7	The DAB decision shall not be binding on both the Parties. In case any party is not satisfied by the decision of DAB, then the aggrieved party may approach Arbitral Tribunal for arbitration proceedings.
63.2.8	No dispute shall be referred to Arbitral Tribunal unless the same has been referred to DAB for adjudication. However, in case DAB is not formed due to any reason, the disputes can be directly referred to Arbitral Tribunal to adjudicate the dispute.
63.2.9	In the specific cases of any misconduct by any of the members of the DAB, the parties shall have the right to specifically bring it to the notice of the DAB such conduct, through a statement filed with necessary documents in proof of such misconduct and

	the DAB, after taking NOTICE of such conduct initiate the replacement of the member concerned, in the same manner the member to be replaced was appointed.
63.2.10	Once the decision is given by DAB, DAB cannot review the decision at its own or on the request of one party, unless both parties agree for review of decision by DAB
63.2.11	In case DAB decision is not challenged by either party within 180 days of receipt of decision of DAB, the decision shall be considered as final and parties would be barred for referring the same to Arbitral Tribunal for adjudication
63.2.12	The obligation of the HRIDC and the Contactor shall not be altered by reasons of issue being or under reference to DAB.
63.2.13	The DAB shall conduct the proceedings at any convenient venue which shall be decided by DAB in consultations with parties.
63.2.14	It is a term of this contract that the Parties shall not approach any Court of Law for settlement of such disputes or differences unless an attempt has first been made by the parties to settle such disputes or differences through DAB and Arbitral Tribunal.
64.1	Demand for Arbitration:
64.1(i)	In the event of any dispute or difference between the parties hereto as to the construction or operation of this contract, or the respective rights and liabilities of the parties on any matter in question, dispute or difference on any account or as to the withholding by the HRIDC of any certificate to which the Contractor may claim to be entitled to, or if the HRIDC fails to make a decision within 120 days, then and in any such case, but except in any of the “excepted matters” referred to in Clause 63.1 of these Conditions, the Contractor, after 120 days but within 180 days of his presenting his final claim on disputed matters shall demand in writing that the dispute or difference be referred to arbitration.
64.1(ii)(a)	The demand for arbitration shall specify the matters which are in question, or subject of the dispute or difference as also the amount of claim item-wise. Only such dispute or difference, in respect of which the demand has been made, together with counter claims

	or set off, given by the HRIDC, shall be referred to arbitration and other matters shall not be included in the reference.
64.1(ii) (b)	The parties may waive off the applicability of Sub-Section 12(5) of Arbitration and Conciliation (Amendment) Act 2015, if they agree for such waiver in writing, after dispute having arisen between them, in the format given under Annexure XV of these conditions.
64.1(iii) (a)	The Arbitration proceedings shall be assumed to have commenced from the day, a written and valid demand for arbitration is received by the HRIDC.
64.1(iii) (b)	The claimant shall submit his claims stating the facts supporting the claims along with all the relevant documents and the relief or remedy sought against each claim within a period of 30 days from the date of appointment of the Arbitral Tribunal.
64.1(iii) (c)	The HRIDC shall submit its defence statement and counter claim(s), if any, within a period of 60 days of receipt of copy of claims from Tribunal, unless otherwise extension has been granted by Tribunal.
64.1(iii) (d)	Place of Arbitration: The place of arbitration would be within the geographical limits of the Division of the HRIDC where the cause of action arose or the Headquarters of the concerned HRIDC or any other place with the written consent of both the parties.
64.1(iv))	No new claim shall be added during proceedings by either party. However, a party may amend or supplement the original claim or defense thereof during the course of arbitration proceedings subject to acceptance by Tribunal having due regard to the delay in making it.
64.1(v)	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 HRIDC that the final bill is ready for payment, he/they will be deemed to have waived his/their claim(s) and the HRIDC shall be discharged and released of all liabilities under the contract in respect of these claims.
64.2	Obligation During Pendency of Arbitration: Work under the contract shall, unless otherwise directed by the Engineer, continue during the arbitration proceedings, and no payment due or payable by the HRIDC shall be withheld on account of such proceedings, provided, however, it shall be open for Arbitral Tribunal to consider and decide whether or not such work should continue during arbitration proceedings.
64.3	Appointment of Arbitrator:

<p>64.3(a)</p>	<p>Appointment of Arbitrator where applicability of section 12 (5) of Arbitration and Conciliation Act has been waived off:</p>
<p>64.3(a) (i)</p>	<p>In cases where the total value of all claims in question added together does not exceed 1,00,00,000/- (Rupees One Crore), the Arbitral Tribunal shall consist of a Sole Arbitrator who shall be a Gazetted Officer of Railway not below Junior Administrative Grade, nominated by the MD/HRIDC. The sole arbitrator shall be appointed within 60 days from the day when a written and valid demand for arbitration is received by MD/HRIDC.</p>
<p>64.3(a) (ii)</p>	<p>In cases not covered by the Clause 64(3)(a)(i), the Arbitral Tribunal shall consist of a panel of three Gazetted Railway Officers not below Junior Administrative Grade or 2 Railway Gazetted Officers not below Junior Administrative Grade and a retired Railway Officer, retired not below the rank of Senior Administrative Grade Officer, as the arbitrators. For this purpose, the HRIDC will send a panel of at least four (4) names of Gazetted Railway Officers of one or more departments of the HRIDC which may also include the name(s) of retired Railway Officer(s) empanelled to work as HRIDC Arbitrator to the Contractor within 60 days from the day when a written and valid demand for arbitration is received by the MD/HRIDC.</p> <p>Contractor will be asked to suggest to MD/HRIDC at least 2 names out of the panel for appointment as Contractor’s nominee within 30 days from the date of dispatch of the request by HRIDC. The MD/HRIDC shall appoint at least one out of them as the Contractor’s nominee and will, also simultaneously appoint the balance number of arbitrators either from the panel or from outside the panel, duly indicating the ‘presiding arbitrator’ from amongst the 3 arbitrators so appointed. MD/HRIDC shall complete this exercise of appointing the Arbitral Tribunal within 30 days from the receipt of the names of Contractor’s nominees. While nominating the arbitrators, it will be necessary to ensure that one of them is from the Accounts Department. An officer of Selection Grade of the Accounts Department shall be considered of equal status to the officers in Senior Administrative Grade of other departments of the Railway for the purpose of appointment of arbitrator.</p>
<p>64.3(a) .iii</p>	<p>The serving railway officer working in arbitral tribunal in the ongoing arbitration cases as per clause 64.(3)(a)(i) and clause 64.(3)(a)(ii) above, can continue as arbitrator in the tribunal even after his retirement.</p>
<p>64.3 (b)</p>	<p>Appointment of Arbitrator where applicability of Section 12 (5) of Arbitration and Conciliation Act has not been waived off: (i) In cases where the total value of all claims in question added together does not exceed 50,00,000/- (Rupees Fifty Lakh), the Arbitral Tribunal shall consist of a Retired Railway Officer, retired not below the rank of Senior Administrative Grade Officer, as the arbitrator. For this purpose, the HRIDC will send a panel of at least four (4) names of retired Railway Officer(s) empanelled to work as HRIDC Arbitrator duly indicating</p>

	<p>their retirement dates to the Contractor within 60 days from the day when a written and valid demand for arbitration is received by the Engineer. Contractor will be asked to suggest to MD/HRIDC at least 2 names out of the panel for appointment as arbitrator within 30 days from the date of dispatch of the request by HRIDC. The MD/HRIDC shall appoint at least one out of them as the arbitrator within 30 days from the receipt of the names of Contractor’s nominees.</p> <p>(ii) In cases where the total value of all claims in question added together exceed 50,00,000/- (Rupees Fifty Lakh), the Arbitral Tribunal shall consist of a Panel of three (3) retired Railway Officer, retired not below the rank of Senior Administrative Grade Officer, as the arbitrators. For this purpose, the HRIDC will send a panel of at least four (4) names of retired Railway Officer(s) empanelled to work as HRIDC Arbitrator duly indicating their retirement date to the Contractor within 60 days from the day when a written and valid demand for arbitration is received by the MD/HRIDC Contractor will be asked to suggest to MD/HRIDC at least 2 names out of the panel for appointment as Contractor’s nominee within 30 days from the date of dispatch of the request by HRIDC. The MD/HRIDC shall appoint at least one out of them as the Contractor’s nominee and will, also simultaneously appoint the balance number of arbitrators either from the panel or from outside the panel, duly indicating the ‘Presiding Arbitrator’ from amongst the 3 arbitrators so appointed. MD/HRIDC shall complete this exercise of appointing the Arbitral Tribunal within 30 days from the receipt of the names of Contractor’s nominees. While nominating the arbitrators, it will be necessary to ensure that one of them has served in the Accounts Department.</p>
<p>64.3(c) (i)</p>	<p>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 MD/HRIDC fails to act without undue delay, the MD/HRIDC shall appoint new arbitrator/arbitrators to act in his/their place in the same manner in which the earlier arbitrator/arbitrators had been appointed. 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).</p>
<p>64.(3) (c) (ii)</p>	<p>(a) The Arbitral Tribunal shall have power to call for such evidence by way of affidavits or otherwise as the Arbitral Tribunal shall think proper, and it shall be the duty of the parties hereto to do or cause to be done all such things as may be necessary to enable the Arbitral Tribunal to make the award without any delay. The proceedings shall normally be conducted on the basis of documents and written statements. (b) Before proceeding into the merits of any dispute, the Arbitral Tribunal shall first decide and pass its orders over any plea submitted/objections raised by any party, if any, regarding appointment of Arbitral Tribunal, validity of arbitration agreement, jurisdiction and scope of the Tribunal to deal with the dispute (s) submitted to arbitration, applicability of time ‘limitation’ to any dispute, any violation of agreed procedure regarding conduct of the arbitral proceedings or plea for interim measures</p>

	of protection and record its orders in day to day proceedings. A copy of the proceedings duly signed by all the members of tribunal should be provided to both the parties.
64.3(c)(iii)	<p>(i) Qualification of Arbitrator (s):</p> <p>(a) Serving Gazetted Railway Officers of not below JA Grade level.</p> <p>(b) Retired Railway Officers not below SA Grade level, one year after his date of retirement.</p> <p>(c) Age of arbitrator at the time of appointment shall be below 70 years.</p> <p>(ii) An arbitrator may be appointed notwithstanding the total number of arbitration cases in which he has been appointed in the past.</p> <p>(iii) While appointing arbitrator(s) under Sub-Clause 64.(3)(a)(i), 64.(3)(a)(ii), 64.(3)(b)(i) & 64.(3)(b)(ii) above, due care shall be taken that he/they is/are not the one/those who had an opportunity to deal with the matters to which the contract relates or who in the course of his/their duties as Railway servant(s) expressed views on all or any of the matters under dispute or differences. A certification to this effect as per annexure- XVI shall be taken from Arbitrators also. The proceedings of the Arbitral tribunal or the award made by such Tribunal will, however, not be invalid merely for the reason that one or more arbitrator had, in the course of his service, opportunity to deal with the matters to which the contract relates or who in the course of his/their duties expressed views on all or any of the matters under dispute.</p>
64.(3)(d)(i)	The arbitral award shall state item wise, the sum and reasons upon which it is based. The analysis and reasons shall be detailed enough so that the award could be inferred therefrom.
64.(3)(d)(ii)	A party may apply for corrections 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 a specific point of award to Tribunal within 60 days of receipt of the award.
64.(3)(d)(iii)	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.
64.(4)	In case of the Tribunal, comprising of three members, 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.
64.(5)	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.
64. (6)	The cost of arbitration shall be borne by the respective parties. The cost shall inter-alia include fee of the arbitrator(s), as per the rates fixed by Railway Board from time to

	<p>time and the fee shall be borne equally by both the parties, provided parties sign an agreement in the format given at Annexure XV to these conditions after/ while referring these disputes to Arbitration. Further, the fee payable to the arbitrator(s) would be governed by the instructions issued on the subject by Railway Board from time to time irrespective of the fact whether the arbitrator(s) is/are appointed by the HRIDC Administration or by the court of law unless specifically directed by Hon'ble court otherwise on the matter.</p>
64.(7)	<p>Subject to the provisions of the aforesaid Arbitration and Conciliation Act 1996 and the rules thereunder and relevant para of the Standard General Conditions of Contract and any statutory modifications thereof shall apply to the appointment of arbitrators and arbitration proceedings under this Clause.</p>
64.(8)	<p>In case arbitration award is challenged by a party in the Court of Law, 75% of award amount, pending adjudication by Court of Law, shall be made by party to other party. In case payment is to be made by HRIDC to Contractor, the terms & conditions as incorporated in the Ministry of Railways Letter No. 2016/CE(I)/CT/ARB/3(NITI Aayog)/Pt. dated 08th Mar,2017 as amended from time to time, shall be followed. In case Contractor has to pay to the HRIDC, then 75% of the award amount shall be deducted by the HRIDC from the Contractor's bills, Performance Guarantee/ Security Deposit or any other dues of Contractor with the Government of India.</p>

PART- III

SPECIAL CONDITIONS OF CONTRACT

The following Special Conditions of Contract (SCC) -Part B shall supplement the General Conditions of Contract (GCC). Whenever there is a conflict, the provisions herein shall prevail over those in the GCC .

Table of Clauses

Subject	Remarks
Annexure 1 – Safety Provisions	Amended
<p>1. Payment Terms</p> <p>A) For Supply of S&T Items:</p> <p>i) 70% of payment for items shall be made to the Contractor on receipt of but not limited to:</p> <ul style="list-style-type: none"> a) Bill/ Tax invoice b) Receipt of material at site managed by the Contractor c) Insurance of material for the project execution period d) Inspection certificate from the competent inspecting authority e) Delivery Challan f) Certificate from the Contractor & OEM that material being supplied is new with latest version and complies with the Specification g) Commitment from OEM for support to the Contractor/ HORCL/ Railway for the product being supplied and minimum for 7 years. <p>ii) 20% payment shall be made on installation & commissioning of equipment/ material at site.</p> <p>iii) 10% payment shall be made on commissioning of complete work .</p> <p>iv) All those items which are for supply only i.e. no installation and commissioning required, the remaining 30% payment of supply cost will be paid to contractor as per approval of the Engineer.</p> <p>B) Execution of S&T Items:</p> <p>i) 90% payment shall be made on execution/ installation & commissioning of item at site.</p> <p>ii) 10% of payment shall be made on commissioning of complete work.</p> <p>2. Issue of materials to the Contractor for execution .The material will be issued by ENGINEER to the contractor for execution of work against indemnity bond for the supply value of the tender schedule or equivalent cost of material, as per the discretion of “Engineer-in-charge” till its erection. Materials will be issued in stages in such a way that no point of</p>	Amended

Subject	Remarks
<p>time cost of materials in Contractor’s custody is more than the value of indemnity bond made available by the Contractor.</p> <p>(a) The material shall be strictly in accordance with the contract specifications.</p> <p>(b) The material shall be delivered at site and properly stored under covered sheds at Contractor’s cost and protected against damage, deterioration, theft, fire etc. to the satisfaction of the Engineer-in-charge. The Contractor shall store the bulk material in the measurable stacks.</p> <p>.</p> <p>(d) Proper accountal in the material registers to be maintained in the prescribed format at the site for the receipt and use of the material on day to day basis.</p> <p>(e) Submission of indemnity bond with validity up to the completion/extended period in the prescribed format at the Contractor’s cost, vesting the ownership of such material with the HRIDC.</p> <p>(f) Submission of insurance policy with validity up to the completion/extended period at the Contractor’s cost, in favour of ENGINEER against damage, deterioration, theft, fire etc.</p> <p>The Contractor shall set up at least one main Store/depot for receiving and storing of the required materials for execution of work.</p> <p>Site Office: - The Contractor should construct the temporary well-furnished site office as per approval of Engineer .Failure to provide site office within 02 months may attract a penalty of Rs 50 thousand per month, for the period till he constructs the office as per approval of Engineer subject to maximum of completion period of the contract, recoverable from running bill. No Separate payment for providing above facilities will be made by HRIDC.</p>	

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

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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.

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- (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

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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.

PART-IV

Works Requirement

Scope of Signalling Works

1.1 Introduction

- 1.1.1 HORC is executing the work of railway yard for Maruti Suzuki India Ltd. (MSIL) and connecting through HORC line to existing Patli station (NR). MSIL yard is required to be interlocked with Electronic Interlocking based Signalling system. MSIL yard shall be connected to Patli station (NR) through HORC line and trains shall work on Absolute Block System working.
- 1.1.2 The Signalling System shall mean and include but not limited to all the sub-systems required to provide an end-to-end Signalling system at a MSIL yard to facilitate train operation viz. Electronic Interlocking (EI) with Panel and dual VDU, MSDAC for track detection, Integrated Power supply System (IPS), relays, signal units, signal cables, location boxes, points and OFC/telecom cables, Data logger, RDPM, TMS, CTC etc.,

1.2 Scope of Works

The broad scope of Signalling and Telecom work is given below:

- 1.2.1 Planning and design of EI based Signalling system for MSIL yard with solid state interfaces (Relay less).
- 1.2.2 Supply, installation, testing and commissioning of the Signalling works at the MSIL yard as per approved Signalling plan and BoQ.
- 1.2.3 UFSBI and BPAC on OFC cable in the Single line section from MSIL to Patli station (NR).
- 1.2.4 Provision of data logger and remote monitoring.
- 1.2.5 Supply, laying, testing and commissioning of 24F OFC Cable in HDPE duct from MSIL to Patli (NR) station with electronics at MSIL and Patli.
- 1.2.6 Provision of 25W VHF set at MSIL and Patli station and 5W sets.
- 1.2.7 Modification in EI at Patli for interconnecting HORC line to Patli yard.
- 1.2.8 Outdoor work at Patli station.
- 1.2.9 AMC of the S&T system for 1 years after completion of the works. Maintenance of S&T system by providing manpower, vehicle, tools & plant and consumable as per guidelines of HRIDC/RAILWAY after commissioning of the S&T System.
- 1.2.10 Defect Notification period for S&T System will be for 1 year, which will be started after Completion of the works.
- 1.2.11 Tentative Signal Interlocking Plans (SIP) of the MSIL yard is attached in this tender Document.**
- 1.2.12 The Signalling and Telecom system shall seamlessly integrate with ICCC, TMS, CTC, RDPM, MIS etc. as detailed in this document. These works shall be carried out as separate contracts and therefore contractor shall ensure compatibility of systems being provided at MSIL and provision of required interfaces and software etc.
- 1.2.13 Integrated Command Control Centre (ICCC) with Train management system (TMS) and Centralized Train Control (CTC) shall be provided for train operation monitoring and control for HORC at IMD Manesar under separate contract. The Electronic Interlocking and signalling system shall provide all the required features of TMS & CTC which shall be extended to central

Control at IMD Manesar with universal interfaces. The TMS & CTC system shall be compatible with equipment of other OEMS through appropriate interface modules. The provision of required interfaces/ modules/ software etc. shall be made.

1.3 Relevant Documents

This Work's Requirement shall be read in conjunction with the Conditions of Contract and any other document forming part of the Contract. In the event of a conflict between this document and others, the following precedence shall apply:

- (1) Work's Requirements
- (2) General and Subsidiary Rules (G & SR) of NR
- (3) Indian Railway signaling engineering manual (IRSEM) with latest amendment.
- (4) Policy documents issued by Indian Railways.
- (5) Indian Railways Standards and RDSO specifications/ guidelines referenced herein.
- (6) International Standards referenced herein.
- (7) Other National Standards.
- (8) Other International Standards.
- (9) Notwithstanding the precedence specified above, the Contractor shall seek clarification from the Engineer in the event of conflict among the above specifications.

Design Requirements

2.1 Project Design Standards

- 2.1.1 The project requires contractors to work within the framework of the International Standard for Quality Management ISO 9000. In compliance IEC 61508, Functional Safety of Electrical/Electronic/ Programmable Electronic Safety-related System shall be taken in the system design.
- 2.1.2 Where systems and products have been designed and are approved against Design standards as specified at Para below, full details of approval shall be given. Where systems and products have been approved within other markets, for example against US-FRA standards, then a gap analysis between the design and approving standard and the appropriate design standard specified at Para below shall be required before products are approved for use on the project. The contractor will be required to give details of how the gap analysis will be conducted.
- 2.1.3 The generic standards or other equivalent standards which are specified as under shall be applied for Signalling system.
 - (a) RDSO: Research, Design and Standards Organization, Ministry of Railways, India.
 - (b) IEC: International Electro-technical Commission.
 - (c) EN: European Standards Organizations CEN, CENELEC or ETSI.
 - (d) ISO: International Standards Organization

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2.1.4 Research Design and Standards Organization (RDSO), an organization of the Ministry of Railways, Government of India has standardized the technical specifications for various components of railway systems in India as Indian Railway Standard (IRS) Specifications. These are generally based on International Specifications and adopted to Indian conditions. The list of IRS/RDSO Specifications issued by RDSO is available at the website of RDSO (www.rdsso.gov.in). The IRS/RDSO specifications can be purchased from RDSO. The contractor shall submit the specification at the time of seeking approval of the equipment specification before procurement.

2.2 Codes and Standards

For the Signalling system, the following specifications, codes, and standards (with latest versions and amendments) shall be followed. This list is indicative, contractor shall refer to the latest approved specification.

<i>SPECIFICATION NO.</i>	<i>DESCRIPTION</i>
IRS SPECIFICATIONS	
IRS:S 6-81	Tubular Steel Signal Poles 140mm dia with Signal base and Anchor bolts
IRS: S 23-88	Electrical 1983 and Electronic based Signalling and interlocking equipment. Part1: Technology & General requirements. Part II: General requirements for Electrical Signalling & interlocking equipment.
IRS: S 26-64	Colour light signal, multi-unit type/Shunt Signal position light type
IRS: S 30-64	Key lock “E” Type
IRS:TC 30-05	Underground railway jelly filled telecom 0.9mm quad cables for signalling& telecom installations
IRS: S 34-68	Testing Railway Signalling Relays (General)
IRS: S 37-2022 (Ver.2) (Amd.4)	Non-trailable electric point machine
IRS: S42-85	Axle counting equipment
IRS:S 63-2014 (Rev 4.0)	PVC Insulated Underground unscreened cable for railway signalling.
IRS: S66 -2020 (Ver.1)	Route indicator, direction type 5 Lamp Unit Arm (1 to 6 way)
IRS: S75-2006 (Rev.2)	Terminal blocks, Fuse blocks & Colours Light Lamp Holder Unit for signalling installations.

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IRS: S76-89	PVC insulated indoor cables for Railway Signalling
IRS: S77-91	Tag block for Signalling installation (120/160/200 way)
IRS: TC 77-2012 (Rev.3)	ThermoShrinkble Jointing Kit for Underground Quad Cable
IRS: S 88-2004	Low Maintenance Lead acid stationary secondary cells.
IRS: S 89/2013	Track Feed Battery Charger.
IRS: S93-96 (Amd 1.0)	(a) Valve Regulated Lead Acid Stationary Battery & (b) Charger for Railway S&T Installations
IRS: S 99/ 2023 Amendment 3	Data logger system for S&T Installation
IRS: S101-90	Railway Signalling symbols
IRS: S105/2020 (Ver.1)	Block Proving by Axle Counter using by double line & Single line UFSBI/MUX combiner/Block Panel
RDSO SPECIFICATIONS	
RDSO/SPN/TC/110/2020	RDSO Specification of 24/ 48 Fiber Armoured Optical Fiber Cable
RDSO/SPN/144/2014 (Rev.5)	Safety & Reliability requirement of Electronic Signalling Equipment
RDSO/SPN/147/2005 (Amd.2)	Universal Failsafe Block Interface.
RDSO/SPN/153/2023 (Rev.5)	LED Signal lighting unit for Subsidiary colour Light Signals, Route, Calling On & Tunnels signals
RDSO/SPN/165/2023 (Ver.4)	SMPS Based Integrated Power supply system (IPS)
RDSO/SPN/175/2005 (Ver.1)	Solid State Block Proving by Axle Counter (Digital)
RDSO/SPN/176/2013 Ver -3	Multi Section Digital Axle Counter
RDSO/SPN/177/2012 (Ver.3)	High Availability Single Section Digital Axle Counter
RDSO/SPN/189/2004 (Ver.2)	Terminal Blocks, Fuse terminal blocks and Miniature fuse links of international standard
RDSO/SPN/192/2019 Ver 2.0	Electronic interlocking
RDSO/SPN/196/2020 (Ver. 4.0)	TCAS (KAVACH)

RDSO/SPN/197/2014 (Ver.1)	Code Practice for Earthing and Bonding system
RDSO/SPN/199/2010 (Rev 1.1)	LED Signal Lamps for Main Colour Light Signals (Integrated) for Railway Signalling
RDSO/SPN/204/2011 (Ver.1)	Double Walled Corrugated HDPE ducts for signalling cables
RDSO/SPN/209/2012 (Ver. 2.0)	Fuse Auto Change Over System (FACS)
RDSO/SPN/212/2020 (Ver.1.0)	Train Management System.
RDSO/SPN/217/2021 Ver. 3.0	Automatic fire detection and alarm system
RDSO/SPN/256/2002	Earth leakage detector
BRS 941A, STS/E/RELAYS/AC LIT LED SIGNAL/09-2002, Amdt 1. IRS S-23&34	Miniature, Plug-in type, tractive armature, Universal AC Lamp proving relay, (metal to carbon) for 110VAC LED Signal Lamp
EUROPEANSTANDARDS	
EN50121- 1/2/3/4	Railway applications- Electromagnetic compatibility
EN 50124-1	Railway applications-Insulation coordination-Part1: Basic requirements - Clearances and creepage distances for all electronic equipment
EN50124 -2:2017	Railway applications-Insulation coordination-Part2: Over-voltages and related protection
EN50125-3:2003	Railway applications-Environmental conditions for equipment-Part3: Equipment for signalling and communications
EN50126-1:2017	Railway applications- The specification and Demonstration of Reliability, Availability, Maintainability and Safety (RAMS)
EN50128	Railway applications- Communication, signalling and Processing systems -Software for railway control and protection systems

IEC/EN50129	Railway applications- Communication, signalling and Processing systems-Safety related electronic systems for Signalling
IEC/EN60529	Specification for degrees of protection from object or dust provided by enclosures (IP rating table)
EN50123-1:2003	Railway Application-Fixed installations. D.C. Switchgear. General
EN50082-2:1995	Electromagnetic compatibility. Generic immunity standard. Industrial environment.
IEC/EN60364	Electrical installation for building.
IEC/EN61643-12:2020	Low voltage Surge protection
IEC/EN62305:2013	Lightning and Surge protection devices
IEC/EN60204 -1:2016	Safety of machinery. Electrical equipment of machines. General requirements
IEC61000.4.2/4.4/4.5/6.3	Electromagnetic compatibility (EMC)-Testing and measurement techniques -Electrostatic discharge, surge and immunity test and basic EMC
IEC62278-3	Railway Applications-Specifications and demonstration of Reliability, Availability, Maintainability & Safety.
IEC62279:2015	Railway Applications- Communications, Signalling and processing systems-software for Railway Control and Protection Systems.
IEC62425:2007	Railway Applications-Communications, Signalling and processing systems-Safety Related Electronics Systems for Signalling.
IEC62427:2007	Railway Applications- Compatibility between Rolling Stock and Train Detection Systems
IEC62280-2:2002	Railway Applications- Communications, Signalling and processing systems-Safety related communication in open transmission systems.
IEC62236-1:2018	Railway Applications—Electromagnetic compatibility (EMC)
IEC60571:2012	Electronic Equipment Used on rolling Stock

IEC61373	Railway Applications—Rolling stock equipment— Shock and vibration tests
IEC62305:2013	Protection against Lightning-All Parts
IEC61992-6:2006, AMD2:2020	Railway applications— Fixed Installation-DC-Switch gears & Assemblies
IEC62505	Railway applications—Fixed installations—Particular requirements for A.C. switch gear.
ISO/TR16982:2002	Ergonomics of human-system interaction-Usability methods supporting human-centered design
ISO 11064 Parts 1-7	Ergonomics Design of Control Centers
UL 467	Standard for safety grounding & bonding equipment
IEC 62561	Lightening protection system components (LPSC)-Part-7 Requirement for earthing enhancing component.

2.3 **Manuals and Schedules**

Following manuals and schedules shall also be referenced during the design:

- a) Indian Railways Signal Engineering Manual (IRSEM -2021).
- b) General Rules (GR) of IR (1976- Amendment 191 dt 19/03/21) (Latest).
- c) Subsidiary Rules (SR) of NR
- d) AC Traction Manual (ACTM) of IR.
- e) Indian Railways Permanent Way Manual (IRPWM).
- f) Schedule of Dimensions (SOD) of IR.

2.4 **Typical Installation Drawings**

Following Indicative typical arrangement drawings which are available in this document (NR Policy circular 02/2016 circulated vide their Letter No. 256-Sig/O/SG/Pt-XV Dated 22-08-2016), Railway Boards guidelines and Typical installation drawings indicated shall also be referenced during the design:

S.No.	Description	Drawing No.
1.	Typical main cable distribution plan for Double line (4 Lines) PI station	SDO/CABLELAYING/001
2.	Position of trenches for cable laying	SDO/CABLELAYING/002
3.	Cable trench	SDO/CABLELAYING/003

4.	Laying of Signalling Cable & Telecommunication/ Power cable in same trench	SDO/CABLELAYING/004
5.	RCC Duct 300MM	NR/SIG/CABLE/001
6.	RCC Duct 500MM	NR/SIG/CABLE/002
7.	RCC Duct 500MM	NR/SIG/CABLE/003
8.	Laying of cables in Rocky area	NR/SIG/CABLE/004
9.	Track crossings	NR/SIG/CABLE/005
10.	Road crossings	NR/SIG/CABLE/006
11.	Cable laying on culverts with low flood level	SDO/CABLELAYING/011
12.	Cable lying on culverts with high flood level	NR/SIG/CABLE/007
13.	Cable laying on metallic bridges	SDO/CABLELAYING/013
14.	Cable trough for metallic bridges	SDO/CABLELAYING/014
15.	Cable laying on arch bridges	NR/SIG/CABLE/008
16.	Brick masonry channel for arch bridge	SDO/CABLELAYING/016
17.	Arrangement of jumper cable	SDO/CABLELAYING/017
18.	Concrete cable marker	SDO/CABLELAYING/020
19.	Method of unrolling cable	SDO/CABLELAYING/021
20.	Rule made of pipe for measuring trench depth	SDO/CABLELAYING/022

2.5 *Preliminary Design for Signalling System*

Following preliminary design and documents for Signalling works but not limited to shall be submitted by the contractor for approval of engineer:

- 2.5.1 All the drawings/arrangement for the items mentioned in Para 2.4.
- 2.5.2 Signalling architecture proposed at a Station as Block diagrams showing information flow from various Signalling sub system within a station.
- 2.5.3 Design templates for Signal Interlocking Plan (SIP), Route Control table/Selection table, VDU diagram, Interface circuit, Logic circuit etc.
- 2.5.4 Signal Interlocking Plan (SIP)
- 2.5.5 Equipment proposal, sizing and layout plan for Station
- 2.5.6 Typical power supply diagram for station
- 2.5.7 Preliminary power supply load calculation
- 2.5.8 Earthing, Lightning & Surge protection plan/ arrangement for Indoor Signalling equipment, Apparatus Cases, Signals, S&T Building/Hut etc.

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- 2.5.9 Typical Signalling cable core plan for station
- 2.5.10 Typical Cable termination details for Track side devices such as DC Track circuit/ Digital axle counters, BPAC, Point Machines, Signals, Apparatus cases etc.
- 2.5.11 Architecture lay out for RDPM system/ Data logger.
- 2.5.12 Typical installation drawing of HASSDAC
- 2.5.13 Typical installation drawing of Point machines

2.6 *Detailed Design for Signalling System*

The Detailed design and documents for Signalling works at all stations shall include following but not limited to:

- i) Signal Interlocking Plans
- ii) Route Control tables/Selection table
- iii) VDU Diagrams
- iv) System configuration showing EI connectivity, configuration data, parameters and setting.
- v) Equipment layout plans for signal equipment room, power supply room, location/junction Boxes, S&T huts, SM office, MSDAC room, battery room etc.
- vi) Equipment rack details
- vii) Fuse details
- viii) Relay contact analysis
- ix) Interconnection details of all equipment in Signalling rooms
- x) Application logic circuits
- xi) Interface circuit
- xii) Circuit diagrams/ wiring diagrams
- xiii) Power supply load calculation for a station as well as for Signals, Point Machines, Axle counters, BPAC and Detailed Signalling Power supply distribution arrangement at Station.
- xiv) Cable termination rack diagrams
- xv) Combined drawings for all RDPM and data loggers' equipment of the complete project
- xvi) Cable core allocation
- xvii) Cable route plan
- xviii) Track devices termination details
- xix) Cable termination details of locations/Junction boxes
- xx) Earthing, lightning & surge protection plan/ arrangement for Indoor and outdoor Signalling equipment
- xxi) Station working rules and Station working rule (SWR) diagrams.
- xxii) Drawings/ documents for Non Interlocking (NI).

2.7 *Good for Construction Drawings*

The good for construction drawings for Signalling works shall include but not limited to: All drawings and documents described for detailed design & documents for signalling works.

2.8 As-Built Drawings

AS-BUILT drawings & documents for Signalling works shall include but not limited to:

- i) All drawings and documents described for **GOOD FOR CONSTRUCTION** of Signalling Works.
- ii) Official letters regarding the design change acceptance.
- iii) Certificates of acceptance between the Contractor and the Engineer.
- iv) Design Certificate.
- v) Station Working Rule and Station working rule Diagrams.
- vi) Document and drawings for NI.
- vii) Operational Safety case
- viii) CRS sanction supporting documents.
- ix) Operation & Maintenance manuals for whole Signalling System/ Sub Systems.

2.9 Procurement

- i) The contractor may procure items/equipment either locally (from India) or from the international market.
- ii) RDSO maintains an approved list of suppliers/vendors for various equipment/items/ components to be used on railway systems in India. The list of suppliers/vendors approved for various items are available at the website of RDSO (www.rdsogov.in).
- iii) The list of applicable RDSO specifications is also given in this chapter. If procured locally, items shall be procured from RDSO's "Approved list of firms for manufacture and supply" and as per relevant specification. Before procurement make and model no. of equipment along with technical specification of OEM shall be submitted by the contractor to the Engineer for approval.
- iv) The System shall be designed in such a manner that the failure of a single item of Signalling equipment shall not cause loss of overall system functionality. The use of redundancy, hot standby and cold standby shall be considered in accordance with meeting the system objectives.
- v) The System shall remain fully functional with no degradation across the range of published climatic conditions found in the region. The climatic conditions are covered under GS (S&T) of this bidding document.
- vi) The System shall be designed to be repaired without loss of overall functionality and availability.
- vii) The System shall be designed to operate correctly and safely within a 25 KV AC Traction system environment and shall present no safety hazards to personnel working on the system.
- viii) The System design shall be modular and amenable to assembly and testing away from the final installation site.
- ix) The System shall be designed keeping energy usage as a key feature of design philosophy and making it part of the review of the system design.
- x) The System shall be designed and installed in such a manner that theft and vandalism are discouraged. Track side units shall feature locks and similar deterrent features preventing plug coupled cables and modules from being removed and larger structures shall feature anti vandalism measures to the satisfaction of the Engineer.

- xi) The System shall be designed to incorporate a Remote diagnostic and predictive maintenance system to be used to support Railway Maintenance activities.
- xii) The System shall be designed to incorporate maintenance information system (MIS).
- xiii) The System shall be designed to provide Fire Alarm Control Panel to provide smoke detection and fire extinguishers in various S&T and operation rooms of station.
- xiv) The System shall be designed to interface with Signalling systems on adjacent sections of HORC and Signalling systems of connected NR/ DFC stations.

3.1 Testing and Commissioning

3.1 General

The general details of Testing and Commissioning Philosophy, Strategy, Program, Plan and procedures are covered in General Specifications (S&T). The specific requirements of Testing and Commissioning covered here shall be read in conjunction with the general requirements covered in GS (S&T).

Sequence of Tests: The sequence of tests shall generally comprise of the following:

- a. Type Tests, as and when required;
- b. Factory Acceptance Tests (FAT);
- c. Installation Tests.
- d. System/Sub-system Acceptance Tests (SAT);
- e. Integrated Testing & Commissioning; and
- f. Trial Run.

3.2 Type Tests

3.2.1 Type tests are performed on sample Equipment prior to full production. Type tests are used to confirm that the proposed equipment is fit for purpose in the environmental conditions specified and meets the requirements of the specification including the EMC.

3.2.2 The Type tests may be exempted if the Contractor is able to produce the Environmental and EMC test results earlier conducted on the Equipment and RDSO/Engineer's representative are satisfied that the Equipment meet the required specification.

3.2.3 Type tests on equipment for which RDSO specification exists, if required shall be done as per applicable RDSO specification.

3.3 Factory Acceptance Tests

3.3.1 The FAT is carried out to demonstrate that each equipment/sub-system meets its functional specifications.

3.3.2 The FAT shall be carried out on all material, components, sub-assemblies, unit assemblies (including software, cables, and wiring). No equipment or software shall be delivered to the Site until the Contractor has demonstrated, to the satisfaction of the Engineer, that the equipment or

software conforms to the specifications by carrying out the FAT. If any item/equipment whether as per IRS/RDSO specification or otherwise is proposed to be procured without FAT, the same should be done only with the prior approval of the Engineer.

- 3.3.3 FAT procedure shall be submitted for review by the Engineer Twenty-Eight **(28) days in advance** of carrying out any Test.
- 3.3.4 The FAT shall be witnessed by **Engineer's representative**. For equipment procured as per IRS/RDSO specification and with RDSO inspection, FAT may be witnessed by Engineer's representative.
- 3.3.5 Where processor-based equipment is to be used, the FAT shall also include verification of application software.
- 3.3.6 Factory acceptance tests shall include but not limited to:
 - a. Physical inspection;
 - b. Layout and equipment profile;
 - c. Dimension check;
 - d. Electrical check;
 - e. Calibration;
 - f. Output check;
 - g. Operational performance;
 - h. Insulation test;
 - i. Soak test; and
 - j. Interface tests with other equipment.
- 3.3.7 The EI application logic/software for every station will have to be tested completely for all tests including Control Table, Hot standby tests etc. as part of FAT. The controls/logic that are not possible to be tested at the FAT stage shall be identified and tagged for testing at SAT stage, in consultation with the Engineer.

3.4 Installation Tests

3.4.1 Prerequisites for Installation:

- 3.4.1.1 The Installation designs and drawings have been reviewed and approved by the Engineer.
- 3.4.1.2 Prior to installation, the Contractor shall ensure that equipment delivered to Site has not been damaged in transit and ensure for their dimensional accuracy.

3.4.2 **Pre-installation test/inspection, Invoice, QA/QC test/ FAT report, Warranty certificate, OEM manuals** etc. Shall be verified during this test/ inspection. RFI shall be submitted for this test/ inspection.

3.4.3 Post Installation tests and Inspection:

- 3.4.3.1 The Installation designs and drawings approved by the Engineer shall be referred during this test.
- 3.4.3.2 Post-installation tests shall be carried out by the Contractor for each sub system following installation but before SAT to demonstrate that the installation has been carried out correctly.
- 3.4.3.3 Each test/inspection shall have RFI reference. RFI shall be given to the engineer not less than **24 hours before** the schedule of test. All related approved drawings shall be kept by the

contractor on this site during test/ inspection. Compliance of comments of engineer's representative shall be submitted with the proof as photographs/ documents etc. This test shall check **the availability of power, continuity of wiring, earthing, labeling, name plates, painting, SOD clearance** etc.

3.4.3.4 The Contractor shall carry out installation tests for each sub-system following Installation but before SAT to demonstrate that the installation has been carried out correctly and equipment is properly housed and fixed.

3.4.3.5 The Installation shall be inspected by the Contractor and witnessed by the Engineer. The Contractor shall submit a Post installation Inspection and testing Plan for Engineer's approval, prior to commencement of Post Installation inspection and testing.

3.4.3.6 During the inspection, it shall be verified that

- a) The equipment has been installed as per the procedures and designs and drawings that have been reviewed by the Engineer and that equipment is correctly located and labelled.
- b) Any false feed, temporary wiring and redundant items have been removed and that equipment is correctly protected against interference, damage and deterioration.
- c) The Contractor shall submit Installation Checklist of individual items/ equipment/subsystems based on the designs and submit it for Engineer's review at least **28 days** before commencement of Installation.
- d) Contractor shall prepare **separate checklist** for EI, MSDAC, HASSDAC, BPAC, IPS, RDPM with data logger, Signals, Points machines, Cables, Location Boxes, earthing and bonding etc. not limited to Installation checklist issued by IR/RDSO/OEM, where available. The installation check list shall include Structure gauge checks to ensure the installations are carried out to the **Schedule of Dimensions requirements**;
- e) The Installation shall be inspected and witnessed by the Engineer's representative as per the Installation checklists and records shall be maintained. The defects noticed during inspection shall be appended to/recorded on the Inspection checklists. Once the Contractor has rectified the defects, the same shall be informed to the Engineer with **photographs of rectification**. The same shall be verified by the Engineer and recorded. The Installation inspection records and Installation checklists shall form part of Installation test records.
- f) These tests shall make readiness for SAT to verify the correct operation of all apparatus and where appropriate, correct response to the respective control commands or monitored function.

3.4.3.7 After installation of the equipment, Visual inspection on un-energized equipment shall be carried out to check the following:

- a) Cleanliness;
- b) Workmanship;
- c) Confirmation of items conforming to ratings specified;
- d) Water and dust proofing;
- e) Levelling, mounting and positioning;
- f) Joints and connections tightness;
- g) Cables — dressing, bending radii, jointing and finish at terminals;
- h) Clearances and dimensions in conformity with drawings and SOD;

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- i) Earthing and bonding;
- j) Layout and Equipment profile check.
- k) Protection devices;
- l) Painting
- m) Labeling
- n) Locks
- o) No breakages

3.4.3.8 The Visual inspection shall be followed by (but not limited to) further Installation tests as under:

- a) Voltage measurements;
- b) Continuity test as per wiring diagram;
- c) Cable Insulation testing;
- d) Power cubicle function test;
- e) Wire continuity tests;
- f) Earth value measurements;
- g) Wire count tests;
- h) Software is correctly installed with the correct version and checksum;
- i) Circuit board is of correct version and is correctly installed;
- j) Strap and Function tests;
- k) Through circuit function test of the equipment;
- l) Signal Sighting tests;
- m) Functioning of circuit breakers, isolating switches and their interlocks;
- n) Interface tests with other equipment.
- o) Simulation test if applicable.

3.5 ***System Acceptance Test***

3.5.1 Once the Installation tests on individual items/equipment/subsystems are complete and they are interconnected and configured to form a complete system, the System Acceptance Test is carried out to ascertain that all the equipment supplied under this Contract satisfy the functional and specified performance requirements in all respects.

3.5.2 System Acceptance Tests shall comprise of comprehensive testing of the completely assembled installation to ensure that every item has been installed and adjusted and that all systems operate in every respect in accordance with the requirements of the specification and are ready for integrated testing and commissioning.

3.5.3 The Contractor shall prepare and organize a comprehensive Program of Tests to demonstrate to the Engineer that all systems, sub-systems and apparatus defined under the Contract, when installed, connected and configured as a complete system meet the specified performance requirements in all respects.

3.5.4 **Prerequisites for commencement of the System Acceptance Tests (SAT):**

- a. All documentation for the System Safety report have been submitted to the Engineer for review;

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- b. All Installation Tests have been completed and test records submitted to the Engineer for review;
 - c. Facilities for the maintenance of the system are in place;
 - d. Working for commissioning of signalling works at Patli shall be done under traffic block and advice of NR supervisor.
- 3.5.4.1 The SAT Plan has been submitted to the Engineer for review at least ninety (90) days before the commencement of the SAT. This test shall include a functional test of all signalling equipment from the control equipment in SM room. This test includes but not limited to:
- a) EI test as per approved selection table
 - b) Track detection as per approved SIP
 - c) Correspondence of Signals and cascading.
 - d) Correspondence of Points.
 - e) Automatic Signalling.
 - f) Automatic section testing
 - g) Any other equipment as per Work's Requirement.
- 3.5.4.2 Verification and Validation of Application logic
- a) The FAT tested Application logic shall be loaded in the installed EI and verified to see that it meets the requirement of the Control table.
 - b) Tests shall be carried out on each Signalling function to ensure that all the controls specified in the Control tables are present and effective.
 - c) It is permissible for the application logic to be verified by use of application tool/simulation systems. The extent of verification testing by application tool/ simulation shall be defined in the Test plan.
 - d) Where a control is required to be in the Application logic but is not possible to test, this shall be stated in the test specification, together with any alternative testing to be performed to mitigate any reasonably foreseeable hazard.
- 3.5.4.3 Functions commonly requiring to be tested include, but are not limited to:
- a) EI Hot standby tests;
 - b) Route initiation and setting;
 - c) Approach locking;
 - d) Point interlocking;
 - e) Route interlocking;
 - f) Conflicting routes
 - g) Sectional and sequential route releasing;
 - h) Train operated route release;
 - i) Automatic section controls;
 - j) Emergency cancellations;
 - k) Crank handle interlocking;
 - l) Aspect sequence.
 - m) Interfacing with other sub systems like Track detection system, BPAC etc.

- n) Verification shall demonstrate that correct correspondence exists between all commands, controls, status detecting mechanisms and their indications, both within the integrated system and to any external interfaces.
- o) Validation of Application logic involves testing of the Application logic in accordance with the requirements of the relevant safety case and product application requirements. The validation activities shall be defined in the test specification.

3.6 *Integrated Testing and Commissioning*

- 3.6.1 The Contractor shall carry out Integrated Testing and Commissioning after the completion of the System Acceptance Tests. This test shall include the test of equipment from the IMD/ Control Centre of the project.
- 3.6.2 Integrated Testing on Completion shall include the Work of other contractor(s) also. The Contractor shall, following satisfactory completion of tests on his works, equipment, sub-systems or system, perform, at the direction of the Engineer, Program of tests to verify and confirm the compatibility and complete performance of his works, equipment, sub-systems or system with the works, equipment, sub-systems or system provided by others.
- 3.6.3 The Contractor shall submit to the Engineer the requirements and procedures in respect of the Contractor's scope of work for Integrated System Tests in conjunction with the other contractors to demonstrate that the complete system provided under the Contract is fully operational and meets the specified performance criteria.
- 3.6.4 Deleted
- 3.6.5 Integrated Testing and Commissioning refers to those tests undertaken in order to demonstrate that the various components of the railway systems operate satisfactorily between one another and meet all specified requirements for design, operability, safety, and integration with other works and systems.
- 3.6.6 Integrated testing and commissioning shall include the integration of the HOCR section with the adjacent already commissioned sections, without disturbing the safety and revenue operation of the earlier commissioned sections.
- 3.6.7 The conducting of these Integrated Tests by the Contractor and the other contractors shall include a period of Trial Run.
- 3.6.8 The Contractor along with others Contractor(s) shall carry out all statutory tests and trials under the supervision of the Engineer, necessary for obtaining sanction of the competent authority, if required, for opening the Railway System.
- 3.6.9 The results of the Integrated Testing and Commissioning shall be documented.
- 3.6.10 If any Signalling equipment/sub system fails to pass Integrated Testing and Commissioning, the Contractor shall carry out at his own cost the necessary adjustment or modification to the equipment/sub system required to satisfy the requirements of Integrated Testing and Commissioning within such time as the Engineer may deem fit.

3.7 *Trial Runs*

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- 3.7.1 On completion of SAT and Integrated testing and commissioning to the satisfaction of the Engineer, the Contractor shall confirm in writing to the Engineer that the works provided by him under the contract is ready for the Trial runs.
- 3.7.2 During the Trial run, the Employer will run the actual trains. The objective is to check that the functions and operations of the various systems are satisfactorily integrated and to allow all technical systems to settle and operating staff to become conversant with the working procedures.
- 3.7.3 The Trial run shall be made use for ensuring the following:
- a) Signal and indicators Sighting — approach sighting, focus, alignment, relationship with other signals, and interference from other sources of light (e.g. street lamps etc.);
 - b) Track Vacancy detection system operates correctly, reliably, and continuously during presence/absence of a train; and
 - c) Dynamic interfaces—Integrity of operation and indications across boundaries between different types of track vacancy detection equipment and between different interlocking;
 - d) Specific types Signalling equipment could require a test train, especially where evidence of the correct operation of train /Signalling equipment interfaces is required; and
 - e) Verify the layout to the Signalling plan.
 - f) Automatic Signalling and BPAC system operate correctly, safely, reliably and continuously during presence/absence of a train.
- 3.7.4 The Engineer may issue instructions to the Contractor for particular works or actions required of him during this period. In addition, the contractor shall make good all defects and complete all outstanding works within the Trial period so as to permit the commencement of revenue operations.
- 3.7.5 The Contractor's personnel shall be available throughout the period of Trial run.
- 3.7.6 After the successful Trial Run and after obtaining statutory clearances/approvals from CRS and or other relevant authorities, the Works shall be commissioned with the consent of the Engineer.

3.8 *Statutory Clearances*

- 3.8.1 The Contractor shall obtain all the mandatory clearances required, **if any**, for commissioning of Signalling work. In such case, the Employer shall extend all the requisite help and assistance to enable inspection, tests, verification of test records and trial run by CRS.
- 3.8.2 The CRS sanction, if required will be applied for by the Employer. The Contractor will, however, be responsible for preparation of all supporting documents required for CRS sanction.

PART – V

ANNEXURE AND SCHEDULE OF QUANTITY(BoQ)

ANNEXURE-I

Deleted

ANNEXURE-II

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ANNEXURE-III

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CONTRACT AGREEMENT OF WORKS

(On non-judicial stamp paper)

ORIGINAL CONTRACT AGREEMENT No. HRIDC/GGN/CA/..... Dated / /2024

ARTICLES OF AGREEMENT made this day of 2023 between the General Manager/IE&A, Haryana Rail Infrastructure Development Corporation 5th Floor, Tower no.2 Ircon international tower, sector -32 Gurugram Haryana -122003 acting through Dy. General Manager (Electrical), HRIDC, Gurugram, herein after called “the Employer/Engineer/ HRIDC” of the one part and (hereinafter called “the Contractor”) of the other part.

WHEREAS the contractor has agreed with the HRIDC’s for performance of Tender No. HRIDC/GGN/S&T/MSIL/2024 “Design, Manufacture, Supply, Installation, Testing & Commissioning of Electronics Interlocking with associated Indoor and Outdoor Signalling & Telecom works at Maruti Suzuki India Limited (MSIL) Yard at Manesar and connectivity with HARC line up to Patli Station (NR).”, set forth in the schedule hereto annexed upon the Indian Railways Standard General Condition of Contract (2022-Edition Latest) as corrected upto date, the Indian Railway Unified Standard Specifications (Materials & works) Vol. I & II – 2010, as corrected upto date, Indian Railway Unified Standard Schedule of Rates of Northern Railway – 2010 as corrected upto date and special conditions & specifications of contract, if any and in conformity with the Drawings here-into annexed and whereas the performance of the said works is an act in which the public are interested.

NOW THIS INDENTURE WITNESSETH that in consideration of the payments to be made by the HRIDCs, the contractors will duly perform the said works in the said schedule set forth and shall execute the same with great promptness, care and accuracy in a workman like manner to the satisfaction of the HRIDC and will complete the same in accordance with the said specifications and said drawings and said conditions of contracts on or before and will maintain the said work for a period of 12 (Twelve) calendar months from the certified date of their completion and will observe, fulfil and keep all the conditions there in mentioned (which shall be deemed and taken to be part of this contract, as if the same have been fully set forth herein), AND the HRIDC, both hereby agree that if the contractor shall duly perform the said works in the manner aforesaid and observe and keep the said terms and conditions, the HRIDC will pay or cause to be paid to the contractor for the said works on the final completion thereof the amount due in respect thereof at the rates specified in the schedule hereto annexed.

(GENERAL Manager/IE&A)

HRIDC, Gurugram
For and on behalf of the HRIDC

Witnesses of contractor’s signature

- 1.
- 2.

(Signature of Contractor/s)

**FORMAT FOR AFFIDAVIT TO BE SUBMITTED BY TENDERER
ALONG WITH THE TENDER DOCUMENTS**

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

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

M/s. _____ having its office at.....(hereinafter called the Tenderer) for the
purpose of the Tender documents for the work of (Name of work)** as per the Tender
No. _____ of Haryana Rail Infrastructure Development Corporation (HRIDC), do hereby
solemnly affirm and state on behalf of the Tenderer including its constituents as under:

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

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

**SEAL AND SIGNATURE
OF THE TENDERER**

Place:

Dated:

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

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

I/We(Name), attorney/Authorized signatory of the
(Constitute firm/Constitute partner) and member/partner of the (tendering firm)here by solemnly affirm and state as under :

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

**SEAL AND SIGNATURE
OF THE CONSTITUENT FIRM/CONSTITUENT PARTNER**

Place:

Dated:

**FORM OF IRREVOCABLE GUARANTEE BOND FOR PERFORMANCE
GUARANTEE(PG)**

(The Bank Guarantee (BGs) to be submitted by the Contractors should be sent directly to) General Manager/IE&A, Haryana Rail Infrastructure Development Corporation 5th Floor, Tower no.2 Ircon international tower, sector -32 Gurugram Haryana - 122003” under Registered Post A. D.).

(On non-judicial stamp paper, which should be in the name of the Executing Bank).

**To,
GM (IE&A)
Haryana Rail Infrastructure Development Corporation
5th Floor, Tower no.2 Ircon international tower,
sector -32 Gurugram Haryana -122003**

Bank Guarantee No.:

Bank Guarantee Expiry Date:.....

Bank Guarantee Claim Expiry Date:.....

In consideration of the President of India acting through General Manager/IE&A, Haryana Rail Infrastructure Development Corporation 5th Floor, Tower no.2 Ircon international tower, sector -32 Gurugram Haryana -122003 hereinafter called “The HRIDC” having agreed to exempt[Insert name & address of the Bidder]..... hereinafter called "the said Contractor (s)" from the demand, under the terms and conditions of Letter of Acceptance No. Dated issued to[Insert name & address of the Bidder]..... by M/s Haryana Rail Infrastructure Development Corporation Ltd., Gurugam (HRIDC) (hereinafter called "the said Agreement") of Performance Guarantee for the due performance by the said Contractor (s) of the terms and conditions contented in the said Agreement, on production of a Bank guarantee for Rs.[Insert required Value] We[Insert Name of the Bank]..... A Company Incorporated Under the Companies Act, 1956 And carrying On Banking Business Under the Banking Regulated Act, 1949 and Having its Registered Office at Branch,[Insert Address]..... hereinafter referred to as "the Bank" at the request of[Insert name of the Bidder]..... (Contractor(s) do hereby undertake to pay to the HRIDC/Government an amount not exceeding Rs.[Insert required Value] against any loss or damage caused to or suffered or would be caused to or suffered by the HRIDC/Government by reason of any breach by the said Contractor (s) of any of the terms or conditions contained in the said Agreement.

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

3. We undertake to pay to the HRIDC any money so demanded notwithstanding any dispute or disputes raised by the Contractor (s)/ supplier (s) in any suit for proceeding pending before any court or

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Tribunal relating thereto our liability under this present contract being absolute and unequivocal. The payment so made by us under this bond shall be a valid discharge of our liability for payment there under and the Contractor (s)/supplier (s) shall have no claim against us for making such payment.

4. We[Insert Name of the Bank]..... further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Agreement and that it shall continue to be enforceable till all the dues of the HRIDC. Under or by virtue of the said Agreement have been fully paid and its claims satisfied or discharged or till M/s Haryana Rail Infrastructure Development Corporation Ltd., Gurugam office certifies that the terms and conditions of the said Agreement have been fully and properly carried out by the said contractor (s) and accordingly discharges this guarantee. Unless a Demand or claim under this guarantee is made on us in writing on or before the We shall be discharged from all liability under this guarantee thereafter.

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

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

7. We[Insert Name of the Bank] lastly undertake not to revoke this guarantee during its currency except with the previous consent of the HRIDC/Government in writing.

Place:

Date:

Dated: theday of 2024

Signature of the Bank Officials:

Designation, Seal

For[Insert Name of the Bank].....

Note: It is hereby intimated that only one branch in Chandigarh is authorised to receive the Structured Financial Messaging Solution (SFMS) report.

The other details i.e. Account Number 38848977231 remains the same.

The details of the branch are: IFSC- SBIN0011705, SME Branch, Sector 8 Chandigarh

**PROFORMA OF 7 DAYS NOTICE FOR WORKS AS A WHOLE/ IN PARTS
(DETAILS OF PART OF WORK TO BE MENTIONED)**

(Without Prejudice)

To

M/s _____

Dear Sir,

Contract Agreement No. _____

In connection with _____

In spite of repeated instructions to you by the subordinate offices as well as by this office through various letters of even no. _____, dated _____; you have failed to start work/show adequate progress and/or submit detailed programme for completing the work/ part of work (details of part of work to be mentioned).

2. Your attention is invited to this office. _____, dated _____ in reference to your representation, dated _____.

3. As you have failed to abide by the instructions issued to commence the work /to show adequate progress of work you are hereby given 7 days' notice in accordance with Clause 62 of the Standard General Conditions of Contract to commence works / to make good the progress, failing which further action as provided in Clause 62 of the Standard General Conditions of Contract viz. to terminate your Contract and complete the balance work without your participation will be taken.

Kindly acknowledge receipt.

Yours faithfully

For and on behalf of the President of India

PROFORMA OF 48 HRS. NOTICE FOR WHOLE WORK

(Without Prejudice)

To

M/s _____

Dear Sir,

Contract Agreement No. _____

In connection with _____

Seven days' notice under Clause 62 of the Standard General Conditions of Contract was given to you under this office letter of even no., dated _____; but you have taken no action to commence the work/show adequate progress of the work.

2. You are hereby given 48 hours' notice in terms of Clause 62 of the Standard General Conditions of Contract to commence works / to make good the progress of works, failing which and on expiry of this period your above contract will be rescinded and the work under this contract will be carried out independently without your participation and your Security Deposit shall be forfeited and Performance Guarantee shall also be encashed and any other consequences which may please be noted.

Kindly acknowledge receipt.

Yours faithfully

For and on behalf of the President of India

PROFORMA OF TERMINATION NOTICE

(Without Prejudice)

No. _____

Dated _____

To

M/s _____

Dear Sir,

Contract Agreement No. _____

In connection with _____

Forty eight hours (48 hrs.) notice was given to you under this office letter of even no., dated _____; but you have taken no action to commence the work/show adequate progress of the work.

Since the period of 48 hours' notice has already expired, the above contract stands rescinded in terms of Clause 62 of the Standard General Conditions of Contract and the balance work under this contract will be carried out independently without your participation. Your participation as well as participation of every member/partner in any manner as an individual or a partnership firm/JV is hereby debarred from participation in the tender for executing the balance work and your Security Deposit shall be forfeited and Performance Guarantee shall also be encashed.

Kindly acknowledge receipt.

Yours faithfully

For and on behalf of the President of India

**PROFORMA OF 48 HRS. NOTICE FOR PART OF THE WORK.....
(DETAILS OF PART OF WORK TO BE MENTIONED)**

(Without Prejudice)

To

M/s _____

Dear Sir,

Contract Agreement No. _____

In connection with _____

1. Seven days’ notice under Clause 62 of the Standard General Conditions of Contract was given to you under this office letter of even no., dated _____; but you have taken no action to commence the work/show adequate progress of the part of work.....(details of part to be mentioned).
2. You are hereby given 48 hours’ notice in terms of Clause 62 of the Standard General Conditions of Contract to commence works / to make good the progress of works, failing which and on expiry of this period your above part of work.....(Details of part to be mentioned) in contract will be rescinded and the work will be carried out independently without your participation.
3. Your full Performance Guarantee for the contract shall be forfeited and you shall not be issued any completion certificate for the contract. However, no additional Performance Guarantee shall be required for balance of work being executed through the part terminated contract.
4. The contract value of part terminated contract shall stands reduced to

Kindly acknowledge receipt.
faithfully

Yours

For and on behalf of the President of Ind

**PROFORMA OF TERMINATION NOTICE FOR PART OF THE WORK.....
(DETAILS OF PART OF WORK TO BE MENTIONED)**

(Without Prejudice)

No. _____

Dated _____

To

M/s _____

Dear Sir,

Contract Agreement No. _____

In connection with _____

1. Forty eight hours (48 hrs.) notice was given to you under this office letter of even no., dated _____; but you have taken no action to commence the work/show adequate progress of the part of work.....(details of part to be mentioned).
2. Your above part of work in contract(details of part to be mentioned) stands rescinded in terms of Clause 62 of the Standard General Conditions of Contract and the same will be carried out independently without your participation. Your participation as well as participation of every member/partner in any manner as an individual or a partnership firm/JV is hereby debarred from participation in the tender for executing the balance work
3. Your full Performance Guarantee for the contract shall be forfeited and you shall not be issued any completion certificate for the contract. However, no additional Performance Guarantee shall be required for balance of work being executed through the part terminated contract.
4. The contract value of part terminated contract stands reduced to

Kindly acknowledge receipt.

Yours faithfully

For and on behalf of the President of India

FINAL SUPPLEMENTARY AGREEMENT

1. Articles of agreement made this day _____ in the year _____ between the President of India, acting through the _____ HRIDC Administration having his office at _____ herein after called the HRIDC of the one part and _____ of the second part.
2. Whereas the party hereto of the second part executed an agreement with the party hereto of the first part being agreement Number _____ dated ____ for the performance _____ herein after called the 'Principal Agreement'.
3. And whereas it was agreed by and between the parties hereto that the works would be completed by the party hereto of the second part on _____ date last extended and whereas the party hereto of the second part has executed the work to the entire satisfaction of the party hereto of the first part.
4. And whereas the party hereto of the first part already made payment to the party hereto of the second part diverse sums from time to time aggregating to ₹ _____ including the Final Bill bearing voucher No. _____ dated _____ of value _____ duly adjusted as per price variation clause, if applicable (the receipt of which is hereby acknowledged by the party hereto of the second part in full and final settlement of all his /its claims under the principal agreement.

And whereas the party hereto of the second part have received sum of ₹ _____ through the Final Bill bearing voucher No. _____ dated _____ duly adjusted as per price variation clause (PVC), if applicable (the receipt of which is hereby acknowledged by the party thereto of the second part) from the party hereto of the first part in full and final settlement of all his/its disputed claims under principal agreement.

Now, it is hereby agreed by and between the parties in the consideration of sums already paid by the party hereto of the first part to the party hereto of the second part against all outstanding dues and claims for all works done under the aforesaid principal agreement excluding the Security Deposit, the party hereto of the second part have no further dues of claims against the party hereto of the first part under the said Principal Agreement. It is further agreed by and between the parties that the party hereto of the second part has accepted the said sums mentioned above in full and final satisfaction of all its dues and claims under the said Principal Agreement.

(Applicable in case Final Supplementary Agreement is signed after release of Final Payment)

Or

And whereas the party hereto of the first part already made payment to the party hereto of the second part diverse sums from time to time aggregating to ₹ _____ through various On Account Bills (the receipt of which is hereby acknowledged by the party hereto of the second part).

And whereas the party hereto of the second part have received sum of ₹ _____ through various On Account Bills (the receipt of which is hereby acknowledged by the party thereto of the second part) from the party hereto of the first part and party hereto of the second part have accepted final measurements recorded on Page No..... to Page No.... of Measurement Book No.....and corresponding Final Bill duly adjusted as per price variation clause (PVC), if applicable, for full and final settlement of all his/its disputed claims under principal agreement.

Now, it is hereby agreed by and between the parties in the consideration of sums already paid through various On Account Bills and sums to be paid through Final Bill duly adjusted as per price

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variation clause (PVC), if applicable, based on accepted final measurements including the Security Deposit by the party hereto of the first part to the party hereto of the second part against all outstanding dues and claims for all works done under the aforesaid principal agreement, the party hereto of the second part have no further dues of claims against the party hereto of the first part under the said Principal Agreement.

(Applicable in case Final Supplementary Agreement is signed before release of Final Payment)

5. It is further agreed and understood by and between the parties that the arbitration clause contained in the said principal agreement shall cease to have any effect and/or shall be deemed to be non-existent for all purposes.

Signature of the Contractor/s

for and on behalf of the President of India

Witnesses

ADDRESS: _____

Agreement towards Waiver under Section 12(5) and Section 31A (5) of Arbitration and Conciliation (Amendment) Act

I/we..... (Name of agency/Contractor) with reference to agreement no..... raise disputes as to the construction and operation of this contract, or the respective rights and liabilities, withholding of certificate and demand arbitration in respect of following claims :

Brief of claim:

- (i) Claim 1- Detailed at Annexure-
- (ii) Claim 2 –
- (iii) Claim 3 –

I/we..... (post of Engineer) with reference to agreement no..... hereby raise disputes as to the construction and operation of this contract, or the respective rights and liabilities, withholding of certificate and demand arbitration in respect of following claims:

I/we.....do/do not agree to waive off applicability of section 12(5) of Arbitration and Conciliation (Amendment) Act.

Signature of Claimant_____ Signature of Respondent _____

Agreement under Section 31(5)

I/we..... (Name of claimant) with reference to agreement no..... hereby waive off the applicability of sub section 31-A (2) to 31-A (4) of the Arbitration and Conciliation (Amendment Act. We further agree that the cost of arbitration will be shared by the parties as per Clause 64(6) of the Standard General Conditions of Contract.

Signature of Claimant_____ Signature of Respondent_____

*Strike out whichever not applicable.

Certification by Arbitrators appointed under Clause 63 & 64 of Indian Railways General Conditions of Contract

1. Name:
2. Contact Details:
3. Prior experience (Including Experience with Arbitrations):
4. **I do not have more than ten on-going Arbitration cases with me.**
5. I hereby certify that I have retired from Railways w.e.f. _____ and empanelled as Railway Arbitrator as per 'The Arbitration and Conciliation Act- 1996'.
6. I have no any past or present relationship in relation to the subject matter in dispute, whether financial, business, professional or other kind.
Or
I have past or present relationship in relation to the subject matter in dispute, whether financial, business, professional or other kind. The list of such interests is as under:
7. I have no any past or present relationship with or interest in any of the parties whether financial, business, professional or other kind, which is likely to give rise to justifiable doubts as to my independence or impartiality in terms of The Arbitration and Conciliation Act-1996.
Or
I have past or present relationship with or interest in any of the parties whether financial, business, professional or other kind, which is likely to give rise to justifiable doubts as to my independence or impartiality in terms of The Arbitration and Conciliation Act-1996. The details of such relationship or interests are as under:
8. There are no concurrent Circumstances which are likely to affect my ability to devote sufficient time to the arbitration and in particular to finish the entire arbitration within twelve months.

Or

There are Circumstances which are likely to affect my ability to devote sufficient time to the arbitration and in particular to finish the entire arbitration within twelve months. The list of such circumstances is as under:

AFFIDAVIT BY SOLE PROPRIETORSHIP FIRM

(To be executed non judicial stamp paper of appropriate value as per law of state Concerned-Non-Judicial stamp paper should be purchased in the name of proprietor of the firm)

I.....S/o Shriaged aboutyears
R/o.....do hereby solemnly affirm
and declare as under:

1. That I am running a business in the name and style of M/S.....which is a sole proprietorship firm, and which has got GST registration No.....
2. That I am the sole proprietor of the said firm M/S
3. That the Head office of the above named firm is situated at

DEPONENT

Verification:

Verified at..... on thisday of.....that the contents of my above affidavit are true and correct to the best of my knowledge and belief and nothing material has been concealed therefrom.

DEPONENT

(seal and signature of Notary Public)

- Notes:**
1. The document should be notarized at its place of execution (Place of signing the document)
 2. Each page of the document should be signed by executants

POWER-OF-ATTORNEY FOR SIGNING OF BID ON BEHALF OF PARTNERSHIP FIRM

(To be executed non judicial stamp paper of appropriate value as per law of state Concerned-Non-Judicial stamp paper should be purchased in the name of partners of the firm)

KNOW ALL MEN BY THESE PRESENTS: WHEREAS WE

(1)..... S/o Shri.....R/o.....

(2)..... S/o Shri.....R/o.....

(3)..... S/o Shri.....R/o.....

(4)..... S/o Shri..... R/o.....

all are the partners of a partnership firm namely M/S..... (Name of firm) hereinafter referred to as 'firm', which is registered at Registration No.....by Registrar of Firms..... The firm is having its head office at..... (hereinafter to be referred as the 'Firm').

AND WHEREAS we all the above named partners have on.....(date) given our consent on behalf of firm to participate in the tender No._____ issued by HRIDC for the work namely “_____”

We the above named partners of above named firm do hereby irrevocably constitute, nominate, appoint and authorize Mr./ Ms. _____S/o Shri_____ (address)_____&Mr./ Ms. _____S/o Shri_____ (address)_____ as our true and lawful attorney (hereinafter referred to as “Attorney”) of the firm to jointly or severally exercise all or any of the following powers for and on behalf of M/S (name of firm) in connection with aforesaid bid:

1. To sign and submit Tender and participate in the aforesaid bid of HRIDC on behalf of the firm.
2. To sign and submit all the necessary papers, letters, forms, quotes, bids etc. on behalf of firm.
3. To negotiate, discuss, agree to make any amendments, alterations or modifications thereto and to make representations, submit papers, affidavits and to do any other act and complete requisite formalities on behalf of the firm in connection with completion of aforesaid tender work and to enter into liability against the firm.
4. To sign, execute the contract with HRIDC for and on behalf of the firm.
5. And generally to do all such acts, deeds or things as may be necessary or proper for the purposes mentioned above.

We on behalf of firm undertake that it shall not cancel or amend this power of Attorney without obtaining previous written consent of HRIDC.

We on behalf of firm hereby agree that all acts, deeds or things lawfully done by the said Attorneys or either of them under the authority of this power shall be construed as acts, deeds and things done by the

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firm and we hereby undertake to confirm and ratify all and whatsoever the said Attorneys or either of them shall lawfully do or cause to be done by virtue of the powers hereby given.

Specimen signatures of the Attorney are appended below.

IN WITNESS WHEREOF this deed has been signed and sealed by us the under named, on this..... day of..... 20.... , in presence of:

WITNESSES:

1. Signature	Executants Partners
Name:	(Name)(Signature)
Address:	1.....
	2.
	3.
	4.

2. Signature
 Name:
 Address:

Specimen Signatures of Attorney Holder(s) in token of acceptance:

(1) Name..... Signature.....

(2) Name..... Signature.....

Executed and Signed before me on this.....day of At(place).

(Seal and signature of Notary Public)

Notes:

1. In this format space has been provided for entering details of four partners & two attorney holders however if the numbers vary details may accordingly be entered.
2. The document should be notarized at its place of execution (Place of signing the document).
3. Each page of the document should be signed by executants.
4. The power of attorney should be **duly registered**.

ANNEXURE-XIX

Deleted

ANNEXURE-XX

Deleted

ANNEXURE-XXI

Deleted

ANNEXURE-XXII

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ANNEXURE-XXIV

Deleted

ANNEXURE-XXV

Deleted

ANNEXURE-XXVI

Deleted

ANNEXURE-XXVII

Deleted

ANNEXURE-XXVIII

Deleted

POWER-OF-ATTORNEY FOR SIGNING OF BID (when Tenderer is company incorporated under Companies Act)

(To be executed non judicial stamp paper of appropriate value as per law of state concerned Non-Judicial stamp paper should be purchased in the name of the company)

KNOW ALL MEN BY THESE PRESENTS: WHEREAS M/S (name of company & CIN number) is a Company registered under the Companies Act, 2013, and having its registered office at..... (Hereinafter called the 'Company').

AND WHEREAS by its resolution No..... passed in the meeting held on..... of the Board of directors of the company the company (company name) have decided to participate in the tender No._____ issued by HRIDC for the work namely “_____”

I.....(name and designation) the authorised representative of M/S (name of company) duly authorized in this behalf by aforesaid resolution do hereby irrevocably constitute, nominate, appoint and authorize Mr./ Ms. _____(designation)_____ (address)_____ &Mr./ Ms.Mr./ Ms. _____(designation)_____ (address)_____ who is/are presently holding the above mentioned position in the company as our true and lawful attorney (hereinafter referred to as “Attorney”) of the company to jointly or severally exercise all or any of the following powers for and on behalf of M/S (name of company & CIN number) in connection with aforesaid bid:

1. To sign and submit Tender and participate in the aforesaid bid of HRIDC on behalf of the company.
2. To sign and submit all the necessary papers, letters, forms, quotes, bids etc.
3. To negotiate, discuss, agree to make any amendments, alterations or modifications thereto and to make representations, submit papers, affidavits and to do any other act and complete requisite formalities on behalf of the company in connection with completion of aforesaid tender work and to enter into liability against the company.
4. To sign, execute the contract with HRIDC for and on behalf of the company.
5. And generally to do all such acts, deeds or things as may be necessary or proper for the purposes mentioned above.

The company agrees and undertakes that in the event of any change in the constitution of the company the rights and obligations of the company shall continue to be in full force without any effect thereof.

The company undertakes that it shall not cancel or amend this power of Attorney without obtaining previous written consent of HRIDC.

AND the Company hereby agrees that all acts, deeds or things lawfully done by the said Attorneys or either of them under the authority of this power shall be construed as acts, deeds and things done by the Company and the Company hereby undertakes to confirm and ratify all and whatsoever the said Attorneys or either of them shall lawfully do or cause to be done by virtue of the powers hereby given.

IN WITNESS WHEREOF this deed has been signed and sealed by Shri.....(name and designation), on this..... day of..... 20.... , in presence of:

HRIDC/GGN/S&T/MSIL/2024

WITNESSES:

1. Signature
Name:
Address:

Executants Signature & Seal of Company:
Name:
Designation:

2. Signature
Name:
Address:

Specimen Signatures of Attorney Holder(s) in token of acceptance:

(1) Name Signature.....

(2) Name..... Signature.....

Executed and Signed before me on this.....day of At
.....(place).

(Seal and signature of Notary Public)

- Notes:** 1. In this format space has been provided for entering details of two authorized persons/attorney holders however if the number vary details may accordingly be entered.
2. The document should be notarized at its place of execution (Place of signing the document).
3. Each page of the document should be signed by executants.

Board’s Resolution of company incorporated under companies Act for submitting Tender by company (To be printed on company’s letter head)

EXTRACT OF THE RESOLUTION PASSED AT THE MEETING OF THE BOARD OF DIRECTORS OF (Company Name) _____(CIN_____)
(hereinafter referred to as company) HELD ON (Date) _____ AT (Address)

Whereas the Board has been described about NIT no. _____ issued by HRIDC for the work namely “_____”. Board discussed the matter and after discussion following resolution was passed:

RESOLVED THAT the company (company name) shall participate in the above tender.

Resolved further that the Board authorizes, Mr./ Ms. _____&Mr./ Ms. _____ (name and designation) of the company, to jointly or severally sign and submit all the necessary papers, letters, forms, quotes, bids etc, negotiate, discuss, agree to make any amendments, alterations or modifications thereto and to make representations, submit papers, affidavits and to do any other act and complete requisite formalities on behalf of the company in connection with completion of aforesaid tender work and to enter into liability against the company.

Resolved further that Board authorizes Mr./Ms. _____(name and designation) of the company to execute Power of Attorney in terms of this resolution in favour of Mr./Ms. _____&Mr./Ms. _____ the person(s) above named.

The acts done and documents executed by such above named authorized person(s) shall be binding on the company.

For the Organization,

(Seal of company & Signature of authorized person)

Name: _____

Designation: _____

Place:

Dated:

Executed and Signed before me on this.....day of At(place).

(Seal and signature of Notary Public)

Notes: 1. In this format space has been provided for entering details of two authorized persons however if the number vary details may accordingly be entered.

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2. The document should be notarized at its place of execution (Place of signing the document).
3. Each page of the document should be signed by authorized signatory (s).

POWER-OF-ATTORNEY FOR SIGNING OF BID (when Tenderer is LLP Firm incorporated under LLP Act)

(To be executed non judicial stamp paper of appropriate value as per law of state concerned Non-Judicial stamp paper should be purchased in the name of the LLP Firm)

KNOW ALL MEN BY THESE PRESENTS: WHEREAS M/S (name of LLP & LLPIN number) is a LLP Firm registered under the LLP Act, 2008, and having its registered office at..... (hereinafter called the 'LLP').

AND WHEREAS by its resolution No..... passed in the meeting held on..... of the Partners of the LLP the LLP..... (LLP name) have decided to participate in the tender No._____ issued by HRIDC for the work namely “_____”

I.....name and designation) the authorised representative of M/S (name of LLP) duly authorized in this behalf by aforesaid resolution do hereby irrevocably constitute, nominate, appoint and authorize Mr./Ms. _____(designation)_____ (address)_____ &Mr./Ms./Mr./Ms. _____(designation)_____ (address)_____ who is/are presently holding the above mentioned position in the LLP as our true and lawful attorney (hereinafter referred to as “Attorney”) of the LLP to jointly or severally exercise all or any of the following powers for and on behalf of M/S (name of LLP & LLPIN number) in connection with aforesaid bid:

1. To sign and submit Tender and participate in the aforesaid bid of HRIDC on behalf of the LLP.
2. To sign and submit all the necessary papers, letters, forms, quotes, bids etc.
3. To negotiate, discuss, agree to make any amendments, alterations or modifications thereto and to make representations, submit papers, affidavits and to do any other act and complete requisite formalities on behalf of the LLP in connection with completion of aforesaid tender work and to enter into liability against the LLP.
4. To sign, execute the contract with HRIDC for and on behalf of the LLP.
5. And generally to do all such acts, deeds or things as may be necessary or proper for the purposes mentioned above.

The LLP agrees and undertakes that in the event of any change in the constitution of the LLP, the rights and obligations of the LLP shall continue to be in full force without any effect thereof.

The LLP undertakes that it shall not cancel or amend this power of Attorney without obtaining previous written consent of HRIDC.

AND the LLP hereby agrees that all acts, deeds or things lawfully done by the said Attorneys or either of them under the authority of this power shall be construed as acts, deeds and things done by the LLP and the LLP hereby undertakes to confirm and ratify all and whatsoever the said Attorneys or either of them shall lawfully do or cause to be done by virtue of the powers hereby given.

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IN WITNESS WHEREOF this deed has been signed and sealed by Shri.....(name and designation), on this..... day of..... 20...., in presence of:

WITNESSES:

1. Signature
Name:
Address:

Signatures of authorized representative & Seal of LLP:

Name of authorized representative (Executant):
Designation:

2. Signature
Name:
Address:

Specimen Signatures of Attorney Holder(s) in token of acceptance:

(1)Name Signature.....

(2Name).....Signature.....

Executed and Signed before me on this.....day of At(place).

(Seal and signature of Notary Public)

- Notes:**
1. In this format space has been provided for entering details of two authorized persons/attorney holders however if the number vary details may accordingly be entered.
 2. The document should be notarized at its place of execution (Place of signing the document).
 3. Each page of the document should be signed by executants.

DECLARATION

I/We hereby solemnly declare that I/We visited the site of the work (as on top sheet) personally and have made myself/ourselves fully conversant of the conditions therein and particular the following:

1. Topography of area.
2. Soil strata at site of work.
3. Sources and availability of construction materials.
4. Rates for construction of material, water, electricity including all local taxes, royalties, octrois etc.
5. Availability of local labour (both skilled and unskilled) and relevant labour rates and labour laws.
6. The existing roads and approaches to the site of work and requirements for further service roads/approaches to be constructed by me/us.
7. The availability and rates of private land etc. that shall be required by me/us for various purposes.
8. Climatic conditions and availability of working days.

I/We have quoted my/our rates for various items in the schedule of items, quantities and rates taking into account all the above factors also.

Signatures of the Tenderer/s

INSTRUCTIONS REGARDING ELECTRONIC TENDERING SYSTEM

These conditions will over-rule the conditions stated in the tender documents, wherever relevant and applicable.

1. Registration of bidders on e-tendering Portal:

All the bidders intending to participate in the tenders process online are required to get registered on the centralized e-tendering Portal i.e. <https://etenders.hry.nic.in>. Please visit the website for more details.

2. Obtaining a Digital Certificate:

- 2.1. The Bids submitted online should be encrypted and signed electronically with a Digital Certificate to establish the identity of the bidder bidding online. These Digital Certificates are issued by an Approved Certifying Authority, by the Controller of Certifying Authorities, Government of India.
- 2.2. A Digital Certificate is issued upon receipt of mandatory identity (i.e. Applicant's PAN Card) and Address proofs and verification form duly attested by the Bank Manager/ Postmaster/ Gazetted Officer. Only upon the receipt of the required documents, a digital certificate can be issued. For more details please visit the website– <https://etenders.hry.nic.in>.
- 2.3. The bidders may obtain Class-II or III digital signature certificate from any Certifying Authority or Sub-Certifying Authority authorized by the Controller of Certifying Authorities or may obtain information and application format and documents required for the issue of digital certificate from.
- 2.4. The bidder must ensure that he/she comply by the online available important guidelines at the portal <https://etenders.hry.nic.in> for Digital Signature Certificate (DSC) including the e-Token carrying DSCs.

Technical Director,

Scientist-E, NIC.

Panchkula.

Help Desk: 0172 – 584257, 94170-69017.

- 2.5. Bid for a particular tender must be submitted online using the digital certificate (Encryption & Signing), which is used to encrypt and sign the data during the stage of bid preparation. In case, during the process of a particular tender, the user loses his digital certificate (due to virus attack, hardware problem, operating system or any other problem) he will not be able to submit the bid online.
Hence, the users are advised **to keep a backup of the certificate** and also keep the copies at safe place under proper security (for its use in case of emergencies).
- 2.6. In case of online tendering, if the digital certificate issued to the authorized user of a firm is used for signing and submitting a bid, it will be considered equivalent to a no-objection certificate/power of attorney /lawful authorization to that User. The firm has to authorize a specific individual through

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an authorization certificate signed by all partners to use the digital certificate as per Indian Information Technology Act 2000. Unless the certificates are revoked, it will be assumed to represent adequate authority of the user to bid on behalf of the firm in the department tenders as per Information Technology Act 2000. The digital signature of this authorized user will be binding on the firm.

- 2.7. In case of any change in the authorization, it shall be the responsibility of management/ partners of the firm to inform the certifying authority about the change and to obtain the digital signatures -7- of the new person / user on behalf of the firm / company. The procedure for application of a digital certificate however will remain the same for the new user.
- 2.8. The same procedure holds true for the authorized users in a private/Public limited company. In this case, the authorization certificate will have to be signed by the directors of the company.

3. Opening of an Electronic Payment Account:

For purchasing the tender documents online, bidders are required to pay the tender documents fees online using the electronic payments gateway service shall be integrated with the system very soon till then it will be submitted manually. For online payments guidelines, please refer to the Home page of the e-tendering Portal <https://etenders.hry.nic.in>

4. Pre-requisites for online bidding:

In order to operate on the electronic tender management system, a user's machine is required to be set up. A help file on system setup/Pre-requisite can be obtained from National Informatics Centre or downloaded from the home page of the website - <https://etenders.hry.nic.in> the link for downloading required java applet & DC setup are also available on the Home page of the e-tendering Portal.

5. Online Viewing of Detailed Notice Inviting Tenders:

The bidders can view the detailed N.I.T and the time schedule (Key Dates) for all the tenders floated through the single portal e-tendering system on the Home Page at <https://etenders.hry.nic.in>

6. Download of Tender Documents:

The tender documents can be downloaded free of cost from the e-tendering portal <https://etenders.hry.nic.in>

7. Key Dates:

The bidders are strictly advised to follow dates and times as indicated in the online Notice Inviting Tenders. The date and time shall be binding on all bidders. All online activities are time tracked and the system enforces time locks that ensure that no activity or transaction can take place outside the start and end dates and the time of the stage as defined in the online Notice Inviting Tenders.

8. Online Payment of Tender Document Fee, eService fee & EMD fees & Bid Preparation & Submission (Technical & Commercial/ Financial Bid):

- 8.1. **Online Payment of Tender Document Fee + e-Service fee:** The online payment for Tender document fee, eService Fee & EMD can be done using the secure electronic payment gateway. The Payment for Tender Document Fee and eService Fee shall be made by bidders/ Vendors online

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directly through Debit Cards & Internet Banking Accounts and the Payment for EMD shall be made online directly through RTGS / NEFT & OTC.

The secure electronic payments gateway is an online interface between Contractors and Debit card/online payment authorization networks.

8.2. Preparation & Submission of online Applications/Bids:

- i. Detailed Tender documents may be downloaded from e-tendering website (<https://etenders.hry.nic.in>) from 28.02.2024 at 05:00 PM to 13.03.2024 up to 03:00 PM and tender mandatorily be submitted online following the instructions appearing on the screen.
- ii. **Scan copy of Documents to be submitted/uploaded for Technical& Commercial bid under online Technical Envelope:** The required documents as indicated in this tender document shall be prepared and scanned in different file formats (in PDF /JPEG/MS WORD format such that file size is not exceed more than 10 MB) and uploaded during the on-line submission of PQQ or Technical Envelope.

A. Only Electronic Form (Refer Tender document).

Financial or Price Bid shall be submitted mandatorily online under Commercial Envelope and original not to be submitted manually.

NOTE: -

- (A) *Bidders participating in online tenders shall check the validity of his/her Digital Signature Certificate before participating in the online Tenders at the portal <https://etenders.hry.nic.in>.*
- (B) **For help manual please refer to the 'Home Page' of the e-tendering website at <https://etenders.hry.nic.in>, and click on the available link 'How to...?' to download the file.**

In the first instance, the online payment details of tender document fee + e-Service and EMD & PQQ/Technical Envelope shall be opened. Henceforth financial bid quoted against each of the item by the shortlisted bidder/ Agency wherever required shall be opened online in the presence of such bidders/ agency who either themselves or through their representatives choose to be present.

The bidder can submit online their bids as per the dates mentioned in the schedule/Key Dates above.

Other Information:

1. The Tenderers shall fill in the item rate in the online BOQ templates of the tender.
2. Duly accepted copy of notarized or registered power of Attorney along with its two certified copies in the name of tenderer or authorized representative to act on behalf of the agency.
3. Bidder must strictly abide by the stipulations set forth in detailed notice inviting tenders while tendering for the work.
4. In case any tenderer does not comply with procedure given in the tender document, it will be presumed that the tenderer is not interested in work and the work shall not be let out to him. Further he may be de-barred without further notice to him for failing to abide by the approved terms of detailed notice inviting tenders for this work.

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5. The tenders which are not accompanied by the earnest money or do not strictly follow the technical requirement, are liable to be summarily rejected without arising any reason and no claim whatsoever on their account will be considered.
6. Tenders quotations which are dependent upon the quotations of another tender shall be summarily rejected.

Constitution of Firm

S.No.	Particular	Response
1	Constitution of the Firm (Tick as applicable)	Sole Proprietorship Firm/ Partnership Firm/ Company/ JV/ LLP/ Registered Society or Trust
2	Full name of the Sole Proprietorship Firm/ Partnership Firm/ Company/ JV/ LLP/ Registered Society or Trust (as the case may be)	
3	Year of formation/ incorporation	
4	PAN No.	
5	Registered Office Address	
6	Address on which correspondence regarding this tender should be done	
7	Names of the proprietor/ partners etc.	

Undertaking:

We have uploaded along with the tender, all the requisite documents pertaining to the constitution of the firm/ concern/company. etc, as specified in Annexure –A of Tender Notice. **I/We understand that in the absence of these documents, offer shall be considered incomplete and shall be summarily rejected.**

Date:**Signature of Tenderer/s with Seal**

Details of Plant and Machinery already available with the firm

S.No	Particulars of equipment, plant/ machinery	No. of Unit	Kind and make	Capacity	Date by which the plant/ machinery would be available for use on this work	Age & Conditions
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.						
2.						
3.						
4.						
5.						
6.						
7.						
8.						

Signature of Tenderer/s with Seal

LIST OF ENGINEERS/PERSONNEL ALREADY AVAILABLE/ PROPOSED TO BE EMPLOYED FOR DEPLOYMENT ON THIS WORK:

S. No	Name & Designation	Qualification	Professional experience	Organization with whom working	Date by which personnel will be available for this work.
(1)	(2)	(3)	(4)	(5)	(6)

Date:

Signature of Tenderer/s with Seal

**STATEMENT OF WORKS EXECUTED/COMPLETED BY THE CONTRACTORS DURING
LAST 7 (SEVEN) YEARS ENDING LAST DAY OF MONTH PREVIOUS TO THE ONE IN
WHICH TENDER IS INVITED**

(Details of works of similar nature physically completed in all respect as per contract agreement during last seven years, ending last day of month previous to the one in which tender is invited)

S. No	Name and place of work	Authority /agency for which work was carried out	Date of award & agreement No.	Date of completion (original /actual)	Agreemental cost/ completion cost.	Principal / Technica l features work in brief	S.No. at which relevant certificate /documents are attached
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)

Signature of Tenderer/s with Seal

STATEMENT OF WORKS BEING EXECUTED/IN HAND BY THE CONTRACTOR/S

S · N o	Name and place of work	Authority /agency for which work was carried out	Date of award & agreement No.	Date of completion	Agreement Cost	Principa l/ Technic al features work in brief	S.No. at which relevant certificat e /documen ts are attached	Payment taken till date
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

Date:

Signature of Tenderer/s with Seal

Detail of contractual payment received in last 3 (three) financial year and current financial year

S. No	Name and place of work	Name of employer	Detail of payment.	For the financial year	Total contract amount received
(1)	(2)	(3)	(4)	(5)	(6)

**Real Time Gross Saving (RTGS)/National Electronic Fund Transfer (NEFT)
Model Mandate Form**

(Investor/customer’s option to receive payments through RTGS/NEFT)

1. Investor/customer’s name

2. Particulars of Bank Account:

A) Name of the Bank:

B) Name of the Branch.

Address

Telephone No.

C) RTGS/NEFT IFS Code.

D) Type of the account (S.B. Current or Cash Credit)

With code (10/11/13).

E) Ledger and Ledger folio number.

F) Account number (as appearing on the Cheque book) in lieu of the bank certificate to be obtained as under, please attach a blank cancelled cheque or a photocopy of a cheque or front page of your savings bank passbook issued by your bank for verification of the above particulars)

3. Date of effect

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

(.....)
Signature of the Investor/ Customer

Date:

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

Bank’s Stamp

COMPLETION CERTIFICATE

The work of “----- (Full name of the work) -----” has been Completed with following details:

1	Name & complete address of the Contractor.	
2	Nature of entity (sole prop/partnership firm/company / JV)	
3	a) In case of Sole proprietorship, the name of sole proprietor	
	b) In case of partnership firm/JV, the names & shares of various partners/members.	
4	Date of Acceptance/LOA	
5	Agreement No. & date	
6	i) Original Agreement Cost ii) Final Agreement Cost	
7	Total payment made along with financial year-wise break-up	
8	Original date of completion (DOC)	
9	a) Actual date of completion (b)Whether extension to DOC given with penalty or without penalty	
10	Brief description of nature & scope of work	
11	Performance of Contractor (Satisfactory/unsatisfactory)	

It is certified that the above work has been completed successfully in accordance with provisions of contract.

(-----)
Name & Signature
Issuing authority with seal

Date of issue of certificate: -----

DECLARATION/UNDERTAKING

I/We, _____ (name and Designation) on behalf of _____ (Name of the tendering firm) do hereby declare/undertake that I/We have not employed any retired Engineer or retired gazette officer, nor made any Partner/Director etc. in our firm who retires from Government of India/ Government of Haryana Service in last one year as on the date of opening of tender, as per terms of tender document.

(authorized signatory)
Name of the tendering firm

Place:

Dated:

STANDING INDEMNITY BOND

(On paper of requisite stamp value)

We, M/s..... hereby undertake that we hold at our stores Depot/s at for and on behalf of the President of India acting in the premises through the General Manager(IE&A) or his successor..... HRIDC..... (hereinafter referred to as "The Purchaser") all materials for which payments have been made to us against the Contract for supply on the section/s.....HRIDC also referred to as Group/s vide letter of Acceptance of Tender No..... dated..... and materials handed over to us by the purchaser for the purpose of execution of the said Contract, until such time the materials are duly erected or otherwise handed over to him.

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

Should any loss, damage or deterioration of materials occur or surplus materials disposed of and refund becomes due, the Purchaser shall be entitled to recover from us the full cost as per prices included in Schedule 3, for S&T works and in respect of other materials. section 1 and also compensation for such loss or damage if any long with the amount to be refunded without prejudice to any other remedies available to him by deduction from any sum due or any sum which at any time hereafter becomes due to us under the said or any other Contract.

Dated this day..... day of..... 20

for and on behalf of

M/s.....(Contractor)

Signature of witness

Name of witness in Block Letters

Address.

* Strike out whichever is not applicable

BILL OF QUANTITY (BoQ)

Detailed Estimate for S&T work

Name of Work:- Design, Manufacture, Supply, Installation, Testing & Commissioning of Electronics Interlocking with associated Indoor and Outdoor Signalling & Telecom works at Maruti Suzuki India Limited (MSIL) Yard at Manesar and connectivity with HORC line up to Patli Station (NR).

Sr. No.	Item description	Unit	Qty	Rate	updated rate	Amount
	Supply of S&T items					
A	Indoor EI System					
1	Design, manufacture and supply of Electronic Interlocking(EI) system complete as per RDSO specification no.RDSO/SPN/192/2005 with latest amendment and special conditions of contract mainly consisting of Central processing equipment, Interfacing Equipment/ Relays as per RE requirements and hot standby with Dual VDU (two nos of industrial grade high resolution VDUs (54" or higher size - 4K) conforming to SIL-II certification for operator console at central location, Interfacing Relays, interconnecting cables and jumper wires, three nos. of maintenance terminals (PC & VDU as maintenance console-42"(industry standard PC) Along with laser printer at central & end goomtys locations housing for EI Equipment and relay racks, fixture, class 'A' protection at each SSI room/goomty, mounting arrangements and accessories necessary to make the EI system functional, tentative SIP is enclosed for station. The provision of hot-standby arrangement must have the supply ,installation and commissioning of associated cards for the above arrangement such as communicatoin card,synchronization card and other cards as required with supply & installation of supporting softwares and drives etc.also Optical Fiber link with loop back(Protection ring) between center to end goomtys.(Detail connectivity of EI's through OFC between center to two end goomtys are enclosed).(Module wise rates,inspection authority and quantity has to be enclosed in a separate sheet, without which offer will not be considered.)Embedded industrial grade fan less PCs should					

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	be rugged and reliable type like MOXA series V-2406, Kontron MPCX28R, MEN BC50M or latest with compact flash drives in non-AC and in normal environment to be used. Minimum requirement of Embedded PC for ei shall be as per RDSO TAN no. STS/E/TAN/3007 dated 2.11.12 (general requirement at enclosed i Annexure 'A'). The optical fiber connectivity with fiber management and diagnostic analysis system shall be provided to connect EI with SM room PC terminal. All interface relays for EI shall be supplied by Railway. Supply of essential spares (10% of main equipment module against the no-1). (Module wise rates, inspection authority and quantity should be given in separate sheet.). Supply and installation of one PC based work station for data input and configuration, simulation and functional testing, diagnostic & trouble shooting and commissioning of EI system. Instruments and Toll kits required for trouble shooting and repair there off. (This includes all Relay Rack for indoor purpose)					
i	For Station with routes less than 100 routes	Per bit	280	99303	106874.8538	29924959.05
ii	For Station with routes more than 100 routes	Per bit	0		0	0
iii)	Design, manufacture and supply for modification of Electronic Interlocking(EI) system complete as per RDSO specification no.RDSO/SPN/192/2005 with latest amendment and special conditions of contract mainly consisting of Central processing equipment, Interfacing Equipment etc installed as per the requirement, bits to be added(This will also includes all indoor Racks)(Inclusive of Application Logic, interface data etc)	System	1	1325814	1426907.318	1426907.318
	NOTE:				0	0
	Before placing order for all the materials to the firms concerned, prior approval to be obtained from Engineer.				0	0
	REQUIREMENTS OF ELECTRONIC INTERLOCKING SYSTEM				0	0
1	The Electronic Interlocking system supplied shall have approval of RDSO as per specification no.RDSO/SPN/192/2005 or with latest amendment.				0	0

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2	The Electronic Interlocking system shall be complete with power supply arrangement.				0	0
3	The equipment shall be provided with all the necessary and recommended protection devices for lightening and surge protection.				0	0
4	Tenderer shall ensure that the installation of electronic interlocking system equipment shall be done by manufacturer of the equipment/their authorized technical staff.				0	0
5	Necessary technical documents, installation & maintenance manuals, trouble shooting procedure details and any other required technical information regarding Electronic interlocking system supplied shall be provided to ensure proper installation/maintenance/repair of Electronic Interlocking System as per manufacturer's specifications/stipulations.				0	0
6	Tenderer shall be provide training of HRIDC/Railway's officials in software and hardware to enable maintenance of supplied electronic system. The quality of training should be such that at the end of the training the Railway officials will be able to install/commission and maintain the equipment. They shall be trained in all aspect of system design, engineering inspection, testing, execution, commissioning, fault diagnosis operation and maintenance of the system as whole and also all constituent equipments. Training shall be imparted preferable at work site/Railway depot nominated by engineer in charge/ manufacturer's premises. training material shall be supplied by contractor.				0	0
7	Tenderer should submit authorization from Original Equipment Manufacturer to supply of equipment against this tender, if awarded.				0	0
8	Tenderer should submit the commitment from Original Equipment Manufacturer for supply of spares if required, for next five years, if awarded.				0	0
2	Supply of documents (Manuals for Installation, Testing, commissioning and maintenance of the system) (One set consist of 6 set of following drawings per Station). (i) Manual for installation, Testing, Commissioning and maintenance of the system for Technicians / Jr. Engineers. (Installation & Maintenance level) (ii) Functioning and system overview (Higher management level). (Higher management level). (iii) Completion documents as per special conditions of contract. iv) Design & Supply of circuits and plans to suit layout given in the signaling plan for Hot Standby Architecture Electronic Interlocking (EI) system. All plans and wiring	No.				
			1			

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	diagram shall be prepared on Auto cad Drawing and supplied with CD. This will include supply of Control cum Indication panel / VDU diagram, Square Sheet, Wiring Diagrams (Application Logic and Interface Circuit), Fuse Analysis, Contact Analysis, Tag Block Analysis, Power Supply Distribution / Power equipment arrangement (with program switch) Diagram, Auto Change over diagram (if supplied by the contractor), and all other relevant drawings.			51652.3	53589.26125	53589.26125
	NOTE: The contractor shall initially supply 1 set of documents (Paper Prints) for approval of Railways/HRIDC. He shall ensure the each sheet has a block for signature of Railway/HRIDC's official as well as a block for signature of firm, duly signed by the authorised signatory of the firm. The name of the work as given by Railways/HRIDC shall be written on every sheet under the work column. All the drawing shall be supplied in a good quality folder for each station. After approval of documents by Railways, the contractor will make copies of the approved documents and return the approved document to Railways/HRIDC. The contractor will then make necessary correction to Application Logic software duly incorporating Railways/HRIDC' alterations/ corrections/ comments, if any. After Complete Testing / Commissioning of the station, tracings of completion documents as mentioned above will be submitted to Railways/HRIDC for approval. Along with the Completion application logic, difference report (showing addition & deletion in different colours) as compared to earlier approved application logic should also be submitted. After approval of completion application logic by Railways/HRIDC, 5 sets of copies of completion tracings will be submitted to Railways/HRIDC.				0	0
3	Portable work station for Data input & configuration with necessary software/ programs / Accessories, simulation and functional testing, diagnostics and trouble shooting and commissioning of EI system. Suitable table and chair of reputed make shall be supplied by the contractor. Note: The specification of portable work station shall be as per Technical specification given in Annexure or higher version as approved by Engineer In-Charge. All the required software should be uploaded Licensed CD should be given along with software.	Work station	1	160766	173024.4075	173024.4075

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	<p>4 Instruments and Tool Kits required for Trouble Shooting and repair of hardware and software for EI system should be supplied for stations as per schedule item 1 above. (This includes tools required for EI maintenance sorts of crimping, insertion, removal, general purpose tools like screw drivers, spanners, PCB extractor, temp. controlled soldering iron, wire cutter, nose pliers etc. & measuring instruments with carrying case/ holders/ cabinet for technicians/ J.E. for testing, Maintenance and repair at site). Each set comprises of the following :- * Crimping tool for all types of special cable assembly used in EI system . * Insertion tool for all types of special cable assembly used in EI system. *Removal tool for all types of special cable assembly used in EI system. * Digital multimeter (Fluke 111 or better) * Steel cabinet/ Almira, Size: 1980mm height, 915 mm width and 485mm depth (Godrej Make/Jalaram) of good quality to store tool, spare cards and documents * Steel Book rack Size: 1850mm height, 900 mm width and 316 mm depth for keeping documents. (Godrej Make/Jalaram) * Clamp Earth Tester. * Clamp Current Meter.</p>	Set	1	141921	152742.4763	152742.4763
B	Indoor				0	0
	<p>1 Supply, transportation, erection, and grouting of Composite relay Racks/ Relay Racks/ Ct Rack as per Drg No. SK/DRG/OL/SER/192, SH1/2 (For composite Relay Rack), Drg. No. SK/DRG/OL/SER/192, Sh-2/2 (For Relay Racks) and Drg No. S%T/CON/HQ/VSKP/95/92 (For CT racks) respectively, including fixing of Racks, PBT terminal 1 way/6 way, Nd foses Bus Bars, Eyelets ,Hylaum sheet or required thickness (12mm) as per length required at sites, condensers/registers etc. where ever required as per direction of site engineers. The material to be inspected by authosied engineer before installation. Tenderer shall supply all materials from RDSO approved sources such as PBT terminals 1-way/6 way, ND fuses, Fuse Blocks, Bus bar, Eyelets, Hylumstrips(!2 mm thickness of ISI mark) condesers, resistances etc., and any other materials required for this work at his own cost.</p>	No.	7	59683	64233.82875	449636.8013
	<p>2 Disconnect Terminal Block, Screw less type, as per RDSO Spec. No. RDSO/SPN/189/2004. With latest amendments.</p>				0	0
	<p>i Disconnect Terminal Block, Screw less type, 4-wire front entry (Two in-put & Two out-put) The colour will be decided by Engineer - in - Charge. (Preferably In Blue, Red & Grey Colors in the ratio of 1:2:3)</p>	No.	2000	62	66.7275	133455

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	ii	Supply of End plate for above item (I) 2.5mm/0.091 in thick as per site requirement.	No.	150			
					12	12.915	1937.25
	iii	Supply of End Stopper for above item (I) 10mm/0.0394 in width as per site requirement.	No.	75			
					12	12.915	968.625
	iv	Supply of Carrier Rails for above 35mm x 7.5mm, 1mm/0.039 in thickness un-slotted type as per site requirement.	Mtrs.	30			
					120	129.15	3874.5
	v	Markers strip for above item (i)	No.	150			
					18	19.3725	2905.875
C		Indoor Relays					0
	1	Neutral Relay QN1, Non AC immunized, 8F-8B, 12F-4B 24VDC along with plug board, retaining clip and connectors. Conforming to BRS 930A, IRS: S60, IRS: S34 & IRS: S23.(No of each configuration will be decided by Engineer In-charge)inspection by RDSO	No	120			
					4365.63	4529.341125	543520.935
	2	Relay QNA1, AC immunized, 8F/08B, 12F-4B, 24VDC along with plug board, retaining clip and connectors conforming to BRS: 931A, IRS: S60, IRS: S34 & IRS: S24.(No of each configuration will be decided by Engineer In-charge)inspection by RDSO	No.	120			
					4735.35	4912.925625	589551.075
	3	Universal relay plugin type stlye AC/LED all aspects AC lamp proving relay unit with in built current transformer type, slow release neutral line relay 4F/4B contacts, front and back contacts metal to carbon, shall be suitable for working in series with the 110AC LED signal lamp rated at 15W confirming to RDSO spec no BRS:941A,	Nos	70			
					5112.93	5304.664875	371326.5413

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		STS/E/Relays/AC LIT/LED signal/09-2002, amend-1 with latest inspection by RDSO					
	4	Relay, AC immune, plug in type, style "QNA1K", neutral line, 24V DC 1000 ohms 6F6B contacts, front and back contacts metal to carbon with plug board, retaining clip and connectors conforming to BRS:931A, IRS:S 60, IRS:S 34 and IRS:S 23 and RDSO spec no STS/E/Relay/UEA(PI). the interlocking code for this unit shall be CDEKY. inspection by RDSO	Nos	10	5225.73	5421.694875	54216.94875
	6	Key Lock Relay with different ward combinations (Three ward plates to be supplied with each relay). Siemens Make working on 60V DC, AC Immunized or functional equivalent without base plates. Key ward shall be specified by Engineer In-charge as per requirement.inspection by RDSO	No	17	7514	8086.9425	137478.0225
D		Cable/wires					
	1	CABLE SIGNALLING UNDERGROUND, ARMoured, UNSCREENED, PVC INSULATED,PVC SHEATHED,ANNEALED COPPER CONDUCTOR SIZE: 24 CORE X 1.5 SQ.MM AS PER RDSO SPECN. NO. IRS:S:63/2014 REV.4.0 or latestInspection by RDSO	KM	0			0
	2	CABLE SIGNALLING UNDERGROUND, ARMoured, UNSCREENED, PVC INSULATED,PVC SHEATHED,ANNEALED COPPER CONDUCTOR SIZE: 12 CORE X 1.5 SQ.MM AS PER RDSO SPECN. NO. IRS:S:63/2014 REV.4.0 or latest. Inspection by RDSO	KM	34	212322.1	220284.1995	7489662.783
	3	CABLE SIGNALLING UNDERGROUND UNSCREENED PVC INSULATED PVC SHEATHED ARMoured ANNEALED COPPER CONDUCTOR SIZE 6 CORE X 1.5 SQ MM AS PER RDSO SPECN NO IRS: S:63/2014 (PL NO 56114308) or latest Inspection by RDSO	KM	10	126001.1	130726.1724	1307261.724
	5	PVC INSULATED,UNSCREENED ARMoured, UNDERGROUND POWER CABLE SIZE 2 CORE X 25 SQ.MM ALUMINIUM CONDUCTOR, RDSO SPECN.NO.IRS-S-63/2014 NO.IS:1554 (PART I) or latest. Inspection by RDSO	KM	5	101902	109672.0275	548360.1375

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6	6 QUAD 0.9MM DIA JELLY FILLED UNDERGROUND CABLE AS PER RDSO SPECN.NO.IRS:TC:30/2005(VER-1) WITH AMNDT.NO.4 or latest . Inspection by RDSO	KM	20	286817	308686.7963	6173735.925
7	24 Fibre armoured optical fibre cable as per RDSO apecification No.IRS-TC/55/2006 Rev.1 with latest amendents no. 2 or latest Note- This item reserved for RDSO approved sources only. Inspection by RDSO	KM	15	77120.6	85025.4615	1275381.923
8	PVC insulated Railway Signaling Indoor Single core wire conforming to IRS 76/89 (Amd3) or latest. Note: - Wire Colours shall be decided by engineer - in -Charge.	Km				0
i	1 x 0.6 mm	KM	0.5	2856	3073.77	1536.885
ii	1X 1 mm	KM	0.5	6666	7174.2825	3587.14125
9	Single core multi-strand wire 0.5 sq.mm. (16 conductor each dia. 0.2mm), as per IRS 76/89 (Amd3).	KM	6	5360	5768.7	34612.2
10	Flexible cable (Power wire), multi-strand copper conductors cross section 1x6 Sq.mm.(85 conductor each diameter 0.30 +/- 0.01) as per IS 694/1990 with insulation thickness of 0.80 mm nominal conductor resistance 3.30 ohms/km and test parameters are as per IRS(S)76/89.	KM	1	39645	42667.93125	42667.93125

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	11	Flexible cable (Power wire), multi-strand copper conductors cross section (1x16Sq.mm).101 Conductors each diameter 0.45 + 0.01 as per IS 694/2010 with insulation thickness of 1.2mm nominal conductor resistance 1.127 Ohms/Km and test parameters as per IRS(S) 76/89.	KM	1			
					127567	137293.9838	137293.9838
E		Data logger					0
	1	Supply of DATA LOGGER as per RDSO's Specn IRS:S:99/2066 Amd No.3 or latest with configuration of 1024 digital inputs and 64 Analog inputs with self power supply system, protocol converters as required etc with networking facilities. Inspection of Datalogger by RDSO & balance item by representative of Railway.This includes supplying of two no.s of door sensors for each data logger.Inspection by the representative of Railway.	Nos	1			
					763936.2	763936.17	763936.17
	2	Point Machine Health monitoring Unit with 24V Charger and 24V, 42 AH maintenance free battery.	No.	1			
					209292	225250.515	225250.515
	3	750 VA Off line UPS with battery backup 3 Hours for Failure Analysis System of reputed make as per Engineer in-charge.	No.	1			
					33717	36287.92125	36287.92125
F		MSDAC					0
	1	Supply of Multi Section Digital Axle Counter (MSDAC) complete system including central evaluators, processors and final track clearance relay for each track section. Detection points, track side electronics, reset boxes, LV boxes etc with all other accessories including deflector plates. Housing of track side electronics fully wired and fully equipped as per RDSO specification no. RDSO/SPN/176/2013 ver.3.0 (latest) and OEM's specifications. The MSDAC system supplied shall have approval	Nos	45			
					368137	381942.1375	17187396.19

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		/cross approval of RDSO (cost per detection point/DP). It includes maintenance free earthing as required.					
	2	Supply of Monitoring unit for MSDAC as per RDSO Specification no. RDSO/SPN/176/2013 (Ver.3) or latest. Inspection by RDSO.	Nos	2	80000	83000	160000
G	G	Fuses/ Fusechangeover/ SM office					0
	1	Indicative type Fuse base/ holder with cap, suitable to G type fuse of capacity 0.63A - 3.0A. (System, Rapid, Malnad or RBCO make or similar).	No.	215	56	60.27	12958.05
	2	Indicative type Fuse suitable to G type fuse base/holder of capacity 0.63 A - 3.0 A (System, Rapid, Malnad or RBCO make or similar).	No.	215	21	22.60125	4859.26875
	3	Indicative type Fuse Without holder 6A (System, Rapid or Malnad or RBCO make or similar) as per IRS:S-80/92	No.	22	39	41.97375	923.4225
	4	D type fuse block non indicating type low voltage non deteriorating fuse base suitable for fuse link of capacity 2A/6A/10A as per specification IRS:S-80/92 or latest . Quantity break up of each type of fuse block will be specified by Engineer in-charge.	No.	50	34	36.5925	1829.625
	5	D type fuse link non indicating type low voltage non deteriorating, capacity 2A/6A/10A as per specification IRS:S-80/92 or latest. Quantity break up of each type of fuse block will be specified by Engineer in-charge.	No.	5	35	37.66875	188.34375
	6	Fuse auto changeover system for used in Railway Signaling System as per RDSO/SPN/209/2012 rev.1 with latest amendments.. One Automatic changeover Unit comprise 32 nos. of external Non Deteriorating Type or 'G' type fuses from 0.6 Amp to 4 Amp capacities which are in signaling circuits. System shall have 8 cards with monitoring arrangement of 4 fuses in one card.	Per Module	7	40417.8	40417.8	282924.6

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7	Fuse auto changeover system for used in Railway Signaling System as per RDSO/SPN/209/2012 rev.1 with latest amendments. One Automatic changeover Unit comprise 24 nos. of external Non Deteriorating Type or ‘G’ type fuses from 4 Amp to 10 Amp capacities which are in signaling circuits. System shall have 6 cards with monitoring arrangement of 4 fuses in one card.	Per Module	1	54640.74	54640.74	54640.74
8	Earth Leakage Detector as per RDSO/SPN/256/2002 with latest amendments. The basic detector unit shall comprise of 8 channels, for use on signaling circuits of 110V AC/DC and/or 60V/24V/12V DC as ordered by purchaser. If the detector is required for less number of channels, dummy plates shall be provided. For additional requirement add on /expendable cabinet may be used. The voltage specified shall be provided with + 25% and – 10% tolerance.	No.	1	177120	177120	177120
9	Desk type Electronic Magneto Telephone as per spec No IRS/TC-79/2000 or with latest amendments.	No.	30	3479	3744.27375	112328.2125
10	Sealing wire used for sealing of signaling relays & equipments.	Kg	1	197	212.02125	212.02125
11	Lead Tablet for sealing wire used for sealing of signaling relays & equipments.	Kg	1	235	252.91875	252.91875

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12	Fire Extinguisher CO2 type (capacity 5 kg.)	No.	4	7492	8063.265	32253.06
13	Office Chair makes Godrej CH-7B or similar of reputed brand.	No.	2	2842	3058.7025	6117.405
14	Office Revolving Chair Godrej Make Model No.9u02r Bravo Or Similar of reputed brand.	No.	2	8669	9330.01125	18660.0225
15	Office table with laminated top with three drawers on left hand side and one locker on the right hand side. Olive brown with duplicate keys. Make: Godrej Model T-9 or Similar of reputed brand.	No.	2	16971	18265.03875	36530.0775
16	Steel Plain Almirah with 4 adjustable slaves Size: 1980mm height, 915 mm width and 485 mm depth. Make: Godrej Storewel Plain Large or Similar of reputed brand.	No.	2	18364	19764.255	39528.51
17	D-link Wall mount rack, steel frame 347mm with usable hight 267 mm depth- 450mm width 550 mm, 06U powder coated rack with 19 inches mounting angle. conformation to spec. DIN 41494 wall mount Rack - NWR-6U-5045-GR or similar of reputed make.	No.	2	4468	4808.685	9617.37
18	Supply of Paffy premium light waight aluminium Heavy duty folding step ladder- Maple 6 steps with 7 years warranty Made in iIndia. Holding capacity 120- 150 Kg, weight 8.5Kg.	No.	1	4555	4902.31875	4902.31875
19	Supply of Ultrasonic Rat Repeller (Triple Action 3 in 1) Tele Net make protected area 1100 Sq. Ft. operating on 220 - 240 V AC.Runeeing 24 Hrs X 7 Days.	No.	2	5353	5761.16625	11522.3325

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H	Power supply					0
1	SMPS based Integrated Power Supply System for EI in RE area up to 6 Line, as per RDSO/SPN/165/2012 version -3 or latest . This includes transportation, installation and Commissioning of Integrated Power Supply System.	No.	1	1177782	1221948.815	1221948.815
2	Self contained, Air cooled, and Diesel Generator set along with canopy, 10 KVA single Phase of Kirloskar or other reputed make with sound proof enclosure and A.M.F. with following sub-components: a) Engine: EA 16ES Type, air cooled, diesel engine developing minimum 16 BHP at 1500 rpm with accessories and with ISI mark. Suitable capacity battery make Exide/ Prestolite / Standard (12V/ 35 AH minimum) with leads for starting arrangement. b) Alternator 10 KVA single phase 1500 rpm, 0.8 power factor, 50HZ, brushless make CGL/KEC/LS. c) Engine and alternator close panel equipped with voltmeter, ammeter, frequency meter, MCB etc. d) Minimum 50 liter Fuel Tank with continuous running capacity. e) Acoustic enclosure. CPCB approved. f) A.M.F. Auto mains Failures panel consisting Micro processor based make: PECO/G - TECH / Utopia. AMF Panel should be outside DG set for Auto/Manual operation.	Set	1	280063	301417.8038	301417.8038
3	Auto changeover Power Panel suitable to change over between three incoming single phase 230V supplies with signaling supply distribution arrangement, voltage sensing relays, MCB's, fuses & contactor Unit as per Drawing No. DRM/SG/743. Note:-i). Item include supply of 10 spare fuses of each type, 1 contactor relay of each type & 1 MCB of each type used in panel. ii). Program switches & wire to be supplied based on current requirement. iii). The cabinet of Auto changeover shall be powder coated & in compact in size as possible.	No.	1	101287	109010.1338	109010.1338
4	Maintenance Free Earth Electrode of length 3m, including supply of 3 bags of Earth enhancement material for earthing (20KGs /bag) for each electrode & other accessories as per Drg. No. SDO / RDSO/ E&B/001 and RDSO Spec No. RDSO / SPN/197/2008.	No.	6	26652.72	27652.197	165913.182
5	Transient Surge Suppressor Electronic Grade Surge protective device (Surge) current Capacity 50 KA as per following Specifications: - 1) Connection Type: Parallel, 2) Nominal discharge current: 3KA, 3) Response Time : <0.5 nanoseconds, 4) Status Indication: LEDs, Dry Contacts.	No.	1	58249	62690.48625	62690.48625

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	6	Program switches, snap action, base mounting type along with acrylic cover and mounting bracket, 25A, 9 poles, and 3 positions make Siemens / Thakur or Similar.	No.	1	6170	6640.4625	6640.4625
	7	Program switches, snap action, base mounting type along with acrylic cover and mounting bracket, 63A, 9 poles, and 3 positions make Siemens / Thakur or Similar.	No.	1	12835	13813.66875	13813.66875
	8	Rubber Mat for Power Equipment room. (5mm thick)	Kg	1	120	129.15	129.15
I	Points						0
	1	Supply of Electric Point Machine Non Trailable Design, 143 mm throw with lock detector, cable termination box and slide for lock and detector, low thrust rotary locking type, AC immunity 160V AC as per specification IRS - S - 24/2002 amd. 1 or latest as per drawing No. 10800. (IRS Type) This includes Set of tools in suitable tool box (along with every set of eight point machine or less). Inspection by RDSO	No.	16	86046.58	86046.58	1376745.28
	2	Point insulation Complete set as per RDSO Specification IRS: S-40/84 for Switch bracket, Split-Stretcher bar & Gauge tie plates (52 Kg/60Kg as per site requirement)	Set	16	1456	1567.02	25072.32
J	SIGNAL					0	0
	1	Supply of 5.6 Mts CLS tubular steel post specification No.IRS: S-6/81 with latest Amnd to suit 140 mm dia base.Inspection by the Representative of Railway.	No	13	9375	10089.84375	131167.9688

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2	Pad locks Godrej make, Hardened Nav -Tal 7 lever, 65mm dia with common key or similar product having same feature & technical data.	No	2	203	218.47875	436.9575
3	LED Signal Lighting unit for main signal as per RDSO SPN 153/2011 with latest Amd and drg.SA:23002 :S 23024/M (Red)	No.	15	10276	11059.545	165893.175
4	LED Signal Lighting unit for main signal as per RDSO SPN 153/2011 with latest Amd and drg.SA:23002 :S 23024/M (Yellow)	No.	10	10276	11059.545	110595.45
5	LED Signal Lighting unit for main signal as per RDSO SPN 153/2011 with latest Amd and drg .SA:23002 :S 23024/M (Green)	No.	2	11560	12441.45	24882.9
6	LED Signal Lighting unit for Calling ON signal as per RDSO SPN 153/2011 with latest Amd and drg.SA: 24352 :S 23463.	No.	2	8488	9135.21	18270.42
7	LED Signal Lighting unit for Route indicator as per RDSO SPN 153/2011 .SA:23401 with latest Amd and drg:S 23407	No.	25	7488	8058.96	201474
8	LED Signal Lighting unit for Position light shunt signal as per RDSO SPN 153/2011 with latest Amd and drg.SA:23840 :S 23841	No.	55	7488	8058.96	443242.8

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9	Non Metallic (FRP) colour light signal housing multi unit type for railway signaling suitable for RE area TWO Aspects. Complete without lenses, lamps and signal transformer as per RDSO DRG. No. SA 23001/A/M Adv. Alt- 8 and as per SPEC. No. RDSO/SPN/194/2006 (Vol. 1.0) or latest and FRP material as per RDSO SPEC. No. RDSO/SPN/151/1997 or latest.	No.	13	30211	32514.58875	422689.6538
10	Non Metallic (FRP) colour light signal housing multi unit type for railway signaling suitable for RE area THREE Aspects. Complete without lenses, lamps and signal transformer as per RDSO DRG. No. SA 23001/A/M Adv. Alt- S and as per SPEC. No. RDSO/SPN/194/2006 (Vol.1.0) or latest and FRP material as per RDSO SPEC. No. RDSO/SPN/151/1997 or latest.	No.	2	31649	34062.23625	68124.4725
11	Calling ON Signal Unit with Brackets & Fixing accessories. Calling On Signal Unit shall conform to RDSO Drg no 24351(Adv) Alt1 suitable to LED Signal Lighting Unit.	No.	2	1115	1200.01875	2400.0375
12	Offset brackets for Main Signal, made of tubular steel, outer diameter 140 mm, thickness of pipe 4.5 mm. horizontal length of pipe 545 mm & vertical length of pipe 324 mm with fixing arrangement on Main Signal post as per Drawing No SW/554/G/R	No.	12	5036	5419.995	65039.94
13	Junction route indicator unit 4 way (Without Lenses & Holder) as per Drg. No. RDSO SA 23403 suitable for LED Signal Lighting Unit & as IRS:S-66/84 amndt-1 or latest. (Supply of LED Unit is not covered in this item)	No.	3	23789	25602.91125	76808.73375
14	Junction route indicator unit 5 way (Without Lenses & Holder) as per Drg. No. RDSO SA 23402 suitable for LED Signal Lighting Unit & as IRS:S-66/84 amndt-1 or latest. (Supply of LED Unit is not covered in this item)	No	3	26517	28538.92125	85616.76375
15	Position Light Shunt Signal Unit Complete with Post (made of GI Pipe of 80 mm Diameter Medium Class IS Spec. No. IS: 1239 Pt. 1/1990, Base, Hood, Cover etc as per Drg. No. SA-23840 suitable for LED Signal Lighting Unit.(Supply of LED Unit is not covered in this item)	No	3	13992	15058.89	45176.67

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16	Position Light Shunt Signal Unit Complete, with offset bracket, hood, Cover etc as per Drg. No. SA-23840 suitable for LED Signal Lighting Unit. (Supply of LED Unit is not covered in this item)	No	12	10239	11019.72375	132236.685
17	Different warning Boards used for Railway Signaling system as per RDSO Drg. No. SA2380 (Adv). This includes Painting and retro reflective arrangement should be as per SEM.	No	1	5235	5634.16875	5634.16875
18	Medium Class G.I. Pipes to IS : 1239 (Pt.I)-2004 or latest ; 100mm dia. (int. dia) 3.65 mm+/- 10% thick with coupling. G.I. pipes shall have ISI mark on it and contractor should submit manufacturer's test certificate of G.I. pipes.	RM	100	645	694.18125	69418.125
19	RCC pipes of 150mm internal dia (2 meter long) along with collars as per IS No. 458/2003 of NP type.	Mtr.	20	283	304.57875	6091.575
20	Half Round RCC pipes & collars of 150 mm internal dia (2 meter long) along with collars as per IS No. 458/2003 of NP type	No	100	376	404.67	40467
21	Half Round RCC pipes & collars of 300 mm outer dia & 250 mm internal dia (2 meter long) along with collars as per IS No. 458/2003 of NP type	No	300	766	824.4075	247322.25
22	Thermo shrink Universal Jointing kit for Quad Cable (for straight joints) as per RDSO spec IRS/TC-77/2012 revision 3 With latest Amd.	No	12	2425	2609.90625	31318.875

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	23	Supply of distilled water plant/dimineralised plant of (10-50-100 litre per hour) make laptech/shivam or indicated by railways. Inspection by Rep. of CSTE/Project/BSP	Nos	1	22208	23901.36	23901.36
	24	200 way tag block spec IRS-S-77/91 with latest amend and with Drg no SA-24751, 52, 53. inspection by Rep. of HRIDC	Nos	4	2503	2693.85375	10775.415
	25	20 pair CT box inspection by Rep. of HRIDC	Nos	4	1956	2105.145	8420.58
	26	Supply of Double walled corrugated pipe length 6 metre, 120mm outer dia, 103.5mm inner dia with couplers as per specification no BSEN 50086-2-4 for under ground power/communication/signal cable protection. One six metre pipe with collar at both end shall be counted a unit for the purpose of payment. inspection by Rep. of HRIDC	Nos	300	1115	1200.01875	360005.625
	27	Timer relay fail safe type of electronic time delay device 24 volt DC (Anuvidyut make or similar) for Rly signalling as per spec no IRS:S-61/2000 with latest amend. The interlocking code pin for this unit shall be AFGKY (with a time setting of 120 seconds) inspection by RDSO	Nos	4	2057	2213.84625	8855.385
	28	Timer relay fail safe type of electronic time delay device 24 volt DC (Anuvidyut make or similar) for Rly signalling as per spec no IRS:S-61 with latest amend. The interlocking code pin for this unit shall be AFGKY (with a time setting of 60 seconds) inspection by RDSO	Nos	1	2057	2213.84625	2213.84625
K		Apparatus cases & terminals				0	0
	1	ARA Terminal blocks with links made of PBT Spec No.IRS/75/2006(Rev - 2) with latest amendments and RDSO Drg.No.SA-23741A Alt.4.	No.	2000	77	82.87125	165742.5

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	2	Apparatus Case Single NE Rly Type as per Drg. No. W. Rly/SW/47/68 Alt-A, fitted with two nos of E Type lock (ward No will be specified by Engineer-in Charge) as per RDSO Drg. No. SA 3376/3473 and Key to Drg. No. 3377. Note: This item includes the supply & fixing of 2 Nos E Type Lock fitted on both doors, along with two Keys.	No	40	16867	18153.10875	726124.35
	3	Apparatus Case half NE Rly Type as per Drg. No. W. Rly/SW/47/68 Alt-A fitted two nos E Type lock of (ward No will be specified by Engineer-in Charge) as per RDSO Drg. No. SA 3376/3473 and Key to Drg. No. 3377. Note: This item includes the supply & fixing of 2 Nos E Type Lock fitted on both doors, along with two Keys.	No	15	10653	11465.29125	171979.3688
	4	Phenolic laminated Sheet, grade P3 in standard size of 1220 X 1220 x 20 mm as per spec. No IS 2036 of 1995 or latest. Test report of manufacture to be supplied	No	15	7821	8417.35125	126260.2688
	5	Phenolic laminated Sheet, grade P3 in standard size of 1220 X 1220 x 10 mm as per spec. No IS 2036 of 1995 or latest. Test report of manufacture to be supplied	No	40	5019	5401.69875	216067.95
	6	Tic-tac Piano type Switches & sockets,holders , 5A (ISI mark of reputed make)	No	20	34	36.5925	731.85
L		Block instrument with BPAC (SSBPAC - D)					0
	1	Supply of Solid state Block proving by Axle counter for Single Line. This includes i) Microprocessor based SSBPAC (D) including wired relay rack with relays as per RDSO /SPN/175/2005 or latest. ii) Station masters block panel as per RDSO /SPN/175/2005 or latest along with Block telephone as per RDSO /SPN/191/2006 or latest. iii) Supply of lighting and surge protection device for power line and Data line.	Per Block - Sec	1	894021	962189.703	962189.703

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	2	Supply of automatic media changeover for SSBPAC(D) this includes Autochangeover card with one voice modem circuit and one EI converter circuit and lighting and surge protection device for Data line.	Per Block - Sec	1	78125	84082.03125	84082.03125
	3	High Availability Single section digital axle counters with Dual sensor system as per RDSO/SPN/177/2012 version 3 or latest. This includes The supply of High frequency web mounting type Tx coil/Rx coil, VR/PR Box duly wired, Vital relays, PR Relays, Clamp with deflector plates & hardware, Dual display reset box with auto resetting facility, Surge voltage protection devices and filter card to be mounted on din rail etc as per OEM for complete installation & testing & commissioning of (HASSDAC) system NOTE: One set of HASSDAC system will include equipment required to monitor One Up line or One Dn line of a full Block Section between two stations.	Set	1	1030003	1108540.47	1108540.47
M		Telecommunication					0
	1	Motorola VHF Mobile Synthesized Trans-receiver, Model-GM-339, 146 to 174 MHz frequency range 16 programmable channels, 25 watt RF power out put maximum 2/5 KHz channel specing compact palm microphone, Cable and hang up clip, non locking mounting bracket power cable, limited accessory connectors front facing internal speaker operators handbook mini UHF Male to Female adaptor (Antenna) is not included.. Inspection by RITES.	Set	1	24435	26298.16875	26298.16875
	2	Supply of VF tapping transformeraer 1120:470 IRS Spec TC-22/76 with latest amend. Inspection by RDSO	Nos	5	839	902.97375	4514.86875
	3	Supply of VF tapping transformeraer 1120:600 IRS Spec TC-22/76 with latest amend. Inspection by RDSO	Nos	5	906	975.0825	4875.4125
	4	Supply of external leased line modem as per RDSO spec no IRS:S-99/2006 amend 3 .	Nos	2			

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					22695	24425.49375	48850.9875
5	Supply of composite rack covered with frnt transperent doors to house 2 SDH, 2 Opti MUXs/OLTEs and Two PDMUX alongwith PDP, DDF, cooling Fans, MDF for 100 pairs with antisurge protection through fast acting fuses & GD tubes FOOT NOTE; The SDH, Opti MUX, PD mux Cross connect shall be mounted in a composite rack. X,Y,Z protection for system equipments at each location shall be provided by the tenderer to protect the equipments	No.	1		26181	28177.30125	28177.30125
6	Supply and installation of krone type DPs of 50 pair suitable for 9 mm dia cable with GD tubes and fuses fitted in box with plastic cover dully mounted on good quality teak wood / hylum board.						0
7	50 pair kron DP - supply	Nos.	1		4929	5304.83625	5304.83625

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8	Instalation of above Krone DP	Nos.	1	1644	1769.355	1769.355
9	Supply of way station equipment with necessary mounting arrangement on composite rack or on wall' It shall be (-) 48 Volt operated and shall have a provision to connect at least four station telephones and have a facility to give more connection by using 3 way ampliirer. These way station equipments shall drive telephones which shall work on 2-wire mode up to 2 km with dialing facility and shall also have provision for gain adjustments for trains and receive channel along with a separate setting for DTMF trains-receive channel with ringing pattern setting arrangement as per RDSO specification No.RDSO/SPN/TC - 66/07 amd.3 or latest.	Nos.	1	43300	46601.625	46601.625
10	Supply of CLI push button telephone suitable for connection with way side equipment and the system mentioned above as per DOT/TEC specifications no.TEC/GR/CP/Tele-002-/05 Jan 2010 with latest amendm.	Nos.	4	1125	1210.78125	4843.125
11	Wall clock Quartz make Samay model no. SQ587 or SQ129785 with sweep second or similar make/model of Ajanta M no.-957 or sceintife with 1.5 volt Eveready cell.	Nos.	1	162	174.3525	174.3525
12	Supply of two way Line cord 1.5 mtr length with RJ-11 connectors both side of make Link Tele, Lotus, Access.	Nos.	1	9	9.68625	9.68625
13	Fabrication and Supply of EMC socket post and erection of fabricated assembly at the location indicated in the route chart and as per the direction of site engineer. This includes cutting of GI pipe to the required size, supply and welding of GI pipe and base plate, fixing of emergency socket box, transportation of material at site, digging of pit and erection of whole assembly, termination of derivation cable on the strip inside the emergency socket box, All material, tools, plant and machinary shall be aranged by the contractor.	Nos.	9	9098	9791.7225	88125.5025

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14	Supply of HDPE telecom duct 40mm dia ,solid permanently lubricated inner dia 33mm & wall thickness 4mm as per Tecspefn.G/OPT-08/01 Dec-99 with amendSwith end plugs,couplers , cable sealing plug and duct coller etc. To be supplied from TEC approved sources with all accessories suitable for OFC CABLE OF SIZE 24 FIBRES ARMOURED hdpe 40/33 MM DUCT.	KM	15	47924	51578.205	773673.075
15	SUPPLY OF 2X24 FIBER OPTIC SPLICE STRAIGHT JOINT ENCLOSE (SJC) COMPLETE AS PER RDSO SPECN NO. RDSO/SPN/TC/68/2014 Rev 1 AMENDMENT.1	Set	5	2392	2574.39	12871.95
16	Supply of following types of twisted pair PVC switch board cable, conductor of size 0.6mm. dia annealed copper conforming to IRS-TC-24/91 or ITD 1138. Inspection by Rep. of Railway Engineer.					0
	(a) 5 pair	Mtr	500	20	21.525	10762.5
	(b)10 pair	Mtr	500	32	34.44	17220

	17	5 Watt transceiver VHF set Kenwood TK-7160 or similar, along with battery charger and rechargeable spare battery pack	Set	4	5014	5396.3175	21585.27
N	Tools / Measuring Instruments						0
	1	Standard Tool kits, Test and Measuring instruments required for Installation, testing, commissioning & maintenance of HASSDAC. Kit will includes all tools & measuring instruments required for Installation, testing, commissioning & maintenance of HASSDAC as per OEM	Set	2	129522	139398.0525	278796.105
	2	Digital Multimeter of Fluke 287 Industrial, True RMS with temperature, Analog bar graph, Digital display, Backlight, 1000V AC/DC, measure up to 10A, 20A for up to 30 second or Superior.make Fluke/Kusum/Meko/ Motwane/Stanlay/Megger.	No.	2	44967	48395.73375	96791.4675
	3	Maintenance of Tool kit as per Annexure vide item no.38905	Set	1	96209	103544.9363	103544.9363
	4	Road Measuring Cycle, made of Aluminum with 05 digit counter, foldable with bag.	No.	1	4389	4723.66125	4723.66125
	5	Professional AC/DC clamp meter 3 ¾ digit , true RMS measurement, For Measurement of DC/AC currents up to Minimum 0.1 Amp, with set of leads & carrying case. Model - Mastech MS2101 or equivalent/ higher make Motwane/Stanlay/Fluke/Kusum/Meko/Megger.	No.	2	14238	15323.6475	30647.295
	6	Supply of optical power meter as per specification . SPECIFICATION: ATM 100 Optical Power meter.1. 270,1000,2000 Hz tone detection 2. Wide measurement range :- Max. 78 dB,high resolution : 0.01 db, good accuracy :0.2 db 3. Insertion loss test in db 4.SM or MM applications, 5.FP/PC and 2.5mm universal connector 6. 850/1300/1310/1490/1550nm calibrated wavelengths 7. ATM 100 is for telecom testing	No	1			

		8. Energy save mode: about 1C minutes no operation will cause the device automatic power off (can be cancelled) 9. Reference value storage 10. Full energy can support above 100 hrs operation. NOTE: 1. Price not to exceed MRP. 2. LD as applicable 3. A zerox copy of the delivery challan may be submitted to office			6682	7191.5025	7191.5025
	7	Supply of telecommunication tools set 50 pieces at least including various screw drivrs and soldering iron etc. similar to Stanely 89-883 53 pcs telecommunication tool set.	set	1	7655	8238.69375	8238.69375
	8	Supply of universal tool kit similar to Tapariya 1001	set	1	512	551.04	551.04
P		Spare					0
	1	Supply of spare card for SSDAC Axle counter to suite for supply item in schedule A					0
	i	Signal Conditioner card No. (SCC1) For SSDAC as per RDSO specification No. RDSO/SPN/177/2012 with version 3 or Latest.	No.	1	39818	42854.1225	42854.1225
	ii	Signal Conditioner card No. (SCC2) for SSDAC as per RDSO Specification No. RDSO/SPN/177/2012 with version 3 or latest.	No.	1	39818	42854.1225	42854.1225
	iii	Modem card No.3 for SSDAC as per RDSO specification No. RDSO/SPN/177/2012with version 3 or latest.	No.	1			

					39818	42854.1225	42854.1225
	iv	Dual Micro Controller Logic card No.4 for SSDAC.	No.	1	106712	114848.79	114848.79
	v	Relay Driver card No. 5.	Set	1	39818	42854.1225	42854.1225
	vi	DC-DC converter Card no. 6.	Set	1	23891	25712.68875	25712.68875
	vii	Reset box for SSDAC as per RDSO No.RDSO/SPN/177/2012 with version 3 or latest	No	1	57338	61710.0225	61710.0225
		Execution of S&T items					
A		EI					
	1	Installation, wiring, programming, testing(FAT & SAT) and commissioning of EI equipment supplied as per supply item NO.1above including transportation from consignee depot to site as per original manufacturer's specifications & RDSO	system	1			

	specification STE/E/TAN/3012 dt.28.04.2014 or latest and provision of NMS for OFC as per TAN no/STS/E/TAN/3012 under supervision of OEM's Engineer/ authorized representative. This also cover the installation networking of datalogger.			492718	530287.7475	530287.7475
	The tools/ equipments/ materials/ simulation boards required for testing shall be supplied / fabricated by contactor. this included replacement of modules/ cards/ LEDs/ equipments going defective during testing. Necessary power supply boards with required capacity plugs, sockets, surge & lightning protection boxes shall be supplied and installed by the contractor. 230V supply shall be arranged by Railways. In case supplies are required to be extended, from Power room / relay room then same shall be extended by the contractor with his own materials such as 1X16 sq mm wires, cables, lugs, RCC/GI pipes, insulated ladders etc. After ST/LT testing, Factory Acceptance Tests (FAT) & Square Sheet testing system should be fault free while submitting to Railways, otherwise suitable necessary action can be taken by Engineer-in-charge.					0
	2 After installation of EI System, Maintenance & Supervision for One year, as per details given in Special Condition of Contract, Technical requirement & SEM.	Each	1			
				276277	297343.1213	297343.1213
	b) Alteration in wiring, installation, testing & commissioning of the item scope details of item no 1(iii) at baroud yard, the brief scope of work include but not limited as follows; 1.Alteration in wiring, installation, testing and commissiong 2.All activity of FAT 3.All activity of SAT 4.GSIM testing etc. N.B - OEM need to certify the installation & functionally of the system.	system	1			
				880840	948004.05	948004.05
	3 Training of Technician/ Jr. Engineer for installation, Commissioning, Testing, Repairs & Troubleshooting of EI system. (Hard copies of training material/ course modules to be given to each participant).	Man/ Day	20			
				1216	1308.72	26174.4

	4	Training of Officers for installation, Commissioning, Testing, Repairs & Troubleshooting of EI system.(Hard copies of training material/ course modules to be given to each participant).	Man/Day	10			
					1206	1297.9575	12979.575
	5	Earthing of EI equipment, relay racks and Power equipment etc to be done along with the supply of all requisite materials. Earthing shall be in the form of Ring Earth conforming to RDSO specification No. RDSO/SPN/197/2008 (with a min. of 6 maintenance free earth electrodes) & RDSO Drawing issued under Railway Board letter No. 2010/Sig./SGF/EI (Ansaldo) Dated 22.06.11, made using copper rings with earth resistance less than 1 ohm. The earthing shall be maintenance free & earth enhancement compound should be used. The ring earth shall be connected to copper flat of size 25x3 mm in the relay room and IPS room. This copper flat shall be fixed on the wall to the entire breadth of the Relay room and IPS room as an earth bus bar and all earth connections shall be taken from it. A, B, C, & D class protection shall be provided for all EI equipment. Note:- This will also cover the earthing & necessary protection of EI equipment as per details given in the scope of work of Special Condition of Contract and other requirement & Pre-commissioning check list of EI system.	Job	1			
					139051	149653.6388	149653.6388
	6	Installation of Cable Termination Racks Assembly complete including wall supports, scaffolding, 8 way/ARA terminals /Screw less connectors, Tag blocks &	No.	7	9549	10277.11125	71939.77875
	7	Installation, wiring, testing and commissioning of Data logger complete along with accessories using Contractors own wiring & fixing materials as per following configuration. (It includes loading of NETWORKING software, networking of data logger, installation of FEP & Fault diagnosis system). The requisite communication cable/channel for networking will be arranged by Railway. 1024 digital & 32 analog inputs / 2048 digital & 32 analog inputs	No.	1			
					22971	24722.53875	24722.53875

	8	Installation, cable termination, testing and commisiioning of 20 pair CT boxes	Nos	2	1905	2050.25625	4100.5125
	9	Wiring of door detection proximity switch to the tag block of dataloggers/RTU (This includes provision of casing and capping and other wiring accessories, excluding 16/0.2 wire which will be supplied by Railways). Inspection by Rep. of CSTE/Project. This includes incorporation of this contact in datalogger simuation & datalogger report.	Station	1	978	1052.5725	1052.5725
	10	Installation, testing of door contacts and validation and proximity switch data through dataloggers/RTU. This includes incorporation of this contact in datalogger simulation & datalogger report.	Station	1	978	1052.5725	1052.5725
	11	Development of door 'close & open' software logics module and its implementation. Insp. By Rep. of HIRDC.	Station	1	978	1052.5725	1052.5725
		earth					0
	12	Installation, Testing and Commissioning of Multi Section Digital Axle Counter (MSDAC) complete system including central evaluators, processors and final track clearance relay for each track section. Detection points, track side electronics, reset boxes, LV boxes etc with all other accessories including deflector plates. Housing of track side electronics fully wired and fully equipped as per RDSO specification no. RDSO/SPN/176/2013 ver.3.0 (latest) and OEM's specifications. The MSDAC system supplied shall have approval /cross approval of RDSO (cost per detection point/DP).	Nos	45	14377	14916	671220.585

		It includes maintenance free earthing as required.					
14		Provision of simulation arrangement (track and point simulation board as well as signal lamp simulation board) and its complete wiring; arrangement of free home, advance starters, IBS etc as may be required with block working with required temporary relay wiring for controlling the train movement in NI-period with the provision of temporary miniature operation cum indication panel board; deputation of fitter round the clock in NI-period for assisting simulation testing for all the routes as per approved RCC by the Railway officials; mobilization of additional man power attending to the pre NI block and commissioning of the station within prescribed time limit of NI-period as decided by the Railway officials; deputation of staff (one fitter and one helper) at the station for attending to the packing and realignment of point and crossing etc, in connection with Pway block for a period of 30 days beyond the commissioning date. station more than 6 lines	Nos	1	488835	526108.6688	526108.6688
15		Supply of door proximity switches along with 2 way rigid connector for wire termination between proximity switches and datalogger tag blocks as per specs, inspection by Rep. of HRIDC.	Nos	2	527	567.18375	1134.3675
15		Installations, wiring, testing and commissioning of Point Health Monitoring System complete along with accessories with Contractors own material.	No.	6	9546	10273.8825	61643.295
16		Installation wiring testing and commissioning of Fuse change over system (FACS). This includes provision of common Buzzer & indication at ASM Room &	Per Module	8	974	1048.2675	8386.14
B		ASM Panel Room					0

1	Fixing of KLCR relays in field in half location boxes or Steel rack in panel room as per the instruction of Rly engineer at site. Item includes supply and fixing of MS sheet and wiring of push buttons and LEDs for KLCR circuit. The KLCR relays, push buttons, LEDs to be fixed on a MS sheet of min.3mm in the half location box. The MS sheet should cover the full length and breadth of the half location box and can be in two pieces of approx. 48cm x 46cm and 80cm x 46cm. The first piece to be fitted on top and will contain the KLCR relays, LEDs and push buttons. The second piece to be fitted below the first piece to divide the two halves of the location box. Steel rack should be fixed on wall or as instructed by site engineer, in panel room. Relay fitting arrangement should be done such a way that KLCR relay frame can be slide out for wiring or incase of failure. All necessary arrangement shall be done by contractor for commissioning the KLCR. as per the instruction of site engineer. (Supply of KLCR relays, Location box, Steel rack is covered in Schedule A).	No	17	1786	1922.1825	32677.1025
2	Supplying & fixing of crank handle box 450 x 250 x 150 mm made of 12mm thick teakwood with a glass front and padlocking and sealing arrangements per std practice. Pad lock to be supplied by the contractor. All material i.e. teakwood, handle, hinges, glass sheet of 3 mm thick to be supplied by the contractor. Box to be polished and description to be as per instructions of Engineer in - charge.	No.	17	1543	1660.65375	28231.11375
3	Wiring, installing of Magneto / DTMF telephone in ASM office, at locations, Relay Room, Point locations on both directions and siding Point Control locations as per instructions of Engineer-In-Charge for traffic purpose.	Per Tele	4	100	107.625	430.5
	Total Execution Indoor(A TO B)					0
C	Power Supply					0
						0
1	Installation, Wiring and testing of Integrated Power Supply System. This includes power distribution connection to bus bars and relay racks in the room with contractor's own wiring materials and fabrication and fixing of AC/DC power distribution board made on 10mm thick Phenolic hylam sheets or any standard make with connections suitable for 32 A. Wiring to be done considering site requirement, depending upon the load with suitable wires, lugs & glands as per instructions of Engineer-in-charge. The work includes	No.	1			

	installation of Thermo flasher relay, ELD's, fixing & wiring of change over switch (program switch) for selection of DG set supply (DG1 & DG2) and wiring of change over switch (program switch) for selection of mains or DG supply. This item also includes supply & fixing of ladder along the wall for carrying power supply wires/cables from IPS room to Relay room/power room etc. Any masonry work required will be carried out by contactors own material. (This is for station)			113722	122393.3025	122393.3025
2	Installation of LT Power Panel/ Power distribution panel/ Auto Changeover Panel, power supply equipments such as Rectifiers Transformers, Battery chargers etc including mounting on wooden planks/Hylem Sheet and complete wiring for automatic change over arrangement, mounting of Program switches on Bakelite sheet of size 300 mm x 300 mm x 8 mm fitted to MS angle (size 25mm x 25mm x 5mm) brackets, wiring as per requirements. Necessary wires to be supplied by Rlys, lugs & glands to be supplied by Contractor.	LOT	1	22599	24322.17375	24322.17375
3	Installation of Diesel generator set. This includes Casting of vibration free foundation, installation of control panel, outlet for exhaust, Laying of power cable from D.G. set to change over switch and wiring of D. G. set & control panel. Laying of cable/wires should be carried out in HDPE duct. This includes supply of all wiring, fixing & termination material of approved make required for the above work.	Per KVA	1	866	932.0325	932.0325
3	Supply and fixing of compact laminated sheet 20 mm for keeping S&T equipments as per instructions of Engineer at site. Commercially available thickness will be accepted as approved by Engineer in charge. This item includes supply of fixing materials like Nut, Bolts, Screw, Nails etc. Table for keeping axle counter resetting box and block instruments etc. can also be go fabricated under this item as per the design given by engineer in charge.	Sq. M	5	4418	4754.8725	23774.3625
4	Supply, Errection, Testing and Commissioning of Automatic fire alarm system (AFDS) as per RDSO Specification RDSO/SPN/NEW/2010 Version 0 (Draft) or Latest. This include one year maintenance of the system	No.	1	357528	384789.51	384789.51
6	Supply & installation of Test board (LED, Pin tool type) for relay Room as per as per Drg No RST/C/105 A & B	No.	1			

					12080	13001.1	13001.1
D		Point					
	1	<p>Fixing of Electrical Point Machine on the extended sleepers at points as per std. practice and as per RDSO Drg No. SA 91 51-52 or 9710 or 9161 as per section of rails used. Item includes fixing switch extension bracket, providing insulation for switch extension bracket, fixing ground connection, adjusting opening of the switches and adjusting the point machine with crank handle. The item also includes : (i) Complete material for installation like ground-connections, switch extension brackets, point insulation material, I pipes, wiring materials, various fixing nuts & bolts including castle nuts, spring washers (ii) All smithy & fitting works required at site for complete installation. (iii) Installation of gauge tie plate & providing insulation for gauge tie plate (Insulation in William Stretcher Bar will be Provide by Railways). (iv) Wiring inside the point machine, insertion and termination of tail cable in point machine and junction boxes / location box /cable hut as per extent practice on WR and the instruction of Railway Engineer at site. (v) Supply and fixing of suitable size GI pipes with flange for taking cable into point machine. Note ; The ground connections shall be suitable to the Point Machines as specified by Engineer-in-charge and shall be suitable to the point lay out i.e. 60 Kg. / 52 Kg / 90R as per yard layout. Electrical Point Machine and M-6 / Screw less terminals will be supplied by Railways / covered in Schedule separately</p>	No	16	18451	19857.88875	317726.22
	2	P way works required before interlocking a point such as squaring of switches, packing and levelling/alignment of track, easing or rails on either side of points to be intrlocked, making proper spacing of slippers.etc	No	10	3097	3333.14625	33331.4625
E		Axle Counter BPAC					0

1	Installation of track device (double rail contact) including digging of trench, track crossing, laying of anti-rodent, anti-oxidant & non-flame propagating type Double Walled Corrugated (DWC) pipe as per IS- 14930 part- I or II or latest and all other accessories as per site requirement to be for laying of transmitter and receiver cable. The item also includes installation of EJB / Track side Electronics including foundation & earthing as per OEM's guidelines and Technical requirement & specification. NOTE: Installation/ programming/ configuration/ commissioning of Axle counter equipment to be carried out in accordance with latest guidelines issued by Railways/RDSO preferably by Authorized representative of OEM.	No.	90	8028	8640.135	777612.15
2	Installation testing & commissioning of Single Section digital axle counter single section type system complete with track devices and other associated accessories. This include fixing of device, relays, wiring, lacing /dressing, cable termination with lug eyelet, drilling holes in rails, Installation of track devices and make it functional along with existing SSBPAC (D). Material required other then supply item of schedule A shall be arrange by contactor to make it functional.	Set	2	15933	17147.89125	34295.7825
3	Instalation, testing and commissioning of single line SSBPAC(D)	er Block -Sec	2	64587.38	64587.38	129174.76
F	Signal					0
1	Excavation and Casting of foundation for main signal post as per drawing No.RST/11173 with contractor's own materials including cement and anchor bolts of standard size. The required scaffolding Ferma etc for Casting of foundation will have to be brought by the contractor at his own cost.	No	15	8104	8721.93	130828.95
2	Erection of CLS Post with base and signal unit on top or on OFF set Bracket, fixing of front and back staging, ladder and guards, signal name plates / boards if any with contractor's own brackets and fixing materials. This also includes erection of auxiliary signals like calling on, shunt signal if any. The work shall be done as per instructions					0

		of Rly engineer at site. It also includes provision & fixing of maintenance platform as per design given by Engineer -In-Charge at site. The Item includes cutting of Signal post if required by Site In charge.					
	i	2/3/4 aspect signal unit mounted on offset bracket with junction type route indicator 1/2/3 on multilamp lamp route indicators mounted on signal post	No	2	1951	2099.76375	4199.5275
	ii	2/3/4 aspect signal unit mounted directly on signal post	No	13	1452	1562.715	20315.295
	3	Excavation and Casting of foundation for Shunt Signal as per Drg. No.RST/ 11173 with Contractor's own materials including Cement and Anchor Bolts of Standard Size. The required scaffolding, Ferma etc for Casting of foundation will have to be brought by the Contractor at his own cost.	No	12	5703	6137.85375	73654.245
	4	Erection of Position Light Shunt signal with Base, Post, Signal unit and fixing of Number Plates. The work shall be done as per instructions of Rly engineer at site.	No	12	1052	1132.215	13586.58
G		Cable laying					0
	1	Excavation of cable trench as per cable route plan,1 Mtr. deep and of 0.3 Mtrs wide advised by Engineer-in-charge alongside the track in normal (all type) soil/strata, conforming to distances as per cable route plan and refilling. This work includes clearing of route from bushes etc, covering of cable laid in trench by loose soil for a layer of 50mm thickness approximately before covering by bricks or RCC half round pipes and back filling. The work shall be done as per the extant practice on Western Railway and instructions of Railway Engineer at site. In case 1m depth of trench is not achievable due to site conditions, specific approval of JA grade officer will be required for each site where trench depth of 1m is not possible. Without the approval of JA Grade officer, no payment for trenching will be made for trench depth less than 1m.	Cu M	4800	301	323.95125	1554966

2	Digging of trench 1.2 M deep and, 0.3 Mtrs wide as per cable route plan & from rail flange/ road level and, 0.3 Mtrs to 0.6 Mtrs wide and back filling after laying of cable or placing of DWC/ RCC/GI pipe. (Laying of cable & placing of DWC/RCC/GI pipe covered separately).The ballast disturbed be screened and dressed as required by Engineer-in-charge or his representatives and road tarred immediately. For track crossing, and for Road Crossing, Drg. are to be followed.	Cu M	2400	301	323.95125	777483
3	Digging of cable trench 0.3 Mtrs. Deep and 0.3 Mtrs. Wide on Asphalted Platform / Road / Hard rocky area. Refilling with earth leveling of trenches & restoring the original surface of trenches after laying DWC/RCC/GI pipes	Cu M	60	553	595.16625	35709.975
4	Horizontal direction drilling/boring without damage of surface road using Auger Machine. The bore shall be 150 mm dia & shall be done at the depth of minimum 1200 mm from the ground level. The ground level shall be considered ignoring the bank height of the bank of the road. The length of the bore shall be minimum 4 Mtrs long. this include insertion of different dia DWC pipe/ GI pipes coupling etc. as per direction of Engineer In charge. Note:- Contactor shall provide all material required for boring and adequate nos. of labours for proper laying of cables into the bore. Cable shall be laid cautiously so that it should not get damage due to rough handling & pressure on cable.	Mtr.	500	1323	1423.87875	711939.375
5	Placing of DWC/RCC/GI pipes along with collars in trenches at places of track and road crossings, platform cuttings etc.	RM	200	33	35.51625	7103.25
6	Laying of half round RCC pipe after laying the cables in the trenches. (Cable laying is covered separately)	RM	1100	24	25.83	28413

7	Fixing of GI pipes for crossing the culverts, bridges etc. and concreting of ends with brick masonry at both ends as per the instruction of Rly engineer at site.	RM	100	215	231.39375	23139.375
8	Laying of S&T Cables of various cores/ pairs/ quads//HDPE duct in trenches/ GI pipes/ RCC pipes/ DWC pipes/ Trunking. This also includes laying of cables in track crossings & road crossings. Item includes provision of labels of coloured plastic adhesive tapes or any other identifiable material on each cable to give the cable number at each G.P.(Cables will be maggered before and after its laying by contractor under supervision of Railway Representative and he will submit the maggering report of each testing). Length of the cable laid includes the length of the cable coiled for termination purposes.	Mtr	90000	10	10.7625	968625
9	Digging of cable pit (min 2x2x1m) as per instruction of Site Engineer, supplying and filling of sand before and after coiling the cables, covering top of the cable pit with stones and providing brick masonry on all four sides of the cable pit and plastering thereafter.	No.	1	13748	14796.285	14796.285
10	Supply and installation of RCC cable route marker engraved and painted on both side along the route every 50M and route diversion as per Drg. No 4014/00/CC4 or latest/ stone markers.	No	40	452	486.465	19458.6
11	Termination of outdoor cables, main cables laid in location boxes, Cable termination rack etc at both ends on ARA terminal or on 8 way terminals or on screw less connectors. Both ends of a cable core terminated shall be counted as one terminal. This includes all associated works of pulling out the cable from underground, peeling off insulation, dressing of cable core supported on sting rod with contractor's own material. The work shall be done as per instructions of Rly engineer at site.	Per terminal	1500	2	2.1525	3228.75
12	Fixing of ARA Terminals /Screw less connectors and fuse blocks on phenolic laminated sheets and fixing by stainless steel/brass nuts & bolts. This includes provision of two additional holes on the board on either side for cable conductor entry.	No.	2500	14	15.0675	37668.75
H	Apparatus Case					0

1	Excavation and Casting of Apparatus Case foundation with contractor's own materials including cement and anchor bolts of standard size. The required scaffolding Ferma etc for Casting of foundation will have to be brought by the contractor at his own cost.					0
i	Single Case as per Drg No SK 748 or CSTE/5074	No	40	7573	8150.44125	326017.65
ii	Half Case as per Drg No SK 747or CSTE/5074 or SS Location	No	15	5781	6221.80125	93327.01875
2	Installation of Apparatus Cases with miniature 'E' type lock on CC foundation. This includes filling of location foundations with river bed sand and plastering on top of the sand.					0
i	Single Case	No	40	1142	1229.0775	49163.1
ii	Half Case	No	15	696	749.07	11236.05
3	Fabrication and fixing of phenolic laminated sheet of size 10mm thick in location box by providing all fixtures as per Railway Drawing including fixing of PVC coated string rods at the back side for cable support with contractor's own materials. The work shall be done as per drg and arrangement similar to SK 783- 1/2. with latest alterations Piano type switches and lamp holders should be ISI marked & as per instructions of Rly engineer at site.					0

i	Single Case	No	40	2577	2773.49625	110939.85
ii	Half Case	No	15	752	809.34	12140.1
4	Cement concrete work for miscellaneous items in the ratio 1 : 3 : 6 . Item includes excavation, ramming, curing and plastering with cement & sand mixture (aggregate not exceeding 3.8 cm.) (Aggregate cement & sand to be supplied by the contractor).	Per Cu. Mtr.	8	3989	4293.16125	34345.29
5	Providing brick masonry in ratio 1:6 cement and mortar including plastering with 1:4 cement and sand mixture both sides, 20 mm thick each with contractor's owned class II bricks, including excavation, curing, grouting, bolting etc. wherever required. Bricks sand and cement to be supplied by the contractor.	Per Cu. Mtr.	25	2188	2354.835	58870.875
6	Supply and Installation of Earth electrode assembly and concrete encloser with cover as per drg. No. RITES/SIG/GEN/013-98 and RITES/SIG/GEN/014-98 respectively. This includes providing connection to location box, signal unit, block instruments, cables etc. through GI wire 8 SWG suitably sparted on MS flats size NA 2551.53 No. 60.00 90.00 14.00 164 418451.00 INR Four Lakh Eighteen Thousand Four Hundred & Fifty One Only instruments, cables etc. through GI wire 8 SWG suitably sparted on MS flats size 30 x 3 mm as per drg.No. RITES/SIG/GEN/015-98,	No.	60	3554.43	3687.721125	221263.2675

		RITES/SIG/GEN/016-98 & RITES/SIG/GEN/017-98. This includes: (i) Diging of pit in earth 3 m deep. (ii) Casting of cement concrete enclosure as per drg.No.RITES/SIG/GEN/014-98. (iii) Soil treatment as per standard practice involving supply & pouring of salt & charcoal. (iv) Connecting the equipment through earth lead wire & soldering						
I		Painting						0
	1	Painting of two coats of synthetic enamel paint over one coat of primer on the following after scraping & cleaning surface wherever necessary with contractor's own supply of paints. Wherever required contractor shall apply coating of epoxy paint also as per instructions of site-in-charge. Epoxy paint will be supplied by Railways. NOTE:- The paint and primer should be from Asian Paints/ Nerolac / Dulux / Berger. The primer / enamel paints (Aluminum synthetic, black enamel, brilliant white and yellow) will be as per (IS 5660 of 1970) / (IS 2932 of 1974).						0
	i	Apparatus Case Full Size. (Outside & inside)	No	40	279	300.27375	12010.95	
	ii	Apparatus case Half Size. (Outside & inside)	No.	15	252	271.215	4068.225	
	iii	Main Signal Post with Signal Units, Surface base and complete fittings as per Railways standard practice.	No.	15	386	415.4325	6231.4875	
	iv	Shunt signal post with signal unit, surface base as per Railway's Standard Practice.	No.	12	241	259.37625	3112.515	

	vi	Point Machine with ground connections complete (Point Machine with Black enamel only outside and ground connections with Red Oxide)	No.	16	117	125.92125	2014.74
	2	Lettering / Numbering Termination particulars, equipments names etc., legibly and neatly inside location boxes. This includes supply of paints of Asian Paints/ Nerolac / Dulux / Berger make.					0
	i	Full Case.	No.	40	132	142.065	5682.6
	ii	Half Case	No.	15	90	96.8625	1452.9375
J		Telecommunication					0
	1	Testing and commissioning of complete OFC system equipments including outdoor work related to laying of Quad/PIJF cable, Emergency control, control office HD Crs & way stn. Equipments. This includes carrying out various optical and other measurements required for healthy functioning of link and meeting various specification such as BER, jitter etc as per CCITT/F 801/821 and REC/ G921. Testing and commissioning of link should be done with site engineer. All measuring instruments required for this activity should be arranged by the contractor. This item also includes designing of complete system as per the present and future requirements .	Per stn	1	279530	300844.1625	300844.1625
	2	Construction of Manholes below 300mm ground level each at every SJC with all contractor's material including the cover over the manhole dimension of the manhole pit shall be as per Drg. No. SK/CSTE/C/97/11	Nos.	2	3345	3600.05625	7200.1125

3	Installation of FMS with all installation material, splicing, termination of OF cable (with all contractor's tools & materials)	Nos.	2	9892	10646.265	21292.53
4	Installation, testing & commissioning of 25 watt VHF set in ASM room including erection of antenna at sufficient height on the roof of panel building to have satisfactory communication. This includes GI mast with stand to adjust the height duly grouted and concreting on roof and supported by rope wire as decided by the site Engineer in-Charge	Set	1	7375	7937.34375	7937.34375
5	Laying of OFC cable in HDPE duct, as per approved cable route plan in the excavated trench, taking due care while transporting. Laying of the cable also includes pulling of OFC cable, inside the existing stn. bldg & making suitable loop without cutting of cable at the entry/exit of the cable & inside the stn. bldg. wherever required. Cable to be protected with DWC pipe & with suitable clamping arrangements.					0
i	Laying of OFC in HDPE Duct with Blowing technology	Km	6	12846	13825.5075	82953.045
6	Training of HRIDC/ Railway officials in system installation, testing & handing the system equipments	Man week	2	10337	11125.19625	22250.3925
K	Dismantling & maintenance					0
1	Dismantling of the following					0
i)	Signal posts/BSLB/SLB/Stop board	Nos	1	183	196.95375	196.95375
ii)	Steel apparatus case with fittings	Nos	0	183		0

	iv)	Signal Foundation (up to ground level by hydraulic breaker)	Nos	1	1712	1842.54	1842.54	
	2	Maintenance of Complete S&T system works by providing manpower, vehicles, tools & plants and consumables as per guidelines of HRIDC/RAILWAY after commissioning of the S&T System.	Month	12	612037	658704.8213	7904457.855	
		Total Execution Outdoor(Schedule C TO K)						0
L		Drawing					0	
							0	
	1	Design of SIP & submission of three paper copies for approval and preparation of miniature plan also					0	
	1.01	For a six- line station or more	Set	1	58705	63181.25625	63181.25625	
	2	Design of SWRD & submission of three paper copies for approval					0	
	2.01	For a five - line station or more	Set	1	23627	25428.55875	25428.55875	
	3	Design of RCC & submission of three paper copies for approval					0	
	3.01	For a five - line station or more	Set	1	22970	24721.4625	24721.4625	

	4	Design of cable Route Plan (Distant to Distant) & submission of three paper copies for approval.						0
	4.01	For a five - line station or more	Set	1	15751	16952.01375	16952.01375	
	6	Design of Cable Distribution Plan & submission of three paper copies for approval.						0
	6.01	For a five - line station or more	Set	1	11157	12007.72125	12007.72125	
	7	Design of Circuit Diagrams consisting of the items as mentioned below & submission of three paper copies for approval (i) Wiring Diagrams (ii)Relay Disposition Charts Contact analysis and fuse particulars (iv)panel termination chart (v)CT rack particulars (vi) Input & output bit chart for EI systems.						0
	7.01	For a five - line station or more	Per Stn	1	124696	134204.07	134204.07	
	8	Design of Miscellaneous Diagrams consisting of the items as mentioned below & submission of Three paper copies for approval Floor Plan of Relay Room , Battery Room, Power Equipment Room, Data logger room etc.						

		(ii) Power Supply Diagrams along with power supply calculation. (iii) Earthing Diagram					0
8.01		For a five - line station or more	Per Stn	1	4594	4944.2925	4944.2925
9		Design of Location Box Drawings (Including Contact Analysis, Fuse Particulars etc) and submission of Three paper copies for approval					0
9.01		For a five - line station or more	Per Stn	1	1641	1766.12625	1766.12625
10.01		Design of Goomty Drawings (Including Relay Disposition Chart, Contact Analysis, Fuse Particulars, CT Rack Particulars and Floor Plan etc) and submission of Three paper copies for approval					0
10.1		For a Five-Line Station or more	Per Stn	1	3282	3532.2525	3532.2525
11		Supply of Original Tracing of SIP after incorporating all the corrections.					0
11.01		For a Six-Line Station or more	Nos	1	663	713.55375	713.55375

	12	Supply of Original Tracing of SWRD after incorporating all the corrections.						0
	12 .0 1	For a Five-Line Station or more	Nos	1	459	493.99875	493.99875	493.99875
	13	Supply of Original Tracing of RCC after incorporating all the corrections.						0
	13 .0 1	For a Five-Line Station or more	Nos	1	591	636.06375	636.06375	636.06375
	14	Supply of Original Tracing of Cable Route Plan (Distant to Distant) after incorporating all the corrections.						0
	14 .0 1	For a Five-Line Station or more	Nos	1	1182	1272.1275	1272.1275	1272.1275
	15	Supply of Original Tracing of Cable Route Plan (Mid Section) after incorporating all the corrections.						0
	15 .0 1	For a Six-Line Station or more	Nos	1	1342	1444.3275	1444.3275	1444.3275
	16	Supply of Original Tracing of Cable Distribution Plan after incorporating all the corrections.						0

16 .0 1	For a Five-Line Station or more	Nos	1	1182	1272.1275	1272.1275
17	Supply of Original Tracing of Circuit Diagrams consisting of the items as mentioned below after incorporating all the corrections. Wiring Diagrams Relay Disposition Charts (iii) Contact Analysis and Fuse Particulars Panel Termination Chart CT Rack Particulars Input & Output Bit Chart for EI Systems					0
17 .0 1	For a Five-Line Station or more	Per Stn	1	22051	23732.38875	23732.38875
18	Supply of Original Tracing of Miscellaneous Diagrams consisting of the items as mentioned below after incorporating all the corrections. Floor Plan of Relay Room , Battery Room, Power Equipment Room, Data logger room etc (ii)Power Supply Diagrams along with power supply calculation. (iii) Earthing Diagram					0
18 .0 1	For a Five-Line Station or more	Per Stn	1	2297	2472.14625	2472.14625
19	Supply of Original Tracing of Location Box Drawings (Including Contact Analysis, Fuse Particulars etc) after incorporating all the corrections.					0

19 .0 1	For a Five-Line Station or more	Per Stn	1	2297	2472.14625	2472.14625
20	Supply of Original Tracing of Goomty Drawings (Including Relay Disposition Chart, Contact Analysis, Fuse Particulars, CT Rack Particulars and Floor Plan etc) after incorporating all the corrections.					0
20 .0 1	For a Five-Line Station or more	Per Stn	1	3609	3884.18625	3884.18625
21	Supply of Amonia Print of Approved SIP .					0
21 .0 1	For a Five-Line Station or more	Nos	6	33	35.51625	213.0975
22	Supply of Amonia Print of Approved SWRD.					0
22 .0 1	For a Five-Line Station or more	Nos	6	33	35.51625	213.0975
23	Supply of Amonia Print of Approved RCC.					0

23 .0 1	For a Five-Line Station or more	Nos	6	33	35.51625	213.0975
24	Supply of Amonia Print of Approved Cable Route Plan(Distant to Distant).					0
24 .0 1	For a Five-Line Station or more	Nos	6	33	35.51625	213.0975
25	Supply of Amonia Print of Approved Cable Route Plan(Mid Section).					0
25 .0 1	For a Six-Line Station or more	Nos	6	35	37.66875	226.0125
26	Supply of Amonia Print of Approved Cable Distribution Plan.					0
26 .0 1	For a Five-Line Station or more	Nos	6	33	35.51625	213.0975
27	Supply of Amonia Print of Approved Circuit Diagrams consisting of the items as mentioned below. (i) Wiring Diagrams (ii) Relay Disposition Charts (iii) Contact Analysis and Fuse Particulars					0

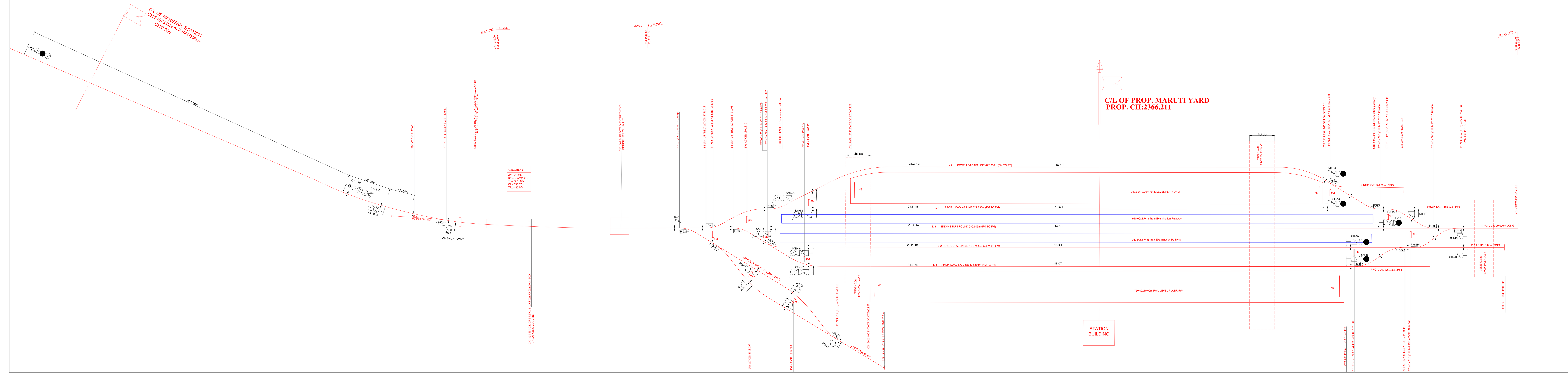
		Panel Termination Chart CT Rack Particulars					
27 .0 1		For a Five-Line Station or more	Per Stn	6	3937	4237.19625	25423.1775
28		Supply of Amonia Print of Approved Miscellaneous Diagrams consisting of the items as mentioned below. (i) Floor Plan of Relay Room , Battery Room, Power Equipment Room, Data logger room etc					0
28 .0 1		For a Five-Line Station or more	Per Stn	6	329	354.08625	2124.5175
29		Supply of Amonia Print of Approved Location Box Drawings (Including Contact Analysis, Fuse Particulars etc).					0
29 .0 1		For a Five-Line Station or more	Per Stn	6	329	354.08625	2124.5175
30		Supply of Amonia Print of Approved Goomty Drawings ((Including Relay Disposition Chart, Contact Analysis, Fuse Particulars, CT Rack Particulars and Floor Plan etc).					0
30 .0 1		For a Five-Line Station or more	Per	6			

			Stn		656	706.02	4236.12
	31	Supply of eight sets of Amonia Print of Approved Completion SIP .					0
	31 .0 1	For a Five-Line Station or more	Per Stn	6	263	283.05375	1698.3225
	32	Supply of eight sets of Amonia Print of Approved Completion SWRD.					0
	32 .0 1	For a Five-Line Station or more	Per Stn	6	263	283.05375	1698.3225
	33	Supply of eight sets of Amonia Print of Approved Completion RCC.					0
	33 .0 1	For a Five-Line Station or more	Per Stn	6	263	283.05375	1698.3225
	34	Supply of eight sets of Amonia Print of Approved Completion Cable Route Plan(Distant to Distant).					0
	34 .0 1	For a Five-Line Station or more	Per Stn	6	263	283.05375	1698.3225

	35	Supply of eight sets of Amonia Print of Approved Completion Cable Route Plan(Mid Section).					0
	35 .0 1	For a Six-Line Station or more	Per Stn	6	279	300.27375	1801.6425
	36	Supply of eight sets of Amonia Print of Approved Completion Cable Distribution Plan.					0
	36 .0 1	For a Five-Line Station or more	Per Stn	6	263	283.05375	1698.3225
	37	Supply of Eight sets of Amonia Print of Approved Completion Circuit Diagrams consisting of the items as mentioned below. Wiring Diagrams Relay Disposition Charts (iii) Contact Analysis and Fuse Particulars Panel Termination Chart CT Rack Particulars Input & Output Bit Chart for EI Systems					0
	37 .0 1	For a Five-Line Station or more	Per Stn	6	31502	33904.0275	203424.165
	38	Supply of Eight sets of Amonia Print of Approved Completion Miscellaneous Diagrams consisting of the items as mentioned below. Floor Plan of Relay Room , Battery Room, Power Equipment Room, Data logger room etc					

	(ii) Power Supply Diagrams along with power supply calculation. (iii) Earthing Diagram					0
38 .0 1	For a Five-Line Station or more	Per Stn	6	2625	2825.15625	16950.9375
39	Supply of Eight sets of Amonia Print of Approved Completion Location Box Drawings (Including Contact Analysis, Fuse Particulars etc).					0
39 .0 1	For a Five-Line Station or more	Per Stn	6	2625	2825.15625	16950.9375
40	Supply of Eight sets of Amonia Print of Approved Completion Goomty Drawings (Including Relay Disposition Chart, Contact Analysis, Fuse Particulars, CT Rack Particulars and Floor Plan etc).					0
40 .0 1	For a Five-Line Station or more	Per Stn	6	5250	5650.3125	33901.875
	Any other drawings required for execution purpose beyond the above has to be prepared and approved by competent authority and extra payment will be made for the same.					0
41	Hiring of 1 No. AC SUV vehicles for one year i.e /Scorpio/Innova Crysta/Bolero/SUV700 or similar on monthly basis including all maintenance , major/minor repairs cost of lubricants, fuels, driver,GST,taxes, etc. complete(Availability 24 hrs, Toll tax and parking charge will be paid extra). @Rs.11	Year	2	₹	₹	6,07,187

		per km extra charges beyond KM 2500 per month.			6,07,187		1214374
42		Supply & installation of Fibre Distribution Management System, 19" rack mountable for 2x24 fibre OFC with connector, patch cord & pigtails as per specn. No. RDSO/SPN/TC/ 37/2000 (Ver. 3) with latest amendment suitable for termination of 2x24 fibre OFC	No.	4	45458.3	50117.78678	200471.1471
43		Supply of unskilled labour to assist as well as hepling the HRIDC/RAILWAY official during execution of work at site, Contractor will follow the Labour Law and contractor will provide prpoer uniform to engaged person payment will be made for work considering as 8 hrs shift from starting to end which may be covering day and night.	pershift	432	590	650.475	281005.2
		Total Cost (Without GST)					103191062.6
Total Amount (with GST@18%)							121765453.8



- NOTE:**
- CH:00 IS RECKONED AS C.L. OF MANESAR STATION BUILDING
 - ALL DIMENSIONS ARE SHOWN IN METRES
 - LOOP STARTERS ARE APPROX. CLEARED
 - ALL UP & DN INTERMEDIATE STARTERS ARE RELEASED THROUGH OFF ASPECT OF UP & DN ADVANCED STARTER SIGNALS RESPECTIVELY.
 - THE SPARE KEYS ARE KEPT IN SEPARATE GLASS FRONTED BOX IN SAFE CUSTODY OF S.M ON DUTY TO BE USED IN CASE OF EMERGENCY WHEN T-2 LOCKS FAILS.
 - THE CRANK HANDLE GROUPS ARE PROVIDED. EACH CRANK HANDLE FOR EACH GROUP SHALL HAVE DIFFERENT WARD WITH POINT MACHINE HAVING MATCHING SPIGOTS.
 - SIGNALING INSTALLATION IS SUITABLE FOR 25KV AC TRACTION.
 - DISTANCE OF THE SIGNAL FROM SIGNAL POINT IS 6M AND 22.60M RESPECTIVELY EXCEPT WHERE INDICATED.
 - DISTANCE BETWEEN SIGNAL POINT AND SIGNAL IS 3M (EXCEPT FOR ADVANCE STARTER, HOME SIGNAL AND INDEPENDENT SHUNT SIGNAL WHICH IS 10M).
 - FOLLOWING PROVISIONS FOR EMERGENCY OPERATION SHALL BE PROVIDED: ARSIGNAL CANCELLATION (EGGZ) B) ROUTE RELEASE (EJUN) C) POINT OPERATION (EWN) D) OVERLAP RELEASE (OYN)
 - FOLLOWING PROVISIONS FOR COUNTERS SHALL BE PROVIDED: (ARUUYZ) B) EGGZ C) EWZ D) COGZ E) OYZ

LEGEND

PROPOSED LINE	—
MBAC DP	•••
POINT MACHINE	□
BPAC	⊕

SIGNATURE

NAME / DESIGNATION	SIGN	NAME / DESIGNATION	SIGN

PROJECT:
 HARYANA ORBITAL RAIL CORRIDOR
 CONNECTING PALWAL TO SONPAT BYPASSING DELHI AREA BY LINKING ASAOPTIPATU-SULTANPUR-ASUDAHAH BY NEW ELECTRIFIED BG DOUBLE LINE

CLIENT:
 HARYANA RAIL INFRASTRUCTURE DEVELOPMENT CORPORATION LIMITED.

DRAWING NAME:
 TENTATIVE SIGNALLING INTERLOCKING PLAN
 MARUTI YARD

(DISTRIBUTED ELECTRONIC INTERLOCKING)	CLASS B	STANDARD OF INTERLOCKING: (IIR)
SCALE	HORIZONTAL: 1:500	VERTICAL: 1:500
DWG. NO.		
TO SUIT ESP. NO.		
ISSUE DATE	REV:	RD
REVISION DATE		
RELEASED FOR	<input type="checkbox"/> PRELIMINARY FOR APPROVAL	<input checked="" type="checkbox"/> TENDER