

Tender No. DFC_ADI_ENG_BRINSP17_PNUN



Tender No. DFC_ADI_ENG_BRINSP17_PNUN

For

Detailed Technical Inspection of ROBs, RFOs, Aqueducts and Important and Major bridge girders under the jurisdiction of CGM/Ahmedabad/DFCCIL from New Palanpur to Sanand Station of DFC.

(PARTICIPATION THROUGH E-TENDER ONLY)

Visit:- www.ireps.gov.in/ itslink at www.dfccil.com

(Help Desk of IREPS : 011-23761525)

TENDER DOCUMENT

January-2025

Employer:

**DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LIMITED
CGM-AHMEDABAD UNIT
(A GOVERNMENT OF INDIA ENTERPRISE)
UNDER MINISTRY OF RAILWAYS**

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Instructions to bidders for online bidding

Important instructions to Tenderer(s) before submitting their tenders online.

General: - All bidders must note that this being E-tender, bids received only through online on E-tendering portal <http://www.ireps.gov.in> shall be considered as a valid offer. Any bid submitted in paper form will not be received and opened and shall be summarily rejected. E-tendering site- <https://www.ireps.gov.in> / its link at www.dfccil.com (Help desk of IREPS: 011 -23761525). The tenderer/bidders must have Class-III Digital Signature Certificate & must be register on IREPS portal. Only registered tenderer/bidders can participate on e-Tendering. All relevant documents must be uploaded at the time of participating in e-Tendering.

The bidder must ensure that the tender document submission before the closing time as the tender submission shall stop accepting the offer at prescribed date and time.

1. **Online Bidding Methodology:**

Online Bid System

2. **Broad outline of activities from Bidders perspective:-**

- a. Procure a Digital Signing Certificate (DSC)
- b. Register on Electronic Tendering System (ETS)
- c. Create Users and assign roles on ETS
- d. View Notice Inviting Tender (NIT) on (ETS)
- e. Download Official copy of Tender Documents from ETS.
- f. Clarification to Tender Documents on ETS - Query to DFCCIL (Optional) - view response to queries posted by DFCCIL through addenda.
- g. Bid Submission on ETS: Prepare & arrange all documents/paper for submission of bid online and tender fees deposit through E-Payment gateway.
- h. Attend Public Online Tender Opening Event (TOE) on ETS.
- i. Post TOE clarification on ETS (Optional). Respond to DFCCIL's post - TOE queries.

For participating in this tender online, the following instructions are to be read carefully. These instructions are supplemented with more detailed guidelines on the relevant screens of the ETS.

3. **Digital Certificate:**

For integrity of data and its authenticity/ non repudiation of electronic records and to be compliant with IT Act 2000, it is necessary for each user to have a Digital Certificate (DC) also referred to as Digital Signature Certificate (DSC) of class III issued by a Certifying Authority (CA) licensed by Controller of Certifying Authority (CCA) (refer <http://www.cca.gov.in>).

4. **Registration:**

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The Tender documents can be downloaded from the website: <https://www.ireps.gov.in> and to be submitted in the e - format. Cost of the Tender Documents and EMD have to be submitted only through online payment modes available on IREPS portal like net banking, debit card, credit card etc. Manual payments through Demand draft, Banker's cheque, Deposit receipts, FDR etc. are not allowed. Payments against this tender towards tender document cost and earnest money are to be deposited /submitted before the schedule date & time of submission of the tender otherwise the Bid will not be considered. Amendments, if any, to the tender document will be notified in the above website as and when such amendments are notified. It is the responsibility of the bidders who have downloaded the tender documents from the website to keep themselves abreast of such amendments before submitting the tender documents.

Intending bidders are requested to register themselves on IREPS portal through <https://www.ireps.gov.in> for obtaining User ID and Password by paying Vendor registration fee and processing fee for participating in the above-mentioned tender.

“Vender Manual” containing the detailed guidelines for E-Tendering is available on www.ireps.gov.in

5. DFCCIL has decided to use process of E- Tendering for inviting this tender and thus the physical copy of the tender documents would not be sold/ accepted.

- i) Amendments, if any, to the tender document will be notified in the above website as and when such amendments are to be notified. It is the responsibility of the Tenderer who has downloaded the tender documents from the website to keep themselves abreast of such amendments and attach all the addendum/addenda/corrigendum/corrigenda (if any) duly signed along with the submission of the tender documents.
- ii) To participate in the E-bid submission, it is mandatory for the Bidders to get themselves registered with the IREPS (www.ireps.gov.in) and to have User ID and Password.

6. Bank Account Details of DFCCIL

Name	CGM DFCCIL, Ahmedabad
Bank account number	312601010330681
IFSC code	UBIN0546836
Bank Name	Union Bank of India
Bank Branch	Moti Bagh, New Delhi
GST No.	24AACCD4768M1ZB

7.0 DOCUMENTS ESTABLISHING BIDDER'S ELIGIBILITY AND QUALIFICATION AS PER BID:-

The bidder shall furnish, as part of his bid document establishing the bidder's eligibility. All these documents should be numbered and should be signed by bidder in each page.

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- 7.1 Tender fee & EMD has to be deposited through e-payment only. The tender processing fees as per applicable rate payable through the e-payment gateways to IREPS portal is Non-refundable. Payments against this tender towards tender document cost and earnest money are to be done before the schedule date & time of submission of the tender otherwise the Bid will not be considered.
- 7.2 Each page of the tender papers is to be digitally signed by the tenderers or such person/s on his/their behalf that is/are legally authorized to sign for him / them.
- 7.3 Copy of PAN card.
- 7.4 The authenticated copy of registered partnership deed and registration of the firm from registrar of firm in case of partnership firm.
- 7.5 In case of proprietorship firm bidder will submit an affidavit, attested by Notary Public that "I am a sole proprietor of the firm _____ in case of _____ proprietorship firm on Non judicial stamp paper.
- 7.6 Bidder's profile duly filled in, as per tender document.
- 7.7 Power of Attorney for signing the Application. If applicable, the Power of Attorney for Lead Member of JV;
- 7.8 Article of association and memorandum in case of private/public limited company.
- 7.9 Copy of E.P.F. registration.
- 7.10 Copy of ESI Certificate.
- 7.11 Copy of GST registration no.
- 7.12 Certificate for non near relative in DFCCIL.
- 7.13 Memorandum of Understanding (in case of JV) as per Form-9 (Part-IV, Chapter-II of BID DOCUMENT.)

Note: - (i) Any discrepancy found in the downloaded tender document submitted by the bidder compared to uploaded tender document, the tender document uploaded by the DFCCIL will be treated as valid and any changes (found in the tender document submitted by the bidder) at any stage, will be treated as fraud done to the DFCCIL, and will be liable to cancellation of agreement done (if any) & appropriate action will be taken against the bidder.

(ii) While submitting the Tender Online the Tenderer shall read the terms & conditions and accept the same in order to proceed further to submit their Tender.

8.0 The following "FOUR KEY INSTRUCTIONS for BIDDERS" must be assiduously adhered to:

1. Obtain individual Digital Signing Certificate (DSC or DC) well in advance of your first tender submission deadline on ETS.
2. Register your organization on ETS well in advance of your first tender submission deadline on ETS.
3. Get your organization's concerned executives trained on ETS using online training module well in advance of your tender submission deadline on ETS.
4. Submit your bids well in advance of tender submission deadline on ETS (DFCCIL should not be responsible for any problem arising out of internet connectivity issues).

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9.0 Modification / Withdrawal of bids:

- (i) The Bidder may modify/ withdraw its e- bid after submission prior to the Bid Due Date & time. No Bid shall be modified / withdrawn by the Applicant on or after the Bid Due Date & time.
- (ii) Any alteration/ modification in the Bid or additional information supplied subsequent to the Bid Due Date, unless the same has been expressly sought for by the Authority, shall be disregarded.
- (iii) For modification of e-bid, applicant has to detach its old bid from e-tendering portal and upload / resubmit digitally signed modified bid.
- (iv) For withdrawal of bid, applicant has to click on withdrawal icon at e-tendering portal and can withdraw its e-bid.

10. Method for submission of bid documents

In this TENDER, the Tenderer has to participate in e-Tendering online. Tender Document fee & EMD in respect of e-tendering should accept through net banking or payment gateway only before the schedule date.

Note: The Bidder has to upload the Scanned copy of all required above said documents during Online Bid submission.

Other instructions

- a) It is recommended that the Tenderer/vendor should visit the portal (ireps.gov.in), peruse the information provided under the relevant links and login to it and upload documents of bid.
- b) DFCCIL reserves right to cancel the tender before submission / opening of tender, postpone the tender submission / opening date and to accept / reject any or all tenders without assigning any reason thereof. DFCCIL's assessment of suitability as per eligibility criteria shall be final and binding.
- c) Information as required as per various Forms/Annexures to tender document should be submitted by the tenderers without fail strictly as per formats.

11. OPENING AND EVALUATION OF BIDS:

- (i) Opening of Bids will be done through online process.
- (ii) For participating in the tender, the authorized signatory holding Power of Attorney shall be the Digital Signatory. In case the authorized signatory holding Power of Attorney and Digital Signatory are not the same, the bid shall be considered non-responsive.

The DFCCIL Authority shall open bid documents received in electronic form at the scheduled date and time of opening of tender i.e. in the presence of the Bidders who choose to attend.

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The DFCCIL Authority will subsequently examine and evaluate the Bids in accordance with the provisions set out in the BID DOCUMENTS.

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PART- I
Chapter I

NOTICE INVITING TENDER

PART- I Chapter I

NOTICE INVITING TENDER E TENDER

Dear Sir,

Name of Work: Detailed Technical Inspection of ROBs, RFOs, Aqueducts and Important and Major bridge girders under the jurisdiction of CGM/Ahmedabad/DFCCIL from New Palanpur to Sanand Station of DFC.

- 1.1.1 Office of the Chief General Manager, Dedicated Freight Corridor Corporation of India Limited, OCC Building, 'D' Cabin Road, Sabarmati, Ahmedabad-380019, Gujarat,** invites tenders in prescribed forms from firms/ Companies/ Joint Ventures (If Applicable) having requisite experience and financial capacity for execution of the following work:

Table 1				
S. No.	Name of work	Tender cost (Rs)	Earnest money (Rs)	Completion Period
1.	Detailed Technical Inspection of ROBs, RFOs, Aqueducts and Important and Major bridge girders under the jurisdiction of CGM/Ahmedabad/DFCCIL from New Palanpur to Sanand Station of DFC.	Rs. 50,83,828.58 /- (Incl. GST)	1,01,700/-	4 months

- 1.1.2** Eligibility shall be assessed on applicants, fulfilling the technical capability and competence as well as for financial and organizational resources as specified in clause no. 1.3.13 (i) A & B of Preamble and General instruction to tenders (Part-I, Chapter III).
- 1.1.3** The tender documents for this work can be downloaded from website www.ireps.gov.in, www.dfccil.com, and Central Procurement Portal, eprocure.gov.in. and offer of the same shall be uploaded only in the website www.ireps.gov.in. The tenderers shall carefully study the conditions given below and submit the offers accordingly, failing which the offers are liable to be not considered:
- 1.1.4** A master copy of the document downloaded from the website mentioned above shall be kept in the office of the tender inviting authority. In case of any discrepancy between the tender document downloaded from the website and the master copy, the latter shall prevail and shall be binding on the tenderer. The offer received shall be deemed to have been submitted on the document as uploaded and appearing in the website mentioned above whose master copy is kept in the office of the tender inviting authority and the agreement shall also be prepared on the basis of master document kept in the office of tender inviting authority.

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- 1.1.5** The cost of tender document (tender fee) as mentioned in the notice inviting tender on website www.ireps.gov.in, should be accepted through net banking on payment gateway. The cost of tender document shall not be clubbed with the earnest money deposit. The tenders unaccompanied with the requisite cost of tender documents in appropriate form shall not be considered or as per instruction given on website www.ireps.gov.in.
- 1.1.6** The tenders shall be filled up after careful study of the documents and the site and any clarification required may be obtained from the tender inviting authority.
- 1.1.7** The tenderers downloading the documents from internet must keep themselves updated through the website from which the tender document is downloaded regarding corrigenda, if any, to the notice inviting tender or the tender document, which shall be uploaded in the same website. The offers received without such corrigenda published through website shall be liable to be rejected.
- 1.1.8** Any wilful changes/deletion/addition in printing carried out in the tender documents shall be viewed very seriously, whether detected at the time of opening/award of tender or after award of work and the same may result in penal action including banning of further business with the defaulting tenderers. In addition, the tenderers are liable to be prosecuted for the same as per law.
- 1.1.9** **I/We certified that I/we am/are not black listed or debarred by Railways or any other Ministry/Department of the Government of India/State Government from participation in tenders/contract on the date of opening of tenders/bids.**
- 1.1.10** E-Tenders shall be opened online at the time and given date as per NIT.

Section -2 Instructions to Bidders (ITB)

2.0 SUBMISSION OF E-TENDER: -

2.1 Tender Document Obtaining Process

2.1.1 It is mandatory for all Tenderers to have Class-III Digital Signature Certified from any of the Licensed Certifying Agencies ('CA') to participate in E-Tendering of DFCCIL, (Tenderer can see the list of Licensed CAs from the link www.cca.gov.in), in the name of the person who will submit the Online tender and is authorized to do so.

2.1.2 To participate in E-Tender, it is mandatory for Tenderers to get themselves registered with the IREPS (www.ireps.gov.in) and to have User ID and Password.

2.1.3 www.ireps.gov.in is the only website for submission of tender. 'Vender Manual' containing the detailed guidelines for E-Tendering is available on www.ireps.gov.in.

2.1.4 A master copy of the document downloaded from the website mentioned above shall be kept in the office of the tender inviting authority. In case of any discrepancy between the tender document downloaded from the website and the master copy, the latter shall prevail and shall be binding on the tenderer. The offer received shall be deemed to have been submitted on the document as uploaded and appearing in the website mentioned above whose master copy is kept in the office of the tender inviting authority and the agreement shall also be prepared on the basis of master document kept in the office of tender inviting authority.

2.2 The tenderers downloading the documents from internet must keep themselves updated through the website from which the tender document is downloaded regarding corrigenda, if any, to the notice inviting tender or the tender document, which shall be uploaded in the same website. The offers received without such corrigenda published through website shall be liable to be rejected.

2.3 The cost of tender document (tender fee) as mentioned in the notice inviting tender on website www.ireps.gov.in, should be accepted through net banking on payment gateway. The cost of tender document shall not be clubbed with the earnest money deposit. The tenders unaccompanied with the requisite cost of tender documents in appropriate form shall not be considered or as per instruction given on website www.ireps.gov.in.

2.4 The tenders shall be filled up after careful study of the documents and the site and any clarification required may be obtained from the tender inviting authority.

2.4.1 The detailed instructions of e-tendering can be read through website www.ireps.gov.in

2.4.2 The Addendum/Corrigendum, if any; shall be hosted on the website

- 2.4.3** The tender will be accepted only in e-tendering mode and no other mode of submission shall be accepted.
- 2.4.4** The supporting documents for all Eligibility Criteria, JV (If applicable) etc. are essentially required to be uploaded on the website www.ireps.gov.in.
- 2.4.5** Tenderers are required to give Un-Conditional Offers. A Conditional Offer is liable to be rejected. DFCCIL reserves the right to modify, expand, restrict, scrap, reject and re-float tender without assigning any reasons whatsoever.
- 2.5** The Tenderers shall closely peruse all the clauses, instructions, terms and conditions, scope of work, specification etc. as indicated in the Tender Document before quoting the offer.
- 2.6** Bid Document shall be accompanied by all the documents required to be submitted as specified in the Tender Document along with all Addendums and Corrigendum.
- 2.7** All Bids shall be submitted in accordance with the instructions contained in the Tender Document (Bid Document). Non-compliance of any of the instructions contained in the Tender Document is liable in Bid being rejected.
- 2.8** After award of contract to the Successful Contractor, if it is observed that there is any discrepancy or ambiguity about any terms and conditions mentioned in the Tender Document, the interpretation of same given by DFCCIL shall be considered as final and binding.
- 2.9** Contractor may visit the site on any working day to assess the Scope of Work before submitting their offer.
- 2.10** Completed tender documents should be uploaded on or before the date and time of closing of tender specified in the NIT and tender document.
- 2.11 Any tender received without Earnest money and cost of tender documents in the form as specified in the tender documents shall not be considered and shall be summarily rejected.**
- 2.12** DFCCIL reserves right to cancel the tender before submission /opening of tender, postpone the tender submission/ opening date and to accept/reject any or all tenders without assigning any reason thereof. DFCCIL's assessment of suitability as per eligibility criteria shall be final and binding.

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2.13 Tenderers may note that they are liable to be disqualified at any time during tendering process in case any of the information furnished by them is not found to be true. EMD of such tenderers shall be forfeited. The decision of DFCCIL in this regards shall be final and binding.

2.14 Information as required as per various Forms to tender document should be submitted by the tenderers without fail strictly as per formats provided.

2.15 The validity of offer shall be 45 days from the date of opening of the tender.

** ** *

PART - I
Chapter II

GENERAL INFORMATION / DATA SHEET

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PART - I

Chapter II

GENERAL INFORMATION/DATA SHEET

TENDER NOTICE NO.	DFC_ADI_ENG_BRINSP17_PNUN
Name of the work	Detailed Technical Inspection of ROB, RFOs, Aqueducts and Important and Major bridge girders under the jurisdiction of CGM/Ahmedabad/DFCCIL from New Palanpur to Sanand Station of DFC.
Tender Value	Rs. 50,83,828.58/- (Including GST)
Completion Period	4 months
Bid security	Rs. 1,01,700/-
Cost of Tender Document	Rs. 5,900/- to be paid online through payment gateway provided at www.ireps.gov.in payable in favour of "Dedicated Freight Corridor Corporation of India Limited, Ahmedabad"
Bidding Start Date	31-01-2025
Bidding closing Date and Time	14-02-2025 up to 15:00 Hrs
E-Tendering Web site Address:	www.ireps.gov.in www.ireps.gov.in/itslink at www.dfccil.com (Help Desk of IREPS : 011-23761525) For any clarification, help and registration for E- Tendering & matter relating to Digital Signature, contact at Help Desk.
Validity of offer	45 days
Security Deposit	5 % of Contract Value
Performance Bank Guarantee	Performance Guarantee (PG) have to be submitted within 21(Twenty One) days from the date of issue of Letter Of Acceptance (LOA), amounting to 5% of the contract value in the form as give in clause 16.(4) of GCC.
Office Address	Office of the Chief General Manager, Dedicated Freight Corridor Corporation of India Limited, OCC Building, 'D' Cabin Road, Sabarmati, Ahmedabad-380019, Gujarat

PART- I
Chapter- III

**PREAMBLE & GENERAL INSTRUCTION
TO TENDERERS**

PREAMBLE & GENERAL INSTRUCTIONS TO TENDERERS

1.3.1 Introduction

(i) General

Dedicated Freight Corridor Corporation of India Ltd. (DFCCIL), a public sector under taking has been set up under the Indian Companies Act, 1956 for implementation of Dedicated Freight Corridor Project. Government of India is the sole shareholder of the DFCCIL.

Ministry of Railways (MOR), Government of India has planned to construct Dedicated Freight Corridor (DFC) covering about 3338 route Kilometres on Eastern and Western Corridors. The coverage of Eastern Corridor is from Ludhiana to Dankuni and Western Corridor is planned from Jawaharlal Nehru Port, Mumbai to Dadri near Delhi. There will be a linkage between two corridors at Dadri.

(ii) Dedicated Freight Corridor

Eastern DFC Route will be approximately 1839 Km long from Dankuni to Ludhiana via Dankuni – Asansole – Dhanbad – Gaya – Sonnagar - Mughalsarai - Allahabad - Kanpur - Tundla - Aligarh - Khurja - Bulandshahr – Meerut – Saharanpur – Ambala - Ludhiana.

Western DFC Route will be approximately 1520 Km long from Dadri to JNPT via Rewari – Iqbalgarh - Vadodara- JNPT.

Proposed alignment of DFC has been generally kept parallel to existing Indian Railway line except provision of detours at some stations where the existing yards/cities are congested. Level Crossings (LC's) are generally unsafe locations and also a congestion points for road/rail's users. These LC's are operational bottlenecks for Railways /DFCCIL in terms of loss in punctuality and reduction in line capacity.

(iii) Scope of Work

On behalf of MD DFCCIL, Office of the Chief General Manager, Dedicated Freight Corridor Corporation of India Limited, OCC Building, 'D' Cabin Road, Sabarmati, Ahmedabad-380019, Gujarat, herein after referred to as 'DFCCIL' is inviting e-tenders from Firms/ Companies/Joint Ventures having requisite experience and financial capacity for execution of the following work:

“Detailed Technical Inspection of ROB's, RFO's, Aqueducts and Important and Major bridge girders under the jurisdiction of CGM/Ahmedabad/DFCCIL from New Palanpur to Sanand Station of DFC.

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Note: The scope of work is only indicative and as per requirement, additional activities related to the work and safety can be introduced in the scope of work.

- (a) The proposed work is mainly for Inspection of Bridges between PNUN to SAUN DFC section as per the code and manuals of Indian Railway Bridge Manual/DFCC & latest guidelines issued by Railway Board / DFCCIL time to time and as instructed by representative of DFCCIL i.e. Executive/JPM/APM/Dy.PM etc. of the section.
 - (b) Detailed Scope of work/ List of Major / Important bridges, ROBs, RFOs is available in the office of CGM/DFCCIL/Ahmedabad and same will be provided during commencement of the work. However, DFCCIL reserves right to addition/alteration these locations/Bridges at their own discretion without assigning any reason and contractor is bound to carry out the work.
- (iv) **Cost of the work:** The estimated cost of the work is shown as per NIT **which includes GST, Rs. 50,83,828.58/- (Including GST)**
- (v) The tenderer shall be governed by General Conditions of Contract (GCC), Preamble and General Instructions to Tenderers (ITT) and Special Conditions of Contract (SCC). Wherever, there is a conflict in any condition between GCC and Special Conditions of Contract mentioned in the tender documents, the condition mentioned in Special Conditions of Contract will prevail. However, decision of DFCCIL in this connection shall be final and binding to contract.
- Part I, Chapter-IV and V of the tender document contains General Conditions of Contract and Special Conditions of Contract specific to this work and shall be applicable in the contract.
- (vi) **Location**
Works shall be executed mainly in the mentioned section in the jurisdiction of Chief General Manager/ DFCCIL/Ahmedabad Unit. However, DFCCIL reserves right to change the site of work anywhere in adjacent / adjoining area of the work defined in Para 1.3.1 (iii) above in the jurisdiction and the contractor shall be bound to execute the work without any extra cost.

1.3.2(a) Tender Bid

The Tender Bid shall be submitted through online only on website www.ireps.gov.in as under:-

1.3.2(b) Form of Tender

The Tender documents shall be in single packet system.

DFCCIL RAILWAY

TENDER FORM (First Sheet)

Tender No. _____

Name of Work _____

To

The Chief General Manager,
DFCCIL, Ahmedabad

Acting through the _____ Railway

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 offer open for acceptance for a period of _____ days from the date fixed for closing of the tender and in default thereof, I/We will be liable for forfeiture of my/our "Bid Security". I/We offer to do the work for _____ DFCCIL, at the rates quoted in the attached bill(s) of quantities and hereby bind myself/ourselves to complete the work in all respects within _____ 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, with all correction slips up-to-date and to carry out the work according to the Special Conditions of Contract and Specifications of materials and works as laid down by Railway in the annexed Special Conditions/Specifications, Standard Schedule of Rates (SSOR), DSR Vol-I & Vol-II and its specification with all correction slips up-to-date for the present contract.

3. A Bid Security of Rs. _____ has already been deposited online/ submitted as Bank Guarantee bond. Full value of the Bid Security shall stand 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 days after receipt of notice issued by the DFCCIL that such documents are ready; and

(c) I/We do not commence the work within fifteen days after receipt of orders to that effect.

4. (a) I/We am/are a Startup firm registered by Department of Industrial Policy and Promotion (DIPP) and my registration number is valid upto (Copy enclosed) and hence exempted from submission of Bid Security.

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

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6. Until a formal 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)

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TENDER FORM (Second Sheet)

1. Instructions to Tenderers and Conditions of Tender: The following documents form part of Tender / Contract:

- (a) Tender Forms
- (b) Special Conditions/Specifications (enclosed)
- (c) Schedule of approximate quantities (enclosed)
- (d) Standard General Conditions of Contract-2022 of Indian Railways and Standard Specifications (Works and Materials) of Indian Railways as amended/corrected upto latest correction slips, copies of which can be seen in the office of DFCCIL Ahmedabad.
- (e) IRUSSOR-2021 as amended / corrected upto latest correction slips, copies of which can be seen in the office of DFCCIL Ahmedabad.
- (f) All general and detailed instruction/drawings pertaining to this work which will be issued by the Engineer/DFCCIL or his representatives (from time to time).

2. The Tenderer(s) shall quote his / their rates as a percentage above or below the Schedule of Rates of Tender and must tender for all the items shown in the Schedule of approximate quantities attached. The quantities shown in the attached Schedule are given as a guide and are approximate only and are subject to variation according to the needs of the DFCCIL. The DFCCIL does not guarantee work under each item of the Schedule. The tenderer(s) shall quote rates / rebates only at specified place in online financial Bid. 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.**

3. 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.

4. The works are required to be completed within a period of **4 months** from the date of issue of acceptance letter.

5. Tenders not submitted in the proper Forms are liable to be rejected.

6. Documents to be enclosed with the BID -

S. No	Description	Documents
(1)	Offer letter complete.	Form No.1
(2)	Tenderer's credentials in accordance With para 1.3.13 (i), (ii) & (iii) of Preamble and General Instructions to Tenderers.	Form No. 2A,2B &2C
(3)	Certificates for authenticity of documents <i>(Non-submission of Form No. 22 (Annexure V on ireps portal) & 22(A) certificate(s) by the bidder shall result in summarily rejection of his/their bid).</i>	Form No. 22 (Annexure V on ireps portal), Form No. 22(A)

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S. No	Description	Documents
(4)	Bid Security in accordance with Para 1.3.8 and Cost of Tender Document in case of downloaded tenders in accordance with Para1.3.4.3 of Preamble and General Instructions to Tenderers in an envelope.	
(5)	Written confirmation authorizing the signatory of the tender to commit the tenderer and other documents as per format as applicable, in accordance with para 1.3.6 of Preamble and General Instructions to Tenderers.	
(7)	A copy of the tender papers including amendments duly signed and scanned or digitally signed by the tenderer on each and every page in token of his having studied the tender papers carefully shall be attached with the tender.	
(6)	Summary of Prices, Schedule of Prices & Total Prices	Shall be quoted on www.ireps.gov.in system

Note: In case of Bid Security submitted in the physical form of Bank Guarantee, shall be submitted on/or before the Bidding closing Date and Time and it shall be in enclosed envelope duly mentioning the tender reference and write “Kind attention to Shri Shailesh Upadhyay, Project Manager/Civil/HQ DFCCIL-Ahmedabad”.

1.3.3 Tender Document

This tender document consists of following five parts along with Instructions to bidders for online bidding:

PART/CHAPTERS	DESCRIPTION
General	Instructions to bidders for Online bidding
PART – I	
Chapter I	Notice Inviting E-Tender
Chapter II	General Information / Data sheet
Chapter III	Preamble and General Instructions to Tenderers
Chapter IV	General Conditions of Contract
Chapter V	Special Conditions of Contract
PART – II	Technical Specifications
Chapter I	Maintenance Standards of Track Maintenance
Chapter II	Assets Maintenance Management Program (AMMP)

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Chapter III	Maintenance Reports
Chapter IV	Inspections
Chapter V	Manpower – Deployment of Minimum Manpower
Chapter VI	KPIs (Key Performance Indicators)
PART – III	
Chapter I	Precautions while working in close proximity of existing Indian
Chapter II	Codes & Specifications to be followed
Chapter III	Priority of Documents
Chapter IV	Additional technical specification
PART – IV	
Chapter I	Milestones and Time Schedule
Chapter II	Tender Forms (including Schedule of Prices)
PART – V	Drawings

1.3.4 Sale and Submission of Tender Document

1.3.4.1 The tender documents for this work can be downloaded from website www.ireps.gov.in, www.dfccil.com, and Central Procurement Portal, eprocare.gov.in. and offer of the same shall be uploaded in the website www.ireps.gov.in. Amendment(s) (if any) will be uploaded on above mentioned websites. For submitting the tender, the Tender documents and amendment(s) can be downloaded from the www.ireps.gov.in by the registered tenderers only.

1.3.4.2 Clause applicable for tender documents downloaded from Internet

Tenderer/s is free to download tender documents at their own cost, for the purpose of perusal as well as for using the same as tender document for submitting their offer. Master copy of the tender document will be available in the Office of the Chief General Manager, Dedicated Freight Corridor Corporation of India Limited, OCC Building, 'D' Cabin Road, Sabarmati, Ahmedabad-380019, Gujarat. After award of the work, an agreement will be drawn up. The agreement shall be prepared based on the master copy available in the Office of the Chief General Manager, Dedicated Freight Corridor Corporation of India Limited, OCC Building, 'D' Cabin Road, Sabarmati, Ahmedabad-380019, Gujarat India and not based on the tender documents submitted by the Tenderer. In case of any discrepancy between the tender documents downloaded from

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the internet and the master copy, later shall prevail and will be binding on the Tenderers. No claim on this account shall be entertained.

1.3.4.3 Cost of Tender documents downloaded from internet

For submission of the tender, the Tender documents and Amendment(s), if any, is/are available on www.ireps.gov.in and the same can be downloaded and used as tender documents for submitting the offer. The cost of the tender document is mentioned in NIT. The cost of the tender document shall be deposited through e-payment mode at www.ireps.gov.in only. In case, the cost of the tender document as detailed above is not deposited, tender will be summarily rejected.

1.3.4.4 Complete tender documents must be submitted online duly completed in all respect upto the scheduled date and time mentioned in the Notice Inviting E-Tender.

1.3.4.5 Tender Document to be downloaded from website www.ireps.gov.in and then, filled (through digital signature) on the same website and not to be submitted in hard copy at all. The offer (after filling the rates) should neither be scanned & uploaded, nor, the hard copy of the same should be submitted.

1.3.4.6 Deleted

1.3.4.7 Each page of the tender papers is to be digitally signed by the tenderers or such person/s on his/their behalf that is/are legally authorized to sign for him / them.

1.3.4.8 Care in Submission of Tenders –

(a)(i) 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.

(a)(ii) 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.

(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 railway 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

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concerned authority.

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

v) Contractor shall be liable to pay/refund the amount collected as GST to the DFCCIL along with interest and penalties, if any imposed by the authorities, in case GST input tax credit of DFCCIL is denied/rejected by the tax authorities due to reasons mentioned below but not limited to:

Wrong/incorrect invoices issued by contractor.

No-filing of GST returns.

Non-payment of GST collected from DFCCIL to the authorities.

Any other non-compliance done by contractor.

General Indemnity: Contractor hereby agrees to indemnify and hold harmless the DFCCIL from and against any and all losses, including loss on account of Input Tax credit and all losses incurred by the DFCCIL relating to or arising out of or in connection with any actual or threatened claim, legal action, proceedings, prosecution or inquiry by or against the Indian railways arising out, directly or indirectly, of failure by the contractor to comply with the provisions of GST and related laws, or based upon or arising from any failure by the contractor.

Retention Money: Any payment liable to be paid by DFCCIL to contractor against the goods or services or both supplied by such contractor to DFCCIL shall be kept on hold in case supplier makes any noncompliance of any of the GST law provisions including non-reporting 0% invoices in GST returns. Such payment shall be released after proper verification of records and availability of ITC to DFCCIL as per provisions of GST law.

(New Para as per ACS No. 6 Dt. 21.12.2023.)

1.3.4.9 Tenders containing erasures and/or alteration of the tender documents are liable to be rejected.

1.3.4.9.1 All communication between the Employer and the tenderer shall be in writing. For the purposes of seeking clarification, the Employer's address is:

Office of the Chief General Manager, Dedicated Freight Corridor Corporation of India Limited, OCC Building, 'D' Cabin Road, Sabarmati, Ahmedabad-380019, Gujarat. Electronic mail address: cgmDFCADI@gmail.com

1.3.4.10 Tenderers are required to give Un-Conditional offers. A Conditional Offer is liable to be rejected. DFCCIL reserves the right to modify, expand, restrict, cancel, reject and re-float tender without assigning any reasons whatsoever.

1.3.4.11 The bidder shall submit only one bid in the capacity of an individual or sole proprietor, partnership firm or company. Violation of this condition is liable to disqualify the tender in which bidder has participated and EMD of all such

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tenderers shall stand forfeited.

- 1.3.4.12 Withdrawal of Tender: No tender can be withdrawn after scheduled date and time of submission and during tender validity period.

1.3.5 Opening of Tender:

- (a) Tender will be opened at the scheduled date and time mentioned in the Notice Inviting E-Tender as per IREPS.
- (b) After the opening of tender documents of all the tenderers, these bids shall be scrutinized and analysed. If found necessary by the Employer, the tenderers shall be asked to furnish clarifications and the Employer may also hold discussions with the tenderers after giving due notice. The names of the tenderers whose bid are considered complete and meet eligibility criteria shall be short listed.
- (c) The earnest money of non-qualifying tenderers will be returned back within a reasonable period.

1.3.6 Documents to be Submitted Along with Tender

- 1.3.6.1 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.

- 1.3.6.2 Following documents shall be submitted by the tenderer:

(a) Sole Proprietorship Firm:

- (i) All documents in terms of Para 1.3.13 (i) of the Preamble and General Instruction to Tenderers Part I, Chapter III.

(b) 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.

- (ii) All other documents in terms of Para 1.3.13 (i) of the Preamble and General Instruction to Tenderers Part I, Chapter III.

(c) Partnership Firm:

- (i) All documents as mentioned in para 1.3.33 of the Preamble and General Instruction to Tenderers Part I, Chapter III.

(d) Joint Venture (JV):

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All documents as mentioned in para 1.3.32 of the Preamble and General Instruction to Tenderers Part I, Chapter III.

(e) Company registered under Companies Act 2013:

- (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 1.3.13 (i) of the Preamble and General Instruction to Tenderers Part I, Chapter III.

(f) LLP (Limited Liability Partnership):

- (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) An undertaking by all partners of the LLP 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 or JV in which they were / are partners/members. Concealment / wrong information in regard to above shall make the contract liable for determination under Clause 62 of the Standard General Conditions of Contract.
- (v) All other documents in terms of Para 1.3.13 (i) of the Preamble and General Instruction to Tenderers Part I, Chapter III.

(g) Registered Society & Registered Trust:

- (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 1.3.13 (i) of the Preamble and General Instruction to Tenderers Part I, Chapter III.

1.3.6.3 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.

1.3.6.4 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 domain (i.e., on internet etc.) or in Railway's record/office files etc. will be taken for consideration of the tender, if no such mention is available in tender offer submitted.

1.3.6.5 A tender from JV shall be considered only where permissible as per the tender conditions.

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- 1.3.6.6 The DFCCIL 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. DFCCIL may, however, recognize such power of attorney and changes after obtaining proper legal advice, the cost of which will be chargeable to the Contractor.

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.

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.

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. (ACS-3)

1.3.7 Validity of Tender:-

Tenderer shall keep his offer open as mentioned in the Tender Notice.

1.3.8 Bid Security:

(1) (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.

Note:

- (i) The Bid Security shall be rounded off to the nearest Rs. 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.
- (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 DFCCIL/Railway.

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(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 General Conditions of Contract, Part-I Chapter IV. The Bid Security of other Tenderers shall, save as herein before provided, be returned to them, but the DFCCIL shall not be responsible for any loss or depreciation that may happen thereto while in their possession, nor be liable to pay interest thereon.

(2) The Bid Security shall be deposited either in cash through e-payment gateway or submitted as Bank Guarantee bond from a scheduled commercial bank of India or as mentioned in tender documents. The Bank Guarantee bond shall be as per Form No. 26 and shall be valid for a period of 90days beyond the bid validity period.

(3) In case, submission of Bid Security in the form of Bank Guarantee, following shall be ensured:

- i. A scanned copy of the Bank Guarantee shall be uploaded on e-Procurement Portal (IREPS) while applying to the tender.
- ii. The original Bank Guarantee should be delivered in person to the official nominated as indicated in the tender document before closing date for submission of bids. (i.e. excluding the last date of submission of bids). (ACS-5)
- iii. Non submission of scanned copy of Bank Guarantee with the bid on e-tendering portal (IREPS) and/or non submission of original Bank Guarantee within the specified period shall lead to summary rejection of bid.
- iv. The Tender Security shall remain valid for a period of 90 days beyond the validity period for the Tender.
- v. The details of the BG, physically submitted should match with the details available in the scanned copy and the data entered during bid submission time, failing which the bid will be rejected.
- vi. The Bank Guarantee shall be placed in an envelope, which shall be sealed. The envelope shall clearly bear the identification “**Bid for the ***** Project**” and shall clearly indicate the name and address of the Bidder. In addition, the Bid Due Date should be indicated on the right hand top corner of the envelope.
- vii. The envelope shall be addressed to the officer and address as mentioned in the tender document.
- viii. If the envelope is not sealed and marked as instructed above, the DFCCIL assumes no responsibility for the misplacement or premature opening of the contents of the Bid submitted and consequent losses, if any, suffered by the Bidder.

1.3.9.1 Right of DFCCIL to Deal with Tenders: The DFCCIL reserves the right of not to invite tenders for any of DFCCIL 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 DFCCIL administration, Letter of Acceptance shall be issued

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as counter offer to the Tenderer, which shall be subject to acceptance by the Tenderer.

1.3.9.2 Clarification of Bids: To assist in the examination, evaluation & comparison and prequalification of the Tender, the DFCCIL 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 DFCCIL shall not be entertained or considered. The DFCCIL 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 time communicated in the DFCCIL request for clarification, the bid shall be evaluated as per the documents submitted along with the bid.

1.3.9.3 Execution of Contract Agreement:-

The Tenderer whose tender is accepted shall be required to appear in person at the Office of the Chief General Manager, Dedicated Freight Corridor Corporation of India Limited, OCC Building, 'D' Cabin Road, Sabarmati, Ahmedabad-380019, Gujarat, 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 DFCCIL 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 DFCCIL only after submission of valid Performance Guarantee by the Contractor. In such cases the DFCCIL may determine that such tenderer has abandoned the contract and there upon his tender and acceptance thereof shall be treated as cancelled and the DFCCIL 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.

1.3.10 Security Deposit on Acceptance of Tender:

The security deposit / rate of recovery / mode of recovery on acceptance of tender shall be as per the Para 16(1) to 16(3) Of General Conditions of Contract (GCC).

1.3.11 Tenderer's Address

The tenderer should state in the tender his postal address legibly and clearly. Any communication sent in time, to the tenderer by post at his said address shall be deemed to have reached the tenderer duly and in time. Important documents should be sent by registered post.

1.3.12 Rights of DFCCIL to Deal with Tenders

- a. The authority for the acceptance of the tender will rest with the DFCCIL. It shall not be obligatory on the said authority to accept

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the lowest tender or any other tender and no tenderer(s) shall demand any explanation for the cause of rejection of his/their tender nor the DFCCIL undertake to assign reasons for declining to consider or reject any particular tender or tenders.

- b. 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 DFCCIL reserves the right to reject such tender at any stage.
- c. If any partner(s) of a partnership firm expires after the submission of its tender or after the acceptance of its tender, the DFCCIL 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 DFCCIL shall deem such tender as cancelled / contract as terminated under clause 61 of the Standard General Conditions of Contract.

1.3.13(i) Eligibility Criteria:

(A). Technical Eligibility Criteria:

(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:

- (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.**
- (iv) **The Bidder should have a minimum total staff of 10 (Ten) persons including the key expert positions as on the date of submission. Key Expert Positions along with desirable qualification and experience is tabulated as under:**

Sr. No.	Key Expert Position	Minimum Qualification	Minimum Relevant Experience
1	Structural Engineer	Post Graduate in structural Engineering	10 Years of relevant experience in bridge design.
2	Field Engineer	Graduate in Civil Engineering	8 Years of relevant experience in Structural inspection / audit.

Similar works means :

“Any work of bridge inspection and / or structural integrity audit of Bridges and/or construction management services of civil engineering assets

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(involving bridges) for Railways (including Metros, High Speed
Systems)/Highway”.**

(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 fulfilment 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 para 1.3.9.1 of the Preamble and General Instruction to Tenderers through subcontractor fulfilling the requirements as per Para 1.3.9.1 or jointly i.e., partly himself and remaining through subcontractor, with prior approval of Chief General Manager/General Manager in writing.

However, if required in tender documents by way of Special Conditions, a formal agreement duly notarised, 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 fulfilment of technical eligibility. Such subcontractor must fulfil 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 DFCCIL/Railway.

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

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the requirements as per Para 1.3.9.1, with prior approval of CGM/Dy.CPM/DFCCIL in writing.

Note for Item (A):

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.

(B) Financial Eligibility Criteria: (ACS-1 dt. 14.07.2022)

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

N = Number of years prescribed for completion of work for which bids have been invited.

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.

The tenderers shall submit requisite information as per Form No. 2B, along with copies of Audited Balance Sheets duly certified by the Chartered Accountant/ Certificate from Chartered Accountant duly supported by Audited Balance Sheet.

(C) Bid Capacity:

The tender/technical bid will be evaluated based on bid capacity formula detailed as Form No. 23.

- (D) No Technical and Financial credentials are required for tenders having advertised value up to Rs 50 lakh.
- (E) Credentials if submitted in foreign currency shall be converted into Indian currency i.e., Indian Rupee as under:

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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.

Explanation for Para 1.3.13(i) of the Preamble and General Instruction to Tenderers Part I, Chapter III including Para 1.3.13(i) (A) to 1.3.13(i) (E) – Eligibility Criteria:

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 fulfilment 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 fulfilment 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 1.3.13.(i) (A) Para 1.3.13.(i) of the Preamble and General Instruction to Tenderers Part I, Chapter III, the same shall be considered for the purpose of fulfilment of credentials.
6. In case a work is considered similar in nature for fulfilment 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.

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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.

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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.]

1.3.13 (ii) Tenderer Credentials:

Documents testifying tenderer previous experience and financial status should be produced along with the tender.

Tenderer(s) shall submit following along with his / their tender:

- (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 **Form No. 22**. In addition to **Form No. 22**, in case of other than Company/Proprietary firm, A **Form No. 22 (A)** shall also be submitted by each member of a Partnership Firm/ Joint Venture (N) / 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. (ACS-2)

Note: As per the ACS No. 07 dated. 14.05.2024 regarding Clarification regarding submission of Annexure-V of GCC with Tenders following has been clarified: -

“ON IREPS Module, a facility has already been created for online submission of Annexure-V i.e. Form No. 22. Therefore, the provision of downloading of Annexure-V of GCC & uploading of physically signed Annexure-V by the tenderer had been discontinued on IREPS.”

In the above context bidders are advised to submit online submissions of Annexure V i.e. Form 22 available on IRPES portal. Bidders may upload physical signed copy of Annexure V i.e. Form no. 22 shall also be considered

- (v) The DFCCIL 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 DFCCIL, 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 DFCCIL shall not relieve the bidder of its obligations or liabilities hereunder nor will it affect any rights of the DFCCIL there under.

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(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 upto two years. (ACS-3)

(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 railway 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 upto two years. (ACS-3)

Non-compliance with any of the conditions set forth therein above is liable to result in the tender being rejected.

1.3.13 (iii) System of Verification of Tenderer's Credential:

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 **Form No. 22**. In addition to **Form No. 22**, in case of other than Company/Proprietary firm, **Form No. 22 (A)** shall also be submitted by the 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. (ACS-2)

Note: As per the ACS No. 07 dated. 14.05.2024 regarding Clarification regarding submission of Annexure-V of GCC with Tenders following has been clarified: -

"ON IREPS Module, a facility has already been created for online submission of Annexure-V i.e. Form No. 22. Therefore, the provision of downloading of Annexure-V of GCC & uploading of physically signed Annexure-V by the tenderer had been discontinued on IREPS."

In the above context bidders are advised to submit online submissions of Annexure V i.e. Form 22 available on IRPES portal. Bidders may upload physical signed copy of Annexure V i.e. Form no. 22 shall also be considered

2. The DFCCIL 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 DFCCIL, 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 DFCCIL shall not relieve the bidder of its obligations or liabilities hereunder nor will it affect any right of the DFCCIL

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1.3.14 Period of Completion

The entire work is required to be completed in all respects within completion period from the date of issue of the acceptance letter. Time is the essence of contract. The contractor shall be required to maintain steady and regular progress to the satisfaction of the Engineer to ensure that the work will be completed in all respects within the stipulated time.

1.3.15 If the Tenderer/s deliberately gives any wrong information about credentials / documents in his/their tenders and thereby create(s) circumstances for acceptance of his/their tender, DFCCIL reserves the right to reject such tender at any stage, besides, shall suspend business with such tenderer. The EMD of such tenderers shall also be forfeited.

1.3.16 Quantum of work and materials:

The indicative schedule of quantities of various items of works shall be available at www.ireps.gov.in.

1.3.17 Employer not bound to accept any tender:

The employer shall not be bound to accept the lowest or any tender or to assign any reason for non-acceptance or rejection of a tender. The employer reserves the right to accept any tender in respect of the whole or any portion of the work specified in the tender papers or to reduce the work or to accept any tender for less than the tendered quantities without assigning any reason whatsoever.

2.3.18 Schedule of Prices

The Summary of prices and schedule of prices shall be available at www.ireps.gov.in.

1.3.19 Performance Guarantee: Refer relevant clause 16.(4) of GCC.

1.3.20 The tenderer shall furnish information for making payment through ECS/ NEFT / RTGS (Tender Form No. 8 placed at Part IV of the tender documents).

1.3.21 Negotiation:

Should DFCCIL decide to negotiate with a view to bring down the rates, the tenderer called for negotiations should furnish the following form of declaration before commencement of negotiations?

"I..... Do declare that in the event of failure of contemplated negotiations relating to Tender No..... datedmy original tender shall remain open for acceptance on its original terms and conditions,"

1.3.22 Pre-Bid Meeting :- Not Applicable.

1.3.23 Site Inspection:

Tenderers are requested to inspect the site and carry out careful examination

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to satisfy them as to the nature of work involved and facilities available at the site. They should note carefully all the existing structures and those under construction through other agencies. They should also study the suitability of utilizing the different equipment and the machinery that they intend to use for the execution of the work. The tenderers should also select suitable sites for the purpose of locating their store yard, laboratory, staff quarters etc.

1.3.24 No form C & D shall be issued to the contractor for this work.

1.3.25 Preliminary examination of bids

- a) The DFCCIL shall examine the bids to determine whether they are complete, whether any computational errors have been made, whether the documents have been properly signed and whether the bids are generally in order.
- b) Arithmetical errors shall be rectified on the following basis if found. If there is a discrepancy between the unit price and the total price, which is obtained by multiplying the unit price and quantity, or between subtotals and the total price, the unit or subtotal price shall prevail, and the total price shall be corrected.
- c) The rates should be quoted in figures as well as in words. If there is variation between rates quoted in figures and in words, the rate quoted in „words“ shall be taken as correct. If more than one or improper rates are tendered for the same item, the tender is liable to be rejected.
- d) Prior to the detailed evaluation, DFCCIL shall determine whether each bid is of acceptable quality, is generally complete and is substantially responsive to the bidding documents. For purposes of this determination, a substantially responsive bid is one that conforms to all the terms, conditions and specifications of the bidding documents without material deviations, objections, conditionality or reservation. A material deviation, objections, conditionality or reservation is one:
 - I. That affects in any substantial way the scope, quality or Performance of the contract.
 - II. That limits in any substantial way, inconsistent with the bidding documents, the DFCCIL’s rights or the successful Bidder’s obligations under the contracts; or
 - III. Whose rectification would unfairly affect the competitive position of other Bidders who are presenting substantially responsive bids.
- e) If a bid is not substantially responsive, it shall be rejected by the DFCCIL.
- f) In case of tenders containing any conditions or deviations or reservations about contents of tender document. DFCCIL can summarily reject such tender.
- g) **Clarification of Bids:** To assist in the examination, evaluation & comparison and prequalification of the Tender, the DFCCIL 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 DFCCIL shall not be entertained or considered. The DFCCIL request for clarification and the response of the bidder in this regard shall

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be in writing.

1.3.26 Evaluation and comparison of tenders

In case of open tenders, bids, which are determined as substantially responsive, shall be evaluated based on criteria as given in Eligibility Criteria” and as given in Notice Inviting E-Tender. The tenderer must submit all necessary authentic data with necessary supporting certificates of the various items of evaluation criteria failing which his tender is liable to be rejected.

1.3.27 Canvassing

No tenderer is permitted to canvass to DFCCIL on any matter relating to this tender. Any tenderer found doing so may be disqualified and his bid may be rejected.

1.3.28 Award of Contract

1. DFCCIL shall notify the successful tenderer in writing by a Registered Letter/Courier/Speed Post/Email or through bearer that his tender has been accepted.
2. Letter of Acceptance after it is signed by the Contractor in token of his acceptance shall constitute a legal and binding contract between DFCCIL and the contractor till such time the contract agreement is signed.

1.3.29 Understanding and Amendments of Tender Documents:

1. The bidder must own all responsibilities and bear all cost for obtaining all the information including risks, contingencies & other circumstances in execution of the work. It shall also carefully read and understand all its obligations & liabilities given in tender documents.
2. The bidder is advised to visit and examine the site where the work is to be executed and its surroundings or other areas as deemed fit by the bidder and should obtain at his own cost all information that may be necessary for preparing the bid and execution of the contract. The cost of visiting the site and collecting relevant data shall be at the bidder’s own expenses. It is a condition of the tender that the tenderer is deemed to have visited the site and satisfied himself with all the conditions prevailing including any difficulties for executing the work.
3. At any time prior to the deadline for submission of bids, DFCCIL may for any reason whether at its own initiative or in response to any request by any prospective bidder amend the bidding documents by issuing Amendment, which shall be part of the Tender documents.
4. DFCCIL may at its discretion extend the deadline for submission of the bids at any time before the time of submission of the bids.

1.3.30 Provision for medium & small enterprises (MSE):

As mandated by Railway Board Letter No. 2010/RS (G)/363/1 dated 05.07.2012 (RBS No. 4/2012), in compliance to public procurement policy, following provisions are included for Medium & Small Enterprises (MSE) in the tender document

1. Tender sets shall be provided free of cost to MSEs registered with the listed

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agencies for the item tendered.

2. MSEs registered with the listed agencies for the item tendered will be exempted from payment of Earnest Money.
3. (I) MSEs who are interested in availing themselves of these benefits will enclose with their offer the proof of their being MSE registered with any of the agencies mentioned in the notification of Ministry of MSME indicated below:
 - (i) District industries Centres
 - (ii) Khadi and Village Industries Commission
 - (iii) Khadi and Village Industries Board
 - (iv) Board
 - (v) National Small Industries Corporation
 - (vi) Directorate of Handicraft and Handloom
 - (vii) Any other body specified by Ministry of MSME.(II) The MSEs must also indicate the terminal validity date of their registration. Falling (I) & (II) above, such offers will not be liable for consideration of benefits detailed in MSE notification of Government of India dated 23.03.2012.
4. Definition of MSEs owned by SC/ST is as give below:
 - (i) In case of proprietary MSE, proprietors (s) shall be SC/ST.
 - (ii) In case of partnership MSE, the SC/ST partners shall be holding at least 51% Shares in the unit.
 - (iii) In case of Private Limited Companies at least 51% share shall be held by SC/ST Promoters.
5. All bidders registered under Micro, Small and Medium Enterprises (MSMEs) shall have to satisfy the eligibility criteria at par with other bidders. There shall not be any relaxation in eligibility criteria/tender process or other tender requirements and L-1 price.
6. The above facilities shall not be applicable for the items for which they are not registered.
7. The tenderer (s) shall submit copy of current and valid MSMEs registration certificate inclusive of all the pages showing the category of entrepreneur – whether the registered firm is owned by General or SC/ST entrepreneurs, monetary limit of their registration for the items tendered to avail the benefits under the policy. The MSMEs shall also submit a copy of “Entrepreneur’s Memorandum (Part-II)” of the concerned district centre where the unit is established.
8. Registration of Udyog Aadhar Memorandum (UAM): All Micro, Small and Medium Enterprises (MSMEs) bidders are required to declare UAM Number on CPPP /www. ireps.gov.in failing which such bidders will not be able to enjoy the benefits as per Public Procurement Policy for tenders invited electronically through CPPP /www. ireps.gov.in

1.3.31 Employment/Partnership etc. of Retired Railway Employees:

(a) Should a tenderer

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 MD/DFCCIL for the time being, OR

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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 , THEN

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 MD/DFCCIL 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 MD/DFCCIL 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 MD/DFCCIL 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 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.

Note:- If information as required above has not been furnished, contract is liable to be dealt in accordance with provision of clause 62 of Standard General Condition of contract.

JOINT VENTURE (JV) IN WORKS TENDERS

(Participation of Joint Venture firms shall be applicable for tenders of value more than Rs. 10 Crore (Rupees Ten Crore) Each As per Railway Board's letter no. 2002/CE-I/CT/37JV. Pt-VIII dated 14.12.2012)

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- 1.3.32 **Participation of Joint Venture (JV) in Works Tender:** This Para shall be applicable for works tenders wherein tender documents provide for the same.
- 1.3.32.1 Separate identity/name shall be given to the Joint Venture.
- 1.3.32.2 Number of members in a JV shall not be more than three, if the work involves only one department (say Civil or S&T or Electrical or Mechanical) and shall not be more than five, if the work involves more than one Department. One of the members of the JV shall be its Lead Member who shall have a majority (at least 51%) share of interest in the JV. The other members shall have a share of not less than 20% each in case of JV with upto three members and not less than 10% each in case of JV with more than three members. In case of JV with foreign member(s), the Lead Member has to be an Indian firm/company with a minimum share of 51%.
- 1.3.32.3 A member of JV shall not be permitted to participate either in individual capacity or as a member of another JV in the same tender.
- 1.3.32.4 The tender form shall be purchased and submitted only in the name of the JV and not in the name of any constituent member. The tender form can however be submitted by JV or any of its constituent member or any person authorized by JV through Power of Attorney to submit tender.
- 1.3.32.5 Bid Security shall be submitted by JV or authorized person of JV either as :
- (i) Cash through e-payment gateway or as mentioned in tender document, or
 - (ii) Bank Guarantee bond either in the name of JV, or in the name of all members of JV as per MOU irrespective of their share in the JV if the JV has not been constituted legally till the date of submission of tender.
- 1.3.32.6 A copy of Memorandum of Understanding (MoU) duly executed by the JV members on a stamp paper, shall be submitted by the JV along with the tender. The complete details of the members of the JV, their share and responsibility in the JV etc. particularly with reference to financial, technical and other obligations shall be furnished in the MoU.
- 1.3.32.7 Once the tender is submitted, the MoU shall not normally be modified / altered / terminated during the validity of the tender. In case the tenderer fails to observe/comply with this stipulation, the full Bid Security shall be liable to be forfeited.
- 1.3.32.8 Approval for change of constitution of JV shall be at the sole discretion of the DFCCIL. The constitution of the JV shall not normally be allowed to be modified after submission of the bid by the JV, except when modification becomes inevitable due to succession laws etc., provided further that there is no change in qualification of minimum eligibility criteria by JV after change of composition. However, the Lead Member shall continue to be the Lead Member of the JV. Failure to observe this requirement would render the offer invalid.
- 1.3.32.9 Similarly, after the contract is awarded, the constitution of JV shall not be normally allowed to be altered during the currency of contract except when modification become inevitable due to succession laws etc. and minimum eligibility criteria should not get vitiated. Failure to observe this stipulation shall be deemed to be breach of contract with all consequential penal action as per contract conditions.
- 1.3.32.10 On award of contract to a JV, a single Performance Guarantee shall be submitted by the JV as per tender conditions. All the Guarantees like Performance Guarantee, Bank Guarantee for Mobilization Advance, Machinery Advance etc. shall be accepted only in the name of the JV and no splitting of guarantees amongst the members of the JV shall be permitted.

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- 1.3.32.11 On issue of LOA (Letter of Acceptance), the JV entity to whom the work has been awarded, with the same shareholding pattern as was declared in the MOU/JV Agreement submitted along with the tender, shall be got registered before the Registrar of the Companies under 'The Companies Act -2013' (in case JV entity is to be registered as Company) or before the Registrar/Sub-Registrar under the 'The Indian Partnership Act, 1932' (in case JV entity is to be registered as Partnership Firm) or under 'The LLP Act 2008' (in case JV entity is to be registered as LLP). A separate PAN shall be obtained for this entity. The documents pertaining to this entity including its PAN shall be furnished to the DFCCIL before signing the contract agreement for the work. In case the tenderer fails to observe/comply with this stipulation within 60 days of issue of LOA, contract is liable to be terminated. In case contract is terminated DFCCIL shall be entitled to forfeit the full amount of the Bid Security and other dues payable to the Contractor under this contract. The entity so registered, in the registered documents, shall have, inter-alia, following Clauses:
- 1.3.32.11.1 Joint and Several Liability - Members of the entity to which the contract is awarded, shall be jointly and severally liable to the DFCCIL for execution of the project in accordance with General and Special Conditions of Contract. The members of the entity shall also be liable jointly and severally for the loss, damages caused to the DFCCIL during the course of execution of the contract or due to non-execution of the contract or part thereof.
- 1.3.32.11.2 Duration of the Registered Entity - It shall be valid during the entire currency of the contract including the period of extension, if any and the maintenance period after the work is completed.
- 1.3.32.11.3 Governing Laws - The Registered Entity shall in all respect be governed by and interpreted in accordance with Indian Laws.
- 1.3.32.12** Authorized Member - Joint Venture members in the JV MoU shall authorize Lead member on behalf of the Joint Venture to deal with the Contract, sign the agreement or enter into contract in respect of the said tender, to receive payment, to witness joint measurement of work done, to sign measurement books and similar such action in respect of the said tender/contract. All notices/correspondences with respect to the contract would be sent only to this authorized member of the JV. (ACS-3).
- 1.3.32.13** No member of the Joint Venture shall have the right to assign or transfer the interest right or liability in the contract without the written consent of the other members and that of the DFCCIL in respect of the said tender/contract.
- 1.3.32.14** Documents to be enclosed by the JV along with the tender:
- 1.3.32.14.1 In case one or more of the members of the JV is/are partnership firm(s), following documents shall be submitted:
- (i) A notarized copy of the Partnership Deed or a copy of the Partnership deed registered with the Registrar.
 - (ii) A copy of consent of all the partners or individual authorized by partnership firm, to enter into the Joint Venture Agreement on a stamp paper,
 - (iii) A notarized or registered copy of Power of Attorney in favour of the individual to sign the MOU/JV Agreement on behalf of the partnership firm and create liability against the firm.
 - (iv) An undertaking by all partners of the partnership firm that they are not blacklisted or debarred by DFCCIL or any other Ministry / Department of the Govt. of India from participation in tenders / contracts as on the date of

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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.

1.3.32.14.2 In case one or more members is/are Proprietary Firm or HUF, the following documents shall be enclosed:

- (i) A copy of notarized affidavit on Stamp Paper declaring that his Concern is a proprietary Concern and he is sole proprietor of the Concern OR he who is signing the affidavit 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.

1.3.32.14.3 In case one or more members of the JV is/are companies, the following documents shall be submitted:

- (i) A copy of resolutions of the Directors of the Company, permitting the company to enter into a JV agreement,
- (ii) The copies of MOA (Memorandum of Association) / AOA (Articles of Association) of the company
- (iii) A copy of Certificate of Incorporation
- (iv) A copy of Authorization/copy of Power of Attorney issued by the Company (backed by the resolution of Board of Directors) in favour of the individual, to sign the tender, sign MOU/JV Agreement on behalf of the company and create liability against the company.

1.3.32.14.4 In case one or more members of the JV is/are LLP firm/s, the following documents shall be submitted:

- (i) A copy of LLP Agreement.
- (ii) A copy of Certificate of Incorporation of LLP.
- (iii) A copy of resolution passed by partners of LLP firm, permitting the Firm to enter into a JV agreement.
- (iv) A copy of Authorization /copy of Power of Attorney issued by the LLP firm (backed by resolution passed by the Partners) in favour of the individual, to sign the tender and/or sign the MOU/ JV agreement on behalf of the LLP and create liability against the LLP.
- (v) An undertaking by all partners of the LLP that they are not blacklisted or debarred by DFCCIL/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 or JV in which they were / are partners/members. Any Concealment / wrong information in regard to above shall make the contract liable for determination under Clause 62 of the Standard General Conditions of Contract.

1.3.32.14.5 In case one or more members of the JV is/are Society/s or Trust/s, the following documents shall be submitted:

- (i) A copy of Certificate of Registration
- (ii) A copy of Memorandum of Association of Society/Trust Deed
- (iii) A copy of Rules & Regulations of the Society
- (iv) A copy of Power of Attorney, in favour of the individual to sign the tender documents and create liability against the Society/Trust.

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1.3.32.14.6 All other documents in terms of Para 1.3.13.(i) of the Preamble and General Instruction to Tenderers, Part I, Chapter III above.

1.3.32.14.7 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 Hauge Legislation Convention 1961 are not required to be legalized by the Indian Embassy if it carries a conforming Appostille Certificate. (ACS-3)

1.3.32.15 Credentials & Qualifying Criteria: Technical, financial eligibility and Bid capacity of the JV shall be adjudged based on satisfactory fulfilment of the following criteria:

1.3.32.15.1 Technical Eligibility Criteria ('a' or 'b' mentioned hereunder): (ACS-1 dt. 14..7.2022)

(a) For Works without composite components

The technical eligibility for the work as per para 1.3.13.(i)(A) Preamble & General Instruction to tenderer above, shall be satisfied by either the 'JV in its own name & style' or 'Lead member of the JV'.

Each other (non-lead) member(s) of JV, who is/ are not satisfying the technical eligibility for the work as per para 1.3.13.(i)(A) Preamble & General Instruction to tenderer above, shall have technical capacity of minimum 10% of the cost of work i.e., each non-lead member of JV member must have satisfactorily completed or substantially completed during the last 07 (seven) years, ending last day of month previous to the one in which tender is invited, one similar single work for a minimum of 10% of advertised value of the tender.

(b) For works with composite components

The technical eligibility for major component of work as per para 1.3.13.(i)(A) Preamble & General Instruction to tenderer above, shall be satisfied by either the 'JV in its own name & style' or 'Lead member of the JV' and technical eligibility for other component(s) of work as per para 1.3.13.(i)(A) Preamble & General Instruction to tenderer above, shall be satisfied by either the 'JV in its own name & style' or 'any member of the JV'.

Each other (non-lead) member(s) of JV, who is/ are not satisfying the technical eligibility for any component of the work as per para 1.3.13.(i)(A) Preamble & General Instruction to tenderer above, shall have technical capacity of minimum 10% of the cost of any component of work mentioned in technical eligibility criteria. i.e., each other (non-lead) member of must have satisfactorily completed or substantially completed during the last 07 (seven) years, ending last day of month previous to the one in which tender is invited, one similar single work for a minimum of 10% of cost of any component of work mentioned in technical eligibility criteria.

Note for Para 1.3.32.15.1:

(a) The Major component of the work for this purpose shall be the component of work

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having highest value. In cases where value of two or more component of work is same, any one work can be classified as Major component of work.

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

1.3.32.15.2 Financial Eligibility Criteria

The JV shall satisfy the requirement of "Financial Eligibility" mentioned at para 1.3.13(i)(B) above. The "financial capacity" of the lead member of JV shall not be less than 51% of the financial eligibility criteria mentioned at para 1.3.13(i)(B) above.

The arithmetic sum of individual "financial capacity" of all the members shall be taken as JV's "financial capacity" to satisfy this requirement.

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

1.3.32.15.3 Bid Capacity

The JV shall satisfy the requirement of "Bid Capacity" requirement mentioned at para 1.3.13(i)(C) above. The arithmetic sum of individual "Bid capacity" of all the members shall be taken as JV's "Bid capacity" to satisfy this requirement.

1.3.33 Participation of Partnership Firms in works tenders:

- 1.3.33.1 The Partnership Firms participating in the tender should be legally valid under the provisions of the Indian Partnership Act.
- 1.3.33.2 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.
- 1.3.33.3 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.
- 1.3.33.4 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 DFCCIL/Railway 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. The approval for change of constitution of the firm, in any case, shall be at the sole discretion of the DFCCIL /Railways 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

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Partnership Deed. Failure to observe this requirement shall render the offer invalid and full Bid Security shall be forfeited.

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 DFCCIL/Railway 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.

1.3.33.5 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.

1.3.33.6 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.

1.3.33.7 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.

1.3.33.8 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.

1.3.33.9 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.

(a) Joint and several liabilities:

The partners of the firm to which the Letter of Acceptance (LOA) is issued, shall be jointly and severally liable to the DFCCIL/Railway 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 DFCCIL / Railway during the course of execution of the contract or due to non-execution of the contract or part thereof.

(b) Duration of the partnership deed and partnership firm agreement:

The partnership deed/partnership firm agreement shall normally not be modified/altered/ 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

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constitution of the firm without permission of DFCCIL/Railway, shall constitute a breach of the contract, liable for determination of the contract under Clause 62 of the Standard General Conditions of Contract.

- (c) Governing laws: The partnership firm agreement shall in all respect be governed by and interpreted in accordance with the Indian laws.
- (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 DFCCIL/Railway.

1.3.33.10 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:

- a. A notarized copy of the Partnership Deed or a copy of the Partnership deed registered with the Registrar.
- b. 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.
- c. An undertaking by all partners of the partnership firm that they are not blacklisted or debarred by DFCCIL/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.
- d. All other documents in terms of Para 1.3.13 (i) of the Preamble and General Instruction to Tenderers Part I, Chapter III.

1.3.33.11 Evaluation of eligibility of a partnership firm:

Technical and financial eligibility of the firm shall be adjudged based on satisfactory fulfilment of the eligibility criteria laid down in Para 1.3.13 (i) of the Preamble and General Instruction to Tenderers Part I, Chapter III.

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PART - I

CHAPTER IV

GENERAL CONDITIONS OF CONTRACT

GENERAL CONDITIONS OF CONTRACT

DEFINITIONS AND INTERPRETATION

- 1. (1) Definition:** - In these General conditions of Contract, the following terms shall have the meaning assigned hereunder except where the context otherwise requires:-
- (a) "Railway" shall mean the President of the Republic of India or the Administrative Officers of the DFCCIL or of the Successor DFCCIL authorized to deal with any matters which these presents are concerned on his behalf.
 - (b) "DFCCIL" shall mean Dedicated Freight Corridor Corporation of India Ltd, a Govt. of India Enterprise (under Ministry of Railways) and a company incorporated under the provisions of the Companies Act, 1956 having its registered office at 5th Floor, Supreme Court Metro Station Complex, New Delhi-110001 represented through its Managing Director or CGM/GM (hereinafter referred to as "DFCCIL") which expression shall, unless repugnant to the context, be deemed to include its successors and assigns.
 - (c) "MD/DFCCIL" shall mean the officer - in-charge of the General Superintendence and Control of the DFCCIL (MD) and shall mean and include their successors, of the successor of DFCCIL (hereinafter referred to as "MD/DFCCIL").
 - (d) "CGM" shall mean the officer - in-charge of the CGM unit of DFCCIL and shall also include GM(Co) of DFCCIL.
 - (e) "Engineer" shall mean Dy. CPM/DFCCIL or any other superior official of DFCCIL or PMC appointed by DFCCIL.
 - (f) "Engineer's Representative" shall mean the PM/Dy.PM/APM /JPM/Sr. Executive/Executive in direct charge of the work and shall include appointed by the DFCCIL and shall mean and include the Engineer's Representative of the successor DFCCIL.
 - (g) "Contractor" shall mean the person / Firm / Company / JV whether incorporated or not who enters into the contract with the DFCCIL and shall include their executors, administrators, and successors and permitted assigns.
 - (h) "Contract" shall mean and include the Agreement, the Work Order, the accepted Bill(s) of Quantities or Chapter(s) of Standard Schedule of Rates (SSOR) of the DFCCIL/Railway 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 and all other documents included as part of contract.
 - (i) "Works" shall mean the works to be executed in accordance with the contract.
 - (j) "Specifications" shall mean the Specifications for materials and works referred / mentioned in tender documents.
 - (k) Standard Schedule of Rates (SSOR) shall mean the schedule of Rates adopted by

the DFCCIL/Railway, which includes-

- (i) "Unified Standard Schedule of Rates of the Railway (USSOR)" i.e. the Standard Schedule of Rates of the Railway issued under the authority of the Chief Engineer from time to time, updated with correction slips issued up to date of inviting tender or as otherwise specified in the tender documents;
 - (ii) "Delhi Schedule Of Rates (DSR)" i.e. the Standard Schedule of Rates published by Director General/ Central Public Works Department, Government of India, New Delhi, as adopted and modified by the Railway under the authority of the Chief Engineer from time to time, updated with correction slips issued up to date of inviting tender or as otherwise specified in the tender documents.
- (l) "Drawing" shall mean the maps, drawings, plans and tracings or prints there of annexed to the contract and shall include any modifications of such drawings and further drawings as may be issued by the Engineer from time to time.
 - (m) "Constructional Plan" 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.
 - (n) "Temporary Works" shall mean all temporary works of every kind required for the execution completion and/or maintenance of the works.
 - (o) "Site" shall mean the lands and other places on, under, in or through which the works are to be carried out and any other lands or places provided by the Railway/DFCCIL for the purpose of the contract.
 - (p) "Period of Maintenance" shall mean the defect liability period from the date of completion of the works as certified by the Engineer.
 - (q) "Bid" or "Tender", "Bidder" or "Tenderer" wherever appearing in this document shall have the same and interchangeable meaning.
 - (r) Date of inviting tender shall be the date of publishing tender notice on IREPS website if tender is published on website or the date of publication in newspaper in case tender is not published on website.
 - (s) "Contractor's authorised engineer" shall mean a graduate engineer having more than 3 years' experience in the relevant field of construction work involved in the contract, duly approved by Engineer.
 - (t) "Bill of Quantities" shall mean Schedule of Item(s) included in the tender document along with respective quantities and rates, accepted by the DFCCIL/Railway.

1.(2) Singular and Plural:- Words importing the singular number shall also include the plural and vice versa where the context requires.

1.(3) Headings & marginal headings:-The headings and marginal headings in these general conditions are solely for the purpose of facilitating reference and shall not be deemed to be part thereof or be taken into consideration in the interpretation or construction thereof or the contract.

GENERAL OBLIGATION

1. **(1) Execution Co-relation and intent of contract Documents:-**The contract documents shall be signed in triplicate by the DFCCIL 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, equipment's and transportation necessary for the proper execution of work. Materials or work not covered by or properly inferable from any heading or class of the specifications shall not be supplied by the DFCCIL 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.
 - 2.(2) If a work is transferred from the jurisdiction of one Railway to another Railway or to a Project Authority/ DFCCIL or vice versa while contract is in subsistence, the contract shall be binding on the Contractor and the Successor Railway/DFCCIL Project in the same manner & take effect all respects as if the Contractor and the Successor Project were parties there to from the inception and the corresponding officer or the Competent Authority in the Successor Railway/DFCCIL Project will exercise the same powers and enjoy the same authority as conferred to the Predecessor Railway/DFCCIL Project under the original contract/agreement entered into.
 - 2.(3) If for administrative or other reasons the contract is transferred to the Successor Railway/Successor Project Authority of DFCCIL the contract shall notwithstanding any things contained herein contrary there to, be binding on the Contractor and the Successor Railway /Project Authority/ DFCCIL in the same manner and take effect in all respect as if the Contractor and the Successor Railway/ successor Project Authority of DFCCIL had been parties thereto from the date of this contract. The contract shall be Administered/Managed by GGM/GM/Co/ GM nominated by DFCCIL.
2. **(1) Law governing the contract:-** The contract shall be governed by the law for the time being in force in the Republic of India.
 - 3.(2) **Compliance to regulations and bye-laws:-**The contractor shall conform to the provision of any statute relating to the works and regulations and by-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 reasons 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.
 - 3.(3) **Environmental and Forest clearances:**
The DFCCIL/Railway 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).

3. **Communications to be in writing:-** All notices, communications, reference and complaints made by the Railway/DFCCIL 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, otherwise email id registered with IREPS and no notice, communication, reference or complaint not in writing or through e-mail, shall be recognized.
4. **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/email 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.
5. **Occupation and use of land:-** No land belonging to or in the possession of the Railway/DFCCIL shall be occupied by the Contractor without the permission of the Railway/DFCCIL. The Contractor shall not use, or allow to be used; the site for any purposes other than that of executing the works. Whenever non-railway bodies/persons are permitted to use Railway/DFCCIL premises with competent authority's approval, conservancy charges as applicable from time to time may be levied.
6. **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 any manner whatsoever without the special permission in writing of the DFCCIL, save as provided below. Any breach of this condition shall entitle the DFCCIL to rescind the contract under clause 62 of these conditions and also render the contractor liable for payment to the DFCCIL 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 GM/Dy.CPM/DFCCIL for the same. While submitting the proposal to Railway/DFCCIL, Contractor shall ensure the following:

 - (a) (i) Total value of work to be assigned to sub-contractor(s) shall not be more than 50% of total contract value.
 - (ii) 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 DFCCIL/Railway, 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 Railway 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 Railway/DFCCIL.

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 DFCCIL/IR.
- (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 GM/Dy.CPM/DFCCIL, 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 Railway/DFCCIL, with prior intimation to GM/Dy.CPM/PM/DFCCIL.
- (f) The Contractor shall indemnify Railway /DFCCIL 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.

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 CGM/GM DFCCIL, 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 CGM/GM DFCCIL 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.

- (i) 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.

- (j) 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 be entertained by the Railway/DFCCIL and this shall be deemed as "excepted matter" (matter not arbitrable).
 - (k) The permitted subcontracting of work by the contractor shall not establish any contractual relationship between the sub- contractor and the DFCCIL and shall not relieve the contractor of any responsibility under the contract.
- 8. Assistance by the DFCCIL for the Stores to be obtained by the Contractor:-**
Owing to difficulty in obtaining certain materials (including Tools & Plant) in the market, the DFCCIL may have agreed without any liability therefore to endeavour to obtain or assist the contractor in obtaining the required quantities of such materials as may be specified in the tender. In the event of delay or failure in obtaining the required quantities of the aforesaid material the contractor shall not be deemed absolved of his own responsibility and shall keep in touch with day to day positions regarding their availability and accordingly adjust progress of works including employment of labour and the DFCCIL shall not in any way be liable for the supply of materials or for the non-supply thereof for any reasons whatsoever nor for any loss or damage arising in consequence of such delay or non- supply.
- 9. Deleted**
- 10. Use of Ballast Trains:** The Railway/DFCCIL may agree to allow the Contractor use of the ballast or material trains under such conditions as shall be specially prescribed, provided that the Contractor shall pay for the use thereof charges calculated at public tariff rates on the marked carrying capacity of each vehicle subject to specified minimum charge per day or part of day and provided further that the Contractor shall indemnify the Railway/DFCCIL against any claims or damages arising out of the use or misuse thereof and against any liabilities under the Workmen's Compensation Act, 1923 or any statutory amendments thereto.
- 11. Carriage of materials:-** No forwarding orders shall be issued by the DFCCIL for the conveyance of contractor's materials, tools and plant by Rail which may be required for use in the works and the contractor shall pay full freight charges at public tariff rates therefore.
- 12. Representation on Works:** - The contractor shall, when he is not personally present on the site of the works place and 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 DFCCIL to rescind the contract under clause 62 of these conditions.
- 13. Relics and Treasures:-** All gold, silver, oil and other minerals of any description and all precious stones, coins, treasures relics antiquities and other similar things which shall be found in or upon the site shall be the property of the DFCCIL and the Contractor shall duly preserve the same to the satisfaction of the DFCCIL and shall from time to time deliver the same to such person or persons as the DFCCIL may appoint to receive the same.
- 14. Excavated material:-**The contractor shall not sell or otherwise dispose of or remove except for the purpose of this contract, the sand, stones, clay, ballast, earth,

rock or other substances or materials which may be obtained from any excavation made for the purpose of the works or any building or produced upon the site at the time of delivery of the possession thereof but all the substances, materials, buildings and produce shall be the property of the DFCCIL 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.

15. **Indemnity by Contractors:-** The contractor shall indemnify and save harmless the Railway/DFCCIL from and against all actions, suit proceedings losses, costs, damages, charges, claims and demands of every nature and description brought or recovered against the Railways/DFCCIL 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.

16. **Security Deposit**

- 16.(1) **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 Railways/DFCCIL as part of security for the due and faithful fulfilment of the contract by the Contractor. Provided 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 Railway/DFCCIL shall return the Bid Security, to the Contractor.

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 Railway/DFCCIL 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.

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.

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.

16.(2) (i) Refund of Security Deposit: Security Deposit mentioned in sub clause (1) above shall be returned to the Contractor along with or after, the following:

- (a) Final Payment of the Contract as per clause 51.(1) and
- (b) Execution of Final Supplementary Agreement or Certification by Engineer that Railway/DFCCIL has No Claim on Contractor and
- (c) Maintenance Certificate issued, on expiry of the maintenance period as per clause 50.(1), in case applicable.

16. (2) (ii) Forfeiture of Security Deposit: Whenever the contract is rescinded as a whole under clause 62 (1) of these conditions, the Security Deposit already with Railways/DFCCIL under the 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.

16.(3) 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.

16.(4) Performance Guarantee

The procedure for obtaining Performance Guarantee is outlined below:

- (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 upto 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 Railway/DFCCIL, submission of PG can be accepted on the next working day.

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 Railway/DFCCIL 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.

The failed Contractor shall be debarred from participating in re-tender for that work.

- (b) The successful bidder shall submit the Performance Guarantee (PG) in any of the following forms, amounting to 5% of the original contract value:-
 - (i) A deposit of Cash;
 - (ii) Irrevocable Bank Guarantee;
 - (iii) Government Securities including State Loan Bonds at 5% below the market value;
 - (iv) Pay Orders and Demand Drafts tendered by any Scheduled Commercial Bank of India;
 - (v) Guarantee Bonds executed or Deposits Receipts tendered by any Scheduled Commercial Bank of India;

- (vi) Deposit in the Post Office Saving Bank;
 - (vii) Deposit in the National Savings Certificates;
 - (viii) Twelve years National Defence Certificates;
 - (ix) Ten years Defence Deposits;
 - (x) National Defence Bonds and
 - (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.
- (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.
- (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.
- (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.
- (f) Whenever the contract is rescinded, the Performance Guarantee already submitted for the contract shall be encashed.
- (g) The Engineer shall not make a claim under the Performance Guarantee except for amounts to which the President of India/DFCCIL is entitled under the contract (not withstanding and/or without prejudice to any other provisions in the contract agreement) in the event of:
- (i) Failure by the Contractor to extend the validity of the Performance Guarantee as described herein above, in which event the Engineer may claim the full amount of the Performance Guarantee.
 - (ii) Failure by the Contractor to pay President of India/DFCCIL 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.
 - (iii) The Contract being determined or rescinded under clause 62 of these conditions.

17 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 act of God (hereinafter, referred to events) provided, notice of the happening of any such event is given by either party to the other 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 of delay in performance, and works under the contract shall be resumed as soon as practicable after such event has come to an end or ceased to exist, and 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.

17A Extension of Time in Contracts (ACS no. 01 dt. 14.07.2022): 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:

- (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 Railway/DFCCIL or Contractor:** If in the opinion of the Engineer, the progress of work has any time been delayed by any act or neglect of Railway's/DFCCIL employees or by other Contractor employed by the Railway/DFCCIL 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 Railway/DFCCIL 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 Railways/DFCCIL:** In the event of any failure or delay by the Railway/DFCCIL to hand over the Contractor possession of the lands necessary for the execution of the works or to give the necessary notice to commence the works or to provide the necessary drawings or instructions or any other delay caused by the Railway/DFCCIL 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 Railway/DFCCIL may grant such extension or extensions of the completion date as may be considered reasonable.

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. (ACS-1 dt. 14.07.2022)

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. (ACS-1 dt. 14.07.2022)

17B 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 Railway/DFCCIL 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 Form no. 14) as the Engineer may decide. On such extension the Railway/DFCCIL 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 works for each week or part of the week.** (ACS-1 dt. 14.07.2022)

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. Provided further, that if the Railway/DFCCIL 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 Railway/DFCCIL 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.

17C Bonus for Early Completion of Work: In open tenders having advertised value more than Rs.50 crore and original period of completion 12 months or more, when there is no reduction in original scope of work by more than 10%, and no extension granted on either railway/DFCCIL or Contractor's account, Contractor shall be entitled for a bonus of 1% for each 30 days early completion of work. The period of less than 30 days shall be ignored while working out bonus. The maximum bonus shall be limited to 5% of original contract

value. The completion date shall be reckoned as the date of issuance of completion certificate by Engineer.

- 18.(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 Railway/DFCCIL or to any person on his behalf in relation to obtaining or execution of this or any other contract with the Railway/DFCCIL 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 Railway/DFCCIL and to the payment of any loss or damage resulting from such decision and the Railway/DFCCIL 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/ DFCCIL.
- 18.(2)** The contractor shall not lend or borrow from or have or enter into any monetary dealings and transactions either directly or indirectly with any employee of the DFCCIL and if he shall do so, the DFCCIL shall be entitled forthwith to rescind the contract and all other contracts with the DFCCIL. Any question or dispute as to the commission or any such offence or compensation payable to the DFCCIL under this clause shall be settled by the Chief General Manager/Ahmedabad of the DFCCIL, in such a manner as he shall consider fit and sufficient and his decision shall be final and conclusive. In the event of rescission of the contract under this clause, the contractor will not be paid any compensation whatsoever except payments for the work done up to the date of rescission.

EXECUTION OF WORKS

- 19.(1) 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.
- 19.(2) Commencement of works:-**The contractor shall commence the works within 15 days after the receipt by him of an order in writing to this effect from the Engineer and shall proceed with the same with due expedition and without delay.
- 19.(3) Accepted Programme of work (ACS no. 01 dt. 14.07.2022):-** The contractor who has been awarded the work shall as soon as possible but not later than 30 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/ Chief General Manager. He shall also submit the details of organization (in terms of labour and supervisors) plant and machinery, that he intends to utilize (from time to time) for execution of the work within stipulated date of completion. The programme of work amended as necessary by discussions with the Engineer, shall be treated as the agreed programme of the work for the purpose of this contract and the contractor shall endeavour to fulfil 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.

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 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.

- 19. (4) 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 shall 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 shall appear or arise in any part of the work, the contractor, on being required so to do by the Engineer's representative shall, at his own cost rectify such errors, to the satisfaction of the Engineer's representative. Such checking shall not absolve the contractor of his own responsibility of maintaining accuracy in the work. The contractor shall carefully protect and preserve all bench marks, sight rails, pegs and other things used in setting out the work.

- 20.(1) 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.
- 20.(2) Alterations to be authorized:-** No alterations in or additions to or omissions or abandonment of any part of the works shall be deemed authorized, except under written instructions from the Engineer.
- 20.(3) Extra works:-** Should works over and above those included in the contract require to be executed at the site, the contractor shall have no right to be entrusted with the execution of such works which may be carried out by another contractor or contractors or by other means at the option of the DFCCIL.
- 20. (4) Separate contracts in connection with works: -** The DFCCIL 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 for proper execution or result upon the work of another contractor(s), the contractor shall inspect and promptly report to the Engineer any defects in such works that render it unsuitable for such proper execution and results. The contractor's failure so-to inspect and report shall constitute 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.
- 21. 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:
- (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.
- 22. (1) 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 therefore and shall be responsible for all loss to the DFCCIL.
- 22. (2) 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.

- 22. (3) Ownership of drawings and specifications:** - All drawings and specifications and copies thereof furnished by the DFCCIL to the Contractor are deemed to be the property of the DFCCIL. 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 DFCCIL on completion of the work or termination of the contract.
- 22.(4) Compliance with Contractor's request for details:-** The Engineer shall furnish with reasonable promptness, after receipt by him of the contractor's request, additional instructions by means of drawings or otherwise, necessary for the proper execution of the works or any part thereof. All such drawing and instructions shall be consistent with the contract Documents and reasonably inferable there from.
- 22.(5) Meaning and intent of specification and drawings:-** If any ambiguity arises as to the meaning and intent of any portion of the specifications and drawings or as to execution or quality of any work or material, or as to the measurements of the works the decision of the Engineer thereon shall be final subject to the appeal (within 7 days of such decision being intimated to the contractor) to the GM/Dy.CPM/PM/DFCCIL 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.
- 23 Working during night:** - The contractor shall not carry out any work between sunset and sun-rise without the previous permission of the Engineer/DFCCIL. 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.
- 24. Damage to Railway / DFCCIL 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 DFCCIL/Railway or the lives, persons or property of others from whatsoever cause in connection with the works until they are taken over by the Railway/ DFCCIL, although all reasonable and proper precautions may have been taken by the contractor, and in case the Railway / DFCCIL shall be called upon to make good any costs, loss or damages, or to pay an 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 Railway / DFCCIL may incur in reference thereto, shall be charged to the contractor. The Railway / DFCCIL 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.
- 25. Sheds, stores houses and Yards:-**The contractor shall at his own expense provide himself with sheds, stores houses 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, stores houses and yard 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, store houses or yards by the contractor. The contractor shall at his own expenses provide and maintain suitable mortar mills, soaking vats or any other equipment necessary for the execution of the works.

26. Provision of efficient and competent Staff at work sites by the Contractor:-

26.1 The contractor shall place and keep on the works at all times efficient and competent staff to give the necessary directions to his workmen and to see that they execute their work in sound and proper manner and shall employ only such supervisors, workmen and labourers in or about the execution of any of these works as are careful and skilled in the various trades.

26.2 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.

26.3 In the event of the Engineer being of the opinion that the contractor is not employing on the works a sufficient number of staff and workmen as is necessary for the proper completion of the works within the time prescribed, the contractor shall forthwith on receiving intimation to this effect deploy the additional number of staff and labour specified by the Engineer within seven days of being so required and failure on the part of the contractor to comply with such instructions will entitle the Railway/DFCCIL to rescind the contract under clause 62 of these conditions.

26A. Deployment of Qualified Engineers at Work Sites by the Contractor:-

26A.1 The Contractor shall also employ qualified Graduate Engineer(s) or equivalent, or qualified Diploma Engineer(s), as prescribed in the tender documents.

26A.2 In case the Contractor fails to employ the Engineer, as aforesaid in Para 26A.1, he shall be liable to pay liquidated damages at the rates, as prescribed in the tender documents.

26A.3 No. of qualified Engineers required to be deployed by the Contractor for various activities contained in the works contract shall be specified in the tender documents as 'Special Condition of Contract'. (Para 1.6.8, Part -I, Chapter-V, Special Condition of Contract')

27.(1) 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 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.

27.(2) Removal of improper work and materials:- The Engineer or the Engineer's Representative shall be entitled to order from time to time:

- (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.
- (b) The substitution of proper and suitable materials, and
- (c) the removal and proper re-execution, notwithstanding any previous tests thereof or on account payments therefore, of any work which in respect of materials or workmanship; is not in his opinion in accordance with the specifications and in case of default on the part of the contractor in carrying out such order, the DFCCIL shall be entitled to rescind the contract under clause 62 of these conditions.
- (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.

28. Facilities for inspection:- The contractor shall afford the Engineer and the Engineer's Representative every facility for entering in and upon every portion of the work at all hours for the purpose of inspection or otherwise and shall provide all labour, materials, 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.

29. 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 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.

30. Temporary Works: - All temporary works necessary for the proper execution of the works shall be provided and maintained by the contractor and subject to the consent of the Engineer shall be removed by him at his expenses when they are no longer required and in such manner as the Engineer shall direct. In the event of failure on the part of the contractor to remove the temporary works, the Engineer will cause them to be removed and cost as increased by supervision and other incidental charges shall be recovered from the contractor. If temporary huts are provided by the contractor on the Railway / DFCCIL 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 Railway / DFCCIL necessary expenses incurred by the Railway / DFCCIL in

connection therewith shall be borne by the contractor.

31.(1) Contractor to supply water for works: - Unless otherwise provided in the contract, the contractor shall be responsible for the arrangements to obtain supply of water necessary for the works.

31.(2) Water Supply from DFCCIL/Railway System:- The DFCCIL/Railway may supply to the Contractor part or whole of the quantity of the water required for the execution of works from the DFCCIL/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 DFCCIL/Railway 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 of failure of the water supply.

31.(3) Deleted

31.(4)(a) Contractor to arrange supply of Electric power for works:- Unless otherwise provided in the contract, the contractor shall be responsible for arrangements to obtain supply of electric power for the works.

31.(4)(b) Electric Supply from the DFCCIL/Railway System: The DFCCIL/Railway may supply to the Contractor part or whole of the electric power wherever available and possible, required for execution of works from the DFCCIL/Railway's existing electric supply systems at or near the site of works on specified terms and conditions and such charges as shall be determined by the DFCCIL/Railway 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.

32. 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 Railway / DFCCIL. 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 Railway / DFCCIL 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 Railway / DFCCIL 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.

33.(1) Tools, Plant and Materials Supplied by Railway / DFCCIL: - The Contractor shall take all reasonable care of all tools, plant and materials or other property whether or a like description or not belonging to the Railway/DFCCIL 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 subcontractor, 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.

33.(2) Hire of DFCCIL / Railway's Plant:- The DFCCIL 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.

34.(1) 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.

34.(2) Roads and Water courses:- Existing roads or water courses shall not be blocked, cut through, altered, diverted or obstructed in any way by the Contractor, except with the permission of the Engineer. All compensations claimed for any unauthorized closure, cutting through, alterations, 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.

34.(3) 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 react and maintain at his own cost barriers, lights and other safeguards as prescribed by the Engineer, for the regulation of the traffic, and provide watchmen necessary to prevent accidents. The works shall in such cases be executed night and day if so ordered by the Engineer and with such vigour so that the traffic way be impeded for as short a time as possible.

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

34.(5) 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.

35. 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 DFCCIL/Railway in respect thereof.

- 36.(1) 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:-
- (a) Provided for in the contract, or
 - (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.
 - (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.
- 36.(2)** The Contractor shall not be entitled to the extra costs, if any, incurred by him during the period of suspension of the works, but in the event of any suspension ordered by the Engineer for reasons other than aforementioned and when each such period of suspensions exceeds 14 days, the contractor shall be entitled to such extension of time for completion of the work as the Engineers 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.
- 36.(3) 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 DFCCIL.
- 37. Rates for items of works:-** 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, centring, 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 DFCCIL, 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 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 DFCCIL, the setting of all work and of the construction, repair and upkeep of all centre 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 of 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.

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.

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.

38. **Demurrage and Wharfage Dues:** Demurrage charges calculated in accordance with the scale in force for the time being on the DFCCIL/Railway and incurred by the Contractor failing to load or unload any goods or materials within the time allowed by the DFCCIL/Railway 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 DFCCIL/Railway and shall be deducted from any sums which may become due to him in terms of the contracts.

39.(1) Rates for Extra Item(s) of Works (ACS no. 01 dt. 14.07.2022):

- (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).

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).

- (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) 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 DFCCIL/Railway 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.

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:

- 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)”
- iii. Market Analysis

39.(2) Provided that if the Contractor commences work or incurs any expenditure in regard thereto before the rates as determined and agreed upon as lastly hereunto fore- mentioned, then and in such a case the Contractor shall only be entitled to be paid in respect of the work carried out or expenditure incurred by him prior to the date of determination of 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 Chief General Manager. within 30 days of getting the decision of the Engineer, supported by analysis of the rates claimed. The Chief General Manager’s decision after hearing both the parties in the matter would be final and binding on the Contractor and the DFCCIL.

40. (1) Handing over of works: - The Contractor shall be bound to hand over the works executed under the contract to the DFCCIL 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.

40.(2) Clearance of site on completion:- On completion of 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 effected 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 for the Engineer to have the site cleared at the expenses of the Contractor, the DFCCIL 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 effected by means of public sales of such materials and property or in such a way as deemed fit and convenient to the Engineer.

40A 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 Form no. 27A), if the Engineer is of the opinion that :-

- (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 Railway/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;
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 Form No. 27B). 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.

VARIATIONS IN EXTENT OF CONTRACT

41. **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 DFCCIL 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 DFCCIL unless and until the same is incorporated in a formal instrument and signed by the DFCCIL and the Contractor, and till then the DFCCIL shall have the right to repudiate such arrangements.
- 42.(1) **Powers of modification to contract:-** DFCCIL 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.
- 42.(2) (i) Unless otherwise specified in the contract, the accepted variation in quantity of each individual item of the contract would be up to 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.
- (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 up to the limit of 25% variation in quantity of individual item of works.
 - (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.
 - (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 agreement value.

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;

d.(ii) Quantities operated in excess of 100% but upto 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;

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.

(iv) In case of earthwork, 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.

(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 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).

42.(3) 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 therefore shall be calculated in accordance with the accepted Bill(s) of Quantities. Any extra items / 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.

CLAIMS

43. (1) 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.

43.(2) Signing of “No Claim” Certificate:- The Contractor shall not be entitled to make any claim whatsoever against the DFCCIL under or by virtue of or arising out of this contract, nor shall the DFCCIL entertain or consider any such claim, if made by the Contractor, after he shall have signed a “No Claim” Certificate in favour of the DFCCIL in such form as shall be required by the DFCCIL 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.

MEASUREMENTS, CERTIFICATES AND PAYMENTS

44. **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 fulfilment of his obligations under the contract.
- 45.(i) **Measurement of works by Railways /DFCCIL :-** 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 DFCCIL. 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:
- (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 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.
- 45.(ii) **Measurement of works by Contractor's Authorised Representative (in case the contract provides for the same):-**
- (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 Authorised Engineer in accordance with the rules prescribed for the purpose by the DFCCIL. 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.

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 check may be conducted in his absence, and such test checks shall notwithstanding 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:

- (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 DFCCIL'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.
- (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.

(b)Incorrect Measurement, actions to be taken: If in case during test check or otherwise, it is detected by 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:

- (i) On first occasion of noticing exaggerated/false measurement, Engineer shall recover liquidated damages equal 10% of the claimed gross bill value.
- (ii) On any next occasion of noticing any exaggerated / false measurement, DFCCIL 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, measurement shall be done by DFCCIL as per Clause 45(i) above.

46. (1) **"On-Account" Payments:-** The Contractor shall be entitled to be paid from time to time by way of "One-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 6% (Six) 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.

46.(2) 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 up to Rs. 1/- will be reckoned as Rs. 1/-

46.(3) 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.

46.(4) If payment(s) of Advances are applicable in the contract, as mentioned in the Tender Documents, Railway/DFCCIL 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:

(a): Mobilisation Advance –

This shall be limited to 10% of the Contract value and shall be paid in 2 stages :

Stage 1– 5% of Contract Value on signing of the contract agreement.

Stage 2 – 5% on mobilization of site-establishment, setting up offices, bringing in equipment and actual commencement of work.

The stage 1 of advance shall be payable immediately after signing of contract agreement.

The stage 2 of advance shall be payable at the time of mobilisation, only after submission of an utilization certificate by the contractor that the Stage 1 advance has been properly utilized in the contract.

These Advances shall be payable against irrevocable guarantee (Bank Guarantee, FDRs) from a scheduled commercial bank of India of at least 110% of the value of the sanctioned advance amount (covering principal plus interest).

(b): Advance Against Machinery and Equipment –

This advance shall be limited to a maximum of 10% of the contract value against new Machinery & Equipment, involving substantial outlay, brought to site and essentially required for the work. This advance shall not exceed 75% of the purchase price of such Equipment and shall be payable when Equipment is hypothecated to the President of India by a suitable bond or alternatively covered by an irrevocable Bank Guarantee from a scheduled commercial bank of India for full cost of the Plant & Equipment in a form acceptable to Railways. The Plant & Equipment shall be insured for the full value and for the entire period, they are required for the work. This Plant & Equipment shall not be removed from the site of work without prior written permission of the Engineer. No advance should be given against old Plant & Machinery.

The advances under sub clause (a) and (b) above, are subject to the following conditions –

(i) The full amount of Advances shall be recovered from contractor dues. The recovery shall commence when the value of contract executed reaches 15% of original contract value and shall be completed when the value of work executed reaches 85% of the original contract value. The instalments on each "on account bill" will be on pro-rata basis.

Interest shall be recovered on the advance outstanding for the period commencing from the

date of payment of advance till date of particular on-account bill (through which recovery of principal is effected) and adjusted fully against on-account bill along with pro-rata principal recovery. In the event of any short-fall, the same shall be carried forward to the next on-account bill and shall attract interest.

(ii) The advances shall be used by the Contractor for the purpose of the Contract, and for the purpose for which they are paid. Under no circumstances, shall the advances be diverted for other purposes. Any such diversion shall be construed as a breach of the Contract and the Contractor shall be asked to return the advance at once and pay interest at 15% per annum till the advance is recovered back from him. The Contractor shall return the advance and pay the interest in one go without demur. The Contractor, if required by the Engineer shall provide the details of utilisation of Mobilisation advance.

(iii) If the Contractor is found to have contravened the provision, it will constitute a breach of contract and Railway shall be entitled to terminate the contract and forfeit his Performance Guarantee as well as Security Deposit.

(iv) In cases, where the Contract is rescinded as per clause 62 of the contract or short closed under any other condition(s) of the contract, without making full recovery of advances and accrued interest thereon, by the DFCCIL/Railway, such balance of advances and accrued interest thereon shall immediately become due and payable by the Contractor to the DFCCIL/Railway. The same shall be recovered from any due of Contractor with the Government of India.

46.(5) Manner of Payment: Unless otherwise specified payments to the Contractor will be transferred electronically to his bank account.

46A. Price Variation Clause (PVC):

(ACS no. 01 dt. 14.07.2022)

46A.1 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) :

- a) Materials supplied by Railway/DFCCIL 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. (l)(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).

46A.2 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.

46A.3 Validity:

Rates accepted by DFCCIL Railway Administration shall hold good till completion of work and no additional individual claim shall be admissible except:

- (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.

46A.4 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.

46A.5 No price variation shall be admissible for fixed components.

46A.6 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: (ACS no. 01 dt. 14.07.2022)

(I) For Civil Engineering Works

S N	Classification		1A, 2 & 3A	4A	5A	6A	7	8A	9A	1B, 3B, 4B, 5B, 6B, 8B & 9B	1C, 3C, 4C, 5C, 6C, 8C, & 9C	3D, 4D, 5D, 6D, 8D, & 9D	3E, 4E, 5E, 6E, 8E, & 9E
	Components	*											
1	Fixed	*	15	15	15	15	15	15	15	15	15	15	15
2	Labour	L _c	20	25	30	20	50	20	20	0	0	10	25
3	Steel	S _c	0	0	0	0	0	0	0	85	0	50	0
4	Cement	C _c	0	0	15	0	0	0	0	0	85	0	0
5	Plant Machinery & Spares	PM _c	30	15	5	20	15	20	30	0	0	10	30
6	Fuel & Lubricant	F _c	25	15	5	15	15	20	15	0	0	10	20
7	Other Materials	M _c	10	15	30	30	5	25	20	0	0	5	10
8	Detonators & Explosive	E _c	0	15	0	0	0	0	0	0	0	0	0
Total			100	100	100	100	100	100	100	100	100	100	100

*It shall not be considered for any price variation.

The classification mentioned in the table above represents following type of item(s) in the work(s) –

1 Earthwork in Formation

- 1A All Item(s) excluding 1B or/and 1C
- 1B Item(s) for supply of Steel
- 1C Item(s) for supply of Cement

2 Ballast Supply Works

3 Tunnelling Works (Without Explosives)

- 3A All Item(s) excluding 3B or/and 3C or/and 3D or/and 3E
- 3B Item(s) for supply of Steel
- 3C Item(s) for supply of Cement or/and Grout
- 3D Item(s) for Fabrication & Erection of Structures including supply of Steel
- 3E Item(s) for Fabrication & Erection of Structures excluding supply of Steel.

4 Tunnelling Works (With explosives)

- 4A All Item(s) excluding 4B or/and 4C or/and 4D or/and 4E
- 4B Item(s) for supply of Steel
- 4C Item(s) for supply of Cement or/and Grout
- 4D Item(s) for Fabrication & Erection of Structures including supply of Steel
- 4E Item(s) for Fabrication & Erection of Structures excluding supply of Steel.

5 Building Works

- 5A All Item(s) excluding 5B or/and 5C or/and 5D or/and 5E
- 5B Item(s) for supply of Steel
- 5C Item(s) for supply of Cement
- 5D Item(s) for Fabrication & Erection of Structures including supply of Steel
- 5E Item(s) for Fabrication & Erection of Structures excluding supply of Steel.

6 Bridges & Protection work

- 6A All Item(s) excluding 6B or/and 6C or/and 6D or/and 6E
- 6B Item(s) for supply of Steel
- 6C Item(s) for supply of Cement
- 6D Item(s) for Fabrication, Assembly, Erection & Launching of Girders including supply of Steel
- 6E Item(s) for Fabrication, Assembly, Erection & Launching of Girders excluding supply of Steel

7 Permanent Way linking

8 Platform, Passenger Amenities

- 8A All Item(s) excluding 8B or/and 8C or/and 8D or/and 8E
- 8B Item(s) for supply of Steel item/fittings
- 8C Item(s) for supply of Cement Item
- 8D Item(s) for Fabrication & Erection of Structures including supply of Steel
- 8E Item(s) for Fabrication & Erection of Structures excluding supply of Steel

9 Any Other Works not covered in Classification 1 to 8

- 9A All Item(s) excluding 9B or/and 9C or/and 9D or/and 9E
- 9B Item(s) for supply of Steel
- 9C Item(s) for supply of Cement or/and Grout
- 9D Item(s) for Fabrication & Erection of Structures including supply of Steel
- 9E Item(s) for Fabrication & Erection of Structures excluding supply of Steel

46A.7 Formulae: (ACS no. 01 dt. 14.07.2022) The Amount of variation in prices in various components (labour, material etc.) shall be worked out by the following formulae:

$$(i) \quad L = \frac{(W \text{ or } W_{SF} \text{ or } W_F \text{ or } W_{SFL} \text{ or } W_{FL}) \times (L_Q - L_B) \times L_C}{L_B \times 100}$$

$$(ii) M = \frac{(W \text{ or } W_{SF} \text{ or } W_F \text{ or } W_{SFL} \text{ or } W_{FL}) \times (M_Q - M_B) \times M_C}{M_B \times 100}$$

$$(iii) F = \frac{(W \text{ or } W_{SF} \text{ or } W_F \text{ or } W_{SFL} \text{ or } W_{FL}) \times (F_Q - F_B) \times F_C}{F_B \times 100}$$

$$(iv) E = \frac{(W) \times (E_Q - E_B) \times E_C}{E_B \times 100}$$

$$(v) PM = \frac{(W \text{ or } W_{SF} \text{ or } W_F \text{ or } W_{SFL} \text{ or } W_{FL}) \times (PM_Q - PM_B) \times PM_C}{PM_B \times 100}$$

$$(vi) S = \frac{(W \text{ or } W_S \text{ or } W_{SF}) \times (S_Q - S_B) \times S_C}{S_B \times 100}$$

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

(II) For DFCCIL 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)

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- 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)
- Ec % of Explosive Component in the item(s)
- PMc % of Plant, Machinery and Spares Component in the item(s)
- Sc % of Steel Supply item Component in the item(s)
- Cc % of Cement Supply item Component in the item(s)
- 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 DFCCIL/Railway either free or at fixed rate,
- W_s Gross value of work done by Contractor for item(s) of supply of steel.
- W_c Gross value of work done by Contractor for item(s) of supply of cement and /or supply of grout material.
- W_{SF} Gross value of work done by Contractor for item(s) of Fabrication & Erection of Structures including supply of Steel.
- W_F Gross value of work done by Contractor for Fabrication & Erection of Structures excluding supply of Steel.
- W_{SFL} Gross value of work done by Contractor for item(s) of Fabrication, Assembly, Erection / Launching of Girders including supply of Steel.
- W_{FL} Gross value of work done by Contractor for item(s) of Fabrication, Assembly, Erection / Launching of Girders excluding supply of Steel.
- L_B Consumer Price Index for Industrial Workers - All India: Published in R.B.I. Bulletin for the base period
- 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
- M_B Wholesale Price Index: All commodities – as published in the R.B.I. Bulletin for the base period
- 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

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- 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
- F_Q 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 3 months of the quarter under consideration
- E_B 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.
- E_Q 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.
- PM_B 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.
- PM_Q 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.
- S_B 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.
- S_Q 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.
- C_B Index No. of Wholesale Price Index of sub-group Cement, Lime & Plaster as published in RBI Bulletin for the base period
- C_Q 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
- R_T IEEMA price index for Steel Blooms (size 150mmx150mm) for the month which is two months prior to date of inspection of material.
- R_O IEEMA price index for Steel Blooms (size 150mmx150mm) for the month which is one month prior to date of opening of tender.

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- P_T IEEMA price index for Copper wire rods for the month which is two months prior to date of inspection of material.
- P_O IEEMA price index for Copper wire rods for the month which is one month prior to date of opening of tender.
- Z_T IEEMA price index for Zinc for the month which is two months prior to date of inspection of material
- Z_O IEEMA price index for Zinc for the month which is one month prior to date of opening of tender
- 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
- 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

(III) SIGNALING & TELECOMMUNICATION WORKS:

(a) The following expressions and meanings are assigned to the value of the work done for signalling and telecommunication works:

SIGWK = Value of signalling works for a stage payment of the item signalling works;

INVSIG = Value of inventory for signalling works for a stage payment of the item inventory for signalling works;

INTGTESTSIG = Value of integrated testing and commission for signalling works of the Railway Project;

COMWK= Value of telecommunication works for a stage payment of the item telecommunication works;

INVCOM = Value of inventory for telecommunication works for a stage payment of the item inventory for telecommunication works; and

INTGTESTCOM = Value of integrated testing and commission for telecommunication works of the Railway Project.

(b) Price adjustment for changes in cost of signalling works and telecommunication works shall be paid in accordance with the following formula:

$$(i) V_{SIGWK} = 0.85 \text{ SIGWK} \times [PELEX \times (ELEX_i - ELEX_o) / ELEX_o + POFC \times (OFC_i - OFC_o) / OFC_o + PLB \times (LBI - LBo) / LBo + POTH \times (OTH_i - OTH_o) / OTH_o + S30C \times (P30C_i - P30C_o) / P30C_o + S24C \times (P24C_i - P24C_o) / P24C_o + S19C \times (P19C_i - P19C_o) / P19C_o + S12C \times (P12C_i - P12C_o) / P12C_o + S9C \times (P9C_i - P9C_o) / P9C_o + S6C \times (P6C_i - P6C_o) / P6C_o + S4C \times (P4C_i - P4C_o) / P4C_o + S2C \times (P2C_i - P2C_o) / P2C_o + S12C2.5 \times (P12C2.5_i - P12C2.5_o) / P12C2.5_o + S2C2.5 \times (P2C2.5_i - P2C2.5_o) / P2C2.5_o + S2C25 \times (P2C25_i - P2C25_o) / P2C25_o + QC \times (PQC_i - PQC_o) / PQC_o];$$

$$(ii) \text{VINVSIG} = 0.85 \text{ SIGWK} \times [\text{PELEX} \times (\text{ELEX}_i - \text{ELEX}_o) / \text{ELEX}_o + \text{POTH} \times (\text{OTH}_i - \text{OTH}_o) / \text{OTH}_o];$$

$$(iii) \text{VINTGTESTSIG} = 0.85 \text{ INTGTESTSIG} \times [\text{PLB} \times (\text{LBI} - \text{LBo}) / \text{LBo} + \text{POTH} \times (\text{OTH}_i - \text{OTH}_o) / \text{OTH}_o];$$

$$(iv) \text{VCOMWK} = 0.85 \text{ COMWK} \times [\text{PELEX} \times (\text{ELEX}_i - \text{ELEX}_o) / \text{ELEX}_o + \text{POFC} \times (\text{OFC}_i - \text{OFC}_o) / \text{OFC}_o + \text{PLB} \times (\text{LBI} - \text{LBo}) / \text{LBo} + \text{POTH} \times (\text{OTH}_i - \text{OTH}_o) / \text{OTH}_o + \text{S30C} \times (\text{P30C}_i - \text{P30C}_o) / \text{P30C}_o + \text{S24C} \times (\text{P24C}_i - \text{P24C}_o) / \text{P24C}_o + \text{S19C} \times (\text{P19C}_i - \text{P19C}_o) / \text{P19C}_o + \text{S12C} \times (\text{P12C}_i - \text{P12C}_o) / \text{P12C}_o + \text{S9C} \times (\text{P9C}_i - \text{P9C}_o) / \text{P9C}_o + \text{S6C} \times (\text{P6C}_i - \text{P6C}_o) / \text{P6C}_o + \text{S4C} \times (\text{P4C}_i - \text{P4C}_o) / \text{P4C}_o + \text{S2C} \times (\text{P2C}_i - \text{P2C}_o) / \text{P2C}_o + \text{S12C2.5} \times (\text{P12C2.5}_i - \text{P12C2.5}_o) / \text{P12C2.5}_o + \text{S2C2.5} \times (\text{P2C2.5}_i - \text{P2C2.5}_o) / \text{P2C2.5}_o + \text{S2C25} \times (\text{P2C25}_i - \text{P2C25}_o) / \text{P2C25}_o + \text{QC} \times (\text{PQC}_i - \text{PQC}_o) / \text{PQC}_o + \text{PCEQP} \times (\text{CEQP}_i - \text{CEQP}_o) / \text{CEQP}_o];$$

$$(v) \text{VINVCOM} = 0.85 \text{ SIGWK} \times [\text{PELEX} \times (\text{ELEX}_i - \text{ELEX}_o) / \text{ELEX}_o + \text{PCEQP} \times (\text{CEQP}_i - \text{CEQP}_o) / \text{CEQP}_o + \text{POTH} \times (\text{OTH}_i - \text{OTH}_o) / \text{OTH}_o]; \text{ and}$$

$$(vi) \text{VINTGTESTCOM} = 0.85 \text{ INTGTESTCOM} \times [\text{PLB} \times (\text{LBI} - \text{LBo}) / \text{LBo} + \text{POTH} \times (\text{OTH}_i - \text{OTH}_o) / \text{OTH}_o].$$

Where

VSIGWK = Increase or decrease in the cost of signalling works during the period under consideration due to changes in the rates for relevant components as specified in subparagraph (h);

VINVSIG = Increase or decrease in the cost of inventory for signalling during the period under consideration due to changes in the rates for relevant components as specified in subparagraph (h);

VINTGTESTSIG = Increase or decrease in the cost of integrated testing and commissioning of signalling works of the Railway Project during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (h);

VCOMWK = Increase or decrease in the cost of communication works during the period under consideration due to changes in the rates for relevant components as specified in subparagraph (h);

VINVCOM = Increase or decrease in the cost of inventory for telecommunications works during the period under consideration due to changes in the rates for relevant components as specified in sub-paragraph (h);

VINTGTESTCOM = Increase or decrease in the cost of integrated testing and commissioning of telecommunication works of the Railway Project during the period under consideration due to changes in the rates for relevant components as specified in subparagraph (h);

PCEQP, PELEX, PIC, PLB, POFC, and POTH are the percentages of communication equipment, electronics, PVC insulated cables, labour, optical fibre cables, and other materials respectively;

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CEQP_o = The wholesale price index as published by the Ministry of Commerce and Industry, Government of India (hereinafter called "WPI") for communication equipment for the month of the Base Month;

CEQP_i = The WPI for communication equipment for the average price index of the 3 months of the quarter under consideration;

ELEX_o = The WPI for electronics for the month of the Base Month;

ELEX_i = The WPI for electronics for the average price index of the 3 months of the quarter under consideration;

P30C_i = Price payable per Km as adjusted in accordance with price variation Clause for size 30C x 1.5 sq mm signalling cable

P30C_o = Price per Km of cable as per purchase order/ Contract agreement.

S30C = Percentage of size 30C x 1.5 sq mm signalling cable shall govern the price adjustment of the contract price for signalling and telecommunication works.

P24C_i = Price payable per Km as adjusted in accordance with price variation Clause for size 24C x 1.5 sq mm signalling cable

P24C_o = Price per Km of cable as per purchase order/ Contract agreement.

S24C = Percentage of size 24C x 1.5 sq mm signalling cable shall govern the price adjustment of the contract price for signalling and telecommunication works.

P19C_i = Price payable per Km as adjusted in accordance with price variation Clause for size 19C x 1.5 sq mm signalling cable

P19C_o = Price per Km of cable as per purchase order/ Contract agreement.

S19C = Percentage of size 19C x 1.5 sq mm signalling cable shall govern the price adjustment of the contract price for signalling and telecommunication works.

P12C_i = Price payable per Km as adjusted in accordance with price variation Clause for size 12C x 1.5 sq mm signalling cable

P12C_o = Price per Km of cable as per purchase order/ Contract agreement.

S12C = Percentage of size 12C x 1.5 sq mm signalling cable shall govern the price adjustment of the contract price for signalling and telecommunication works.

P9C_i = Price payable per Km as adjusted in accordance with price variation Clause for size 9C x 1.5 sq mm signalling cable

P9C_o = Price per Km of cable as per purchase order/ Contract agreement.

S9C = Percentage of size 9C x 1.5 sq mm signalling cable shall govern the price adjustment of the contract price for signalling and telecommunication works.

P6C_i = Price payable per Km as adjusted in accordance with price variation Clause for size

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6C x 1.5 sq mm signalling cable

P6C_o = Price per Km of cable as per purchase order/ Contract agreement.

S6C = Percentage of size 6C x 1.5 sq mm signalling cable shall govern the price adjustment of the contract price for signalling and telecommunication works.

P4C_i = Price payable per Km as adjusted in accordance with price variation Clause for size 4C x 1.5 sq mm signalling cable

P4C_o = Price per Km of cable as per purchase order/ Contract agreement.

S4C = Percentage of size 4C x 1.5 sq mm signalling cable shall govern the price adjustment of the contract price for signalling and telecommunication works.

P2C_i = Price payable per Km as adjusted in accordance with price variation Clause for size 2C x 1.5 sq mm signalling cable

P2C_o = Price per Km of cable as per purchase order/ Contract agreement.

S2C = Percentage of size 2C x 1.5 sq mm signalling cable shall govern the price adjustment of the contract price for signalling and telecommunication works.

P12C2.5_i = Price payable per Km as adjusted in accordance with price variation Clause for size 12C x 2.5 sq mm signalling cable

P12C2.5_o = Price per Km of cable as per purchase order/ Contract agreement.

S12C2.5 = Percentage of size 12C x 2.5 sq mm signalling cable shall govern the price adjustment of the contract price for signalling and telecommunication works.

P2C2.5_i = Price payable per Km as adjusted in accordance with price variation Clause for size 2C x 2.5 sq mm signalling cable

P2C2.5_o = Price per Km of cable as per purchase order/ Contract agreement.

S2C2.5 = Percentage of size 2C x 2.5 sq mm signalling cable shall govern the price adjustment of the contract price for signalling and telecommunication works.

P2C25_i = Price payable per Km as adjusted in accordance with price variation Clause for size 2C x 25 sq mm signalling cable

P2C25_o = Price per Km of cable as per purchase order/ Contract agreement.

S2C25 = Percentage of size 2C x 25 sq mm signalling cable shall govern the price adjustment of the contract price for signalling and telecommunication works.

PQC_i = Price payable per Km as adjusted in accordance with price variation Clause for size 0.9mm dia, 6 Quad cable.

PQC_o = Price per Km of cable as per purchase order/ Contract agreement.

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QC = Percentage of size 0.9mm dia, 6 Quad cable shall govern the price.

LBo = The consumer price index for industrial workers – All India, published by Labour Bureau, Ministry of Labour, Government of India, (hereinafter called “CPI”) for the month of the Base Month;

LBi = The CPI for industrial workers – All India for the average price index of the 3 months of the quarter under consideration;

OFCo = The WPI for fibre cables for the month of the Base Month;

OFCi = The WPI for fibre cables for the average price index of the 3 months of the quarter under consideration;

OTHo = The WPI for all commodities for the month of the Base Month; and

OTHi = The WPI for all commodities for the average price index of the 3 months of the quarter under consideration.

- (c) The following percentages shall govern the price adjustment of the Contract Price for signalling and telecommunication works:

<i>Component</i> \ <i>Work</i>	Signalling			Telecommunication		
	Signalling Works	Signalling inventory	Integrated testing and Commissioning	Telecommunication Works	Telecomm inventory	Integrated testing and Commissioning
Electronics (PELEX)	***%	***%	-	***%	***%	-
Communication Equipment (PCEQP)	-	-	-	***%	***%	-
Optical Fibre Cable (POFC)	***%	-	-	***%	-	-
30C x 1.5 sq mm signalling cable(S30C)	***%	-	-	***%	-	-
24C x 1.5 sq mm signalling cable (S24C)	***%	-	-	***%	-	-
19Cx 1.5 sq mm signalling cable (S19C)	***%	-	-	***%	-	-
12C x 1.5 sq mm signalling cable (S12C)	***%	-	-	***%	-	-
9C x 1.5 sq mm signalling cable (S9C)	***%	-	-	***%	-	-
6C x 1.5 sq mm signalling cable (S6C)	***%	-	-	***%	-	-

4C x 1.5 sq mm signalling cable (S4C)	***%	-	-	***%	-	-
2C x 1.5 sq mm signalling cable (S2C)	***%	-	-	***%	-	-
12C x 2.5 sq mm signalling cable (S12C2.5)	***%	-	-	***%	-	-
2C x 2.5 sq mm signalling cable (S2C2.5)	***%	-	-	***%	-	-
2C x 25 sq mm signalling cable (S2C25)	***%	-	-	***%	-	-
0.9 mm dia, 6Quad cable (QC)	***%	-	-	***%	-	-
Labour (PLB)	***%	-	***%	***%	***%	***%
Other materials	***%	***%	***%	***%	***%	***%
Total	100%	100%	100%	100%	100%	100%

(Note- the percentages may be finalized by tendering authority depending on BOQ)

FORMULAE FOR SIGNALING & TELECOM CABLE

The price payable for signalling cables is variable as per Price Variation Formula given below:

For Signalling Copper Cables:

$$P_i = P_o + CuF (Cu - C_{uo}) + CCF_{cu}(CC - C_{Co}) + FeF (Fe - Fe_o)$$

For Telecom Copper Cables For Jelly Filled, 0.9 mm dia, 6 quad cable

$$P_i = P_o + CuF (Cu - C_{uo}) + AIF_{cu}(Al - A_{lo}) + CCF_{cu} (CC - C_{Co}) + FeF (Fe - Fe_o)$$

For Aluminium Power Cables:

$$P_i = P_o + AIF (Al - A_{lo}) + CCF_{AI}(CC - C_{Co}) + FeF (Fe - Fe_o)$$

Where,

P_i = Price payable per KM as adjusted in accordance with Price variation clause.

P_o = Price per KM of cable as per Purchase order.

CuF = Variation factor for Copper

C_{uo} = Price of copper Rod in Rs. Per MT

$CCFCu$ = Variation factor for PVC Compound for Copper Signalling & Telecom cable

C_{Co} = Price of PVC Compound in Rs. Per MT

AIF = Variation factor for Aluminium

A_{lo} = Price of EC grade LME Aluminium rods (Properzi rods) in Rs. Per MT.

$CCFAI$ = Variation factor for PVC Compound for Aluminium power cable

FeF = Variation factor for Steel

Fe_o = Price of Steel for Armour (Flat strip 4 mm. x 0.8mm/ Round 1.4mm dia) in Rs. Per

MT

(Prices per MT for Cu, CCo, Fe, Al as applicable on the 1st working day of the month, one month prior to the deadline for submission of bids. The above prices and indices are as published by IEEMA vide circular reference no. IEEMA (PVC) /CABLE --/--/-- one month prior to the deadline for submission of bids.)

Cu= Price of Copper Rod in Rs. Per MT.

CC= Price of PVC Compound in Rs. Per MT.

Fe= Price of Steel for Armouring (Flat strip 4mm x 0.8 mm/ Round 1.4mm dia) in Rs.

Per MT.

Al = Price of EC grade LME Aluminium rods (Properzi rods) in Rs. Per MT.

(Prices per MT for Cu, CC, Fe, Al as prevailing on 1st working day of the calendar month covering the date One month prior to the date of inspection call letter will be applicable for the calculation of updated price. The above prices and indices are as published by IEEMA vide circular reference no. IEEMA (PVC) /CABLE --/--/-- one month prior to the date of inspection.)

The value of variation factors for copper, steel and PVC Compound are different for different sizes of signalling cables. Accordingly, the PVC formula for some of the types of signalling cable is as given under:-

Underground Railway Signalling Cable unscreened and armoured copper conductor

(i) Size 30 C x 1.5 sq.mm.

$$P30C_i = P30C_o + 0.391(Cu - C_{uo}) + 0.557(CC - C_{Co}) + 0.425(Fe - F_{eo})$$

For armouring, price of steel flat strip of size 4mmx0.8mm is to be taken into consideration.

(ii) Size 24C x 1.5 sq.mm

$$P24C_i = P24C_o + 0.313(Cu - C_{uo}) + 0.481(CC - C_{Co}) + 0.398(Fe - F_{eo})$$

For armouring, value of steel flat strip of size 4mmx0.8mm is to be taken into consideration.

(iii) Size 19C x 1.5 sq.mm

$$P19C_i = P19C_o + 0.248(Cu - C_{uo}) + 0.395(CC - C_{Co}) + 0.343(Fe - F_{eo})$$

For armouring, value of steel flat strip of size 4mmx0.8mm is to be taken into consideration.

(iv) Size 12C x 1.5 sq.mm

$$P12C_i = P12C_o + 0.157(Cu - C_{uo}) + 0.277(CC - C_{Cu}) + 0.289(Fe - F_{eo})$$

For armouring, value of steel wire size 1.4mm dia is to be taken into consideration.

(v) Size 9C x 1.5 sq.mm

$$P9C_i = P9C_o + 0.117(Cu - C_{uo}) + 0.241(CC - C_{Cu}) + 0.383(Fe - F_{eo})$$

For armouring, value of steel wire size 1.4mm dia is to be taken into consideration.

(vi) Size 6Cx 1.5 sq.mm

$$P6C_i = P6C_o + 0.078(Cu - C_{uo}) + 0.199(CC - C_{Cu}) + 0.329(Fe - F_{eo})$$

For armouring, value of steel wire size 1.4mm dia is to be taken into consideration.

(vii) Size 4Cx1.5 sq.mm

$$P4C_i = P4C_o + 0.052(Cu - C_{uo}) + 0.152(CC - C_{Co}) + 0.277(Fe - F_{eo})$$

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For armouring, value of steel wire size 1.4mm dia is to be taken into consideration.

(viii) Size 2C x 4 sq.mm(multistrand)

$$P2C_i = P2C_o + 0.073(Cu-Cu_o) + 0.156(CC-CC_o) + 0.3(Fe-Fe_o)$$

For armouring, value of steel wire size 1.4mm dia is to be taken into consideration.

(ix) Size 12C x 2.5 sq.mm

$$P12C2.5_i = P12C2.5_o + 0.282 (Cu-Cu_o) + 0.371 (CC-CC_o) + 0.342 (Fe-Fe_o)$$

For armouring, value of steel flat strip of size 4mmx0.8mm is to be taken into consideration.

(x) Size 2C x 2.5 sq.mm

$$P2C2.5_i = P2C2.5_o + 0.047 (Cu-Cu_o) + 0.139 (CC-CC_o) + 0.277 (Fe-Fe_o)$$

For armouring, value of steel wire size 1.4mm dia is to be taken into consideration.

(xi) Size 2C x 25 sq.mm PVC insulated, armoured, Aluminium power cable

$$P2C25_i = P2C25_o + 0.146 (Al-Al_o) + 0.303 (CC-CC_o) + 0.306 (Fe-Fe_o)$$

For armouring, value of steel flat strip of size 4mmx0.8mm is to be taken into consideration.

(xii) For Jelly filled, 0.9mm dia, 6 quad cable

$$PQC_i = PQC_o + 0.135 (Al-Al_o) + 0.139 (Cu-Cu_o) + 0.515 (CC-Cc_o) + 0.693 (Fe-Fe_o)$$

For PVC Compound Grade CW-22, is to be taken into consideration.

46A.8 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.

46A.9: (1) Relevant categories of steel for the purpose of operating Price Variation formula as mentioned in this Clause shall be as under:

SN	Classification	Rates to be used for calculating S _Q or S _B
1.	Reinforcement bars and other rounds	Average of per tonne rates of 10mm dia TMT & 25mm dia TMT; confirming IS1786; Fe 500
2.	All types and sizes of angles, channels and joists	Average of per tonne rates of 'Angle 75x75x6mm, Mild Steel Plate 10mm thickness and Channel 150x75mm; confirming IS2062, E250 Gr "A"
3.	All types and sizes of plates	Average of per tonne rates of 'MS Plates 10mm thickness and 25mm thickness; confirming IS2062, E250 Gr "A"
4.	Any other section of steel not covered in the above categories	Average of price for the 3 categories covered under SL 1, 2 & 3 in this table.

(2). Relevant city for referring "JPC (Joint Plant Committee)" rates of steel items (SQ /SB) in different Zonal Railways shall be as under :

SL	City	Railway
1.	Delhi	Northern , North Central, North Eastern, North Western

2.	Kolkata	Eastern, East Central, East Coast, Northeast Frontier, South Eastern, Southeast Central
3.	Mumbai	Central, Western, West Central
4.	Chennai	Southern, South Central & South Western

46A.10 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:

- 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.

47.0 Maintenance of works The Contractor shall at all times during the progress and continuance of the works and also for the period of maintenance specified in the Tender Form 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 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 DFCCIL 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.

48. (1) Certificate of completion of works: - As soon as in the opinion of the Engineer, the works 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 contractor and that there is no due from the contractor to Railways/DFCCIL 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 DFCCIL. 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.

48.(2) **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.

48.(3) **Final Supplementary Agreement:** After the work is completed or otherwise concluded by the parties with mutual consent, and taken over by the Railway 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 Form No. 24, the parties shall execute the Final Supplementary Agreement as per Form No. 24.

49.0 **Approval only by maintenance Certificate:-** No certificate other than maintenance certificate referred to in Clause 50 of the conditions shall be deemed to constitute approval of any work or other matter in respect of which it is issued or shall be taken as an admission of the due performance of the contract or any part thereof.

50.(1) **Maintenance Certificate:-** The Contract shall not be considered as completed until a Maintenance Certificate 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 or as soon thereafter as any works ordered during such period pursuant to sub clause (2) 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 DFCCIL.

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 DFCCIL/Railways against the contract concerned.

50.(2) **Cessation of Railway's / DFCCIL Liability:** - The DFCCIL shall not be liable to the Contractor for any matter arising out of or in connection with the contract of

the execution of the works unless the contractor shall have made a claim in writing in respect thereof before the issue of the Maintenance Certificate under this clause.

50.(3) Unfulfilled Obligations:- Notwithstanding the issue of the Maintenance certificate the Contractor and (subject to sub-clause 2 of this clause) the DFCCIL shall remain liable for the fulfilment 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.

51.(1) 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 Railway 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), 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 Railway 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.

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

51-A. Production of vouchers etc. by the Contractor:-

(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 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.

52.0 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 DFCCIL 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 DFCCIL 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 DFCCIL 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 DFCCIL or any Department of the Central Government pending finalization or adjudication of any such claim.

It is an agreed term of the contract that the sum of money or moneys so withheld or retained under the lien referred to above, by the DFCCIL will be kept withheld or retained as such by the DFCCIL 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 limited company, the DFCCIL shall be entitled to withhold and also have a lien to retain towards such claimed amount or amounts in whole or in part from any sum found payable to any partner/limited company, as the case may be whether in his individual capacity or otherwise.

52-A. Lien in respect of claims in Other Contracts:-

- (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 DFCCIL, against any claim of this or any other DFCCIL or any other Department of the Central Government in respect of a 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.
- (ii) However, recovery of claims of DFCCIL in regard to terminated contracts may be made from the Final Bills, 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 DFCCIL/Railways" dues against the terminated contract.

- (iii) It is an agreed term of the contract that the sum of money so withheld or retained under this clause by the DFCCIL will be kept withheld or retained as such by the DFCCIL till the claim arising out of or under any other contract is either mutually settled or determined by arbitration, if the other contract is governed by arbitration clause or by the competent court as the case may be and contractor shall have no claim for interest 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.

53.0 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 DFCCIL 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 a sufficient discharge as aforesaid provided that nothing in this clause contained shall be deemed to prejudice or effect any claim which the DFCCIL 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 interse.

LABOUR

54.0 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.

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 DFCCIL whether in connection with any work being executed by the Contractor or otherwise for the purpose of the DFCCIL such labour shall, for the purpose of this clause, still be deemed to be persons employed by the Contractor.

If any moneys shall, as a result of any claim or application made under the said Act be directed to be paid by the DFCCIL/Railway, such money shall be deemed to be moneys payable to the DFCCIL/Railway by the Contractor and on failure by the Contractor to repay the DFCCIL/Railway any moneys paid by it as aforesaid within seven days after the same shall have been demanded, the DFCCIL/Railways shall be entitled to recover the same from Contractor's bills/Security Deposit or any other dues of Contractor with the Government of India.

54A. 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.

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 DFCCIL 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.

55. Provisions of payments of Wages Act: - The Contractor shall comply with the provisions of the Payment of Wages Act, 1936 and the rules made thereunder in respect of all employees employed by him either directly or through petty contractors or sub-contractors employed by him in the works. If In compliance with the terms of the contract, the Contractor directly or through petty contractors of 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 never the less 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 Railways/DFCCIL deduct the same from moneys due to contractor in the terms of contract. The DFCCIL 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 Railway 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.

55A. Provisions of Contract labour (Regulation and Abolition) Act, 1970:

55A.(1) 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 DFCCIL from and against any claims under the aforesaid Act and the Rules.

55A.(2) The Contractor shall obtain a valid licence under the aforesaid Act as modified from time to time before the commencement of the work and continue to have a valid licence until the completion of the work. Any failure to fulfil the requirement shall attract the penal provision of the Act.

55A. (3)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 including any engaged by subcontractors in connection with the said work, as if the labour had been immediately employed by him.

55A.(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.

55A.(5) In every case in which, by virtue of the provisions of the aforesaid Act or the Rules, the DFCCIL 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 DFCCIL due to the contractor's failure to fulfil his statutory obligations under the aforesaid Act or the rules the DFCCIL 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 DFCCIL under the section 20, sub-section (2) and section 2, sub-section (4) of the aforesaid Act, the DFCCIL shall be at liberty to recover such amount or part thereof by deducting it from the security deposit and/ or from any sum due by the DFCCIL to the contractor whether under the contract or otherwise. The DFCCIL 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 DFCCIL full security for all costs for which the DFCCIL might become liable in contesting such claim. The decision of the DFCCIL 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 DFCCIL 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 Indian Railways Standard General Conditions of Contract. In order to ensure the same, an application has been developed and hosted on website „www.shramikkalyan.indianrailways.gov.in“. Contractor shall register his firm/company etc. and upload requisite details of labour and their payment in this portal. These details shall be available in public domain. The registration / updation in Portal shall be done as under:

- (a) Contractor shall apply for onetime registration of his company/firm etc. in the Shramikkalyan portal with requisite details subsequent to issue of Letter of Acceptance. Engineer shall approve the contractor's registration in the portal within 7 days of receipt of such request.
- (b) Contractor once approved by any Engineer, can create password with login ID (PAN No.) for subsequent use of portal for all Letter of Acceptances (LoAs) issued in his favour.
- (c) The contractor once registered on the portal, shall provide details of his Letter of Acceptances (LoAs) / Contract Agreements on shramikkalyan portal within 15 days of issue of any LoA for approval of concerned Engineer. Engineer shall update (if required) and approve the details of LoA filled by contractor within 7 days of receipt of such request.
- (d) After approval of LoA by Engineer, contractor shall fill the salient details of contract labours engaged in the contract and ensure updating of each wage payment to them on shramikkalyan portal on monthly basis.
- (e) It shall be mandatory upon the contractor to ensure correct and prompt uploading of all salient details of engaged contractual labour & payments made thereof after each wage period.

- (ii) While processing payment of any „On Account Bill” or “Final Bill” or release of “Advances” or “Performance Guarantee / Security deposit”, contractor shall submit a certificate to the Engineer or Engineer’s representatives that “I have uploaded the correct details of contract labours engaged in connection with this contract and payments made to them during the wage period in Railway’s Shramikkalyan portal at “www.shramikkalyan.indianrailways.gov.in” till ___Month, ___Year.”

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.

56.0 Reporting of Accidents of Labour : - 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 made every arrangements to render all possible assistance.

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

57A. Provision of Mines Act:- The contractor shall observe and perform all the provisions of the Mines Act, 1952 or any statutory modifications or re-enactment thereof for the time being in force and any rules and regulations made there under in respect of all the persons directly or through the petty contractors or sub-contractors employed by him under this contract and shall indemnify the DFCCIL from and against any claims under the Mines Act, or the rules and regulations framed there under, by or on behalf of any persons employed by him or otherwise.

58.0 DFCCIL not to provide quarters for Contractors: - No quarters shall normally be provided by the DFCCIL for the accommodation of the contractor or any of his staff employed on the work. In exceptional cases where accommodation is provided to the Contractor at the DFCCIL/Railway’s discretion, recoveries shall be made at such rates as may be fixed by the DFCCIL/Railway for the full rent of the buildings and equipments therein as well as charges for electric current, water supply and conservancy.

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 crèche (Bal-mandir) where 50 or more women are employed at a time. Suitable sites on DFCCIL 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 DFCCIL. 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 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 security of property in the neighbourhood of the works. In the event of the DFCCIL 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 DFCCIL shall be recoverable from the contractor.
- 59.(4) Sanitary arrangements:-** The contractor shall obey all sanitary rules and carry out all sanitary measures that may from time to time be prescribed by the DFCCIL and permit inspection of all sanitary arrangements at all times by the Engineer, the Engineer's Representative of the Medical staff of the DFCCIL. Should the contractor fail to make the adequate sanitary arrangements, these will be provided by the DFCCIL and the cost therefore recovered from the contractor.
- 59.(5) Outbreak of infectious disease:-** The contractor shall remove from his camp such labour and their families as refuse protective inoculation and vaccination when called upon to do so by the Engineer or the Engineer's representative on the advice of the DFCCIL. Should cholera, plague or other infectious disease break out, the contractor shall burn the huts, beddings, clothes and other belongings of or used by the infected parties and promptly erect new huts on health sites as required by the engineer, failing which within the time specified in the Engineer's requisition, the work may be done by the DFCCIL and the cost therefore recovered from the contractor.
- 59. (6) Deleted**
- 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 DFCCIL 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) Restrictions on The Employment of Retired Engineers of Railway/DFCCIL 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 Performance Guarantee (PG) as well as Security Deposits (SD) of that contract.

- 60.(1) Non-employment of labours below the age of 15:-** The Contractor shall not employ children below the age of 15 as labourers directly or through petty contractors or subcontractors for the execution of work.
- 60.(2) 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 (Performa at Form No.15) 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.
- 60.(3) Period of validity of medical fitness certificate:-** A certificate of fitness granted or renewed for the above said purposes shall be valid only for a period of one year at a time. The certifying surgeon shall revoke a certificate granted or renewed if in his opinion the holder of it is, no longer fit for work in the capacity stated therein. Where a certifying surgeon refuses to grant or renew a certificate or revoke a certificate, he shall, if so required by the person concerned, state his reasons in writing for doing so.
- 60.(4) Medical re-examination of labourer:-** Where any official appointed in this behalf by the Ministry of labour is of the opinion that any person employed in connection with the execution of any work under this contract in the age group 15 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 the 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.

EXPLANATIONS:-

- (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.
- (2) The Certifying surgeon may be a medical officer in the service of State or Municipal Corporation.

DETERMINATION OF CONTRACT

- 61.(1) Right of DFCCIL of determine the contract:-** The DFCCIL shall be entitled to determine and terminate the contract at any time should, in the DFCCIL/Railway's opinion, the cessation of work becomes necessary owing to paucity of funds or from any other cause whatever, in which case the value of approved materials at site and of work done to date by the Contractor will be paid for in full at the rate specified in the contract. Notice in writing from the DFCCIL of such determination and the reasons therefore shall be conclusive evidence thereof.
- 61. (2) 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 Railways/DFCCIL shall admit and consider such claims as are deemed reasonable and are supported by vouchers to the satisfaction of the Engineer. The DFCCIL/Railway's decision on the necessity and propriety of such expenditure shall be final and conclusive.
- 61.(3)** The contractor shall have no claim to any payment of compensation or otherwise, howsoever on account of any profit or advantage which he might have derived from the execution of the work in full but which he did not derive in consequence of determination of contract.
- 62. (1) Determination of contract owing to default of contractor:** - If the Contractor should:-
- (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 Clause 1.3.9 of PREAMBLE & GENERAL INSTRUCTIONS TO TENDERERS.
 - (x) Fails to submit the documents pertaining to identity of JV and PAN .
 - (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 the conditions
 - (xiii) Fail to afford the Engineer or Engineer's representative proper facilities for inspecting the work or any part thereof as required under clause 28 of the 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 DFCCIL or to any person on his or on their behalf in relation to the execution of this or any other contract with this DFCCIL.

- (xv) Fail to adhere to the provisions of clause 1.3.32 of PREAMBLE & GENERAL INSTRUCTIONS TO TENDERERS or provision of above Clause 59(9).
- (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 DFCCIL may serve the Contractor with a notice (Proforma at Form No.16) in writing to that effect and if the contractor does not within seven days after the delivery to him 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 DFCCIL shall be entitled after giving 48 hour's notice (Proforma at Form No. 17) 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 hour's notice, a final termination notice (Proforma at Form No. 18) should be issued.

Note: Engineer at his discretion may resort to the part termination of contract with notices, only in cases where progress of work is more than or equal to 80% of the original scope of work.

62. (2) Right of DFCCIL 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 the 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 DFCCIL 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 GCC.
 - (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.
- (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.

SETTLEMENT OF DISPUTES – INDIAN RAILWAY ARBITRATION AND CONCILIATION RULES

63.0 Conciliation of Disputes:-

- (i) This clause is applicable in the tender having advertised value less than or equal to Rs 50 Crore.
- (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 "General Manager /Chief General Manager" 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. Director/MD DFCCIL shall, within 30 days after receipt of the Contractor's "Notice of Dispute", notify the name of conciliator(s) to the Contractor.
- (iii) The Conciliator(s) shall assist the parties to reach an amicable settlement in an independent and impartial manner within the terms of contract.
- (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.

- (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.
- (vi) The conciliation proceedings shall be terminated as per Section 76 of 'The Arbitration and Conciliation Act, 1996.

63.1 Matters finally determined by the DFCCIL – 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 Managing Director/Director/Chief General Manager/DFCCIL 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 matter 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 General Conditions of contract or in any special clause of the conditions of the contract shall be deemed as "excepted matters" (matters not arbitrable) and decisions of the DFCCIL 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.

63.2 Dispute Adjudication Board (DAB): This clause is applicable in the tender having advertised value more than Rs 50 Crore.

63.2.1 Any dispute/s if not settled with the Engineer, shall be referred to DAB.

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 DFCCIL office. The complete panel, which shall not be less than five members, shall be sent by Director/MD DFCCIL 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 Director/MD DFCCIL shall nominate one member from the same panel as DFCCIL nominee for the DAB. Both above nominees shall jointly select presiding member of the DAB from the same panel.

63.2.2 The appointment of DAB shall be effectuated by way of a tri-partite agreement among the Railway, 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.

63.2.3 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 Director/MD DFCCIL fails to act without undue delay, the parties 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 Railway 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 Before start of DAB proceedings, each DAB member shall give the following certificate to the Railway and the Contractor:

“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.”

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 Railway 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 DFCCIL of any certificate to which the contractor may claim to be entitled to, or if the DFCCIL 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 DFCCIL, 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 (Form No. 25) 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 DFCCIL.

(b) The claimant shall submit his claim 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.

(c) The DFCCIL 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.

(d) **Place of Arbitration:** The place of arbitration would be within the geographical limits of the DFCCIL unit where the cause of action arose or the Headquarter of the DFCCIL 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 defence 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 Railways/DFCCIL that the final bill is ready for payment, he/they will be deemed to have waived his/their claim(s) and the Railways/DFCCIL 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 DFCCIL 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

64.(3)(a) : Appointment of Arbitrator where applicability of section 12 (5) of Arbitration and Conciliation Act has been waived off:

64.(3)(a)(i) 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 nominated by the MD/DFCCIL. The sole arbitrator shall be appointed within 60 days from the day when a written and valid demand for arbitrator is received by MD/DFCCIL .

64. (3) (a) (ii) In cases not covered by the clause 64(3) (a) (i), the Arbitral Tribunal shall consist of a Panel of three officials, as the arbitrators. For this purpose, the

DFCCIL will send a panel of more than 4 names of DFCCIL officers which may also include the name(s) of Officer(s) empanelled to work as Arbitrator to the contractor within 60 days from the day when a written and valid demand for arbitration is received by the MD/DFCCIL.

Contractor will be asked to suggest to MD/DFCCIL 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 Railway /DFCCIL. The MD/DFCCIL 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/DFCCIL 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 accounts department shall be considered of equal status to the officers in SA grade of other department of DFCCIL for the purpose of appointment of arbitrator.

64.(3)(a)(iii) The serving DFCCIL/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.

64.(3)(b): 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 DFCCIL/Railway will send a panel of at least four (4) names of retired Railway Officer(s) empanelled to work as DFCCIL/Railway Arbitrator duly indicating their retirement dates to the Contractor within 60 days from the day when a written and valid demand for arbitration is received by the MD/DFCCIL.

Contractor will be asked to suggest to MD/DFCCIL at least 2 names out of the panel for appointment as arbitrator within 30 days from the date of dispatch of the request by DFCCIL/Railway. The MD/DFCCIL shall appoint at least one out of them as the arbitrator within 30 days from the receipt of the names of Contractor's nominees.

- (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 DFCCIL/Railway will send a panel of at least four (4) names of retired Railway Officer(s) empanelled to work as DFCCIL/Railway 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/DFCCIL.

Contractor will be asked to suggest to MD/DFCCIL 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 DFCCIL/Railway. The MD/DFCCIL 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/DFCCIL 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.

64.(3)(c)(i): 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/DFCCIL fails to act without undue delay, the MD/DFCCIL 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).

64.(3)(c)(ii): (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 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): (i) Qualification of Arbitrator (s):

(a) Serving Gazetted Railway Officers of not below JA Grade level.

(b) Retired Railway Officers not below SA Grade level, one year after his date of retirement.

(c) Age of arbitrator at the time of appointment shall be below 70 years.

(ii) An arbitrator may be appointed notwithstanding the total number of arbitration cases in which he has been appointed in the past.

(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 format below 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.

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 there from.

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 time and the fee shall be borne equally by both the parties, provided parties sign an agreement in the format given at **Form No. 25** 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 Railway Administration or by the court of law unless specifically directed by Hon'ble court otherwise on the matter.
- 64.(7) 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.
- 64.(8) 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 Railway to Contractor, the terms & conditions as incorporated in the Ministry of Railways letter No. 2016/CE(1)/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 Railway, then 75% of the award amount shall be deducted by the Railway from the Contractor's bills, Performance Guarantee/ Security Deposit or any other dues of Contractor with the Government of India.

Format
(Reference Clause 64.(3))

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:

PART - I

CHAPTER V

SPECIAL CONDITIONS OF CONTRACT

SPECIAL CONDITIONS OF CONTRACT

- 1.5.1** This Tender shall be governed by Preamble and General instructions to tenderers, General condition of Contract, Special conditions of contract, Technical Specifications, Additional Technical specifications (if any), Drawings, Forms, Annexures, etc.
- 1.5.2** If there are varying or conflicting provisions in the documents forming part of the contract, Engineer shall be deciding authority with regard to the intentions of the provision and decision of Engineer will be final and binding on the contractor.
- 1.5.3** Scheme of work: - Within a period of 10 days beginning from the date of issue of Letter of Acceptance of Tender, the Contractor shall submit the detailed time schedule for execution of work and various documents enumerated in tender papers to the employer.
- 1.5.4 Quality Assurance Plan**
All materials used in the work shall be of the best quality as per codes. Quality Assurance Plan shall include for materials used and for workmanship of work. The contractor shall submit Quality Assurance Plan for the substructure and foundation. The contractor shall also ensure that the Employer's prescribed Quality Assurance Standards are rigidly followed in for the construction of substructure and foundation. These are to be approved from the DFCCIL.
- 1.5.5 Quality Assurance Plan for Materials**
- (a) All materials used in the work shall be of the best quality as per codes / Specifications for Fabrication and Erection of Steel amended till date. Quality Assurance Plan shall include for materials used and for workmanship of work.
- (b) The contractor shall ensure quality at all necessary points, whether at manufacturer's works, or in his depot or at work site as well as during erection through Quality Assurance Plan.
- (c) The Contractor shall adopt a suitable Quality Assurance Programme according to approved instructions, drawings, specifications, etc.
- 1.5.6** The decision of the Engineer shall be final in respect of acceptability or otherwise of any material, fittings, component or equipment required for the work.
- 1.5.7** This programme of the Contractor shall generally cover the followings: -
- 1.5.7.1** The organization to manage and implement the Quality Assurance programme.
- 1.5.7.2** The documentation control system:
- (i) Basic control system.
- (ii) Adopted at manufacturer's work
- (iii) Adopted at the Contractor Depot and work site.
- 1.5.8.3.** Procedure adopted for:
- (i) Source Inspection.
- (ii) Incoming raw material inspection.
- (iii) Verification of material purchased.
- (iv) Fabrication Controls.
- (v) Site erection controls.
- 1.5.8.4** Inspection and Test Procedure for:

- (i) Manufacture and quality control procedure.
- (ii) Field activity.
- 1.5.8.5** System of handling and storage.
- 1.5.8.6** System of quality audit.
- 1.5.8.7** System of maintenance of records.
- 1.5.8.8** For the purpose of obtaining "On Account Payment", the Contractor shall submit along with the invoice, the documents indicated in the prescribed quality Assurance standards which should inter alia cover the following as may be applicable in each case.
 - (i) Material test reports on raw materials used.
 - (ii) Material type and routine test report on components specification.
 - (iii) Inspection Plan with reports of the inspection Plan check points.
 - (iv) Routine test report.
 - (v) Factory test results as required under the specification.
 - (vi) Quality audit report including test check report of Employer's representative if any.

1.5.9 Traffic Blocks / Power Blocks / Shut Down:

- (a) The contractor shall obtain Power / Traffic / Shut down in the name of authorized representative of DFCCIL. Engineer/Engineer's representative will facilitate to make arrangements to obtain power blocks / shutdown (hereinafter referred to as blocks) for works to be carried out along or adjacent to the track work. However if block is required due to safety considerations, the work shall be done under traffic / power block. The requirement of traffic block, shut down/power blocks etc. shall be assessed by the contractor and will be submitted to the Engineer/Engineer's representative. Work will be done day & night with war foot level with the approval of the Engineer/Engineer's representative.
- (b) Blocks may be granted during day or night hours. The Contractor shall confirm that he will equip himself to carry out all construction during night blocks efficiently by suitable special lighting equipment without any extra cost.
- (c) Block period shall be counted from the time the TR-line is placed at the Contractors disposal at the work-spot till it is cleared by the Contractor.
- (d) Blocks will be subject to normal operating conditions and rules of the Railway /DFCCIL. All formalities of exchanging private number etc. with the traffic control/traction power controller will be carried out by the Engineer staff and for this purpose the Engineer will depute a representative, who will be responsible for imposing power blocks/shut down and also removing the same after men, material and equipment have been cleared by the Contractor from running tracks and the same declared safe for traffic by Engineer/Engineer's representative in case of works involving safety of running tracks.

- (e) The works required to be done under traffic block shall be carried out only in the presence of DFCCIL officials. The DFCCIL supervisor shall certify safe conditions for passage of trains before resumption of traffic. The works to be done under traffic block shall be carried out under the provision of banner flag and protection of engineering flagman.
- (f) Any charges which may be levied by IR on account of "Possessions" shall be payable by the contractor but shall be reimbursed by the Employer. However penalties, if any, levied by Indian Railways caused due to any careless working or otherwise of violation of the Terms and Conditions of the track block, shall be payable by the contractor.

1.5.10 Work By Other Agencies

- (a) Any other works undertaken at the same time by the Engineer direct or through some other agency at the same time or section where the contractor is carrying out his work will not entitle the contractor to prefer any claim regarding any delays or hindrances he may have to face on this account but the Employer shall grant a reasonable extension of time to the contractor. The contractor shall comply with any instruction which may be given to him by the Employer in order to permit simultaneous execution of his own works and those undertaken by other contractors or the DFCCIL without being entitled on this account on any extra charge.
- (b) The contractor shall not be entitled to any extra payment due to hindrance resulting from normal Railway operations, such as delay on account of adequate number of and duration of blocks not being granted, operational delay in movement of work trains extension of time to the contractor.

1.5.11 Infringement of patents:

- (a) The Contractor is forbidden to use any patents or registered drawings, process or pattern in fulfilling his contract without the previous consent in writing of the owner of such patent, drawing, pattern or trade mark, except where these are specified by the Employer himself. Royalties where payable for the use of such patented processes, registered drawings of patterns shall be borne exclusively by the Contractor. The contractor shall advise the Employer of any proprietary right that may exist on such processed drawings or patterns which he may use of his own accord.
- (b) In the case of patent taken out by the Contractor of the drawings or patterns registered by him, or of those patents, drawings, or patents for which he holds a licence, the signing of the Contract automatically gives the Employer the right to repair by himself the purchased articles covered by the patent or by any person or body chosen by him and to obtain from any sources he desires the component parts required by him in carrying out the repair work. In the event of infringement of any patent rights due to above action of the Employer, he shall be entitled to claim damages from the contractor on the grounds of any loss of any nature which he may suffer e.g. in the case of attachment because of counterfeiting.
- (c) **Indemnification by contractor:-** In the event of any claim or demand being made or action being brought against the Employer for infringement of later patent in respect of any equipment, machine, plant, work or thing used or

supplied by the Contractor under this contract or in respect of any methods of using or working by the Employer of such equipment machine, plant work or thing, the contractor shall indemnify the employer and keep him indemnified and harmless against all claims, costs, charges and expenses arising from or incurred by reason of such claim provided that the Employer shall notify the contractor immediately any claim is made and that the contractor shall be at liberty, if he so desires with the assistance of the Employer if required but at the Contractor's expense, to conduct all negotiations for the settlement of the same or any litigation that may arise there from and provided that no such equipment, machine, plant work or thing, shall be used by the Employer for any purpose or in any manner other than that for which they have been supplied by the Contractor and specified under this contract.

1.5.12 Insurance (CAR Policy) -

Before commencing of works, it shall be obligatory for the contractor to obtain, at his own cost, insurance cover (car policy) in the joint name of the contractor and employer from reputed companies under the following requirements:

- (a) Liability for death of or injury to any person/ employer's staff / animals or things or loss of or damage to any property / things / the work of other contractor (other than the work) arising out of the performance of the Contract.
- (b) Construction Plant, Machinery and equipment brought to site by the Contractor.
- (c) Any other insurance cover as may be required by the law of the land.

The contractor shall provide evidence to the employer / Engineer before commencement of work at site that the insurances required under the contract have been effected and shall within 60 days of the commencement date, provide the insurance policies to the Employer/Engineer, the contractor shall, whenever, called upon, produce to the engineer or his representative the evidence of payment of premiums paid by him to ensure that the policies indeed continue to be in force.

The Contractor shall also obtain any additional insurance cover as per the requirements of the Contract.

The Employer/Engineer shall not be liable for or in respect of any damages or compensation payable to any workman or other person in the employment of the Contractor or his sub-contractor or petty contractor / other contractor working there. The Contractor shall indemnify and keep indemnified the employer / Engineer against all such damages and compensation for which the contractor is liable.

The Policies of the contractor shall remain in force throughout the period of execution of the works and till the expiry of the defect liability period except for any specific insurance covers necessary for shorter period.

If the Contractor fails to effect or keep in force or provide adequate cover as acceptable to the engineer in the insurance policies mentioned above, then in such cases, the engineer may effect and keep in force any such insurance or further insurance on behalf of the Contractor. The recovery shall be made at the rate of 1.5 times the premium/premiums paid by the engineer in this regard from the payment due to the Contractor or from the contractor's Performance security. However, the Contractor shall not be absolved from his responsibility and /or liability in this regard.

1.5.13 Accident:-

- (a) The contractor shall, in respect of all staff engaged by him or by his sub-contractor, indemnify and keep the employer at all times indemnified and

protected against all claims made and liabilities incurred under Workman's Compensation Act, the Factories Act and the Payment of Wages Act, and rules made there under from time to time or under any other labour and Industrial Legislation made from time to time.

- (b) The contractor shall indemnify and keep the employer indemnified and harmless against all actions, suits, claim demands, costs, charges or expenses arising in connection with any death or injury sustained by any person or persons sustained due to the acts or omission of the contractor, his sub-contractors, his agents or his staff during the executions of this contract irrespective of whether such liability arises under the Workman's Compensation Act, or Fatal Accident Act or any other statute in force for the time being.
- (c) The contractor's liability to meet third party claims of the type outlined above will be applicable only in cases where accidents have been caused by workmanship, material, execution or negligence on the part of the contractor and further the liability of the contractor will be limited to Rs. 5 lakh for any one accident.
- (d) The contractor shall be responsible for all repairs and rectification of damages to completed works or works under execution due to DFCCIL accidents, thefts, pilferage or any other cause, without delay to minimize or to avoid traffic detentions, in a section until the installation are provisionally handed over to the employer.

1.5.14 Safety Measures:-

- (a) The contractor shall take all precautionary measures in order to ensure the protection of his own personnel moving about or working on the Railway/DFCCIL premises, but shall then conform to the rules and regulations of the Railway/DFCCIL if and when, in the course of the work there is likely to be any danger to persons in the employment of the contractor due to running traffic while working in the Railway/DFCCIL siding and premises, the contractor shall provide flagman or look out men for protection of such persons. The employer shall remain indemnified by the contractor in the event of any accident occurring in the normal course of work, arising out of the failure of contractor or his men to exercise reasonable precaution at all places of work. Before execution of work beside / nearby Railway/DFCCIL track the contractor shall get approved the safety and protection plan from the DFCCIL if applicable and required.
- (b) Blasting of rocks for foundation work shall be done only after due notice is given to the employer and time/s and date /s for blasting operations agreed to by the employer. Blasting, if required to be done in the vicinity of the track, shall not be undertaken until the Employer's flagmen on duty take necessary step to protect trains and the track is adequately protected by the contractor against damage by blasted rock. The contractor shall follow detailed instructions which will be issued to him regarding blasting operations in the vicinity of tracks.
- (c) The contractor shall abide by all Railway/DFCCIL regulations in force for the time being and ensure that the same are followed by his representatives, Agents or sub - contractors or workmen. He shall give due notice to his employees and workers about provision of this para.
- (d) The works must be carried out most carefully without any infringement of the Indian Railway Act or the General and Subsidiary Rules in force on the Railway, in such a way that they do not hinder Railway operation or affect the proper functioning of or damage any DFCCIL equipment, structure or rolling stock except as agreed to by the employer, provided that all damage and disfiguration caused by the contractor at his own cost failing which cost of such repairs shall be

recovered from the contractor.

- (e) If safety of track or track drainage etc. is affected as a consequence of works undertaken by the contractor, the contractor shall take immediate steps to restore normal conditions. In case of delay, the employer shall, after giving due notice to the contractor in writing, take necessary steps and recover the costs from the contractor.

1.5.15 Guarantee / Defect Liability Period:-

- (a) The Contractor shall guarantee that all the works executed under this contract shall be free from all defects and faults in material, workmanship and manufacture and shall be of acceptable standards for the contracted work and in full conformity with the technical specifications, drawings and other contract stipulations, **for a period of 6 months from the date of taking over by the DFCCIL.**
- (b) During the period of guarantee the Contractor shall keep available an experienced engineer / man power to attend to any defective works / installations resulting from defective erection and/or defect in the installation supplied by the Contractor. This engineer shall not attend to rectification of defects which arise out of normal wear and tear and come within the purview of routine maintenance work. The contractor shall bear the cost of modifications, additions or substitutions that may be considered necessary due to faulty materials or workmanship for the satisfactory working of the equipment. The final decision shall rest with the Engineer his successor(s)/Nominee.
- (c) During the period of Guarantee the Contractor shall be liable for the replacement at site of any parts which may be found defective in the executed work whether such parts / structural elements of his own manufacture or those of his sub-contractor / supplier whether arising from faulty materials, workmanship or negligence in any manner on the part of the Contractor provided always that such defective parts as are not repairable at site are promptly returned to the Contractor if so required by him at his (Contractor's) own expenses. In case of parts of executed work detected during guarantee period, contractor should replace all such items irrespective of the fact whether all such items have failed or not. The Contractor shall bear the cost of repairs carried out on his behalf by the Employer at site. In such a case, the contractor shall be informed in advance of the works proposed to be carried out by the Employer.
- (d) If it becomes necessary for the Contractor to replace or renew any defective portion of the structural elements until the expiration of six month from the date of such replacement or renewal or until the end of the above mentioned period whichever is later.

Such extension shall not apply in case of defects of a minor nature, the decision of the Chief General Manager or his successor/nominee being final in the matter. If any defect be not remedied within a reasonable time during the aforesaid period the Employer may proceed to do work at the Contractor's risk and expense, but without prejudice to any other rights and remedies which the Employer may have against the Contractor in respect of such defects or faults.

- (e) The repaired or renewal parts structure shall be delivered / supplied and erected / executed on site free of charge to the employer/DFCCIL.
- (f) Any materials, fittings, components or equipments / structure supplied under items for supplying / providing and fixing in schedule shall also be covered by the provisions of this paragraph. The liability of the Contractor under the guarantee will be limited to re-supply of components / structure installation and fittings.

1.5.16 Final Acceptance:-

- (a) The final acceptance of the entire work executed shall take effect from the date of expiry of the period of guarantee / Defect Liability period as defined in paragraph 1.5.15 above of the expiry of the last of the respective periods of guarantee, provided in any case that the Contractor has complied fully with his obligations under clause 1.5.15 in respect of each work, provided also that the attention has been paid by way of maintenance by the Employer/DFCCIL.
- (b) If on the other hand the contractor has not so complied with his obligation under Para 1.5.15 above in respect of any work, the Employer may either extend the period of guarantee in respect of that work until the necessary works are carried out by the Contractor or carry out those works or got them carried out suo moto on behalf of the Contractor at the Contractor's expenses. After expiry of the period of guarantee for each work, a certificate of final acceptance for the section shall be issued by the Employer and the last of such certificate will be called the last and final acceptance certificate. The contract shall not be considered as completed until the issue of final acceptance certificate by the Employer.
- (c) The Employer shall not be liable to the Contractor for any matter arising out of or in connection with the contract or execution of the work unless the Contractor shall have made a claim in writing in respect thereof before the issue of final acceptance certificate under this clause.

Notwithstanding the issue of final acceptance certificate the Contractor and the Employer (subject to sub-clause as above) shall remain liable for fulfilment of any obligation incurred under the provision of the contract prior to the issue of final acceptance certificate which remains unperformed at the time such certificate is issued and for determining the nature and extent of such obligation the contract shall be deemed to remain in force between the parties hereto.

1.5.17 Payment:-

Payment will be governed by the terms specified in Part-I, Chapter IV and in accordance with accepted schedule of prices, read with relevant para of the other parts and Chapters of the Tender Papers. The DFCCIL retains the right to withhold money due to the contractor arising out of this contract for any default of the contractor.

- (i) The Contractor shall, whenever required, produce or cause to be produced for examination by the Employer any quotation / invoice, cost of other account, book of account, voucher, receipt letter, memorandum paper or 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 anyway relating to the execution of this contract or relevant for verifying or ascertaining the cost of the execution of this Contract (the decision of the employer on the question of relevancy of any documents, information or return being final and binding on the parties). The Contractor shall similarly produce vouchers etc., if required, to prove to the Employer that materials supplied by him are in accordance with the specifications laid down in the contract.
- (ii) If any portion of the work be carried out by a sub-contractor or any subsidiary or allied firm or company the Employer shall have power to secure the books of such sub-contractor or any subsidiary or allied firm or company, through the Contractor, and such books shall be open to his inspection. The Contractor should seek prior permission from the employer for subletting whole and/or part of the work to any sub-contractor.

(iii) The obligations imposed by sub-clause (i) and (ii) above are without prejudice to the obligation of the Contractor under any statute, rules or order binding to the Contractor or other conditions of the contract.

(iv) It is an agreed term of the contract that the employer reserves the right to carry out 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 if as a result of such examination any over payment to him is discovered to have been made in respect of any work done or alleged to have been done by him under the contract.

1.5.18 All payments in respect of the contract during the currency of the contract shall be made through Electronic Clearing System (ECS) / National Electronic Funds Transfer (NEFT/RTGS). The successful tenderer on award of contract must submit ECS/NEFT/RTGS Mandate Form complete in all respects as detailed at Form No. 8 of the tender document. However, if the facility of ECS/NEFT/RTGS is not available at a particular location, the payments shall be made by cheque.

1.5.18.1 The Contractor and concerned staff/Engineer shall ensure that every Running bill & Final Bill shall be technically checked by DFCCIL before making payment. The Contractor shall produce the original documents/Register for which copy is attached with "On Account" Bill at time of checking and/or Technical Scrutiny of the "On Account Bill" as and when asked by Engineer/ representative of DFCCIL / Investigating Agency to do so.

1.5.19 Performance Guarantee:- As per Para 16.(4) Part –I Chapter-IV of GENERAL CONDITIONS OF CONTRACT

1.5.20 Mobilization Advance:- (Applicable for Advertised tender of value more than Rs.25.00 crore)

(a) The Tenderer/Contractor may be granted a recoverable interest bearing mobilisation advance up to 10% of the contract value provided mobilisation advance is admissible as per the tender conditions and he specifically applies for it while tendering. If the tenderer fails to apply specifically for Mobilisation Advance while giving his offer at the tendering stage in case where grant of Mobilisation Advance is permissible, no subsequent requests from him for grant of this advance will be entertained. The rate of

interest is 4.5% per annum above the Base Rate of State Bank of India, as effective on the date of approval of payment of Mobilisation Advance by the competent authority.

(b) The advance will be granted in two instalments viz., 5% of the contract value on signing of the contract agreement and the balance 5% on Mobilisation of site establishment, setting up offices, bringing in equipment and actual commencing of work. Each instalment will be released on submission of a security in a form acceptable to the DFCCIL (similar to Performance Guarantee notified in Clause 16.(4) (b) of General conditions of contract for the amount of the at least 110% of the value of the sanctioned advance amount covering instalment together with interest charges calculated up to the end of the contract period. The tenderer who seeks Mobilisation Advance should be specific about the course of action proposed to be followed in producing the security to the satisfaction of the Railway. Each security should be at least not less than one lakh rupees. These

securities shall be returned as and when the value of the advance plus interest is recovered from the running bill.

- (c) The recovery of the advance and interest thereon will be made through the every on account bills, pro-rata, commencing from the time the value of the work executed under the contract reaches 15% of the contract value and completed when the value of the work executed under the contract reaches 85% of the contract value or assessed value whichever is less.
- (d) The Mobilisation Advance granted shall be returned back to the DFCCIL in case the work is not completed in the original contract completion period.
- (e) The Bank Guarantee shall be from a Nationalised Bank in India or State Bank of India, in a form acceptable to DFCCIL. (Tender Form No. 19 of the tender documents).

Note: The instruments as listed under Performance Guarantee vide Clause 16 (4) (b) of General Conditions of contract will also be acceptable for Guarantee in case of Mobilisation Advance.

1.5.21 Arbitration:- Refer to clause 63 & 64 of GCC.

1.6 GST

GST as applicable from time to time on taxable value of each running account bill shall be paid. **Contractor should bear the fact in mind while quoting the rates that GST will not be paid extra; rates are inclusive of GST as per prevailing rates. Documentary evidence of deposition of GST will be produced by contractor.**

1.6.1 PERMITS, FEES, TAXES & ROYALTIES

Unless otherwise provided in the contract documents, the contractor shall secure and pay for all permits, Government fees and licenses necessary for the execution and completion of the works. The contractor shall pay all taxes and duties including GST tax.

The DFCCIL authorities will not take any responsibility of refund of such taxes/fees. Any violation, in the legal provision of taxes, duties, permits and fees, carried out by the Contractor and detected subsequently shall be sole responsibility of the Contractor and his legal heirs.

1.6.2 STATUTORY INCREASE IN DUTIES, TAXES ETC

Tenderers will examine the various provisions of the central Goods and services Tax Act, 2017 (CGST)/ Integrated goods and service 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. Tenders will ensure that full benefit of input Tax Credit (ITC) likely to be availed by them is duly considered while quoting rates.

All the taxes and duties levied by the State and Central Govt. and by Local Bodies at the prevailing rates applicable on the date of receipt of tender shall be fully borne by the Contractor and shall not be reimbursed to him on any account.

Further DFCCIL shall not honour any claim arising out of any increase in any of the prevailing statutory duties, taxes, levies, octroi, etc. At the time of

quoting/bidding contractor should bear the above fact in mind.

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 DFCCIL 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.

1.6.3 EXCISE DUTY OR ANY OTHER TAXES/DUTIES:

The contractor shall bear full taxes / duties levied by state government and / or Central Government/ Local bodies from time to time. This would be entirely a matter between the contractor and the State / Central Government/ Local bodies. No claim, what so ever, on this account shall be entertained by DFCCIL.

1.6.4 ROAD TAX CHARGES:

Road Tax/Charges levied by Government for movement of vehicles of contractor, used in transportation, shall be borne by the contractor and no re-imburement on this account will be made by the DFCCIL.

1.6.5 FOREIGN EXCHANGE REQUIREMENTS:

Any demand of foreign exchange for importing of equipment's and materials shall not be accepted.

1.6.6 ANTI PROFITEERING CLAUSE.

The contractor should adhere to anti profiteering provisions as per section 171 of the CGST Act. Where due to change in the rates GST/Change in law, the contractor gets any credits/benefits, the same shall be passed on to DFCCIL by way of reduction in prices.

1.6.7 INTEGRITY PACT:-

As per office memorandum no F.No DPE/13(12)/11-Fin Dated 09.09.2011 issued by Ministry of Heavy Industries (DPE) all PSU should enter into Integrity pact in the required proforma in their procurement transaction/ Contracts with suitable changes specific to the situation in which the pact is to be used. The pact, entering into which would be a preliminary qualification for any bidder, essentially envisages an agreement between the prospective vendors / bidders and the DFCCIL, committing the persons/ officials on both sides not to resort to any corrupt practices in any aspect / stage of the contract.

A copy of pre contract integrity pact is enclosed as Form no. 20 for signature of bidder as acceptance, as and when Independent External monitor is appointed.

1.6.8 Provision of Efficient and Competent Staff at Work Sites by the contractor (As per Clause 26A.3)

1.6.8.(i) In terms of provisions of Clause 26A to the General Conditions of Contract (GCC), Contractor shall also employ employee following qualified Engineers during execution of the allotted work.

(a) One Qualified Graduate Engineer when cost of work to be executed is Rs. 200 lakh and above, and

(b) One Qualified Diploma Holder Engineer when cost of work to be executed is more than Rs. 25 lakh, but less than Rs. 200 lakh. (Railway Board's letter No. 2012/CEI/CT/O/20 dtd. 10.05.2013)

1.6.8.(ii) Further, in case the contractor fails to employ the Qualified Engineer, as aforesaid in Para (a) & (b) above, he, in terms of provisions of Clause 26A.2 to the General Conditions of Contract, shall be liable to pay an amount of Rs. 40,000 and Rs. 25,000 for each month or part thereof for the default period for the provisions, as contained in Para 1.6.8.(i)(a) and 1.6.8.(i)(b) above respectively. (Railway Board's letter No. 2012/CE-I/CT/O/20 dtd. 10.05.2013)

1.6.8.(iii) Provision for deployment of Qualified Engineers (Graduate Engineer or Diploma Holder Engineer) shall be for the values as prescribed above. However, for the works contract tenders, if it is considered appropriate by the tender inviting authority, not to have the services of qualified engineer, the same shall be so mentioned in the tender documents by the concerned Executive with the approval of Officer not below the level of SAG Officer/GM/CGM(DFCCIL), for reasons to be recorded in writing. (Railway Board's letter No. 2012/CEI/CT/O/20 dtd. 10.05.2013)

1.6.8.(iv) As per para 26A.3, No. of qualified Engineers required to be deployed by the Contractor for various activities contained in the works contract shall be specified in the tender documents as 'Special Condition of Contract.'" (Part-II STANDARD GENERAL CONDITIONS OF CONTRACT of GCC April 2022)

1.6.8.(v) In terms of Railway Board's letter No.; 2012/CE-I/CT/O/20 dated 12.07.13 it has also been decided that for Track related contractual works of values, as specified in Railway Board's letter No. 2012/CE-I/CT/O/20 dated 10.05.13, Individual having Diploma in Railway Engineering awarded by IPWE (India) shall also be considered as qualified Diploma Holder Engineers and contractors for Track contract works can employ such Individuals at their work site on Indian Railways/DFCCIL.

PART-II
CHAPTER – I
TECHNICAL SPECIFICATION

2.0 The Materials, workmanship, technical specification refer

- (iv) Standard General Conditions of Contract-2022 of Indian Railways and Standard Specifications (Works and Materials) of Indian Railways as amended/corrected upto latest correction slips are to be followed.
- (v) WR USSOR-2021 as amended / corrected upto latest correction slips, copies of which can be seen in the office of DFCCIL Ahmedabad. Indian Railway Manual for Ultrasonic Testing of Rails and Weld (Revised 2022)".

Further, if any specification(s) mentioned above not available, GOOD industrial practices and/or Manufacturer's catalogue are to be referred in consultation with DFCCIL and decision of DFCCIL shall be final & binding to contractor.

2.1 Inspection and Rectification

During execution of said work, the contractor shall provide all facilities to inspect the site to the Engineer-in-charge or his representative.

2.2 Erection & Equipment:

2.2.1 -- Deleted --

2.2.2 -- Deleted --

2.2.3 Before starting the work, the Contractor shall advise the Engineer fully as to the method he/she proposes to follow and the amount and character of equipment he/she proposes to use, which shall be subjected to the approval of the Engineer. The approval of the Engineer shall not be considered as relieving the Contractor of the responsibility for the safety of his/her method or equipment or from carrying the work in full accordance with the drawings and specifications.

2.2.4 All temporary work shall be properly designed and substantially constructed for the loads, which it will be called upon to support. Adequate allowance and provision of a lateral forces and wind loads shall be made according to local conditions and ensure that support shall not settle during erection.

2.3 Further Drawing and Instructions:

- (i) Chief General Manager/Dy.CPM DFCCIL shall have full power to make and issue further drawings or instructions or direction from time to time as may appear necessary and proper to the contractor for efficient construction, completion and maintenance of the works. The contractor shall be bound by the same as fully as be if they had been mentioned or referred to in the contract, and the contractor shall not be entitled to any extra payment in respect of any work or materials shown or directed to be done supplied by such further drawings or instructions required for completion of unless the Chief General Manager/Dy. CPM DFCCIL have given an

extra order for the same in writing. The contractor shall be responsible for close scrutiny of the drawings.

- (ii) If the works are required to be done in Railway/DFCCIL Yards and Tracks are to be crossed, the tenderer shall inspect the site and make himself thoroughly acquainted with site condition and quote rate considering these aspects.
- (iii) The work shall have to be done in such a manner that the normal working of the Railway/DFCCIL within the railway/DFC yard does not get disturbed. No material/temporary structures should be kept adjacent to the running track which may infringe rail traffic. The contractor shall take necessary precaution to prevent/cause damage to the Railway/DFCCIL property & staff during the execution of the work.
- (iv) All the work to be executed as per approved drawings, design and instruction of site Engineer/consultant of work no any extra payment shall be made for protection etc.
- (v) The contractor shall execute the work as per the detailed design and drawing of the work.

2.4 Commencement of the Erection Work at site:

The contractor shall commence the erection work when and as soon as, but not until, he receives instructions from Engineer to do so.

2.5 Contractor to Study Drawing & Specification etc. and His Liability:

The contractor shall be responsible for close scrutiny of the approved drawings supplied by the DFCCIL, For any discrepancies, error or omission in the drawings or other particulars indicated therein, the contractor shall approach the DFCCIL immediately for rectification of indicated therein, the contractor shall approach the DFCCIL immediately for rectification of such discrepancies, errors and omission. If any dimension/figure/features etc. on approved drawings or plans differ from those drawings or plans issued to the contractors at the time of calling the tender, the dimensions as figured upon the approved drawings or plans shall be taken as correct.

2.6 Contractor to Submit his Time Table:

The contractor shall submit a monthly progress of work done during the month by the 4th day of the following month. He will also give the programme of coming month by 25th of each month. The programme will be subject to alteration at the discretion of the DFCCIL officials.

2.7 Any Doubted Points to be referred to the Chief General Manager/Dy. CPM/PM, DFCCIL:

Should there be any doubt or obscurity as to anything to be done or not to be done by the contractor or as to these instructions or as to any matter or thing, the contractor must set forth such doubt or obscurity in writing and submit the same to Chief General Manager/Dy. CPM/PM DFCCIL. Only such reply as the said Chief General Manager/Dy. CPM/PM DFCCIL may be in writing given shall be taken as the authoritative interpretation of the point in doubt or obscurity.

2.8 Contractor'(s) Liability:

Any fitting, accessory or apparatus which may not have been mentioned in this specification or the drawings, but which are usual or necessary in the execution of

such work, are to be provided by the Contractor without extra payment. The whole work must be completed in all details, whether mentioned in this specification or not, with the exception of such work as has been specified in the schedule of items to be separately provided for in the Contract.

Notwithstanding the specifications and conditions stated in the contract, the contractor shall keep the Engineer/ Employer authority fully indemnified and free from all liabilities and risks consequential to any lapse on his part in respect of material quality, standard of workmanship, accuracy of fabrication and the like. He shall provide all labour and material required for execution of the work as per all standards and specifications.

- 2.9** Contractor shall establish fully equipped laboratory for all the tests required on materials/processes/products as per provisions of the contract, Specifications and the direction/approval of the Engineer. Costs of these are deemed to be included in the quoted rates. Prior approval of the engineer shall be obtained for non-installation of such testing equipments which cannot be installed in normal course due to any reason. However, engineer's decision (for installation and non-installation) in this regard shall be final **binding and conclusive**.

2.10 Site Facilities by the Contractor:

Contractor shall provide office / site facilities at the approach site / other locations for ensuring smooth and efficient communication and work execution. Cost of these facilities deemed to be included in the quoted rates and nothing extra shall be paid for this item.

Contractor shall (at his own cost) depute / nominate safety officers(s) for supervising safety aspects of all works/process including enabling arrangements for execution and inspection of the work. Safety systems/arrangements should be made for each activity of fabrication/erection and its inspection and same should be certified by nominated safety officer.

2.11 METHOD OF MEASUREMENT FOR PAYMENT

The method of measurement and payment for the schedule items shall be done according to SOR/DSR/NS and their specifications.

PART-II
Chapter-II
ADDITIONAL TECHNICAL SPECIFICATION FOR
BRIDGE INSPECTION

Name of Work: - Detailed Technical Inspection of ROB, RFOs, Aqueducts and Important and Major bridge girders under the jurisdiction of CGM/Ahmedabad/DFCCIL from New Palanpur to Sanand Station of DFC.

1.0 General Conditions: -

- (1) This is a consultancy contract for detailed technical inspection of all type of bridges in the section. Award of the Contract does not confer any right to any of the individuals involved in this contract either directly or indirectly for a perpetual employment in DFCCIL in any capacity. The agency/service provider shall be entirely responsible for the employment of its Engineers/ other assistants and shall be liable for observance of all statutory provisions. No claim of employment by the human resources engaged in this work on whatsoever ground shall be entertained.
- (2) This contract is of temporary nature. DFCCIL shall have discretion to change the scope of work of contract as per the requirement.
- (3) The work is to be carried out for bridges on running DFCCIL Double Line Railway track.
- (4) The work of detailed inspection to be carried out by the contractor with his own tools, plants and machinery, equipment etc as may be required at site for successful completion of the work..

2.0 Validity: -

- The Agency has to ensure the proper mobilization of resources and completion of work as per requirement of work.
- The contract shall be valid for a the completion period of the work. However, DFCCIL has right to extend validity of work as per their requirement.
- DFCCIL Administration reserves the right of termination of the contract with immediate effect at any stage of time. This will apply when the agency fails to abide by / comply with the special terms and condition(s) and / or the agency has not been able to follow or comply the laws of statutory provisions of Central / State Government in force or has / have breached any contract agreement condition.

3.0 Liability against risks / claims: -

- (f) DFCCIL Administration shall not be responsible for any injury or loss of life or sickness of the workmen or any individual involved in the contract (deployed by the agency/service provider) during the course of their duties or out of their duty hours. Any statutory liabilities

which may arise shall be to the agency / service provider's account.

- (g) The agency / service provider /contractor(s) shall be solely responsible for the compliance of statutory regulations applicable to contractor labour as also other Central and State Government Statutory regulations associated with works. No liability whatsoever shall attach to the DFCCIL on account of or any failure on the part of the agency/service provider/contractor(s) to observe these regulations.
- (h) Contractor will be responsible for compliance of all statutory laws in force at contractor own cost.
- (i) Quoted rates are inclusive of all Taxes, royalties etc. No claim whatsoever of any nature shall be entertained.

4.0 Rates:-

- The rates quoted and accepted by DFCCIL shall be firm and final during the currency of contract.
- All statutory taxes (including GST) and liabilities levied / leviable by the Central & State Government or any other governing authority/agency from time to time shall be borne by the contractor and the rate shall be inclusive of all such liabilities.
- All statutory deductions shall be made from bills as applicable as per DFCCIL/Govt. Norms on such works.

Facilities to be provided by DFCCIL: DFCCIL shall provide the following facilities to Agency:

- Access to the bridge and any traffic/ Power block required to facilitate the bridge inspection.
 - ~~All safety preparedness required to~~ Provide safer access to various parts of the bridge. ~~and protection against any injury like helmet, safety jacket etc.~~ However, the personal insurance cover of consultant's team shall be the responsibility of the consultancy agency.
 - Access / log-in to log in the Bridge inspection App and appropriate rights to enter data about bridge inspection. Short training will be provided to help the Inspecting engineer to understand the DFC application / software and how to use it. The inspection report along with required certificates/data should be uploaded on this app in the presence of DFC representatives.
4. All available information related to the Bridge(s) to be inspected, such as drawings, previous inspection reports and instrument data.

Competency of Inspecting Engineer: The inspecting Engineer assigned to carry out the Bridge Inspection shall have the requisite competence to conduct the bridge Inspections. The Inspecting engineer shall be physically fit to perform the inspection and should have the ability to reach/access all parts of the bridge in a safe manner.

The Bridge Inspector should have acquired a bachelor's degree in civil engineering from a college / university recognized by the UGC or retired BRI of the Indian Railway.

Work Experience: The Bridge Inspector should have adequate experience of Bridge/ROB/Fly Over design/ construction/ maintenance.

Traffic Blocks / Power Blocks / Shut Down:

- (a) The DFCCIL shall arrange Power / Traffic / Shut down. Engineer/Engineer's representative will facilitate to make arrangements to obtain power blocks / shutdown (hereinafter referred to as blocks) for inspection works to be carried under block. The requirement of traffic block

blocks shall be assessed by the consultant and will submit to the Engineer/Engineer's representative. Consultant shall arrange adequate inspecting staff and sufficient tools and tackles required as per site conditions.

- (b) The works required to be done under traffic block shall be carried out only in the presence of DFCCIL officials. The DFCCIL supervisor shall certify safe conditions for passage of trains before resumption of traffic. The works to be done under traffic block shall be carried out under the provision of banner flag and protection of engineering flagman.

Payment: Payment will be governed by the terms specified in document and in accordance with accepted schedule of prices, read with relevant para of the other parts and Chapters of the Tender Papers. The DFCCIL retains the right to withhold money due to the Consultant arising out of this consultancy work for any default of the Consultant. Final Payment against Bridge Inspection work shall be made on submission of an invoice along with the following documents.

- a. Hard copy of Bridge Inspection report in 3 copies as per approved format.
- b. Certificate of Bridge inspection in prescribed format.
- c. Log of bridge inspections carried out; certified by the DFCCIL official who accompanied the bridge inspection
- d. A certificate from the DFCCIL official who accompanied the bridge inspection to the effect that any part of the bridge which was not inspected were on account of lack of access to that part of the bridge.
 - (i). The Agency shall, whenever required, produce or cause to be produced for examination by the Employer any quotation / invoice, cost of other account, book of account, voucher, receipt letter, memorandum paper or 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 anyway relating to the execution of this Consultancy or relevant for verifying or ascertaining the cost of the execution of this Consultancy (the decision of the DFCCIL on the question of relevancy of any documents, information or return being final and binding on the parties). The Consultant shall similarly produce vouchers etc., if required, to prove to the DFCCIL that services / materials supplied by him are in accordance with the specifications laid down in the Consultancy work.
 - (ii). It is an agreed term of the Consultancy work that the employer reserves the right to carry out 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 Consultant for the refund of any excess amount paid to him if as a result of such examination any over payment to him is discovered to have been made in respect of any work done or alleged to have been done by him under the Consultancy work.

Stage payment : Payment of this work shall be done in two stages

90% payment shall be released after completion of Inspection of Bridge, submission of inspection report, relevant certificate for inspection and required data uploaded on the DFCCIL application software as per instructions of DFCCIL.

Balance 10% payment shall be made after successful completion of entire work and completion certificate issued by DFCCOL.

All payments in respect of the work during the currency period shall be made through

Electronic Clearing System (ECS) / National Electronic Funds Transfer (NEFT/RTGS). The successful tenderer on award of contract must submit ECS/NEFT/RTGS Mandate Form complete in all respects as detailed at Form No. 3 of the tender document. However, if the facility of ECS/NEFT/RTGS is not available at a particular location, the payments shall be made by cheque.

Integrity Pact: As per office memorandum no F.No DPE/13(12)/11-Fin Dated 09.09.2011 issued by Ministry of Heavy Industries (DPE) all PSU should enter into Integrity pact in the required proforma in their procurement transaction/ Contracts with suitable changes specific to the situation in which the pact is to be used. The pact, entering into which would be a preliminary qualification for any bidder, essentially envisages an agreement between the prospective vendors / bidders and the DFCCIL, committing the persons/ officials on both sides not to resort to any corrupt practices in any aspect / stage of the contract. The Performa for Integrity Pact is enclosed.

Bridge Inspection Guidelines

The guidelines for the Detailed technical inspection of bridges are issued by the DFCCIL vide office file No. 152944/2023/O/o GM/TECHNICAL/CO/DFCC same is reproduced below. The contractor is required to follow these guidelines to carry out bridge inspections.

The guidelines include a list of various defects likely to be observed in an element/material and specific aspects to be noted down by the Inspection Engineer. Wherever possible representative photographs of some defects are included in the guidelines. The guidelines are put under two separate categories as detailed below:

A. Bridge Element: These sets of guidelines will be applicable to different elements of the bridge, and each will be unique to that element. The following different guidelines will be developed:

1. River flow and river training works
2. Foundations – Deep (well/pile) and shallow
3. Substructure – piers & abutments
4. Bearing pedestal, Bearing – elastomeric, Pot PTFE and Spherical
5. Superstructure –
 - I. concrete (RCC and PSC)
 - II. Superstructure – composite girders
 - III. Superstructure – Steel plate girders
 - IV. Superstructure – open web girders
6. Track structure
7. Ancillaries (footpath, trolley refuge, walkway, OHE mast, pipeline)
8. Culverts

B. Material: Different construction materials are used in different parts of the bridge, but the nature of defect in the material is often common, regardless of which part of the bridge it is used. Therefore, it will be useful to develop guideline for inspection of different construction materials. The following guidelines are proposed:

1. Concrete
2. Steel
3. Elastomer (included in bearings)

C. In case guidelines for inspection is not included in these guidelines, then Indian Railway Bridge manual shall be followed.

Inspection of River and River training works

- 1.0 A large number of bridges cross rivers, canals, or other water streams. Inspection of the river flow conditions, and river training works is best carried out during the floods or immediately after the end of the monsoon season. Depending on the nature of river flow and local conditions, different river training works are constructed to either regulate the flow of the river safely or to protect the bridge foundations and approaches.
- 1.1 **RIVER FLOW CONDITIONS:** River change the course of their flow frequently. Human activity like farming, mining and navigation also has an effect on the river flow. While under ideal conditions, inspection of the river flow should be carried out during peak or receding floods, it is not always possible to do so for administrative and logistical constraints. Whenever the bridge is inspected, signs of condition of river flow should be inferred from visible signs and recorded. The inspection should cover the following:
- a. Sign of localized scour near pier and abutments
 - b. Channelization of river flow from particular spans of the bridge
 - c. Any obstruction to the flow of river
 - d. Sign of HFL having been exceeded
 - e. Signs of excessive meandering (detailed further in item 1.2.3 below)
- 1.2 **GUIDE BUNDS:** Guide bunds are made to channelize / guide the flow of the river through the bridge and prevent a meandering river from outflanking the bridge. These are earthen embankments made parallel to the direction of flow of the river. These are made of sufficient length upstream and downstream of the bridge axis and of specific shape based on detailed hydraulic model studies. The embankment of guide bund is protected against scour by laying launching apron at its toe. The launching apron can be made either by stone filled wire crates (also called Gabion) or with pre-cast concrete panels/blocks. Depending on the model study report, guide bunds may be constructed on only one bank or both banks of the river.
- 1.2.1 To inspect the guide bund, the inspection Engineer must travel on it from end to end. Launching of the crates of the apron on the river side are normal and should not be considered as a defect. However, the **extent and location of launching of the aprons** should be noted as it will be a useful piece of information for any decision making in the future. On the other hand, if some portion of the **apron is totally missing** (may be washed away), then it calls for urgent attention. Similarly, launching of apron from the back side of the guide bund is an unusual occurrence and need to be reported for further investigation by experts.
- 1.2.2 The embankment slopes are normally protected by stone pitching (with or without grouting) to a level above HFL (free board). Inspection engineer should be on a **look out for erosion of embankment soil** either by river flow or from rainwater. Soil erosion need to be addressed urgently before the onset of the net monsoon season.
- 1.2.3 For large rivers with history of meandering, it is advisable that the inspection Engineer uses a boat to inspect upstream stretch of the river, at least till the upstream end of the guide bund. The purpose of this is to identify **any signs of extreme meandering of the river** which threatens to outflank the bridge.
- 1.3 **SPURS / GROYNES:** Spurs or groynes are flexible or rigid hydraulic structure built from a riverbank that interrupts water flow and limits the movement of sediment. It is usually made of concrete, stone crates or geotubes. **Spurs** can be attracting, deflecting, or repelling. Attracting spurs point downstream, serving to attract the stream flow toward themselves and repelling spurs point upstream to repel the flow toward the opposite bank. The ultimate objective of the spur is to prevent adverse flow conditions resulting to abnormal scour. Inspection of spurs should focus on the following aspects:

- Integrity of the spur itself, its shape and geometry
- Any damage to the spur or loss of the material of construction
- Any encroachment which can render the spur ineffective
- Effect of spur by way of causing scour in its area of influence.

1.3.1 Since interpretation of the effect of spur on behavior of the river is a matter of expertise in river behavior and river training works, its best if the inspection engineer takes large number of representative photographs of the area around the spur.

1.4 **FLOOR APRON & DROP WALL:** Floor apron and drop walls are typically constructed to protect shallow foundations, though in special circumstances, it can be constructed around well or pile foundations also. The floor apron consists of in-erodible material like concrete, flat gabion boxes or some other type of paving. The upstream and downstream ends of the apron are protected by construction of a drop wall. An apron can fail by abrasive action of the river or by the river gouging out material locally from the apron. The drop walls can fail if the river is able to cause a scour deeper than the bottom of the drop wall. If the drop wall fails, the apron can be undermined and washed away by the flowing water. Inspection of apron and drop wall should cover the following:

- Integrity of the drop walls, whether they are in place, alignment undisturbed and retain their verticality.
- Extent of scour near the drop walls to assess if there is any chance of the wall getting undermined.
- Any local damage in the apron floor
- Any obstruction to the flow of river on the apron floor
- Any cracks or cavity in the floor from which water can percolate down and cause damage in future
- Any growth of vegetation in the wall or the apron

1.5 **APPROACH EMBANKMENT:** Approach embankments, though not a part of the bridge structure, are important to maintain integrity of the abutment. Depending upon the type of abutment and its location, part of the approach embankment slope can be within the river flow. In some cases, the river can overflow the banks and reach the toe of the slope of approach embankment. The construction of and protection provided to an approach bank is more or less similar to that of the embankment of a guide bund. The only difference is that the approach bank is subjected to the Railway live load, which the guide bund embankment is not. Inspection of the approach embankment should include the following aspects.

- I. Integrity of the toe of the embankment against scoring action of the river
- II. Integrity of the pitching if provided on the side slopes
- III. Growth of vegetation
- IV. Signs of rain cuts in the embankment slope
- V. Disturbance to the side slope from the design profile
- VI. Proper functioning of longitudinal and cross drains in high embankments

Inspection of foundations

2.0 Foundations of bridges are classified as Deep foundations and shallow/open foundations. Shallow foundations are made where a rock or firm soil (competent load bearing stratum) is available at shallow depths. This is the case with minor bridges and major bridges with high bearing capacity strata close to the ground level. Most important and major bridges have deep foundations. The main difficulty with inspection of bridge foundations is the lack of accessibility of the foundation. Invariably, much of the foundation is hidden below the ground level and it is neither advisable nor practical to excavate the soil around the foundation solely for the purpose of inspection. In such a situation, the Inspection engineer has to rely on keen observation and sound judgment about the overall condition of the bridge to interpret the condition of the foundation.

2.1 DEEP FOUNDATIONS

2.1.1 On DFCCIL system, the deep foundations comprise of either well foundation or pile foundation. These foundations transfer the loads and forces from the superstructure to such depths where competent strata is obtained. All deep foundations on DFCCIL are made using concrete as a structural element. For defects related to concrete as a material in the deep foundation, please refer to the guideline for inspection of Concrete structures. This guideline contains advice related to inspection of the well or pile as a structural element.

2.1.2 Defects in deep foundation elements primarily refer to the availability of the competent soil around it, its position and verticality. A brief description of each of these and guidelines for inspecting them follows.

- a. **SCOUR AROUND FOUNDATIONS:** Scour of the riverbed is a dynamic phenomenon and it keeps fluctuating with the flood conditions. Unless the scour is measured during the peak floods or during receding floods, it is unlikely to be observable later on. During inspections, attempt should be made to reach every foundation by walking on the riverbed or by using a boat to access the foundations which continue to be surrounded by water even post monsoon season. In case any foundation was subjected to heavy scour, it is likely that a partially filled up scour hole will be visible. If so, its maximum depth and approximate size may be recorded. In case of foundations still in the stream, attempt may be made to measure the depth of the riverbed around the foundation. Echo sounders or rope with weight at its lower end or wooden staff may be used for the soundings.
- b. **TILT:** Normally any tilt of the foundation in the cross direction will immediately manifest in disturbance of the track structure. Tilt along the traffic direction may not readily manifest in the track structure. For most inspections, visual observation of the verticality of the foundation is enough and unless indicated by any tell-tale signs in the superstructure, this may be recorded as 'OK'.
- c. **SETTLEMENT:** Settlement of the foundation will immediately be manifest by disturbance in the vertical alignment of the track. Should such a situation arise, the affected foundation should be inspected from close quarters and the RL of the top of the well/pile cap should be measured with survey instruments to calculate the amount of settlement. A review of track levels should be done to cross-check the survey results. While the immediate correction is to provide additional plates at the bearings to compensate for the settlement, this is not a permanent solution. The foundation settlement should be kept under continuous observation, preferably by installing instruments to record the level of the top foundation or that of pier cap. A special investigation by an expert is required to arrive at the root cause of the settlement and a permanent solution.
- d. **PILING UP OF DEBRIS:** Top of the well cap or the pile cap are locations where debris carried by the flood water tend to accumulate. While the debris do not pose any immediate threat to the performance of the bridge, these need to be removed as a good practice / basic maintenance hygiene factor.
- e. **MARKINGS:** Marking of HFL and danger level is a standard practice and during inspections, it should be checked whether the markings are at the right place and are visible from a distance.

2.2 SHALLOW FOUNDATIONS

2.2.1 All shallow foundations on DFCCIL are made using concrete as a structural element. For defects related to concrete as a material in the shallow foundation, please refer to the guideline for inspection of Concrete structures. This guideline contains advice related to inspection of the shallow foundation as a structural element.

- a. **SETTLEMENT:** Shallow foundation found on rock are unlikely to undergo any noticeable settlement. The guideline given above for settlement in deep foundations apply to shallow foundation also. Unlike deep foundation, however, settlement in shallow foundation may also manifest by disturbance in the soil strata (surface) surrounding the foundation. If a protective floor apron/pitching has been laid on

the bed, there may be signs of separation between the edge of the footing and the apron. Photos may be taken of the soil all around the foundation for reference to be made to technical experts about the issue.

- b. **LOSS OF CONTACT:** In case there is a visible sign of loss of contact between the foundation mat/raft and the supporting soil, it represents a serious issue with the possibility of failure/tilting of the structure. The loss of contact may be a cause or a result of the distress. If loss of contact is a sign of distress, it should be accompanied by tilting of the sub-structure or cracks in the raft material. However, it is possible that loss of contact has taken place due to erosion of the soil from under the raft. In such a situation, if the loads are still being safely transferred to the ground, there may be no other sign of distress in the pier or the foundation. While details of the loss of contact may be recorded, it is equally, if not more urgent and important to take immediate action to restore the contact, if possible, keep the bridge under watch and request for investigation by an expert. It should be kept in mind that the raft or base slab of foundation is generally not visible except in case of heavy scour which is unlikely. The inspection Engineer has to use his technical knowledge and diagnostic skills in case of any sign of distress related to the shallow foundations.

Inspection of Substructure

- 3.0 Substructure of bridges are the elements that connect the foundations with the superstructure. In some cases, like the arch/Box bridge, there is little to differentiate between substructure and superstructure. On the other hand, in case of abutments, often the substructure and foundation is the same. While the superstructure can be accessed from the track and the foundation by road/river, the substructure is not easy to access, especially when the piers are very tall. All attempts should be made to get as close to the substructure element as possible and also to get a clear view of the piers from adjacent spans/pier caps. Guidelines for inspecting piers and abutments are given below separately.
- 3.1 **PIERS:** On the DFCCIL system, all piers are made in concrete. Pile caps are the point of transition between the foundation and piers and may be included in either of the two, it doesn't really matter. The following aspects may be inspected in a pier.
 - a. **VERTICALITY:** In the case of deep foundations, piers are rigidly connected to the foundations through the well/pile cap and any tilt in the foundation will automatically be transmitted to the piers. In case of shallow foundations also, any differential settlement of the foundation will reflect as pier being out of vertical. By appropriate measurements, the degree of inclination (tilt) can be measured and recorded. However, in order to get the true value of the tilt, any tilt existing at the time of construction should have been recorded. To cross check the verticality/tilt of the pier, slope of the top surface of the well/pile cap and pier cap should be measured using a spirit level. With these inputs a reasonable conclusion can be reached in most cases. *It should be understood that measurements of verticality of Piers may not reflect true picture unless the "As built" initial data is available. Therefore, during the first inspection of every bridge (immediately after commissioning) reading should be taken as reference reading for subsequent measurements. Additionally, if the tilt is suspected, close inspection of seating of bearings on pedestal may be carried out, which will get disturbed in case of any tilt.*
 - b. **DEFLECTION:** In rare case, bending of the piers may take place due to large horizontal forces coming on it. One needs to distinguish between tilt and bending as a cause for the pier to appear out of vertical, as the consequences of the two will be quite different. Further, when the pier bends (but does not tilt) the top surface of the well/pile cap shall remain level/horizontal. In case of bending, there will be associated distress in the form of horizontal cracks in the pier on the convex side (tension face). Such defects should be separately reported.
 - c. **FENDERS:** In some special cases, bridges in navigable rivers are provided with fenders to protect it against impact of barges/ships. Similarly bridges having their foundation/piers along a trafficked road are

provided with crash barriers/fenders. These should be examined for any sign of impact damage and integrity of their connection with the main body of the pier or the well/pile cap.

- d. **DEFECT IN MATERIAL:** Various defects in the concrete (material of construction) may be visible in the piers and these should all be recorded with specific location of each defect pinpointed. For defects in concrete as a material please refer to a separate guideline on the subject. Portions of the pier lying between HFL and LWL should be given greater attention as these locations are more susceptible for deterioration.

3.2 **ABUTMENTS:** Main difference between piers and abutment is that abutments are subjected to additional forces from the embankment earth retained by it (except in the case of spill through abutments). Wing walls and return walls are also additional elements of an abutment, apart from the main live load bearing parts. Presence of soil around the bed block level increases the possibility of damage due to soil and vegetation etc. The following aspects may be inspected in an abutment:

- a. **VERTICALITY & SETTLEMENT:** Abutments are subject to active earth pressure and tractive/braking forces in the longitudinal direction. These may cause to abutment to tilt towards the pier. This should be discernible from a change in the gap between the dirt wall and the end/face of the girder. Any settlement in the abutment will be visible due to disturbance in the track's vertical alignment on the approach as well as in the span adjoining the abutment. In all cases detailed measurements should be taken and marked on the drawing for clear understanding of the issue involved. Settlement and tilting can also occur in the wing/return walls. However, if the tilt or settlement is limited to the wing/return walls, it should also result in some distress in the concrete at the junction of the main abutment and wing wall. These areas should be thoroughly examined for signs of cracks, which will help in correct diagnosis of the situation.
- b. **BULGING:** Bulging is a local manifestation of the effect of earth pressure on the walls of the abutment. Bulging is a less serious defect than settlement and tilt as it does not point towards global instability. Bulging, being a sign of excessive deflection / flexure should normally also be accompanied by cracks in concrete. Cracks, if observed should be mapped and shown on the drawing in relationship with the bulging.
- c. **Drainage :** Exposed faces of abutment should be checked for presence of any moisture indicating Inadequate drainage of back fill, proper functioning of weep holes and filter media forming the back fill etc. In cases of the back fill surcharge, examination shall be made to suggest other suitable drainage methods to drain the accumulated water immediately
- d. **OBSTRUCTION TO MOVEMENT:** Since the abutment retains embankment soil and track ballast, there are chances of the space between the end of the girder and dirt wall being blocked by soil/earth or other foreign material. Such blockage can prevent the free movement of the girders and needs to be cleared.
- e. **WEEP HOLES:** Generally, weep holes are provided in the abutment walls which retain the embankment soil. The purpose is to allow drainage of water from the backfill and minimize the earth pressure on the walls. During inspection, one should look out for signs of proper functioning of the weep holes. There are brown stain marks on the walls left by the water draining from the weep hole. One should also look out for excessive flow of soil from the weep hole, which indicates absence of a filter between the backfill soil and the wall.
- f. **VEGETATION:** Growth of vegetation in the cracks and areas around the dirt wall, bed block and wing walls can result in pressure on the concrete and resultant damage to concrete, especially its edges. It can be easily addressed during routine maintenance of the bridge.
- g. **ABUTMENT ON HILL SLOPES:** This presents a special case of the abutment, and such structures are normally constructed in hilly terrain. Apart from the other aspects referred above, the stability of the hill slope on which the abutment rests needs to be checked. Points to look for include signs of rain cuts or local

slip circle failure of the hill slope. If any protection work such as shotcreting or toe wall, has been carried out, these should be inspected for signs of any distress.

- h. **DEFECT IN MATERIAL:** For defects in concrete as a material please refer to a separate guideline on the subject.

Inspection of Bearings

- 4.0 Bearings are amongst the most critical part of a bridge. Compared to their size and cost, bearings have very large impact on the health of the bridge and its satisfactory performance. During every bridge inspection, the bearings must be inspected without fail. Bearings perform a very important function of transmitting forces from the superstructure to the substructure/foundations while simultaneously allowing translation and rotation as per the design requirements. Malfunctioning of bearings can result in large forces developing in the superstructure and/or substructure and this may lead to distress. Pedestals on which the bearing rests is also treated as a part of the bearing unit and included in this guideline. Guidelines for inspecting bearings are given below for different types of bearings.
- 4.1 **PEDESTALS:** The purpose of the pedestal is to create specific location where to seat the bearing and also create sufficient gap between the soffit of the girder and top of pier cap to permit placement of jacks for lifting the girders during bearing replacement. The checklist for inspection of pedestals is given below:
- a. **EDGE DISTANCE:** Please check the drawing for distance between the edge of the bearing and the pedestal. Inadequate edge distance can result in failure of the pedestal. Inadequate edge distance could either be a construction defect or sign that the bearing has shifted during service.
 - b. **CRACKS/SPALLING:** Due to the limited size of the bearing, very large contact stresses result in the pedestal. While the pedestal is designed to withstand these stresses and special reinforcement is provided in it, over loading or low in-situ strength or pre-existing non-structural (shrinkage) cracks can lead to more severe cracking or spalling. This is a serious situation and needs to be addressed urgently.
 - c. **DEBRIS:** The space around the bearing and pedestal should be free of any obstruction which can prevent free movement and rotation of the bearing.
 - d. **WATER LOGGING:** The top surface of the pedestal and pier cap should not be prone to water logging and the inspection engineer should look for any tell-tale signs indicating the possibility of this happening.
- 4.2 **ELASTOMERIC BEARING:** Elastomeric bearings are commonly provided in small and medium span RCC and PSC bridges. All elastomeric bearings on DFCCIL are reinforced type with steel plates embedded within the elastomers. The following aspects need to be inspected for an elastomeric bearing.
- a. **POSITION:** Under typical combination of vertical and lateral loads, elastomeric bearings are known to have 'walked out' from their installed position. To be forewarned about this, the position of the bearing with respect to its position as installed needs to be checked and confirmed. Measuring the distance between the edge of the elastomer and the pedestal is the way to do this. Whilst this check may be made for both longitudinal and transverse direction, the walking out is generally observed in the longitudinal direction.
 - b. **EXCESSIVE MOVEMENT/SHEAR STRAIN:** Elastomeric bearings accommodate horizontal movements by shear strain. While some amount of shear strain is to be expected, excessive shear strain can result in failure of the bearing. While no specific value can be prescribed in this guideline for

the permissible shear strain, a value equal to or more than 50% of the total thickness of the elastomers can be definitely considered high and worth further investigation. While measuring the movement, the temperature should also be noted down as it has a direct impact on the thermal expansion/contraction and the expected movement at the bearing level.

- c. **EXCESSIVE ROTATION:** Elastomeric bearings accommodate rotation by differential compression of the elastomer layers. While some amount of rotation is to be expected, excessive rotation (differential compression in elastomers) should trigger investigation. No limits can be specified, and the inspection Engineer has to apply his judgement and observation about the deflection of the span to decide if the observed unequal compression is an area of concern.
 - d. **EXCESSIVE BULGING:** Under the vertical loads, the elastomers compress and also bulge over the free edges. Slight bulging of the elastomers between the embedded steel plates is a sign that the bearing is participating in load transfer. However, excessive bulging in some bearing or in some elastomer layer in a bearing reveal abnormality in load sharing. These should be noted down and reported.
 - e. **UNEQUAL LOAD DISTRIBUTION:** It is a normal practice to design all elastomeric bearings under any girder to share the loads equally. However, if the installation of the bearings is not done accurately or if some bearing shifts from its position, the load distribution amongst bearing under the same span and on the same pier can get skewed. This may be revealed by differential bulging of elastomers seen on adjacent bearings. If such a phenomenon is distinctly visible, it needs to be noted down.
 - f. **LOSS OF CONTACT:** The bearing should be in full contact with the soffit of the girder above and the top surface of the pedestal below. Any gap in either of the two contact faces is not a healthy sign and needs to be noted down.
 - g. **SEPARATION OF ELASTOMER:** Effective performance of the elastomeric bearing depends on proper bond between the elastomers and the reinforcing plates embedded inside. If there are signs of separation of the two, it points to failure of the bearing and a defect to be reported.
 - h. **MATERIAL FAILURE (ELASTOMER):** Failure of elastomer as a material may manifest by cracks in the elastomer or softening/flowing of the elastomer material or crazing cracks on its surface. Any abnormal sight about the elastomer as a material needs to be observed and recorded.
- 4.3 **POT PTFE BEARINGS / SPHERICAL BEARINGS:** A neoprene pot bearing has a stainless-steel plate that is attached to the sole plate. This stainless-steel plate slides on a polytetrafluoroethylene (PTFE) disc. The PTFE disc is attached to a steel piston, which rests on a neoprene pad, allowing for the rotation of the structure. The pad rests in a shallow steel cylinder that is attached to the base plate. This cylinder is referred to as the pot. Guide bars in the expansion pot bearing restrict transverse movement. A fixed bearing version of this configuration does not possess the stainless-steel plate or the PTFE disc. Spherical bearing, also called spherical bridge bearing, is one type of bridge bearings with large rotation capacity. Pot bearing and spherical bearing can be divided into three types: fixed spherical bearing, guided spherical bearing and free sliding spherical bearing. Before inspecting these bearings, the inspection Engineer should study the drawing and understand the overall bearing arrangement in each span (which movement/rotation is permitted or restrained at each bearing location). The following aspects should be covered while inspecting a POT bearing or a POT-PTFE bearing
- a. **MOVEMENT & ROTATION:** Pot bearing longitudinal movement can be measured in the same way as for a sliding plate bearing. The movement is one half of the difference between the front and back distances of the top and bottom plates. If the pot bearing allows movement in two directions, the inspection Engineer should measure transverse movement as well. The temperature at which the measurements are taken should also be recorded

- b. Although not normally required, pot bearing rotation should also be measured if it appears to be excessive. The top and bottom plates of a pot bearing are usually designed to be parallel if no rotation has taken place. Rotation can therefore be determined by measuring the length of the bottom plate and the distance between the two plates (height) at the front and back of the bearing.
- c. **CORROSION:** All metal (steel) parts of the bearings are painted to prevent corrosion. However, there is a possibility that the paint is scratched during transportation, handling, and installation. In aggressive environment, this can lead to corrosion of steel components. Access to bearings is normally very difficult and it is worth taking preventive action as early as possible. Corrosion should therefore be nipped in the bud by early detection and surface protection measures.
- d. **LEAKAGE OF ELASTOMER:** The elastomer is fully confined within the pot and should normally not be visible. Therefore, any sign of elastomer on the outer surface indicates that the neoprene element is extruded from the pot.
- e. **DAMAGE TO GUIDE BARS:** The guide bars prevent excessive movement and are subjected to forces if there is any tendency of the structure/bearing to have such movements. From this perspective, check guide bars for wear, binding, cracking and deterioration.
- f. **WELDS:** Investigate welds for cracks. Though the welds are not subject to the forces being transmitted by the bearing, any unusual restraint or improper seating can stress the weld and cause its failure.
- g. **DUST SEAL:** The low friction between PTFE SS sliding surface requires the contact surface to be free from dust and foreign material. Towards this objective, a dust seal is provided on the periphery of the contact face between the top plate and the pot. Inspect whether the dust seal is intact and effective in performing the task of preventing ingress of dust inside.
- h. **SEATING/SEPARATION BETWEEN SS & PTFE:** Examine pot bearings for proper seating of the various elements with respect to one another. That is, check to see that the neoprene pad is properly seated within the pot and that the top plate is located properly over the elements below. Also check if all the bolts connecting the bearing with the girder are properly tightened. Also check for any signs of shearing of bolts connecting the bearing to the girder or the pedestal.
- i. **BENDING OF PLATES/LOSS OF CONTACT:** The top plate should be in full contact with the soffit of the girder and the bottom plate with the pedestal. Any partial loss of contact can result in unequal load distribution and excess stress on the plates or the concrete surface in contact. Check through visual observation or use a feeler gauge to ensure proper contact at the bearing surfaces.
- j. **CLEANLINESS:** Look for any build-up of dirt and debris in and around the bearing that would affect the smooth operation of the bearing
- k. **LOCK IN:** The top and bottom parts of the bearing are bolted to each other to facilitate safe transportation and installation. Post installation, the plates locking the two parts together should be removed to permit free

movement of the bearing as intended. Inspect to ensure that no lock in of the bearing exists due to any inadvertent mistake of not removing the plates/bolts.

Inspection of Superstructure

5.0 Superstructure of bridges are the elements that carry the load from the traffic. Superstructure are the closest to the live load and have to face impact and vibrations to the highest degree. The superstructure also interfaces with the track structure and has to provide for and accommodate the track structure and its movements. In addition to the live loads (train loads), the superstructure also carries footpath, trolley refuges, OHE and utility crossings. This guideline covers inspection of different structural forms of the superstructure. Guidelines for inspection of steel as a structural material is covered under a separate guideline. Inspection of the ancillaries and track structure are also covered under separate guidelines. The superstructure on DFCCIL are broadly the following types:

- a. RCC/PSC Concrete slabs
- b. PSC Concrete I girders
- c. PSC Concrete Box girders
- d. Steel plate girders
- e. Composite girders
- f. Steel open web girders

5.1 CONCRETE SLABS & I GIRDERS: Concrete slabs are the simplest form of superstructure and are provided for spans up to 12.2 m. The slabs could be either RCC or PSC. Further, it could comprise of a single unit or made up of multiple pre-cast units place side by side. Checklist of inspection of slabs and I girders is very similar; hence these are covered under one heading. The following aspects need to be inspected for slab bridges:

- a. **SEATING:** Slabs are generally not provided with any bearing and these rest directly on the pier cap / abutment. These are the points of high stress and need to be inspected closely.
- b. **DEFLECTION:** Checking the maximum (mid span) deflection should provide adequate information about safe behavior of the superstructure in case of short spans. In order to be useful, the measurement of midspan deflection should be measured on one fixed point at the midspan on either side, and average of the two values reported as the mid span deflection. To facilitate this, permanent reference points, which will not be disturbed, must be marked over the support and mid span of each span on either side. Mid span deflection values under DL and superimposed DL (SIDL), if available from the design document may be referred for verifying whether the measured deflection is within limit. The amount of deflection for small spans is not large and slight error in measurement may give misleading results. High accuracy is therefore required in measurement of deflection. A more useful purpose of recording the midspan deflection is to track it with passage of time and develop a time-deflection chart for assessing the performance of the superstructure and as an aid to diagnostic in future.
- c. **DRAINAGE:** Effective drainage of water from the deck/track is important for the quality of the track structure and also for minimizing deterioration of the material (concrete or steel) of the superstructure. The top surface of the superstructure is given adequate slope and drainage spouts are provided to facilitate quick drainage. The drainage spouts may be examined to check if they are functioning effectively or have been choked. Check whether the outlet of the drainpipe is discharging the water at an inappropriate place of the substructure or crossing below. Also inspect the down pipe for any break, opened out joints or damage and resulting leakage.

- d. **BALLAST RETAINER:** Integrity of ballast retainers is essential to ensure integrity of the track. Check whether ballast is spilling (overflowing) from the retainers. This could either be due to over ballasting or some local damage to the retainer.
- e. **VIBRATIONS:** Since the superstructure is in direct contact with the live loads, it is subject to highest level of impact and vibration. Any abnormal behavior of the superstructure or any latent defect may manifest through unusual deflection and vibration. The inspection engineer should therefore utilize the opportunity of any passing train to sense the response of the bridge superstructure to the traffic. While this calls for experience and judgement on part of the engineer to notice abnormality, the judgment can be gained and refined by repeated observations.
- f. **DEFECT IN MATERIAL:** Various defects in the concrete (material of construction) may be visible in the girder and these should all be recorded with specific location of each defect pinpointed. For defects in concrete as a material please refer to a separate guideline on the subject.
- g. **Soundness of the concrete :** The engineer should examine the concrete elements by striking with small hammer to assess the soundness of the concrete to assess whether there is any porosity in the concrete.
- h. **Anchorage :** Anchorage is an area along the pre-stressing cable (In post tensioned system) where the prestressing system is most vulnerable. It is also the only place where one can make visual observation of the prestressing system. Look for signs of corrosion, damage to mortar shield at the anchorage, crushing of concrete and cracks in concrete in the anchor

5.2 CONCRETE BOX GIRDERS: Concrete box girders are provided for larger spans. The main difference between I girders and box girders is that an I girder (actually multiple I girders) is an open section whereas the box is a closed section. If access is provided from the pier cap and the end diaphragm to enter the box girder, it presents an opportunity to inspect the concrete from a touching distance. Such an opportunity must always be utilized. Another key difference between I girders and box girders is that the box girder is more likely to be pre-stressed as compared to I girders. All the items to be inspected in slab/ I girders explained above also apply to box girders, with the following additions / differences.

- a. **CAMBER:** Instead of just measuring deflection at mid-span, it is better to measure the camber of the box girder as it provides more reliable information. For measuring the camber, reference points need to be marked on the box girder at convenient places (top surface of ballast retainer or footpath provides such places). The reference points may be 6 or 8 or 10 in number, depending upon the span length, spacing of the points being in the range of 5-8 meters. Reference points should be made on either side of the track and separate camber diagrams can be drawn for the up and down face. In case the box girder is very deep and there is adequate headroom inside the box, the measurement can be attempted on reference points marked on the bottom slab of the box. However, this will require proper lighting and clear line of sight to a benchmark/reference point on the pier, which could be a challenge. In pre-stressed concrete bridges, time dependent losses in prestressing force will manifest through loss of camber and this becomes an important input for assessing the long-term behavior of PSC girders.
- b. **ANCHORAGES:** Anchorage is a point along the pre-stressing cable (in post tensioned system) where the prestressing system is most vulnerable. It is also the only place where one can make visual observation of the prestressing system. Look for signs of corrosion, damage to mortar shield at the anchorage, crushing of concrete and cracks in concrete in the anchor zone.
- c. **LOCATIONS:** While the attempt should be to inspect all parts of the superstructure, some areas need greater attention as these are known to be points of greater stress and locations where distress is seen more often. For slabs, I girders and box girders, the locations to focus attention should include the following

- i. Area near bearings
- ii. Underside (tension face) near midspan
- iii. Junction between I girder and deck slab
- iv. Junction between girders and diaphragms
- v. Anchorage zone in PSC girders
- vi. Inside of the box girders

5.3 STEEL PLATE GIRDERS & COMPOSITE GIRDERS: Steel plate girders, like concrete I girders are typically provided for small spans, up to 24 m. Standard spans of composite girders have been developed for up to 30.5m spans. Steel plate girders are welded type and all field joints are bolted (HSFG bolts). For steel plate girders (and steel portion of the composite girders), the following aspects need to be inspected:

- a. **DEFLECTION:** Please refer to the guidelines related to deflection provided above under concrete slab bridges and I girders, which apply to steel plate girders and composite spans also. It can be done with card deflection test under same type of Loco.
- b. **VIBRATIONS:** Steel girders being lighter than concrete girders, exhibit larger vibration under traffic. Please refer to the guidelines related to vibration provided above under concrete slab bridges and I girders, which apply to steel plate girders and composite spans also. The inspection Engineer should also be alert for any resonance that may be felt during passage of trains. ***Resonance is the phenomenon of increased amplitude that occurs when the frequency of a periodically applied force (train) is equal or close to a natural frequency of the system (girder/bridge) on which it acts.***
- c. **CLEANLINESS:** Check members for cleanliness and freedom from debris, especially on the top side of the bottom flange, any member for that matter. *Unclean members should be especially suspect since this indicates lack of maintenance and ideal conditions for deterioration.* Cleaning may be necessary to properly inspect the members for cracks and corrosion.
- d. **DISTORTION:** Members subjected to compressive forces are therefore prone to distortion and buckling, if the actual forces exceed design values or if there is any change in support conditions and bracings. Most compression members can bend/twist which can reduce their effectiveness significantly. The following elements / locations should be checked for signs of distortion:
 - i. Top flange in steel plate girders
 - ii. Web plates near the bearing stiffeners in both plate girder and composite girders
 - iii. All bracing members
- e. **JOINTS:** Check carefully along the first row of the bolts for cracking as these carry more loads than other bolts. The first row is the one closest to the edge of the gusset plate perpendicular to the axis of the member.
- f. **LOOSE BOLTS:** Inspection of bolted joints should be carried out visually to identify loose or broken bolts. **Tapping the bolt with a hammer is not allowed.** Looseness of bolts may be judged by signs of rust beneath the washer or bolt head, or apparent looseness of the washer or some displacement at the joint or unusual position of connected members. Loose or broken HSFG bolts should not be tightened but should be marked for easy identification at the time of their replacement by the maintenance team.
- g. **JOINT SLIP:** The joints with HSFG bolts are designed to transfer the forces through friction between the contact surfaces of the connected members and plates. If the force on the joint exceeds the service loads, the joints can slip, and the forces are then transferred through bearing of the bolt against the plated/members. Slip of the joint may indicate that the loads have, sometimes in the past, exceeded the serviceability stage limit. The slip should be visible by clear sign of movement at the edge of the joint (maximum amount equal to the clearance between the hole and bolt diameter).

- h. **DEFECT IN MATERIAL:** Various defects in the steel (material of construction) may be visible anywhere in the girder and these should all be recorded with specific location of each defect pinpointed. For defects in steel as a material please refer to a separate guideline on the subject.
- i. **LOCATIONS:** Given below is a list of locations which are more critical and the chances of finding defects at such places is higher than other locations.
 - i. Bearing areas
 - ii. Shear zones (closer to the supports)
 - iii. Flexure zones (bottom face near midspan of simply supported girders and top face near supports of continuous spans)
 - iv. Fatigue prone details
 - v. Secondary members
 - vi. Areas that trap water and debris
 - vii. Areas exposed to traffic

5.4 OPEN WEB GIRDERS: Open web girders, also called as through truss girders are provided for spans larger than 30 m. RDSO has standardized open web girder designs for 30, 45, 60, 76.2, and 90 m and 106.7 spans for different loading standards. On DFCCIL system, some non-standard spans have also been adopted due to site conditions. Open web girders comprise of two trusses, top and bottom lateral bracings and the floor system. The floor system consists of cross girders, connecting the two trusses and rail bearers (stingers) spanning between cross girders, along the traffic direction. All field joints of the open web girders are made using HSFG bolts. The members themselves are built up section welded in the fabrication shop. Open web girders invariably carry unballasted track, called as open deck system. Steel rocker/roller, POT-PTFE or SPHERICAL bearings are used with these girders due to a combination of higher loads and movements. The following aspects need to be inspected in an open web girder:

- a. **ACCESS & SAFETY:** Since the open web girders are not provided with ballasted deck and given their longer spans, adequate and safe access and walkways are crucial to facilitate effective inspection and maintenance. All walkways, footpaths, railings, ladders and access to trolley/mam refuges should be examined as a part of inspection and also in the interest of the safety of inspection Engineer himself.
- b. **CAMBER:** Camber is provided in the girder to compensate for deflection under load. Camber should be retained during service life of the girders if there is no distress. The original camber of a girder is indicated in the stress sheet or camber diagram sheet. Camber observations are required to be taken at the same ambient temperature as adopted for the original camber mentioned in the stress sheet. The camber as observed during the inspection is compared with the designed camber. For measuring the camber, spot levels should be taken by using high survey equipment on all intermediate panel points on both sides. From these, the relative level of each panel point from a line joining the first and last panel point (on bearings) can be derived and plotted in the form of a camber diagram. Any loss of camber should be thoroughly investigated and brought on record.
- c. **DISTORTION:** Please refer to the guideline provided under plate girder section above. In the case of open web girders, following locations are prone to distortion:
 - i. Top chord members
 - ii. Diagonals
 - iii. Lateral bracings
 - iv. Portal bracings
- d. **OVERSTRESSED MEMBERS:** Local buckling indicates overstress of compression members. Wrinkling in the flange, webs or cover plates are common signs of buckling. Overstress in a tensile member result in localized contraction in the cross-section area of the member, which is usually accompanied by the flaking

- of paint.
- e.
 - f. **OTHERS:** All other points related to **vibrations, cleanliness, loose bolts, joint slip** etc. as provided in the section above apply equally to open web girders.
 - g. **DEFECT IN MATERIAL:** Various defects in the steel (material of construction) may be visible anywhere in the girder and these should all be recorded with specific location of each defect pinpointed. For defects in steel as a material please refer to a separate guideline on the subject.
 - h. **CRITICAL LOCATIONS:** Any loss of camber should be thoroughly inspected and brought on record
 - i. Rail bearers
 - ii. Rail bearers to cross girder connection
 - iii. Cross girder to panel point connections
 - iv. Bottom chord near bearings
 - v. Connection of lateral bracings at panel points

Inspection of Track Structure on Bridge

6.0 The track structure represents interface between the bridge and the live load. The purpose of the bridge is to support and facilitate effective functioning of the track. Strictly speaking, the track structure is a part of track inspection and maintenance. However, the behavior of the track on the bridge is different from that on the embankment and therefore it deserves to be separated from routine track inspection. Moreover, the behavior of the track within the bridge length provides useful insight about the overall behavior of the bridge and therefore considered to be within the domain of the Bridge inspection. On DFCCIL system, there are only two types of track structures, viz ballasted track with PSC sleepers and open deck with steel channel sleepers. The guideline therefore only focuses on these two types of track structures. Details of the treatment of LWR over the bridge should be carefully studied so that relevant features of the same can be properly inspected. Following aspects need to be seen while inspecting the track structure:

- a. **TRACK ALIGNMENT:** It should be ascertained whether the track is central on the rail bearers and the main girders. It should also be checked whether the track is in good line and level. Unless there are any visible signs of misalignment, no measurements are called for. Any kink in the alignment of the track; especially over a pier suggests some abnormal situation related to that pier. Departure from line may be caused by:
 - I. Incorrect seating of girders
 - II. Shifting of girders laterally or longitudinally
 - III. Incorrect seating of sleepers on girders (in open decks)
- b. **TRACK LEVEL:** The level of track provides the earliest warning sign about settlement in any of the foundations or any other distress like tilt or shift. Dip in the longitudinal level of the track at a pier suggests distress in the bearing or settlement of the foundation. Detailed level measurements may be recorded if there are visual signs of disturbance in the track levels.
- c. **LWR & SEJ:** LWR may or may not have been continued over the bridge depending upon its overall length, rail section used and the temperature zone in which it falls. The interaction between the track and bridge structure is very complex, especially in the case of multi-span bridges. Satisfactory behaviour of the LWR on the bridge and its approaches need to be checked. Following aspects need to be inspected:

- I. Ballast section over 50 m length of the approach for compliance with provision of LWR manual.
 - II. Use of creep anchor on the approaches (if provided)
 - III. Effectiveness of box anchoring, wherever provided
 - IV. Gaps at the SEJ along with the temperature and any indication of creep from that (if provided)
- d. **APPROACHES:** It should be checked if the track on approaches of girder bridges tends to settle down with respect to the level of track on the bridge proper. Similarly, it should be checked whether the alignment track on the approaches is in line with the track on the bridge. The gauge, cross level and packing under the sleepers should be checked. The condition of the ballast wall should be checked for at least up to 50 meters on the approaches. This portion of the track should be well anchored, which means that the track should have PRC sleepers with elastic fastening and fair T type (or similar) creep anchors. The adequacy of clearances of running rails over ballast walls at the abutments should be checked. Any tilt or damage to the ballast wall should be checked.
- e. **BALLAST CUSHION:** Check for clear ballast cushion available below the sleepers. In addition, check the condition of the ballast, whether it is clean or caked up. On bridges where guard rails are not provided, the whole width of the bridge between the parapet walls shall be filled with ballast up to the sleeper level.
- f. **STEEL CHANNEL SLEEPERS:** The location where the steel channel sleepers are installed are the most heavily loaded parts of a girder bridge. The sleeper themselves and the top flange of the plate girder/stringer below it is subjected to high impact load and is also susceptible to corrosion due to accumulation of water etc. In view of this, as many sleeper seats as possible should be closely inspected to get an idea of the general condition of the track/girder interface. Corrosion in sleepers, local damage to any sleeper and condition of the welds should be inspected. Conditions of fastening between the rail & sleepers and between sleepers and rail bearer should also be checked.
- g. **GUARD RAILS:** Proper functioning of guard rail is very important for the safety of trains in the unfortunate event of a derailment on the bridge. Following aspects should be checked:
- I. Clearance of guard rail and running rail
 - II. Level of guard rail
 - III. Condition of guard rail and its fastening
 - IV. End anchorage of guard rail
- h. **SIGN BOARDS:** Inspection of various boards related to the bridge may be covered under this section. Following is the list of board / information display that should be checked.
- I. Speed restriction board (if any)
 - II. Name board of the bridge
 - III. Bridge tablet providing salient features
 - IV. Bridge plaques
 - V. HFL and Danger level
 - VI. Flood gauge

Inspection of Bridge Ancillaries

7.0 There are a few elements of the bridge that are not part of its main load bearing function but support some aspect of bridge inspection or maintenance. All of such elements are bracketed under the term “ancillaries”. While the ancillaries do not by themselves affect the safety/stability of the bridge, they have a supporting role to play. If the ancillaries do not function as intended, activities related to inspection and maintenance can be hindered. Sometimes, failure of an ancillary structure can adversely affect the safety of the traffic. Inspection of ancillary structures is important from this perspective.

- I. FOOTPATH & WALKWAYS:** Footpath and walkway are crucial for allowing access to all piers without the need of walking on the tracks. It should be checked whether the footpath provides safe and uninterrupted surface for walking. The integrity of the hand railing should be checked. Defects in material of construction (concrete or steel) should be checked as per the respective guideline for concrete and steel.
- II. INSPECTION LADDERS AND PLATFORMS:** Generally, ladders are provided to allow access from the track to the top of the pier cap. In open web girders, the end raker and top chords may be used as a ladder if handrails are not provided to facilitate the inspection engineer to climb over these. Inspection platforms are provided at the pier cap level to facilitate inspection of bearings. These elements are invariably made of steel. Check for corrosion of the members, damage to railings and condition of the connections. Check if the ladders and inspection platforms provide adequate safety to the person using it.
- III. TROLLEY/MAN REFUGE:** Trolley/MAN refuges are provided to facilitate parking of inspection trollies or for standing KM during passage of trains. The number/ spacing of trolley/man refuge should be checked for compliance with the applicable DFCCIL Schedule of Dimensions. It should be checked whether the access to the trolley/man refuge from the track is such as to permit easy and quick transfer of the trolley/man from the track to the refuge. Connection of the trolley/man refuge structure to the main bridge should be examined carefully for its integrity. Defects in the material of construction (concrete or steel) should be checked as per the respective guideline for concrete and steel.
- IV. OHE MAST/CONNECTION:** In electrified section and long bridges, the OHE needs to have supports within the bridge length. This can be in the form of an OHE mast attached to the pier/abutment cap, or a bracket attached to some part of the truss in the case of open web girder. Only the structural attachment of OHE is in the purview of bridge inspection. In case of OHE mast, check for the integrity or functioning of the holding down bolts and verticality of the OHE mast. In case of open web girder, treat the bracket connecting the OHE to the truss as a structural steel element and check for alignment, corrosion, distortion in members etc.
- V. PIPELINE/CABLE CROSSING:** Pipeline/Cable crossings are linear elements and are connected to the bridge at specified intervals. Check the drawing for the arrangement of connecting the pipeline/cable supports to the bridge; specially to identify if the connection is rigid or flexible. In case of a rigid connection, it is essential that arrangement for permitting thermal expansion and contraction in the pipeline/cable is similar to that of the bridge (such that no forces are transferred from the bridge to the pipeline and vice-versa due to restraints against thermal movements). Inspect the bracket suspenders of pipeline/cable support as structural elements. Inspect these for distortion, corrosion and integrity of bolts etc. A pipeline that carries any hazardous material poses a risk of fire and explosion and the overall integrity of such pipes and their joints need to be checked.
- VI. PROTECTIVE SCREENS :** Protective screens are provided for ROB's / RFO's to safe guard the OHE wires running under the bridge. During inspection it should be seen whether it is secured properly or not.

VII. HEIGHT GAUGES: In Road under bridges, height gauges are provided to prevent the road vehicles carrying over dimensioned consignment (ODC) damaging the soffit of the girders. The integrity of the height gauge should be observed and recorded. Any sign of damage to the height gauge itself or to the soffit of the girders (despite the presence of the height gauge) should be observed.

Inspection of RCC Box/Pipe Bridges

8.0 A RCC Box/Pipe is a structure that allows water to flow under railway line or pass road traffic from one side of embankment to the other side. A RCC Box/Pipe is typically embedded so as to be surrounded by soil of the embankment.

8.1 RCC box/pipes have an important function to perform; that is to allow passage of water across the railway line and thus prevent the water stream from causing damage to the embankment. On any railway, the number of RCC boxes and pipes are usually much more than the bridges, but each RCC box/pipe can be inspected much faster and with greater ease due to easy access and limited items to inspect.

8.2 A RCC box/Pipe does not have separate foundation/substructure or superstructure. It is one structure performing the function of all these elements. The RCC box/pipe does not have bearings or expansion joints. The items to be inspected in a RCC box/pipe are detailed below:

- I. **ALIGNMENT:** RCC Box/Pipe are almost always laid in a straight line. If it is a cast-in-situ structure, is unlikely that its alignment will be disturbed. In case of RCC box bridge made with a number of precast units (pipes or segments of boxes), in rare situation, there may be distortion in the alignment of the units. This should be noted, and likely cause investigated.
- II. **SLOPE & LEVEL:** The most commonly noticed defect in a RCC Box/Pipe is the settlement of a part of it resulting in disturbance to the slope/level/vertical alignment of the RCC Box/Pipe. This could be due to settlement below the RCC Box/Pipe or local failure of some segment of the RCC Box/Pipe. If noticed, this should be inspected in detail and the profile of the invert/floor of the RCC Box/Pipe measured and plotted for analysis and as an aid to diagnosis.
- III. **CLEARANCE:** Unless designed as a siphon, the RCC Box/Pipe should have adequate clearance to allow flow of water without any heading up taking place. The clearance is difference between the invert level and the HFL. Signs of HFL should be looked for to assess if design clearance is available. (However, it should be born in mind that requirement of clearance may not be applicable for BOX or Pipe bridge which, even if not designed as syphons, can run full). Further, the RCC Box/Pipe should be free of any obstruction such as construction debris, bushes/branch of trees, animal carcass etc. If found, any obstruction should be cleared as soon as possible and before the next monsoon season.
- IV. **WING WALL:** The function of the wing wall/face wall is to retain the embankment slope and also to channelize the stream through the bridge. Inspect the wing/ face wall for its alignment/verticality and signs of undermining. Also check for the connection between the face wall and the segments of the bridge.
- V. **FLOORING ON APPROACH:** Approach to the RCC Box/Pipe is paved to ensure that the water from the stream does not undermine the RCC Box/Pipe bridges. Check for integrity of the flooring on the approach, signs of settlement, cracks/openings that may allow the water to seep through and find a path under the bridge. Look for angle of entry of the stream and any obstruction to direct entry of water into the bridges.
- VI. **CUSHION:** Soil cushion including Ballast above the RCC Box/Pipe is required to ensure that there is proper distribution of the live load and there is no localised over loading of the RCC Box/Pipe. Check for adequacy of the cushion and check for any unusual signs like settlement at the transition between RCC

Box/Pipe and embankment.

- VII. **MATERIAL:** All RCC Box/Pipe on DFCCIL, being in concrete, inspect the bridge's barrel and face wall as concrete material and refer to a separate guideline on this subject. Typical defects to be looked for include cracks, spalling, erosion and rebar corrosion.

Inspection of Concrete Elements

9.0 There are a variety of defects that can be seen in a Concrete structure or element. Not all defects are serious in nature. *Some defects are created at the time of construction itself and continue to remain in the absence of repairs. Such defects should ideally have been identified and repaired at the time of handing over/ commissioning.* This guideline provides a list of all possible defects in concrete and what observations should be made to assist in assessing their severity and decide corrections. While this guideline is common to all elements from foundation to superstructure, the degree of severity will vary depending on the location of the defect. The following defects are always construction defects and do not occur during the operation period.

- a. Honeycombs
- b. Bug holes
- c. Cold joints
- d. Construction joints
- e. Off set at formwork joints
- f. Less cover to reinforcement
- g. Shadow of rebar on concrete surface
- h. Foreign material embedded in concrete

9.1 Other defects may have been there right at the time of construction or may have developed later. If these defects did not exist at the time of handing over/ commissioning, it indicates initiation of the defect during operational phase and to that extent, these are likely to be a greater cause of concern. These include the following:

- a. Cracks
- b. Delamination and spalling
- c. Efflorescence
- d. Rebar corrosion
- e. Damaged / broken edges
- f. Blisters or pop outs
- g. Surface abrasion / dusting

9.2 While the above two lists include defects in concrete as a material, there are defects which can be classified as not defect in material, but defect in an element. These are separately covered the guideline related to different bridge components. The paragraph below provides guidance on the observation to be made and data collected for various defects. Needless to say, photographs from a distance as well as close up should be taken to help experts interpret the defect better. The defects likely to be more serious in nature are covered first and those likely to be less serious are covered later.

9.3. GENERALLY SERIOUS DEFECT

a. CRACKS:



Cracks in concrete are amongst the most common defect and some of these can be very serious. The following information should be obtained and recorded:

- i. Date of first occurrence (enquire with people who routinely pass close to the structure)
 - ii. Length of crack; approximate information should suffice
 - iii. Width of crack; use a crack comparator or feeler gauge for this
 - iv. Location and orientation
 - v. Whether there is a single crack or a series of cracks
 - vi. If there are multiple cracks, the pattern of cracks
 - vii. Whether the crack is dry or wet
 - viii. Whether there is any deposit at the cracked surface
 - ix. Whether there is any rust stain along the crack
- b. **DELAMINATION/SPALLING:** Delamination or spalling of concrete represent an advanced stage of corrosion of reinforcement. These are amongst the most serious defect in an RCC structure and require urgent attention. If the defect is located at a structurally critical location, do not aggravate the problem by further taping the concrete to find out the extent of damage. Delamination and spalling are invariably accompanied by visible cracks in the concrete near/around it. Please record the following information:
- i. Location of delamination/spalling
 - ii. Size/area affected by delamination/spalling
 - iii. Whether there is clear sign of reduction in size of reinforcement or breakage of reinforcement due to corrosion
 - iv. Cracks visible in the area near delamination/spalling
 - v. Any excessive deflection associated with delamination/spalling

c. EFFLORESCENCE:



Efflorescence is the presence of salt on the concrete surface, often at the cracks. The salts are generally white in colour and it could be either hydroxide, sulphate, carbonate, or chloride of calcium. Efflorescence is a sign of passage of water through the concrete and leaching out of lime from the concrete. Efflorescence is slightly more serious than a mere crack as it indicates migration of water through the concrete and possible increase in porosity of concrete. Efflorescence can also occur without a crack if the concrete is porous enough to allow passage of water through it. Efflorescence, if noticed along with a crack will get covered by item a/viii above. If noticed without a crack, its location and size should be noted down.

d. **CORROSION:** Similar to efflorescence, corrosion of rebar will be generally accompanied by cracks in concrete, in which case, it will be covered by item a/ix above. It is possible that there is no sign of corrosion of reinforcement embedded in a concrete member, but corrosion may be visible in exposed parts such as tie rods, hand railing, walkway, ladders etc. which are attached to the concrete. The condition of such elements should be observed, especially near their embedment in concrete as these can provide early warning about impending corrosion of the reinforcement.

e. **HONEYCOMBS:** A honeycomb is a patch of concrete where the coarse aggregates are exposed, and the mortar is missing. Tap the concrete around the edge of the honeycomb to expose its full extent. Often honeycomb is surrounded by an area where the surface is covered by a thin layer of mortar with concrete honeycombed below it. Note down the following information:

- i. Location Approximate area of the honeycomb and its dimension
- ii. Whether reinforcement is visible
- iii. Depth of honeycomb



9.4 LESS SERIOUS DEFECTS

a. COLD JOINT / CONSTRUCTION JOINT:



A cold joint or a poorly located and formed construction joint creates a plane of weakness in the concrete element and can adversely affect the durability of RCC/PSC elements. This defect is unlikely to be serious in itself unless accompanied by one of the serious defect listed above. However, if identified early, it can be rectified well in time to prevent it from becoming serious later on.

b. BUG HOLES

Bug holes are small air voids visible on the surface of concrete. These can vary from less than a mm in size to as large as 20-25 mm. Small bug holes are very common and need not be registered as a defect. Large bug holes if too many in number and located at a critical position can result in reduced cover to reinforcement and can pose a risk of reduced durability. The location and subjective assessment of size of the larger bug holes may be recorded.



- c. DAMAGED/BROKEN EDGES:** The edge of concrete element could be damaged at the time or removal of the formwork or during construction and erection of other elements. In case, these are identified as new defects created during the operational phase, it could indicate impact of a vehicle or inspection tool or floating item (in case of foundation and substructure) or vandalism. The extent and location of the damage should be noted down. The severity of the defect will depend on its location, depth of damage and whether there is any crack near the damaged portion.
- d. FOREIGN MATERIAL IN CONCRETE:** This is always a construction stage defect and reflects poorly on the quality of construction. The foreign material is typically a piece of wood, foam, bamboo, plastic pieces or thermocol (EPS). When removed from concrete, it will become the defect similar to 'damaged edge'. The location and extent of foreign material may be noted down.
- e. LESS COVER TO REBAR / REBAR SHADOW:** Normally, less cover to rebar is not visible after all concrete has been cast. In some case, such as underside of slabs and beams, impression of reinforcement can be seen indicating very low cover. If such parts are accessible, these should be inspected from touching distance to ascertain if the observation really pertains to less cover. Otherwise, rebar cover meter survey will have to be commissioned. Less cover reduces the durability of concrete and repair action will depend on the location/environment exposure condition of the structure. The exact location and extent of area over which low cover is suspected should be noted down



- e. **SURFACE ABRASION / DUSTING:** In bridges, abrasion of concrete is generally noticed in the foundation and substructure which are subject to strong water currents. Dusting is a phenomenon associated with poor concrete in the top surface of a slab. Such a situation is unlikely to occur in a Railway Bridge. Abrasion will manifest by exposure of coarse aggregate or other marks on the surface of concrete (pier, well & pile cap and floor aprons). The location and extent of abrasion should be noted.
- f. **BLISTER/POP OUTS:**



Blister and pop outs are very local defects and indicated by an irregular cavity on the concrete surface. It is typically caused by removal of coarse aggregate (or a foreign material or large air void) from concrete surface. This being a very local and superficial defect, surface repair is usually adequate. The location of blister should be recorded.

Inspection of Steel as material

10.0 Structural steel is used for construction of bridge superstructure, namely in plate girders, composite girders, and open web girders. Structural steel is rarely used in the substructure of foundations. There are a variety of defects that can be seen in a steel structure or element. Not all defects are serious in nature. Some defects are created at the time of construction itself and continue to remain in the absence of repairs. Such defects should ideally have been identified and repaired at the time of handing over/commissioning. This guideline provides a list of all possible defects in steel and what observations should be made to assist in assessing their severity and decide corrections. While this guideline is common to all types of structures, the degree of severity will vary depending on the location of the defect. For the purpose of this guidelines, weld and paint are also considered as a part of 'steel as material'. The following defects may be found in a structural steel element, which relate to material and not the member as a whole. Guidelines about these defect, typical location where these are expected, and their inspection are detailed below:

1. **CRACKS:** Members subject to tensile stresses are the ones likely to have cracks if the tensile stress exceeds the capacity of the members. Elements subjected to reversal of stresses are prone to fatigue damage and cracks can initiate at even lesser stresses. Some latent defect in the steel may also cause initiation of the crack. Cracks can also originate due to corrosion and pitting. Cracks in steel superstructure elements are serious in nature, due to fatigue criticality of these elements, and need to be addressed on priority. In case

cracks are seen or suspected, the location should be cleaned with a wire brush and examined closely under adequate light. If required DPT may also be carried out to assess the length of the crack. The following locations should be specially checked for cracks:

- I. Tension (bottom) flange of plate girders, especially at termination of cover plates
- II. Point on the web where the vertical stiffener terminates near the bottom flange
- III. Point on the web where the horizontal stiffener terminates in the tension zone
- IV. Connection of flange or web of the girder with gusset plates of bracing connection
- V. Moment carrying connections such as stringer to cross girder and cross girder to main truss
- VI. Any point of stress concentration such as a bolt hole or a notch

2. **CORROSION:** Steel structures are susceptible to atmospheric action leading to corrosion which eats up the steel section and can initiate cracking and also reduces the structural capacity. Presence of oxygen, water and chloride are essential for corrosion of steel. For a superstructure, which is exposed to the atmosphere, oxygen and water are almost always present. Presence of chlorides depend on the location of the bridge, coastal areas being the most aggressive in this context. Sometimes, discharge of salt water from the trains also contributes chlorides. Proper drainage is important to reduce the risk of corrosion and it is well established that areas that hold water or are moist for long periods get corroded faster. It is important to assess the magnitude of corrosion and consequent loss of effective structural section and also identify the cause of corrosion. Members and connections subject to high stress fluctuations and stress reversals in service are the most common suspect in respect of corrosion. The following locations should be inspected for sign of corrosion in steel superstructure:

- I. Floor system that carries the traffic (stringers, cross-girders and bracings)
- II. Top surfaces of flanges
- III. Panel joints in open web girders where water tends to accumulate
- IV. Point of contact of top flange of stringers and plate girders with sleepers
- V. Members near the bearings where debris tend to accumulate
- VI. Web of plate girder of composite girders which may receive water spray from the drain holes
- VII. Edges, notches, and holes where paint may not have been applied after cutting/drilling
- VIII. Junction of web and horizontal stiffeners
- IX. Over batten plates in diagonal and vertical members of an open web girder

3. **PAINT:** Paint is the main defence against corrosion of steel structures and integrity of paint should be inspected and reported. Condition of paint and extent of corrosion are two sides of the same coin. If the paint is free of defect, corrosion is unlikely. However, in some cases, corrosion initiated from a small scratch can lead to wider loss of paint protection. While there can be many defects in a painted surface, the following list includes some of those which are more common and relevant:

- I. **Loss of adhesion /peeling:** This refers to complete loss of bond between the paint and the substrate. It may be caused by inadequate surface preparation during painting or poor drying condition during painting or too thin / dry primer. In aggressive environments, this can soon initiate widespread corrosion of the steel and therefore needs to be repaired on priority.
- II. **Localised damage /scratch:** This could be either a construction stage defect caused by damage to paint during transportation and launching which was not touched up, or it could have been caused during the operations period by some maintenance activity. These are not as serious as total loss of paint but can invite corrosion and then quickly progress on to larger areas.
- III. **Blistering:** In damp weather, a small quantity of water vapour is absorbed into the paint structure and is then evaporated again in dry conditions (osmosis). This process is normal and does not harm a well-constructed finishing process. However, poor processing of the primers will leave hygroscopic/water soluble substances (salts) behind as contaminants. These cause a local concentration of a saltwater solution which lift the paint film into water blisters. Blisters can occur in many sizes, patterns and

frequency and can form between individual layers or beneath the entire film build. In dry weather most blisters will temporarily recede.

IV. **Poor Coverage:** Substrate showing through the topcoat. Old paintwork, spot primer or areas of filler are visible through the topcoat.

4. **Coating System:** Metalising / Painting is the main defence against corrosion of steel structures and integrity of same should be inspected and reported. Conditions of paint and extent of corrosion are two sides of the same coin. If the paint is free of defect, corrosion is unlikely. However, in some cases, corrosion initiated from a small scratch can lead to wider loss of paint protection. While there can be many defects in a painted surface, the following list includes some of those which are more common and relevant.

I. Loss of adhesion / peeling: This refers to complete loss of bond between the paint and substrate. This should be carefully noted and recorded.

II. Localised damage / scatch.

III. Blistering.

IV. Poor coverage

5. **WELDS:** Almost all steel superstructures require built up sections. In DFCCIL, all steel girders are fabricated by welding and site assembled by HSFG bolts. While it is expected that the QC checks in fabrication workshops would ensure that there are no defective welded members delivered to site and installed, yet in rare cases some defects can remain undetected until the structure is subjected to loads. Welded structure and welds themselves are prone to fatigue damage (welds are more sensitive to the repeated stresses and once crack starts it can grow fast and seriously reduce the strength of the member). Therefore, the entire structure should be carefully inspected from close quarters. However, some locations and weld details should be given special attention, and these are listed below:

I. butt welds in tension flange or tension member

II. welds at ends of transverse and longitudinal stiffeners

III. welds of attachments to web and tension flange or tension member,

IV. ends of welded cover plates,

V. intersecting weld,

VI. Tack welds and plug welds

VII. Weld repairs

VIII. End of welds / weld craters

IX. Unusual joints

While there can be numerous different defects in a weld, most of these defects occur at fabrication stage and as stated above are eliminated/rectified before erection. Defect that can occur during the service life of the structure is primarily **cracks** and the focus of inspection should be to look for these. It is useful to carry a magnifying glass for weld inspection as the weld cracks tend to be much smaller in size and the background does not facilitate easy detection of crack by naked eye.

Guidelines for Non-Destructive Testing

For NDT the Agency may use RDSO document BS-103 “Guidelines on NDT”

1. Rebound hammer test (Schmidt Hammer) for indicative assessment of concrete strength.
2. Pull out CAPO test.

Uniformity in Numerical Rating System (NRS)

- A. The "Numerical Rating System" for bridge inspection assigns a "Unique Rating Number' (URN) to represent the physical condition of a bridge. The URN of a bridge shall be arrived at based on the condition of components and a "Condition Rating Number" (CRN) assigned to each of them. The various components of a bridge in sequence, are:
- i) foundations and flooring, if any,
 - ii) masonry/concrete in substructure,
 - iii) training and protective works, if any,
 - iv) bed blocks,
 - v) bearings and expansion arrangements,
 - vi) superstructure - Girders/ Slab etc.
 - vii) track structure.
- B. The CRN is allotted to each of the above components based on their condition at the time of inspection, using the scale 0 1 2 3 4 5 6:
- I. When any component in a bridge is more than one in number CRN is assigned to each of them and the lowest value used. For example, if a bridge has five piers and two abutments, and these are given the CRN of 5,4,3,2,5,5,4 then the CRN for the substructure component of the bridge would be minimum of 5,4,3,2,5,5,4, i.e. 2.
 - II. If in any bridge, one or more components do not exist, the CRN for such components shall be shown as 6.
 - III. In any component is not inspected the assign CRN as 0
- C. From the CRNs for different components of a bridge, an overall Rating Number (ORN) for the bridge is then given. The ORN is the lowest of the seven CRNs of a bridge, except 0.
- D. For a major/important bridge, the URN would comprise of eight digits, the first digit indicating the ORN and the following seven digits the CRNs of each of its above seven components in sequence as indicated in item A, above.
- E. URN of a minor bridge shall be represented by its ORN only, i.e. by a single digit to indicate its overall condition using the guidelines contained in Sub-para B.
- F. The objective of Numerical rating system is to make assessment of condition of bridges more objective and in a form that can be saved, retrieved and analysed easily. It also helps in assessing rate of deterioration of the health of the bridge (or its elements)
- G. However, the aim of creating an objective assessment cannot be met unless there is uniformity in assigning CRN to various elements of the bridge. Assigning a CRN depends on the experience and judgment of the inspecting official and is likely to vary from person to person. If such subjectivity is allowed to creep in the assessment, the purpose of assessing the rate of deterioration may not be achieved.
- H. In order to bring in uniformity about CRN assigned by the inspecting officer, a guideline is required which shall be reviewed from time to time and improved with experience. Following broader guideline describes different situation and type of defects that an inspecting officer may come across and assign the CRN that each such situation or defect may normally deserve:

S N	ELEMENT BEING INSPECTED	CONDITION JUSTIFYING NUMERICAL RATING			
		1 (REQUIRING IMMEDIATE REBULDING/ REHABILITATION)	2 (REQUIRING PLANNED REBULDING/ REHABILITATION)	3 (REQUIRING MAJOR REPAIRS)	4 (REQUIRING ROUTINE MAINTENANCE)
1	Overall	In the event of an accident on the bridge or major earthquake or storm, where there was a disruption in traffic and the bridge has been restored using temporary arrangements		--	--
2	Foundation	Continued rapid settlement or tilt of foundation that is affecting track parameters.	Slow and isolated settlement and/or tilt of foundations	Corrosion in RCC of foundation, heavy scour around foundation	Missing HFL/ Danger level, sign of scour around foundation
3	River training works & hydraulic	Severe erosion of banks or breaches in protection works.	Deep rain cuts	Small and isolated rain cuts in guide bank	Obstruction in water way of bridge
4	Substructure	Large cracks in transverse direction, signs of buckling of rebar or crushing of masonry / concrete	Small cracks showing signs of progression	Leaching of mortar, joints Cracks that appear to be live / growing, Spalling of concrete at isolated places	Weep hoes not functioning properly Minor cracks / surface cracks, Hints of initial corrosion, attrition of surface
5	Bearings	Bearing is completely not functional and the girder has been placed on alternate temporary supports.	Any defect in the bearing which will require the bearing to be removed from its position.	Any defect in the bearing which can be repaired without removing the bearing.	Accumulation of debris around bearings or poor drainage around it.
6 a	Concrete super structure	Major distress in the girder that threatens to render the bridge unsafe	Significant loss of camber Major cracks oriented so as to be a structural crack Large scale corrosion of reinforcement Large scale spalling of concrete	Cracks that appear to be live / growing Spalling of concrete at isolated places	Weep hoes not functioning properly Minor cracks / surface cracks Edge damage
6 b	Steel super structure	Major distress in the girder that threatens to render the bridge unsafe	Significant loss of camber Failure of welds, bolts of rivets from main members or their connections	Failure of welds, bolts and rivets from secondary members	Peeling of paint Accumulation of water Loose bolt or rivets Cracks in weld at isolated place

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SN	ELEMENT BEING INSPECTED	CONDITION JUSTIFYING NUMERICAL RATING			
		1 (REQUIRING IMMEDIATE REBUILDING/ REHABILITATION)	2 (REQUIRING PLANNED REBUILDING/ REHABILITATION)	3 (REQUIRING MAJOR REPAIRS)	4 (REQUIRING ROUTINE MAINTENANCE)
7	Track structure	--	--	Cracks or damage to sleepers	Creep of track Isolated loss of fastenings
8	Approaches	See explanation under item "overall" above	Deep rain cuts, Settlement of approach embankment, damaged Wing/return wall	Small and isolated rain cuts, sign of leaning of Wing /return wall	Overgrowth of vegetation, spillage of ballast, disturbance of will mouth pitching
9	Culverts & boxes	Structural failure of the box structure Large sag of any element that has major impact on track geometry	Continuous sagging of part of the culvert which calls for frequent attention to track over the culvert	Cracks in concrete Bulging of base or side walls Erosion of soil at the discharge end, piping, leaning of wing/return wall	Growth of vegetation inside the culvert or obstruction to free flow Ingress of oil from joints and weepholes, disturbance of will mouth pitching/floor apron

PROFORMA FOR INSPECTION REPORT OF ROBS

Sr. No.	Details of Inspection	Observations
1.	General:	:
1.1	Name of Bridge:	:
1.2	No of the bridge	:
1.3	Name, Highway No.	:
1.4	Details of Spans a) Number of Spans b) Clear Spans c) Effective Spans	
1.5	Overall Length of Girders	
1.6	Skew Angle, if any	
1.7	Name of CGM UNIT	:
2.	Type of Bridge	:
3.	Date of last inspection	:

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Sr. No.	Details of Inspection	Observations
4.	Approaches.	:
4.1	State the condition of pavement, surface (Report unevenness, settlement, cracking, pot-holes etc.)	:
4.2	Side Slopes (report pitched, or unpitched, conditions of pitching turffing, any signs of slope failure etc.)	:
4.3	Erosion of embankment by rain cuts or any other damage to embankment	:
4.4	Approach slab (report settlement cracks, movement etc.)	:
4.5	Approach geometrics (report whether it satisfies the standards as inforce.)	:
4.6	Any other specific observations made.	:
5.0	Foundations.	:
5.1	Report settlement, if any, report probable reasons for the same.	:
5.2	Report cracking, disintegration, decay, erosion, cavitation, etc. returns	:
5.3	Any other observation made.	:
6.0	Substructure. (piers, abutments and returns/wingwalls)	
6.1	Report efficiency of drainage of the backfill behind, abutments and returns. (check functioning of weep holes, evidence of moisture of abutment faces, etc.)	
6.2	Report cracking, disintegration, decay, settlement, "tilting etc.	
6.2.1	Abutments	
6.2.2	Piers	
6.2.3	Wing / Return Wall	
6.3	Any other observations made.	
7.0	Bearings.	
7.1	Elastomeric bearings	
7.1.1	Report condition of pads (oxidation, creep, flattening, bulging, splitting.)	
7.1.2	Report general cleanliness	
7.1.3	Seating w.r.t. bottom surface of girder	
7.1.4	Any other observations made.	
7.2	POT PTFE/ Spherical Bearings	
7.2.1	Movement and Rotation	

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Sr. No.	Details of Inspection	Observations
7.2.2	Corrosion	
7.2.3	Leakage of Elastomer	
7.2.4	Damage to guide bars	
7.2.5	Welds	
7.2.6	Dust seal	
7.2.7	Separation between SS/PTFE	
7.2.7	Loss of contract	
7.2.8	Cleanliness	
7.2.9	Locking pin removal	
8.0	Superstructure	
8.1	Reinforced concrete and prestressed concrete members.	
8.1.1	Spalling, disintegration or honeycombing etc.	
8.1.2	Cracking (pattern, location explain preferably by plotting on sketch)	
8.1.3	Corrosion of reinforcements, if any	
8.1.4	damages, if any, due to moving vehicles	
8.1.5	Condition of articulation (cracks, if any)	
8.1.6	Perceptible vibrations, if any.	
8.1.7	Excessive deflection or loss of camber, if any. (measure at same point each time).	
8.1.8	Cracks in end anchorage zone (for prestressed concrete members	
8.1.9	Soundness of concrete using light weight hammer.	:
8.1.10	Any other observation	
8.2	Steel / Composite Girders	:
8.2.1	Condition of paint	:
8.2.2	Corrosion, if any.	:
8.2.3	Perceptible vibrations, if any	:
8.2.4	Report on alignment of members	:
8.2.5	Condition of connection (looseness of rivets, bolts or worn out welds, report specially on connection of stringers to cross girders, cross girders to main girders, gussets or splices, etc.)	:
8.2.6	Camber and deflection measurement.	:
8.2.7	Report buckling, if any,	:

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Sr. No.	Details of Inspection	Observations
8.2.8	Report on the cleanliness of members and joints (check chocking of drainage holes wherever provided.)	:
8.2.9	Any other observation	
9.0	Expansion joints	:
9.1	Functioning (Report cracks in deck in the existing gap and approximate temperatures.)	:
9.2	Report condition of sealing material (for neoprene sealing material, check for splitting, oxidation, creep, flattening, bulging and for bitumen filler, check for hardening, cracking etc).	:
9.3	Report condition of the joint at fixing points.	:
9.4	Top sliding plate Report corrosion, damage to welds etc.)	:
9.5	Locking of joints (Report Locking of joints especially for finger type expansion joints).	:
9.6	Check for debris in open joints.	:
9.7	Report rattling, if any	:
9.8	Any other observations made.	:
10.0	Wearing Coat (concrete/bitumen);	:
10.1	Report surface condition (cracks, spalling, disintegration, pot-holes etc.)	:
10.2	Report evidence of wear (telltale rings, check for thickness as against actual thickness, report date of last inspection)	:
11.0	Drainage spouts	:
11.1	Check clogging, deterioration and damage if any	:
11.2	Check the projection of the spout on the underside (see whether structural members are being affected.)	:
11.3	Report adequacy thereof.	:
11.4	For sub-ways Report about adequacy of pumping arrangements, etc.	:
11.5	Any other observations made.	:
12.0	Handrails/Crash Barrier.	:
12.1	Report general condition (check expansion gaps, missing parts, if any, etc.)	:
12.2	Report damage due to collision, if any.	:
12.3	Check alignment (report any abruptness in profile)	:
13.0	Footpaths.	:

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Sr. No.	Details of Inspection	Observations
13.1	Report general condition (damage due to mounting of vehicles).	:
13.2	Report missing footpath slab. if any.	:
13.3	Any other observations made.	:
14.0	Utilities if any.	:
14.1	Report leakage of water and sewage pipes	:
14.2	Report any damage by telephone and electric cables.	:
14.3	Report condition of lighting facilities.	:
14.4	Report damages due to any other utilities.	:
15.0	Protective Screens	
15.1	Report condition and whether secured properly	
16.0	Bridge number Plates.	:
16.1	Report condition of painting on number plates and nameplate and date of last painting	:
17.0	Maintenance and improvement recommendations.	:

Certificate of the Head of inspection team.

“It is certified that our inspection team has carried out detailed inspection of No. of ROBs and No. of RFOs under my supervision. The observations are written against each item. The Structures is considered in good health and safe for running of traffic.”

Name and Signature of Inspecting Engineer

PROFORMA FOR RFOs

(A) GENEAL DETAILS

1.	Type of Bridge	
2.	Details of Spans d) Number of Spans e) Clear Spans f) Effective Spans	

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3.	Overall Length of Girders			
4.	Skew Angle, if any			
5.	Gradient on bridge, if any			
6.	Curve on bridge, if any			
7.	Super elevation on bridge a) In rail b) In bed block			
8.	a) Details of Track b) Eccentricity of track w.r.rt. girders i. End of girder ii. Centre of Girder			
9.	Details of Bearings along with Drawings			
10.	Details of Bed Block			
11.	Details of Seismic Restraint Arrangement, if any			
12.	Details of corrosion Protection Measures taken, if any i. Details of Reinforcement Steel Coating if any ii. Details of Structural Steel coating if any iii. Details of Concrete Coating if any			
13.	Loading Standard of Design			
14.	Details of Drainage Arrangement of (Girder / Slab)			
16.	Details of jacking points of Girders			
17.	Girder Weight (per Span and total)			
18	Original Camber in mm for each type of Span			
	Camber	L/4	L/2	3L/4
	Section			
	Span Type-I			
	Span Type-II			
Span Type-III				
19	Details of a. Trolley refuges b. Safety refuges c. Foot Path d. Railing e. Sand Bins			
20	Permanent / Temporary Speed restriction, if any and reasons of imposition			
21	Additions and alteratios to original design, if any			

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22	Year of construction	
23	Expansion Joints/Arrangements	
24	Wearing Coat, type and thickness etc	
25	Additional details in case of ROB/RUB like KERB, Crash Barrier etc.	
26	History of Bridge Repairs etc.	

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(B) INSPECTION DETAILS

SPAN No.

1. General Inspection (i.e. Crack, Bulging, Spalling, Disintegration, Scaling, Rust Streak, Crushing, Dampness, Leaching, Exposure of Reinforcement etc.)

(Suitable Arrangement to facilitate proper inspection of all the parts of Girder shall be made/arranged)

(a) For PSC Girder

Date of Inspection						
Item						
Deck						
Sides/Webs						
Bottom						
Ends/Anchorage Zones						
Anchorage Zones of Cross Prestressing if any						
Inside/Openings if any						
Diaphragms/Cross Girders						
Lifting arrangements						
Bearings						
Seismic Restrainers						

(b) For Composite Girder

Date of Inspection			
Item			
Deck Slab	Sign of stagnation of water on Deck Slab, if any		
	Details of Crack, Concrete disintegration, crushing, spalling, exposure of reinforcement etc with sketch, if any		
Condition of Steel components	Details of Distortion in Steel members with sketch, if any		
	Details of Cracks in Steel members with sketch, if any		
	Details of Corrosion in Steel members with sketch, if any		
	Condition of Weld/Bolts/Rivets in Steel Part		

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Junction of Steel part	Any sign of separation of Deck Slab with Steel Girder			
With Deck Slab	Details of separation of Deck Slab from Steel Girder with sketch, if any			

2. Deflection/Camber Readings (Applicable in case of PSC Girders)

Section \ Item	L/4	L/2	3L/4
Date			
Measured Camber in mm			
Temperature			

NOTE : Camber to be measured at the Centre of Girder (L/2) only. However, if the length of girder is more than 20 m, camber to be measured at 3 locations.

3. Condition of Expansion Joints & Expansion

Gaps Pier No. -----

Date of Inspection \ Item						
i. Cracks if any						
ii. Bulging of Polymers if any						
iii. Whether Gap is free and clear of Dust etc.						
iv. Any other item as prescribed by Manufacturer						

4. Condition of Bearing with Date of Cleaning and Defects, if any

Pier/Abutment No. -----Bearing No. -----

--

Date of Inspection \ Item						
i. Condition of Stoppers						
ii. Flattening of Elastomers						

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iii. Separation of Layers of Elastomer.						
iv. Splitting of layers of Elastomer						
v. Tearing of Layers of Elastomer						
vi. Bulging of Elastomer						
vii. Tilt in Elastomeric Bearing						
viii. Height of Elastomeric Bearing						
ix. Any Corner Lifting						
x. Condition of Holding Down Bolts						
xi. Condition of Seals in POT PTFE						
xii. Bulging out of Elastomer from POT PTFE						
xiii. Minimum gap between upper & lower parts of POT PTFE to be not less than 5 mm						
xiv. Whether Entirely supported on Bed Block						
xv. Cracks in any component of POT-PTFE						
xvi. Bending of any Component of POT PTFE						
xvii. Longitudinal Displacement w.r.t. mean position						
viii. Transverse Displacement w.r.t mean position						

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xix. Rotation in Longitudinal Direction						
xx. Rotation in Transvers Direction						

5. Condition of Bed Block and Defects if any

Pier/abutment No. ----- Bearing No. -----

Date of Inspection Item						
i. Whether surrounding of Bed Block is clean.						
ii. Cracks in Bed Block if any						
iii. Whether Bed Block is shaken.						

6. Condition of Surface Protection

Date of Inspection Item						
i. Year of painting of Steel.						
ii. Type of paint of steel						
iii. Defects like fading /discoloration/Scaling etc in Steel Painting if any						
iv. Year of Coating of Concrete						
v. Type of Coating of Concrete						
vi. Defects like fading/discoloration/Scaling etc in Concrete Coating if any						

7. Condition of Drainage Arrangements & Defects if any

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Date of Inspection						
Item						
Whether Drainage is Clear or Chocked						

8. Condition of Seismic Restrainers if any

Date of Inspection						
Item						
Any Cracks, Spalling etc in Seismic Restrainers						

9. Condition of ladders, railings, inspection arrangements etc.

Date of Inspection						
Item						
Any Cracks, Spalling etc in Seismic Restrainers						

10. Condition of Cracks & Tell tales if any

Date of Inspection						
Item						
i. Location						
ii. Crack Pattern (Sketch to be attached)						
iii. Crack Width						
iv. Crack Length						
v. Crack Depth etc						
vi. Whether Cracks require Grouting						
vii. Condition of previous repairs if any						

11. Gap between Girders

Date of Inspection						
Item						
i. Gap between Girders						

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ii. Gap at End of Girders						
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12. Certificate of the Head of inspection team.

“It is certified that our inspection team has carried out detailed inspection of No. of ROBs and No. of RFOs under my supervision. The observations are written against each item. The Structures is considered in good health and safe for running of traffic.”

Name and Signature of Inspecting Engineer

13. FINAL INSPECTION CERTIFICATE: Final inspection certificate shall be issued by the authorized technical Head of the consulting company in following format

FORMAT:

“It is certified that our inspection team headed byhas carried out detailed inspection of No. of ROBs and No. of RFOs. The Structures are considered in good health and safe for running of traffic. The inspection report shall be valid for one year”

Signature of the Authorized Technical Head

SUGGESTED STANDARD TOOLS FOR ROUTINE INSPECTION

1. Clip boards, chalk, markers, clamps etc.
2. Pocket tapes, folding rules, tapes (10 m to 50 m)
3. Feeler gauges, callipers
4. Straight edge, plumb bob, protector, spirit level
5. Thermometers, inspection mirror, binoculars, magnifying glass.
6. Camera, Flash light
7. Pocket knife, wire brush
8. Chippinghammer
9. Thin steel rod for use as probe (8 to 20 mm diameter)
10. Crack meter
11. Scrapper and emery paper, Plastic Jars and bags (for samples)

Note:- The above T&Ps to be utilised are indicative, agency have to arrange required all tools, plants & equipment for Detailed Inspection shall be arranged by the Agency himself. Payment for the same shall not be entertained.

PART - III

CHAPTER - I

PRECAUTIONS WHILE WORKING IN CLOSE PROXIMITY OF EXISTING INDIAN RAILWAY OR DFCCIL TRACK

PART-III

CHAPTER - I

PRECAUTIONS WHILE WORKING IN CLOSE PROXIMITY OF EXISTING INDIAN RAILWAY OR DFCCIL TRACK

3.1 PRECAUTIONS WHILE WORKING IN CLOSE PROXIMITY OF EXISTING INDIAN RAILWAY OR DFCCIL TRACK

3.1.1 General

Any construction activity involving the existing embankment/formation/running track of the Indian Railways or DFCCIL shall be carried out only with the prior specific authorization of the Engineer.

3.1.2 Works being executed outside running lines are further divided into following 3 sub-groups depending upon their distance from the IR tracks /DFCCIL Running Tracks

- a) Works being done within 3.5 meters from centre of track.
- b) Works being done between 3.5 meters and 6 meters from centre of track.
- c) Works being done beyond 6 meters from centre of track.

If a work site is located far away from the existing track but the vehicles in connection with the work are required to ply within the distance from centre of track as mentioned above, it will be constructed that the work is being executed under above classification.

3.1.2.1 Works being done within 3.5 meters from centre of track

All works planned within 3.5 meters from centre of running line or which involve working of machineries and vehicles within this zone, are to be done essentially under block protection and necessary safety precautions for protection of track as per para 806 and 807 of IRPWM be taken. This includes even occasional plying of vehicles/machineries for short durations.

3.1.2.2 Works being done between 3.5 meters and 6 meters from centre of track.

Following precautions be taken when works are required to be done between 3.5 meters to 6 meters from track centre or machines/vehicles are required to work/ply within this zone:

- 3.1.2.2.1 Before start of work demarcation should be done parallel to running track at a distance of 3.5 meters from centre of track in advance, as per sketch B, by 150 mm wide white line of lime. Any work or movement of machinery infringing this line will need block protection. Rail barricading should be put up at such locations, as per sketch C, to ensure that even by carelessness or oversight, vehicles do not infringe fixed dimensions. Barricading design shall be approved by the Engineer.
- 3.1.2.2.2 In case vehicles have to ply or machineries have to work within this zone, DFCCIL's and contractor's supervisors be positioned as shown in sketch D except for the following:
 - 3.1.2.2.2.1 Instead of a DFCCIL supervisor it would be a responsible and trained staff of the Contractor
 - 3.1.2.2.2.2 Additional trained staff of the Contractor shall be posted where turning of vehicles is required during working e.g. earth work bridge work, ballasting etc. Location for reversing vehicles should

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be nominated and it should be selected in such a way that there is no danger to running trains at such location. Such trained staff of the Contractor should be available with hand flags so that vehicles do not come closer to track by 3.5 meters. Wherever vehicles have to take turn, it should be done in such a way that the driver is invariably facing the running track at all times.

- 3.1.2.2.3 Look out men should be posted along the track at a distance of 800 meters from location of work with red flag and to whistle in face of road vehicles and approaching trains. Look out men shall also be suitably trained staff of Contractor as mentioned in para 3.5.2.2 (ii) above.
- 3.1.2.2.4 In addition to look out men, caution order needs to be issued to trains and speed restrictions imposed wherever considered necessary through Employer.
- 3.1.2.2.5 Arrangements should be made to protect the track in case of emergency at work site.
- 3.1.2.2.6 All temporary arrangements required during execution should be done in a manner that moving dimension is not fringed.
- 3.1.2.2.7 Individual vehicle/machinery shall not be left unattended at site of work. If it is unavoidable and essential to stable it near running track, it shall be properly secured and manned even during non-working hours with all arrangements to protect the track from infringement.
- 3.1.2.2.8 Any material unloaded or shifted along the track should be kept clear of moving dimensions and stacked at a specified distance from running track.
- 3.1.2.2.9 Movement of vehicle/working of machineries should be prohibited at night. However, in case of emergency when night working unavoidable, adequate lighting shall be provided with all protection measured as mentioned above in full force. All night working near IR track shall require Engineer's prior approval.
- 3.1.2.2.10 The work site should be suitably demarcated to keep public and passengers away. Necessary signages, boards, such as "work in progress" etc should be provided at appropriate location to warn public/passengers.
- 3.1.2.2.11 Contractor's drivers/operators handling vehicles/machineries shall be issued a fitness certificate by the safety officer of the Contractor after educating them about safety norms and after taking assurance in writing for working within vicinity of railway's track.
- 3.1.2.2.12 While working on cuttings with machineries or when there is movement of vehicles above cutting, if there is possibility of any of the following circumstances, work has to be done under block protection:
 - (a) Any possibility exists for machinery/vehicle after toppling/due to loss of control come over track of infringe it.
 - (b) Chance of machineries/vehicles to come within 3.5 meters from track centre though working beyond it.

3.1.2.3 Works being beyond 6 meters from centre of IR/DFC track.

No precautions are needed except in cuttings or where the work can affect train running in anyway.

3.1.3 Procedure to be followed for cutting of existing IR formation

Locations where it is necessary to cut the existing IR formation for the construction of the construction of the DFC formation are classified into the following two categories:

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3.1.3.1 Where the distance between the centre line of existing IR track and the proposed DFC track is less than 8 m

3.1.3.2 Where the distance between the centre line of existing IR track and the proposed DFC track is greater than or equal to 8 m

3.1.4 Distance between centerlines of IR DFC track is less than 8 m.

3.1.4.1.1 Such a situation may arise while working in existing IR yards. In such cases, if it is agreed with IR to suspend the nearest IR line for the traffic, the existing IR formation can be cut vertically at a distance of 3.8 m from the centre line of the proposed DFC track for the depth required to provide the formation layers (blanket and prepared sub grade) of the DFC track as per specifications. In case it is not agreed to suspend the traffic on nearest IR line, detailed methodology for the work will be submitted by contractor to the Engineer for the approval and work will be executed accordingly following all safety precautions.

3.1.4.1.2 Due care and precautions shall be taken to avoid any slippage of the cut. In case of any slippage, damage or disturbance of the IR track and formation, the Contractor shall rectify and restore the same to its original configuration at his own cost to the satisfaction of the Engineer.

3.1.4.1.3 The suspension of the IR line will not be more than two weeks and this portion of the earthwork shall be completed within this period.

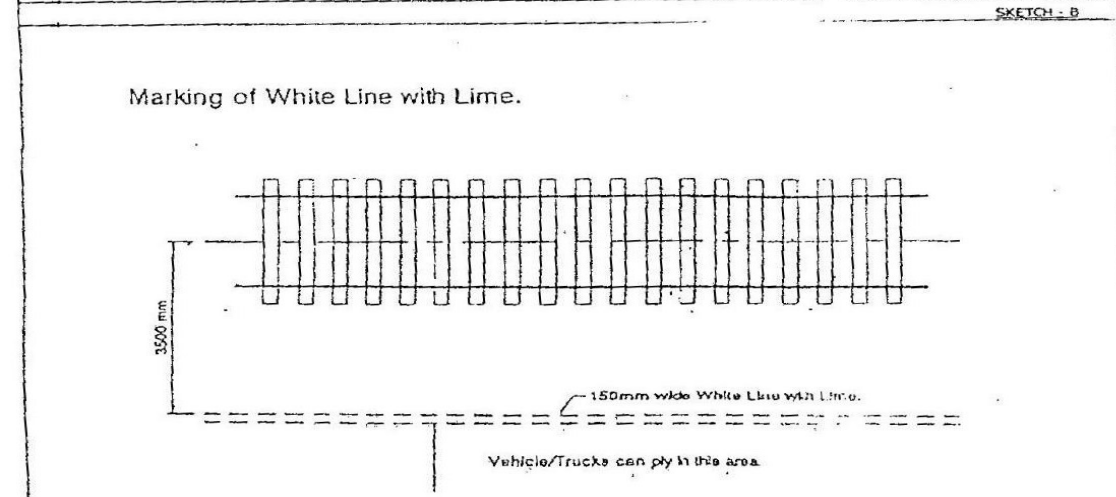
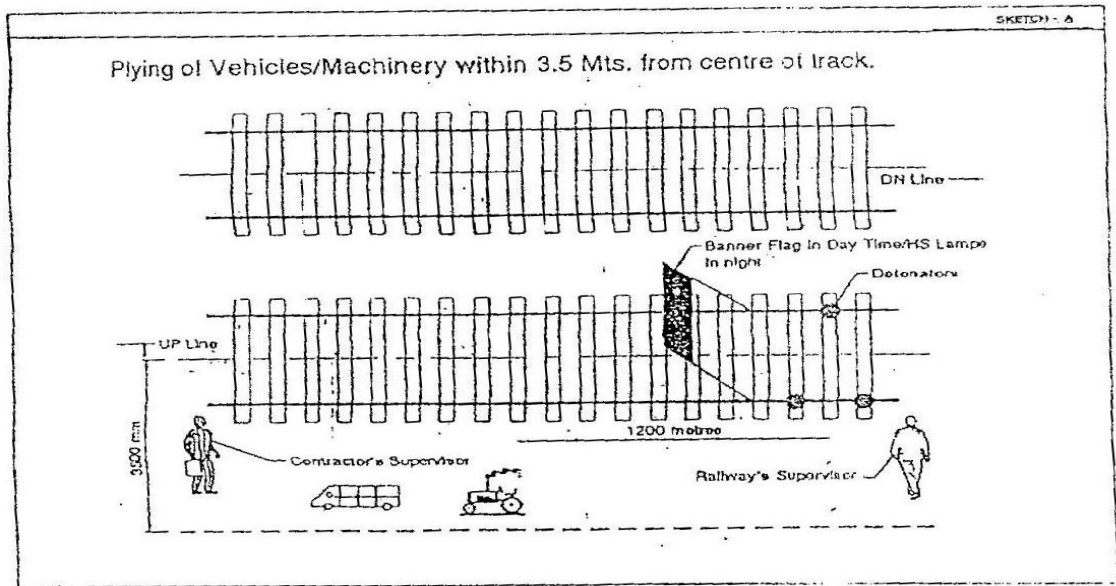
3.1.4.1.4 This work shall not be carried out during monsoon, during rainy days or when the IR formation is in a saturated condition.

3.1.5 Distance between centerlines of IR and DFC track is greater than or equal to 8 m.

a. While constructing the bank by the side IR running track, benching of existing slope shall be done, before new earthwork is taken up, to provide proper bonding between old and new earthworks, It should be ensured that there is no humus material left on the benched slope. Care need to be taken to avoid entry of rain water into the formation from this weak junction to avoid development of weakness in formation, slope failure, maintenance problems due to uneven settlement.

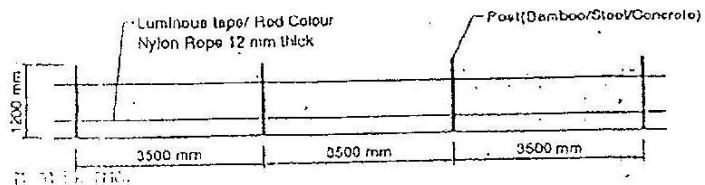
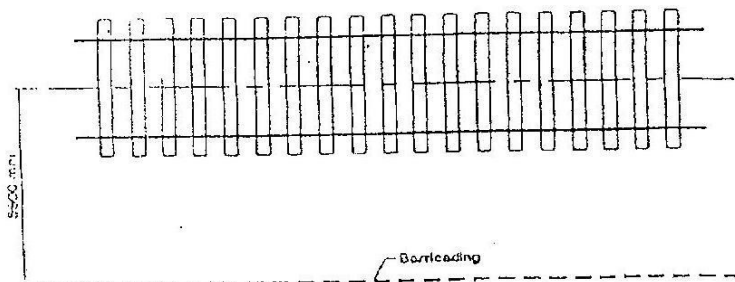
b. Starting from the toe, benching at every 30 cm height shall be done on the sloped surface of existing IR bank as in sketch below, so as to provide proper amalgamation between old and new earthwork.

SAFETY/PROTECTION ARRANGEMENT SKETCHES



SKETCH-C

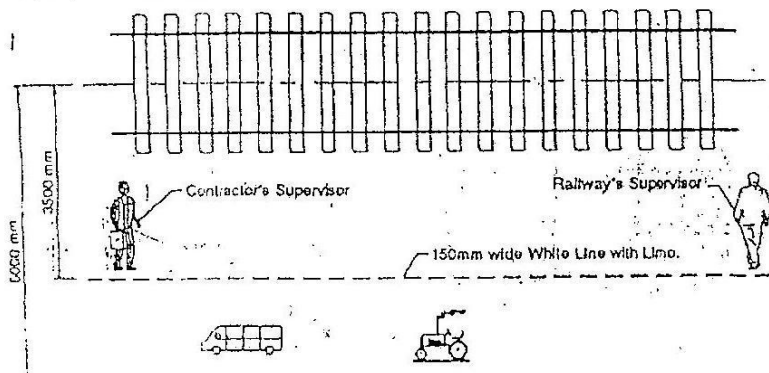
Provision of Barricading.



Elevation of Barricading

SKETCH-D

Plying of Vehicles/Machinery between 3.5 Mts. to 6.0 Mts. from centre of track.



**PART-III
CHAPTER - II
CODES & SPECIFICATIONS TO BE FOLLOWED**

3.2 CODES & SPECIFICATIONS TO BE FOLLOWED

3.2.1 List, though not exhaustive, of Codes / Specification with up to date corrections slip to be followed is as under:

3.2.2 Earthworks, Blanket & Ballast

- a) Ministry of Railways Comprehensive Guidelines and Specifications for Railway Formation, Specification No. RDSO/2020/GE:IRS-0004.
- b) Concept and Design of Reinforced Earth Structures Report No. GE: R 73 June – 2005
- c) IRS-GE-1, Specifications for Track Ballast

3.2.3 Civil Structures

- a) IR 25T Loading Standards.
- b) IR Bridge Rules.
- c) IR Code of Practice for the Design of Substructures and Foundation of Bridge (Bridge Substructure and Foundation Code).
- d) BS 5400 for Bearings of Bridges
- e) DFC Schedule of Dimensions.
- f) Indian Railway Schedule of Dimensions (SOD)
- g) Indian Railway Works Manual,
- h) Indian Railway Bridge Manual
- i) CPWD Delhi Schedule of Rates (Vol.-1) & (Vol.-2), 2021 for Building, Road & Horticulture Works.
- j) CPWD Specifications (Vol.-1) & (Vol.-2), 2019.

3.2.4 Track Structure

- a) DFC Schedule of Dimensions.
- b) Indian Railway Schedule of Dimensions (SOD)
- c) UIC 774-3R- Track / Bridge Interaction.
- d) IRPWM 2020 with updated latest correction slip.

3.2.5 In case of any conflict between Technical Specification, Additional Technical Specification mentioned in Part-II and Part-III of Tender Document, Codes / Specifications mentioned above or otherwise or regarding correct applicability of relevant specification, the decision of Engineer shall be final and binding.

**PART-III
CHAPTER - III
PRIORITY OF DOCUMENTS**

3.3 PRIORITY OF DOCUMENTS

3.3.1 The several documents forming the contract are to be taken as mutually explanatory as one another. If any inconsistency or discrepancy is found in the documents, DFCCIL shall issue any necessary Clarification or instruction. For the purpose of interpretation the priority of documents shall be in accordance with the following sequence.

1. The Contract agreement
2. The Letter of Award/Acceptance
3. The Preamble & General Instructions to Tenderers
4. The Schedules
5. Special Conditions of Contract (SCC)
6. General Conditions of Contract (GCC)
7. Technical Specifications and Additional Technical Specifications as part of Special Conditions
8. Any other documents forming part of Contract

PART-III
Chapter-IV
ADDITIONAL TECHNICAL SPECIFICATION

1.1 GENERAL:

In these Special Conditions of Contract the following terms shall have the meaning hereby assigned to them except where the context otherwise requires:

"General Condition of Contract" shall mean General Conditions of Contract – as contained in this Tender/ Bid document vide Part I, chapter IV .

Western Railways Unified Standard Schedule of Rates' (WRUSSOR-2021) & Indian Railway Manual for Ultrasonic Testing of Rails and Weld (Revised 2022) with latest correction slip issued by RDSO

All other terms shall have the same meaning as assigned to them in the General Conditions of Contract and Standard Specifications.

Where there is any conflict in conditions/Specifications contained in various parts, order of precedence will be as given below-

- Any foot note given in by the WRUSSOR-2021 in the schedule of quantities and rates and Manual for Ultrasonic Testing of Rails and Weld (Revised 2022) with latest correction slip issued by RDSO.
- Description of item in the Schedule of Quantities and rates.
- Special Specifications.
- Additional Special Conditions/of Contract.
- Standard Specifications.
- Special Conditions of Contract.
- General Conditions of Contract.

Where there is any conflict in the description, Unit, rate etc. of items based of WRUSSOR-2021 as included in the "Schedule of items shall prevail for the respective items of tender.

In the event of conflict between special condition /Technical specification /other guidelines, (available in the tender), the decision of the DFCCIL administration is final and binding to the contractor. No claim in this regard shall be entertained.

Every endeavour has been made to avoid any error which can materially affect the basis of the Bid and it is understood that the Contractor has taken upon himself and provided for the risk of any error which may be subsequently and shall make no subsequent claim on account thereof.

1.2 Production of Test Certificates:

The contractor shall have to produce Test Certificates for any items of material procured by him for use in the work as may be called for by the Engineer or his representative to establish that the materials conform to the specification for the works. The Contractor shall produce Test Certificates issued by an authority acceptable to the Engineer in regard to the relevant

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properties of high tensile steel wires, reinforcement steel or structural steel (as supplied and used by the Contractor) including the country name of manufacturer) .

1.3. Payment of Royalty Charges:

All taxes, royalty charges, etc. of whatever nature in connection with the work including extraction and supply of rubble stone/stone ballast/sand/Moorum/earth or any other material used on the work shall have to be borne by the Contractor. The Contractor will be required to obtain a royalty clearance certificate from the concerned Revenue Authorities/Collector and produce the same to the Engineer when asked.

1.4. Royalties And Patent Rights:

The Contractor shall defray the cost of all royalties, fees and other payments in respect of patents, patent rights and licenses which may be payable to patentee, licensee or other person or corporation and shall obtain all necessary licenses. The contractor shall indemnify, the Railway or any agent, servant or employee of the Railway against any action, claim or proceedings relating to infringement use of any patent or design any alleged patent or design rights and shall pay any royalties or other charges which may be payable in respect of any articles or materials or part thereof included in the contract. In the event of any claim being made or action being brought against the Railway /DFCCIL or employee of the Railway/DFCCIL in respect of any such matters , as aforesaid, The contractor shall indemnify notified thereof. Provided that such indemnify shall not apply when such infringement has taken place in complying with the specific direction issued by the Railway but the contractor shall pay any royalties or other charges payable in respect of any such use.

1.5. Income Tax

Income Tax as per rates applicable/amended under the Income Tax Act of work shall be deducted at source unless the contractor is exempted by Income Tax Authorities.

1.6 Cutting/Up Rooting Of Trees:

No extra rate shall be paid for cutting or up-rooting trees but the contractor would be authorised to take away the tree observing the forest laws of the land.

1.7 Observance of Bonded Labour System (Abolition Ordinance Act, 1975):

The “Bonded Labour System (Abolition Ordinance, 1975)” would apply to the present contract. The contractors shall duly observe the provisions thereof.

2.1. Precautions While Working In The Vicinity Of Track:

2.1.1 The contractor shall not commence any work in the vicinity of Railway track without presence of authorised DFCCIL official/ concerned Railway supervisor or his representative and contractor’s supervisor at site.

2.1.2 The look out and whistle caution orders shall be got issued to the trains and speed restrictions where considered necessary shall got imposed, from Railway by DFCCIL. In this regard the contractor shall assist by deploying manpower, providing speed restriction and safety board’s etc. No extra payment shall be made to the contractor in this regard.

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2.1.3 The supervisors/Workmen should be counselled about safety measures. Supplementary site specific instructions, wherever considered necessary shall be issued by the Engineer/Engineer's representative. The methodology along with safety plan proposed to be adopted by the contractor for execution of the work shall be prepared by the contractor and to be submitted to the Engineer for necessary approval. The Engineer shall approve the Methodology for ensuring safety at Site. The Contractor shall co-operate the Engineer in obtaining approval of said safety method statement. No extra payment shall be made to the contractor in this regard.

2.1.4 The contractor shall keep an assurance register at each site which will have to be signed by Engineer/DFCCIL's authorised official/Engineer's Representative and the Contractor/ his authorised Representative for respective Site.

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

The road vehicles and drivers will ply only between sunrise and sunset. Nominated vehicles and drivers will be utilized for work in the presence of at least one guardman/flagman and one supervisor certified for such work.

The contractor shall provide the suitable barricading at distance not less than 3.5m from centre line of the adjoining track, as directed by Engineer/ Engineers representative according to approved safety plan and the Method statement. No extra payment shall be made to the contractor for such barricading. The vehicles shall ply 6m. Clear of track. Any movement/work at less than 6m and upto minimum 3.5 clear of track centre shall be done only in the presence of DFCCIL / Railway employee authorised by the Engineer-in-charge. No part of the road; vehicle will be allowed at less than 3.5m from track centre. Cost of such railway employee shall be borne by the railway.

The contractor shall remain fully responsible for ensuring safety & in case of any accident, shall bear cost of all damages to this equipment & men and also damages to railway and its passengers.

Semi-permanent fencing as approved by the DFCCIL/Railway Engineer should be provided by the contractor at his own cost along the running line at a distance of 3.5 metres from the centreline of the nearest track at work sites where vehicles/machineries are likely to ply close to the track. This fencing should remain in position till the vehicles/machinery are required to work adjacent to running line.

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Engineer-in-charge may impose any other condition necessary for a particular work or site. Suitable scaffolds should be provided for workmen for all works 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 labour 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 and the ladder shall be given an inclination not steeper than 1/4 to 1 (1/4 horizontal to one vertical).

2.1.6 Joint procedure for undertaking digging work in the vicinity of underground signalling, electrical and telecommunication cables.

1	Prior to commencement of the digging work in Railway boundary the contractor shall seek the identification of the underground cables and utilities from the Engineer. The Engineer shall arrange for the joint site inspection with the concerned officers/officials of the relevant departments to locate/identify the underground cables and utilities at site. The contractor through Engineer shall approach in writing to Sr.DSTE / DSTE or Sr.DEE/DEE of the section for permitting to undertake the work, after ensuring that the concerned executing agencies, including the contractor have fully understood the S&T and Electrical cable route plan shall permit the work in writing.
2	After getting the permission from S&T or Electrical Deptt. as the case may be, the relevant portion of the cable route plan shall be attached to the letter through which permission is issued to the contractor by Engineer for commencement of work.
3	Engineer/Engineer's representative shall ensure that the contractors have fully understood the cable route plan and the precautions have been taken by the contractor to prevent damage to the underground cables. The contractor shall be asked to study the cable plan and follow it meticulously to ensure that the safety of the cable is not endangered.
4	The Engineer/Engineer's representative shall pass on the information to the concerned SE (P. Way), SE (Works), SE (Sig), SE (Tele), SE (Elect) & Rail Tel official about the works being taken up by the contractors in their sections at least 3 days in advance of the day of the work.
5	On receiving the above information, SE (P. Way), SE (Works), SE (Sig), SE (Tele), SE (Elect) & Rail Tel official shall visit the site on or before the date of taking up the work and issue permission to the contractor to commence the work after checking that adequate precautions have been taken to avoid the damage to the cables. The permission shall be granted within 3 days of submission of such requests. The permission letter shall indicate the contact numbers of Test Room / Network Operations Centre of Rail Tel / TPC/ Elect. Control.
6	Where the nature of the work taken up is such that the OFC or other S&T cables or Electrical cables is to be shifted and relocated, notice of minimum one week shall be given so that the Division / Rail Tel / Construction can plan the works properly for shifting. Such shifting works shall, in addition, for security and

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	integrity of the cables, be supervised by S&T supervisors / Tail Tel supervisors / Electrical Supervisors.
7	The concerned SE(P. Way), SE(Works / SE(Sig) / SE (Tele) SE (Elect) or Rail Tel supervisors, supervising the work of the contractor shall ensure that the existing emergency sockets are not damaged in view of their importance in providing communication during accident / emergency.
8	In case of minor nature of works where shifting of cable is not required, in order to prevent damage to the cable, the Contractor shall take out the S&T or optical fibre cable or Electrical cable carefully from the trench and place it properly alongside at a safe location before starting the earthwork under the supervision of SE (Sig) or SE (Tele) or SE (Electrical). The cable shall be reburied soon after completion of excavation with proper care including placement of the brick over the cable by the concerned S&T supervisors or Electrical Supervisors. However, the work will be charged to the concerned engineering works.
9	In all the sections where major project are to be taken up / going on Rail Tel / S&T Deptt. shall deploy their official to take preventive / corrective action at site of work. The Engineer / Engineer's representative shall help contractor for co-ordination
10	Any damage caused to OFC/Quad cable or Electrical cable during execution of the work, due to negligence of the contractor or his manpower-resources deployed for execution of work necessary debit for corrective action as advised by Railway shall be raised on Contractor and recovery of such debit shall be made from his on account bill or any amount payable for the said work or any other work in DFCCIL.

3. Special condition for contractor's Vehicle plying near Railway track.

- 3.1 The contractor shall not allow any road vehicle belonging to him or his suppliers etc. to ply in railway land next to the running line. If for execution of certain works viz. earthwork for parallel railway line and supply of ballast for new or existing rail line gauge conversation etc. road vehicle are necessary to be used in railway land next to the Railway line, the contractor shall apply to the engineer-in-charge for permission giving the type and number of individual vehicles, names and license particulars of the drive, location, duration and timings for such work / movement. The engineer in charge or his authorized representative will personally counsel, examine and certify, the road vehicle drivers, contractor's flagmen and supervisor and will give written permission giving names of road vehicles drivers, contractor's flagmen and supervisor to be deployed on the work, location, period and timing of the work. This permission will be subject to the following obligatory conditions:
- 3.2 Road vehicles can ply along the track after suitable cordoning of track with minimum distance of 6 m from the centre of the nearest track. For plying of road vehicles during nig hours, adequate measures to be communicated in writing along with a site sketch to the contractor / contractor's representative and controlling engineers / supervisors in charge of the work including officers and the in charge of the section.
- 3.3 Nominated vehicles and drivers will be utilized for the work in the presence of at least one flagman and one supervisor certified for suck work.

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- 3.4 The vehicles shall ply 6m clear of track. Any movement / work at less than 6 m and up to minimum 3.5 m clear track centre shall be done only in the presence of railway employee authorized by the engineer-in-charge. No part of the road vehicle will be allowed at less than 3.5 m from track centre. Cost of such railway employee shall be born by the railway.
- 3.5 The contractor shall remain fully responsible for ensuring safety and in case of any accident, shall bear cost of all damages to this equipment and men and also damages to Railway and its passengers.
- 3.6 Engineer-in-charge may impose other condition necessary for a particular work or site.
- 3.7 The staff engaged by the contractor at site should be competent enough for the job. They should possess the certificate of competency certificate, necessary training will be arranged by the contractor at his cost by an expert to enable officer nominated by sectional Sr. DEN/ DEN/Dy CPM- DFCCIL in-charge to accord permission for the job. Without a suitable competency certificate, the contractor's supervisors shall not be allowed to carry out concreting and earthwork.

4. Issue of Identity Cards by Contractors:

- 4.1 The contractor is bound to issue identity card to each and every person employed by him and deployed for execution of contract work as per the prescribed format provided in the tender at his cost. Failure on part of the contractor to issue of identity cards to their employees will be treated as breach of contract conditions.

It is mandatory on part of every employee, deployed by the contractor to keep in his possession the identity card, issued by the contractor throughout the execution of the work. Failure to possess such identity card will be treated as unauthorized presence in the railway premises and such person shall be liable for prosecution as per law. It is mandatory for the contractor to submit the list of the employee issued with the identity cards and deployed for the particular contract, to Railway/DFCCIL Engineer at site before commencement of the work and also for any changes made during the execution of the work.

No claims whatsoever arising out of implementation of special conditions pertaining to issue of identity cards shall be admissible.

4.2 Site Lab :- --Deleted--

4.3 Disaster management

“All the available vehicles and equipment of the contractor can be drafted by the DFC/Railway Administration in case of accidents/natural calamities involving human lives. The payment for such drafting shall be made according to the rates as shall be fixed by the Engineer. However, if the contractor is not satisfied with the decision of the Engineer

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in this respect he may appeal to the Dy CPM/CGM-DFCCIL/ within 30 Days of getting the decision of the Engineer, supported by analysis of the rates claimed. The Dy CPM/CGM-DFCCIL/'s decision after hearing both the parties in the matter would be final and binding on the contractor and the Railway.”

- (5) 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.
- (6) Medical certificate of fitness for Labour:- It is agreed that the contractor shall not employ a person above 15 and below 19 years of age for the purpose of execution of work under this contract unless a medical certificate of fitness in the prescribed form (proforma at Form No. 15) 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 he 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 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.
- (7) 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 renewal if in his opinion the holder of it is, no longer 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.
- (8) 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 16-19 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 the person nominated by him in this regard, a notice requiring that such person shall be examined by a certifying surgeon and such person shall not, if the concerned official so directs, be employed or permitted to do any work under this contract unless he has been medically examined and certified that he has been granted a certificate of fitness or a fresh, as the case may be.

4.4 Submission of Photographs: --Deleted--

5. Special Conditions for working of Road Cranes: --Deleted--

6. FOREIGN EXCHANGE REQUIREMENTS:

Any demand of foreign exchange for importing of equipments and materials shall not be accepted.

7. EMERGENCY WORKS

In the event of any accident or failure occurring in the execution of work/ arising out of it

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which in the opinion of the Engineer requires immediate attention, the DFCCIL/Railway may bring its own workmen or other agency/agencies to execute or partly execute the necessary work or carry out repairs if the Engineer-in-charge considers that the contractor(s) is/are not in a position to do so in time without giving any notice and charge the cost thereof, to be determined by the Engineer-in-charge, to the contractor.

8. CUTTING/UP ROOTING OF TREES:

No extra rate shall be paid for cutting or up-rooting trees but the contractor would be authorised to take away the tree observing the forest laws of the land.

9. JURISDICTION OF COURTS:

If any dispute arises between the parties with respect to this contract, any application or suit shall be instituted only in the court within the local limits of jurisdiction, the CGM / Ahmedabad DFCCIL Office is situated and both the parties shall be bound by this clause.

EXTRA SAFETY PRECAUTIONS

10. SAFE METHODS:

The Contractor shall at all times, adopt such safe methods of working as will ensure safety of structures, equipment and labour. Safety rules that should be adhered to are given as guidelines in Annexure C. If at any time, the DFCCIL finds the safety arrangements inadequate or method of working unsafe, the Contractor shall take immediate corrective actions as directed by the Engineer's representative. Any directions in the matter shall in no way absolve the Contractor of his sole responsibility to adopt safe working methods. The Contractor is responsible for providing skilled personnel and adequate expert supervision so as to ensure complete safety.

It is the responsibility of the Contractor to ensure safe loading, transportation and unloading of materials and equipment etc. Any loss or damage caused to adjacent Railway/DFCCIL property will have to be made good by the contractor at his/their own cost, failing which recoveries shall be effected from the running bill of the contractor as per the Clause No. 46(1) of the General Conditions of Contract.

The liability arising out of accidents, if any, to persons will be met by the contractors and the Railway/DFCCIL will not be responsible for any damage or compensation thereof. The contractor shall follow the provisions laid down in Contract Labour Act, 1972.

The contractor shall be entirely responsible for ensuring safety of his labour, vehicles, plant or equipment while working along or near the track and highways and shall programme his working so as not to interfere with the movement of trains and road traffic. No extra payment shall be allowed to the contractor for all safety precautions to be observed during the execution of the work. The cost of all such precautions shall be deemed to be included in the rates for all items of the schedule.

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10.1	SAFE WORKING METHODS:
10.1.1	All or some of the works executed under this contract involve works on or alongside the Railway /DFCCIL track on which the railway/DFCCIL traffic is kept operative during or immediately after the completion of one or more phases of the contract work. In view of this position maintaining safe working conditions at the work site at all times for the safe passage of the train traffic is a primary over-riding condition required to be fulfilled by the contractor at all times.
10.1.2	For this purpose, it is understood and agreed to by the contractor that the work executed by him under this contract shall at all times fulfill all the safety conditions in force on the railway from time to time to operate the train traffic.
10.2	PROTECTION OF THE WORK SITE
10.2.1	On railway track where the train traffic will be operational during the execution of the contract work the protection of the works site as considered appropriate and adequate shall be arranged by the Engineer's Representative at the Railway's cost.
10.2.2	Contractor shall be responsible for providing appropriate and adequate system for warning the contractor's workmen about the train traffic on or in the vicinity of the site of work
10.2.3	The contractor shall remain fully responsible for ensuring safety & in case of any accident, shall bear cost of all damages to the equipment & men and also damages to railway & its passengers.

10.3 Scaffolding or staging more than 3.5 meters 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 meter high above the floor or platform or staging and extending along the entire length thereof with only such opening as may be necessary for the delivery of materials. Such scaffolding or staging shall be so fastened as to prevent it from swaying from the building or structure.

10.4 Working platform gangways and stairways should be so constructed that they should not sag unduly or unequally, and where the height of the platform or the gangway or the stairway is more than 3.5 meters above ground level or floor level, they should be closely boarded, should have adequate width and should be suitably fastened as described in the para above.

10.5 Safe means of access shall be provided to all working platform and other working places. Every ladder shall be securely fixed. No portable single ladder shall be over 10 metres in length while the width between side rails in swung ladder shall in no case be less than 300 mm for ladders upto and including 3.5 metres in length. For longer ladders this width should

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be increased by at least 20 mm for each additional metre of length. Uniform steps spacing shall not exceed 300 mm. Adequate precautions shall be taken to prevent danger from electrical equipments. No materials on any of the sites of work shall be so stacked or placed as to cause danger or inconvenience to any persons or the public. The contractor shall provide all necessary fencing and lights to protect the public from accident and shall be bound to bear the expenses of the defense. of every suit, action or other proceeding at Law that may be brought by any person for injury sustained owing to neglect of the above precautions and to pay any damages and cost which may be awarded in any suits, action or proceedings to any such persons or which may with the consent of the contractor be paid to compromise any claim by any such persons.

10.6 Demolition: --Deleted--

10.7 The contractor shall submit the methodology proposed to be adopted for execution of works for approval of the DFCCIL/Railway Engineer with a view to ensure safety of trains, passengers & workers and he shall also ensure the methods and arrangements are actually available at site before start of work and contractor’s supervisors and workers have clearly understood the safety aspects and requirements to be adopted / followed while executing the work.

10.8 The contractor shall maintain an assurance register at each site, which shall be got signed by both DFCCIL supervisor as well as contractor’s supervisor in token of their having understood the safety precautions to be observed at site.

10.9 FORM FOR ENGINEERING WORK PERMIT (EWP)

1. Name of the Railway/DFCCIL Supervisor
2. Location of work
3. Nature of work
4. Agency
5. Machineries deployed
6. Working hours
7. I have personally checked the arrangements of rope barricading, fencing at turning locations, posting of staff of Contractor, erection of display boards, training of staff, issue of permits to drivers and I am satisfied that it shall adhere to the standard safety precautions at site as reproduced in the enclosed Annexure ‘C’ and all relevant.

Executive/ DFCCIL

Remarks of APM/DFCCIL

Remarks of Dy. CPM/PM/DFCCIL

Based on the above certificate, I hereby permit the above work for a period of _____ days i.e. upto _____.

Dy. CPM/Engg/DFCCIL
Date:

Notes

1. A copy of this permit on issue shall be pasted on the site order book.
2. Each work location shall require separate EWP

10.10 ANNEXURE 'C'

Safety precautions: General

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

- i) The contractor shall not start any work without the presence of DFCCIL / Railway supervisor or his representative and contractors supervisor at site.
- ii) Where ever the road vehicles and/or machinery are required to work in the close vicinity of railway line, the work shall be so carried out that there is no infringement to the railway's schedule of dimensions. For this purpose the area where road vehicles and/or machinery are required to ply, shall be demarcated and acknowledged by the Contractor. Special care shall be taken for turning/reversal of road vehicles/machinery without infringing the running track. Barricading shall be provided wherever justified and feasible as per site conditions.
- iii) The look out and whistle caution orders shall be issued to the trains and speed restrictions imposed where considered necessary. Suitable flagmen/detonators shall be provided where necessary for protection of trains.
- iv) The supervisor/workmen should be counselled about safety measures. A competent certificate to the contractor's supervisor as per proforma annexed shall be issued by APM which will be valid only for the work for which it has been issued.
- v) The unloaded ballast/rails/sleepers/other P. Way materials after unloading along track should be kept clear off moving dimensions and stacked as per the specified heights and distance from the running track.
- vi) Supplementary site specific instructions, wherever considered necessary, shall be issued by the Engineer-in-charge.
- (vii) The Engineer-in-charge shall approve the methodology proposed to be adopted by the contractor, with a view to ensure safety of trains, passengers and workers and he shall also ensure that the methods and arrangements are actually available at site before start of the work and the contractor's supervisors and the workers have clearly understood the safety aspects and requirements to be adopted/followed while executing the work.

There shall be an assurance register kept at each site, which will have to be signed by

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both, i.e. DFCCIL Supervisor or his representative as well as the contractor's supervisor as a token of their having understood the safety precautions to be observed at site."

10.11 Supplementary Precautions for working at ROB/RUB site. :- -- Deleted--

11.0 Note :-

- a. **In the event of conflict between special condition/Technical specifications /other guidelines, (available in the tender) the decision of the DFCCIL administration is final and binding to the contractor. No claim in this regard shall be entertained.**
- b. **The Contractor and concerned staff/official of DFCCIL shall ensure that every Running bill & Final Bill shall be technically checked before making payment.**
- c. **Section wise test reports, registers etc. whereas required shall be maintained carefully and shall submit along with all Running / final bill for technical checking.**

12.0 PRE CONTRACT INTEGRITY PACT

- 12.1 The pact, entering into which would be a preliminary qualification for any bidder, essentially envisages an agreement between the prospective vendors / bidders and the DFCCIL, committing the persons/ officials on both sides not to resort to any corrupt practices in any aspect / stage of the contract.
- 12.2 Integrity pact shall be implemented in this contract, pre-bid pre contract agreement (Integrity Pact) shall be made within 30 days after issue of LOA. The Form-20 is attached in this documents and shall be made on stamp paper of appropriate cost and shall form part of contract agreement.

13.0 PENALTY –

(a) In the event of accident at the work site, the departmental enquiry will be held and in case it is established that derailment/accident has occurred on account of the contractor's negligence or the negligence of his men, damages at the following rates will be recovered from contractor: -

Accident involving use of accident Relief train = As per cost born by DFCCIL for ART + Rs. 50,000/- Nominal accident not involving use of accident relief train Rs. 50,000/- .

If in the event of repeated accident occurred on account of the contractor's negligence or the negligence of his men, the recovery will be imposed as per the discretion of official in charge of DFCCIL i.e. Dy.CPM /PM and amount will be recovered from contractor running bill/dues.

Contractor shall be bound for the same.

(b) Penalty for an amount of Rs. 500/- to Rs. 2,000/- depending on the nature of unsatisfactory service, will be deducted from the due amount as per desecration of Engineer in the following conditions:

- Any in-disciplined behavior by the staff.
- Discourteous behavior towards any officer or staff of DFCCIL.

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- Not carrying out the duties listed in the scope of work in a satisfactory manner.
- Damage or stealing of any asset or property of DFCCIL or officers and staff of DFCC

(c) Penalty for some of the breaches in services will be as follows: - S.N. Type of breaches
Amount of Penalty

1 Staff not in proper PPE Kit. Rs.100/- per staff per day

2 Staff turn up late (i) Not allowed, in case of patrolman

(ii) Rs. 100/- per staff per Hour (After one hour late staff will not be allow to work)

PART-IV

CHAPTER – I

MILESTONES AND TIME SCHEDULE

**PART-IV
CHAPTER - I
MILESTONES AND TIME SCHEDULE**

4.1 Time Schedule:

4.1.1 Time of start and completion:

The time allowed for execution of the works is 4 (Four) months from the date of issue of letter of acceptance from DFCCIL.

The contractor shall be expected to mobilize to the site of works and commence execution of the works within 10 (days) from issue of Acceptance Letter by DFCCIL.

The contractor shall be expected to complete the whole work ordered on the contractor as per instructions of DFCCIL within 4 (Four) months from the date of issue of Acceptance Letter by DFCCIL.

If the contractor commits defaults in commencing execution of the works as afore stated, DFCCIL shall without prejudice to any other right to remedy, be at liberty to forfeit fully the Earnest Money Deposit and performance guarantee of the contractor.

4.1.2 Progress of works:

The contractor shall submit a programme of work for Technical Inspection of the Bridge activity in the form of a Bar Chart of all the consistence activities. In case this bar chart requires to be modified, the DFCCIL and the contractor shall agree upon a time and progress chart. The chart shall be prepared in direct relation to the time stated as **4 (Four) months** for the completion of the works as the milestone targets specified below of these special conditions. It shall indicate the forecast of the dates of commencement and completion of various activities of the work and may be amended as necessary by agreements between the DFCCIL and the contractor within the limitation of **4 (Four) months** as overall completion period.

4.1.3 Achievement of milestone progress:

In order to ensure progress during the execution of the work the contractor will be expected to achieve the following milestone targets ahead of dates mentioned against each. Failure to achieve accomplished milestone targets within allocated timeframe, save for reason accepted as laid by the Engineer shall create and constitute the ground for failure on the part of contractor for maintaining progress of the work as per agreed programme.

Milestone Targets	Time allocated within which to achieve completion in total 4 (Four) month time
(a) Physical commencement of work	D + 7 days
(b) Mobilization of men, tools & plants , machinery and materials	D + 10 days

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(c) Carry out detailed technical inspection of Major Bridges, ROBs, RFOs, Important Bridges, Aquaducts etc. and non destructive testing etc.	D + 100 days
(d) Submission of detailed inspection report	D+ 120 days

Note: "D" is the date of issue of Letter of Acceptance by DFCCIL to the contactor.

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PART- IV
CHAPTER II
TENDER FORMS
(INCLUDING SCHEDULE OF PRICES)

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TENDER FORMS

FORM No.	SUBJECT
Form No. 1	Offer Letter
Form No. 2	Tenderer's Credentials
Form No. 2A	Technical Eligibility Criteria Details
Form No. 2B	Financial Eligibility Criteria Details
Form No. 2C	Applicant's Party Information Form
Form No. 3	Summary of Prices
Form No. 4	Schedule of Prices and Total Prices
Form No. 5	Contract Agreement
Form No. 6	Performance Guarantee Bond
Form No. 7	Standing indemnity bond for on account payment.
Form No. 8	ECS / NEFT / RTGS
Form No. 9	Draft MOU for Joint Venture Participation
Form No.10	Draft Agreement for JV
Form No.11	Pro-forma of Participation from each partner of JV
Form No.12	Power of Attorney for authorized signatory of JV Partners
Form No.13	Power of Attorney to lead partner of JV
Form No. 14	Performa for Time Extension
Form No. 15	Certificate of Fitness
Form No. 16	Performa of 7 days" Notice
Form No. 17	Performa of 48 Hours" Notice
Form No. 18	Performa of Termination Notice
Form No. 19	Format of Bank Guarantee for Mobilisation
Form No. 20	Format of Integrity Pact
Form No. 21	Anti-profiteering
Form No.22	Format for certificate to be submitted /uploaded by tenderer along with the tender documents
Form No. 22A	This certificate is to be given by attorney/authorized signatory/each member of Partnership firm/Joint Venture (JV) I Hindu Undivided Family (HUF) I Limited Liability Partnership (LLP) etc
Form No.23	Tender's Credential (BID Capacity)
Form No.23A	Statement of Works in Progress for Bid Capacity
Form No. 24	Final Supplementary Agreement
Form No. 25	Agreement towards Waiver under Section 12(5) and Section 31A (5) of Arbitration and Conciliation (Amendment) Act
Form No. 26	(Bid Security) Bank Guarantee Bond from any scheduled commercial bank of India
Form No. 27 A	Proforma Of 14 Days Notice For Offloading Of Part Of Contract Work
Form No. 27B	Notice For Part of Contract Work Offloaded

OFFER LETTER

Tender No.

Work of "PDetailed Technical Inspection of ROBs, RFOs, Aqueducts and Important and Major bridge girders under the jurisdiction of CGM/Ahmedabad/DFCCIL from New Palanpur to Sanand Station of DFC.

To,

Chief General Manager, DFCCIL, Ahmedabad

We, the undersigned, declare that:

- (a) We have examined and have no reservations to the Bidding Documents, including Addenda.
(b) We offer to execute the Works in conformity with the Bidding Documents;
(c) Our bid shall be valid for a period of 60 days from the date fixed for the bid submission deadline in accordance with the Bidding Documents, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
(d) We have not been blacklisted/banned in accordance with para.1.3.13 (iii) of Preamble and General Instructions to tenderers.
(e) We are neither Bankrupt/Insolvent nor in the process of winding-up nor there is a case pending before any Court on deadline of submission of the Bid in accordance with para. 1.3.13 (iii) of Preamble and General Instructions to tenderers.
(f) If our bid is accepted, we commit to obtain a Performance Guarantee in accordance with the Bidding Documents;
(g) If our bid is accepted, we commit to deploy key equipment and key personnel consistent with the requirements of the work.
(h) We understand that this bid, together with your written acceptance thereof included in your notification of award/Letter of Acceptance (LOA), shall constitute a binding contract between us, until a formal contract is prepared and executed; and
(i) All information, statements and description in this bid are in all respect true, correct and complete to the best of our knowledge and belief and we have not made any tampering or changes in the bidding documents on which the bid is being submitted and if any tampering or changes/incorrect information are detected at any stage, we understand the bid will invite summarily rejection and forfeiture of bid security, the contract will be liable to be terminated along with forfeiture of performance security, even if LOA has been issued.
(j) We understand that you are not bound to accept the lowest bid or any other bid that you may receive.

Name In the capacity of
..... Signed Duly
authorized to sign the Bid for and on behalf of
..... Date

TENDERER'S CREDENTIALS

S. No	Description
1.	For technical experience/competence, give details of similar completed works during the last Seven financial years (i.e. current Financial year and three previous Financial Years) in the Performa given in Form-2A
2.	For financial capacity and organizational resources, give details of contractual payments received for the last three financial years (i.e. current Financial year and three previous financial years) as per audited balance sheet certified by Chartered Accountant in the Performa given in Form-2B
3.	Give constitution of your firm. Attach certified copies of legal documents in support thereof. Form-2C

TECHNICAL ELIGIBILITY CRITERIA DETAILS

Details of the similar works completed (as per Para 1.3.13 (i) of Preamble and General Instruction to Tenders)

Similar Contract No.		
Contract Identification		
Award date		
Completion date		
Role in Contract	Prime Contractor	Member in JV
Total Contract Amount (Rs.)		
If member in a JV, Specify participation in total contract amount	[insert a percentage amount]	Total contract amount in Rs.
Total work done (Final Bill/Last Bill paid in case final bill under preparation)		
Amount of work executed having similar nature of work		
Employer's Name: Address: Telephone/Fax number E-Mail:		
Description of the similarity in accordance with Criteria 1.3.13 (i) (A)		

The Bidder shall attach Certified completion certificates issued by the client duly attested by Notary as per Eligibility Criteria of the tender documents.

Signature of
the Tenderer
with Seal

FINANCIAL ELIGIBILITY CRITERIA DETAILS

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

Name of Bidder/JV Partner

Details of contractual payments received during the last three financial years and current financial year

Annual Contractual Turnover Data for the Previous 3/4 Years (Contractual Payment only)			
Year	Amount Currency	Exchange Rate	Indian National Rupees Equivalent
Average Annual Contractual Turnover for last 3 years			

1. The average annual contractual turnover shall be calculated as an average of “total contractual payments” in the previous three financial years. 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.
2. The information supplied shall be substantiated by data in the audited balance sheets and profit and loss accounts for the relevant years in respect of the bidder or all members constituting the bidder.
3. Contents of this form should be certified by a Chartered Accountant duly supported by Audited Balance Sheet duly certified by the Chartered Accountant.

SEAL AND SIGNATURE OF THE BIDDER

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

(Signature of Chartered Accountant)

Name of CA: _____

Registration No: _____

(Seal)

APPLICANT'S PARTY INFORMATION FORM

Applicant name: <i>[insert full name]</i>
Applicant's Party name: <i>[insert full name of Applicant's Party]</i>
Applicant's Party country of registration: <i>[indicate country of registration]</i>
Applicant Party's year of constitution: <i>[indicate year of constitution]</i>
Applicant Party's legal address in country of constitution: <i>[insert street/ number/ town or city/ country]</i>
Applicant Party's authorized representative information Name: <i>[insert full name]</i> Address: <i>[insert street/ number/ town or city/ country]</i> Telephone/Fax numbers: <i>[insert telephone/fax numbers, including country and city codes]</i> E-mail address: <i>[indicate e-mail address]</i>
1. Attached are copies of original documents of <input type="checkbox"/> Articles of Incorporation (or equivalent documents of constitution or association), and/or registration documents of the legal entity named above. <input type="checkbox"/> In case of a Government-owned enterprise or institution, documents establishing legal and financial autonomy, operation in accordance with commercial law, and absence of dependent status. 2. Included are the organizational chart, a list of Board of Directors, and the beneficial ownership.

Signature of
the Tenderer
with Seal

SUMMARY OF PRICES

(Summary of Prices has been separately attached as per
SCHEDULE uploaded at IREPS site)

**SCHEDULE OF PRICES & TOTAL PRICES
Tender Schedule**

(Schedule of Prices & Total Prices has been separately attached as per SCHEDULE uploaded at IREPS site)

SAMPLE

AGREEMENT

CONTRACT AGREEMENT

THIS AGREEMENT (“Agreement”) is made at Ahmedabad on the ____ day of _____

BETWEEN

Dedicated Freight Corridor Corporation of India Limited, incorporated under the laws of India and having its principal place of business at, **Office of the Chief General Manager, Dedicated Freight Corridor Corporation of India Limited, OCC Building, ‘D’ Cabin Road, Sabarmati, Ahmedabad-380019, Gujarat, India** (hereinafter called „**the Employer**“), and _____, a company / corporation / JV incorporated under the laws of _____having its principal place of business at _____ (hereinafter called “**the Contractor**”).

WHEREAS in reference to a call for Tender for (Name of Work)_____

as per Tender paper _____ at Annexure “A” here to, the Contractor has submitted a Tender hereto and whereas the said Tender of the contractor has been accepted for (Name of Work)_____. As per copy of the Letter of Acceptance of Tender No _____ dated --/--/2024 complete with enclosure at the accepted rates and at an estimated contract value of Rs._____(Rupees _____ only). Now the agreement with witness to that in consideration of the premises and the payment to be made by the Employer to the Contractor provided for herein below the Contractor shall supply all equipment’s and materials and execute and perform all works for which the said Tender of the Contractor has been accepted, strictly according to the various provisions in Annexure “A” and “B” hereto and upon such supply, execution and performance to the satisfaction of the Purchaser, the Purchaser shall pay to the contractor at the several rates accepted as per the said Annexure “B” and in terms of the provisions therein.

IN WITNESS WHEREOF the parties here to have caused their respective Common Seals to be hereunto affixed/ (or have hereunto set their respective hands and seals) the day and year first above written.

For and on behalf of the Contractor

For and on behalf of the Employer

Signature of the authorized official

Signature of the authorized

Tender No. DFC_ADI_ENG_BRINSP17_PNUN

official Name of the official

Name of the official

Stamp/seal of the Contractor

Stamp/Seal of the Employer

SIGNED, SEALED AND DELIVERED

By the said

_____ Name

By the said

_____ Name

On behalf of the Contractor in the presence of :

Witness

Name

Address

On behalf of the Employer in the presence of:

Witness

Name

Address

Enclosures:-

1. Annexure "A" - Tender Papers No. _____
2. Annexure "B" - Letter of Acceptance of Tender No. _____ Dated _____
Along with Summary of Prices

SAMPLE

Name of the Bank _____

Managing Director/ DFCCIL Bank Guarantee Bond No. _

Acting through_____(Designation Dated and address of contract signing authority)

PERFORMANCE GUARANTEE BOND

In consideration of the Managing Director / DFCCIL acting through Chief General Manager/DFCCIL/Ahmedabad (Designation & Address of Contract Signing Authority), Dedicated Freight Corridor Corporation of India Limited hereinafter called "DFCCIL") having agreed under the terms and conditions of agreement/Contract Acceptance letter No. _____

dated _____ made between _____ (Designation & address of contract signing Authority) and

_____ (hereinafter called "the said contractor(s)" for the work_

_____ (hereinafter called "the said agreement") having agreed for submission of an irrevocable

Bank Guarantee Bond for Rs. _____ (Rs. _____ Only) as a performance security Guarantee Bond from the contractor(s) for compliance of his obligations in accordance with the terms & conditions in the said agreement.

1. We (indicate the name of the Bank) hereinafter referred to as the Bank, undertake to pay to the Government an amount not exceeding Rs. _____ (Rs. _____ Only) on demand by the Government.
2. We _____ (indicate the name of the bank, further agree that (and promise) to pay the amounts due and payable under this guarantee without any demur merely on a demand from the Government through the Chief General Manager/ DFCCIL/Ahmedabad or _____ (Designation & Address of contract signing authority) DFCCIL, stating that the amount claimed is due by way of loss or damage caused to or would be caused or suffered by the Government by reason of any breach by the said contractor of any of the terms or conditions contained in the said agreement or by reason of the contractor 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. _____ (Rs. _____ Only)
- 3 (a) We, _____ (indicate the name of Bank) further undertake to pay to the Government any money so demanded notwithstanding any dispute or dispute raised by the contractor (s) in any suit or proceeding pending before any court

Tender No. DFC_ADI_ENG_BRINSP17_PNUN

- or Tribunal relating to liability under this present being absolute and unequivocal.
- (b) The payment so made by us under this bond shall be valid discharge of our liability for payment there under and the contractor(s) shall have no claim against us for making such payment.
4. We, _____(indicate the name of bank) to 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 Government under or by virtue of the said agreement have been fully paid and its claims satisfied or discharged by _____ (Designation & Address of contract signing authority) on behalf of the Government, certify 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.
5. (a) Notwithstanding anything to the contrary contained herein the liability of the bank under this guarantee will remain in force and effect until such time as this guarantee is discharged in writing by the Government or until (date of validity/extended validity) whichever is earlier and no claim shall be valid under this guarantee unless notice in writing thereof is given by the Government within validity / extended period of validity of guarantee from the date aforesaid.
- (b) Provided always that we _____(indicate the name of the Bank) unconditionally undertakes to renew this guarantee to extend the period of guarantee form year to year before the expiry of the period or the extended period of the guarantee, as the case may be on being called upon to do so by the Government. If the guarantee is not renewed or the period extended on demand, we _____(indicate the name of the Bank) shall pay the Government the full amount guarantee on demand and without demur.
6. We, _____(indicate the name of Bank) further agree with the Government that the Government shall have the fullest liberty without our consent and without effecting in any manner out of obligations hereunder to vary any of the terms and conditions of the said contract from time to time or to postpone for any time or from time to time any to the powers exercisable by the Government against the said contractor (s) and to forbear or enforce any of the terms and conditions of 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 bearance act or omission on the part of the Government or any indulgence by the Government to the said contractor (s) or by any such matter or thing whatsoever which under the law relating to sureties for the said reservation would relive us from the liability.
7. This guarantee will not be discharged by any change in the constitution of the Bank or the Contractor (s).

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8. We, _____(indicate the name of the Bank) lastly undertake not to revoke this guarantee except with the previous consent of the Government in writing.
9. This guarantee shall be valid upto _____(Date of completion plus 60 days beyond that).Unless extended on demand by Government. Notwithstanding anything to the contrary contained herein before, our Liability under this guarantee is restricted to Rs. _____Only) unless a demand under this guarantee is Made on us in writing on or before _____we, shall be discharged from our liabilities under this guarantee thereafter.

Dated _____the day of _____For _____(Indicate the name of bank)

Signature of Bank Authorize official
(Name):
Designation:
Full Address.

Witness:

1. _____
2. _____

**SAMPLE
STANDING INDEMNITY BOND FOR “ON ACCOUNT” PAYMENTS**

(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 Managing Director/ DFCCIL acting in the premises through the Chief General Manager/ DFCCIL/Ahmedabad or his successor (hereinafter referred to as “The Employer”) all materials for which “On Account” payments have been made to us against the Contract for (_____) on the section _____ DFCCIL also referred to as Group/s _____ vide letter of Acceptance of Tender _____ dated _____ and material handed over to us by the employer 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 employer or as he may direct otherwise and shall indemnify the employer against any loss /damage or deterioration whatsoever in respect of the said material while in our possession and against disposal of surplus materials. The said materials shall at all times be open to inspection by any officer authorized by the Chief General Manager/DFCCIL/Ahmedabad in charge of Dedicated Freight Corridor Corporation of India Limited (Whose address will be intimated in due course).

Should any loss, damage or deterioration of materials occur or surplus material disposed off and refund becomes due, the Employer shall be entitled to recover from us the 85% of supply portion of Part IV, Chapter – II (Form - 4) to the Contract (as applicable) 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 _____ 2024

For and on behalf of

M/s _____ (Contractor)

Signature of witness

Name of witness in Block letter.

Address.

ECS / NEFT / RTGS MANDATE FORM

Date:- To,
Dy.CPM/PM/Finance
DFCCIL/Ahmedabad
Sub: ECS / NEFT / RTGS payments

We refer to the ECS / NEFT / RTGS set up by DFCCIL for remittance of our payments using RBI's NEFT / RTGS scheme, our payments may be made through the above scheme to our under noted account.

Name of Bank	
Name of City	
Bank Code No	
Name of Bank Branch	
Branch Code No	
Address of Bank Branch	
Telephone Number of Bank Branch	
Fax No of Bank Branch	
Name of customer / Tenderer as per account	
Account Number of Tenderer appearing on cheque	
Type of Account (S. B. / Current / Cash credit)	
IFSC code for NEFT	
IFSC code for RTGS	
9-Digit-code number of the bank and branch appearing on the MICR cheque issued by the bank.	
Details of Cancelled Cheque leaf	
Telephone no of tenderer	
Cell Phone Number of the tenderer to whom details with regard to the status of bill submitted to Accounts Office i.e. Co6 & Co7 & Cheque Purchase Orders	
Tenderer's E - mail ID	

Confirmed by Bank signature of tenderer with stamp and address
Enclose a copy of crossed cheque

**DRAFT MEMORANDUM OF UNDERSTANDING (MOU)
For JOINT VENTURE PARTICIPATION
BETWEEN
(IF APPLICABLE)**

M/s Having its registered office at (Hereinafter referred to as) acting as the Lead Partner of the first part,

and

M/shaving its registered office at (Hereinafter referred to as `.....) in the capacity of a Joint Partner of the other part.

and

M/shaving its registered office at (Hereinafter Referred to as `.....") in the capacity of a Joint Partner of the other part.

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

WHEREAS:

Dedicated Freight Corridor Corporation of India Limited (DFCCIL) [hereinafter referred to as "Client"] has invited bids for "[Insert name of work]....."

NOW, THEREFORE, THE PARTIES AGREE AS FOLLOWS:

1. The following documents shall be deemed to form and be read and construed as an integral part of this MOU.
 - (i) Notice for Bid, and
 - (ii) Bidding document
 - (iii) Any Addendum/Corrigendum issued by Dedicated Freight Corridor Corporation of India Limited
 - (iv) The bid submitted on our behalf jointly by the Lead Partner.

2. The `Parties" have studied the documents and have agreed to participate in submitting a `bid" jointly.

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

4. The `Parties" have resolved that the distribution of responsibilities and their proportionate share in the Joint Venture is as under:
 - (a) Lead Partner;

(i)

(ii)

(iii)

(b) Joint Venture Partner

(i)

(ii)

(iii)

[Similar details to be given for each partner]

5. JOINT AND SEVERAL RESPONSIBILITIES

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

6. ASSIGNMENT AND THIRD PARTIES

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

7. EXECUTIVE AUTHORITY

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

8. BID SECURITIES

Till the award of the work, JV firm/Lead Partner of JV firm shall furnish Bid Security to the Client on behalf of the joint venture which shall be legally binding on all the members of the Joint Venture.

9. BID SUBMISSION

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

10. INDEMNITY

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

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

12. DOCUMENTS & CONFIDENTIALITY

Each Party shall maintain in confidence and not use for any purpose related to the

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Project all commercial and technical information received or generated in the course of preparation and submission of the bid.

13. ARBITRATION

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

14. VALIDITY

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

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

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

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

17. NOTICES

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

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

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

M/s.....	M/s.....
.....
(Seal)	(Seal)

Witness

1..... (Name & Address)

2..... (Name & Address)

Notes: (1) In case of existing joint venture, the certified copy of JV Agreement may be furnished.

DRAFT FORMAT OF JOINT VENTURE AGREEMENT

To be executed on non-judicial stamp paper of appropriate value in accordance with relevant Stamp Act and to be registered with appropriate authority under Registration Act.

The JV agreement shall be structured generally as per contents list given below:

A. CONDITIONS AND TERMS OF JV AGREEMENT

1. Definitions and Interpretation
2. Joint Venture – Include Equity of members, transferability of shareholding of equity of a partner leaving during the subsistence of the contract.
3. Proposal Submission
4. Performance – To indicate scope of responsibility of each member
5. Language and Law
6. Exclusively
7. Executive Authority
8. Documents
9. Personnel
10. Assignment and Third Parties
11. Severability
12. Member in Default
13. Duration of the Agreement
14. Liability and sharing of risks
15. Insurance
16. Sharing of Promotion and Project Costs, Profits, Losses and Remuneration
17. Financial Administration and Accounting
18. Guarantees and Bonds
19. Arbitration
20. Notices
21. Sole Agreement and Variation

B. SCHEDULES

1. Project and Agreement Particulars
2. Financial Administration Services
3. Allocation of the obligations
4. Financial Policy and Remuneration

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

(To be executed on non-judicial stamp paper of appropriate value in accordance with relevant Stamp Act and to be registered with appropriate authority under Registration Act.)

No....

Dated

From:

.....
.....

To,
Chief General Manager,
Dedicated Freight Corridor Corporation of India
Limited, OCC Building, 'D' Cabin Road, Sabarmati,
Ahmedabad-380019, Gujarat.

Re: ..."[Insert name of work]....."

Ref: Your notice for Invitation for Bid (IFB) No.....

Dated

1. We wish to confirm that our company/firm has formed a Joint Venture with (i)..... & ii)..... For the purposes associated with IFB referred to above.

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

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

OR

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

2. "In this group we act as leader and, for the purposes of applying for Bid, represent the Joint Venture:
3. In the event of our JV being awarded the contract, we agree to be jointly with i) & ii)

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..... (names of other members of our JV) and severally liable to the Dedicated Freight Corridor Corporation of India Limited, its successors and assigns for all obligations, duties and responsibilities arising from or imposed by the contract subsequently entered into between Dedicated Freight Corridor Corporation of India Limited and our JV.

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

Yours faithfully,

(Signature)

(Name of Signatory).....

(Capacity of

Signatory).....

Company Seal

* Delete as applicable

Note: In case of existing joint venture, the certified copy of JV Agreement may be furnished.

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

POWER OF ATTORNEY*

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

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

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

Dated this the day of 2024.

(Signature of authorised Signatory)

Signature of Lead Partner

Signature of JV Partner(s)

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

Witness

Witness 1:

Name:

Address:

Occupation:

Witness 2:

Name:

Address:

Occupation:

**Notes:*

- i) To be executed by all the partners jointly, in case of a Joint Venture.

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

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

POWER OF ATTORNEY*

Whereas Dedicated Freight Corridor Corporation of India Limited has invited Bids for the Work of(Name of Work).....

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

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

NOW THIS POWER OF ATTORNEY WITNESSETH THAT:

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

**To be executed by all the members of the JV except the lead member.*

The mode of execution of the Power of Attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executants(s) and when it is so required the same should be under common seal affixed in accordance with the required procedure.

We hereby agree to ratify all acts, deeds and things lawfully done by lead member,

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

Dated this the Day of 2024

.....
(Signature)

..... (Name in Block letters of Executants) Seal of
Company

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

PROFORMA FOR TIME EXTENSION

No. _____

Dated:

Sub: (i) _____ (name of work).
(ii) Acceptance letter no. _____
(iii) Understanding/Agreement no. _____

Ref: _____ (Quote specific application of Contractor for extension to the date received) _____

Dear Sir,

1. The stipulated date for completion of the work mentioned above is _____. From the progress made so far and the present rate of progress, it is unlikely that the work will be completed by the above date (or "However, the work was not completed on this date").
2. Expecting that you may be able to complete the work, if some more time is given, the competent authority, although not bound to do so, hereby extends the time for completion from _____ to _____.
3. Please note that an amount equal to the liquidated damages for delay in the completion of the work after the expiry of _____ (give here the stipulated date for completion with/without any penalty fixed earlier) will be recovered from you as mentioned in Clause, 17-B of the Standard General Conditions of Contract for the extended period, notwithstanding the grant of this extension. You may proceed with the work accordingly.
4. The above extension of the completion date will also be subject to the further condition that no increase in rates on any account will be payable to you.
5. Please intimate within a week of the receipt of this letter your acceptance of the extension of the conditions stated above.
6. Please note that in the event of your declining to accept the extension on the above said conditions or in the event of your failure after accepting or acting up to this extension to complete the work by _____ (here mention the extended date), further action will be taken in terms of Clause 62 of the Standard General Conditions of Contract.

Yours faithfully

For and on behalf of the Employer
Name of the Official:-
Stamp/Seal of the Employer

CERTIFICATE OF FITNESS

1. (a) Serial Number _____
(b) Date _____
2. Name of person examined _____
3. Father's Name: son/daughter of _____,
Residing at _____
4. Sex _____
5. Residence: _____
6. Physical fitness
7. Identification marks _____
8. Date of birth, if available, and/or certified age _____

I certify that I have personally examined (name) _____ who is desirous of being employed in a factory or on a work requiring manual labour and that his/her age as nearly as can be ascertained from my examination, is _____ years.

I certify that he/she is fit for employment in a factory or on a work requiring manual labour as an adult/child.

9. Reasons for :
(a) Refusal to grant certificate, or _____
(b) Revoking the certificate _____

Signature or left hand

Thumb impression of the person examined.

Signature of Certifying Surgeon

Note: In case of physical disability, the exact details and cause of the physical disability should be clearly stated.

PROFORMA OF 7 DAYS NOTICE
DFCCIL
(Without Prejudice)

To
M/s _____

Dear Sir,

Contract Agreement No. _____
In connection with _____

1. In spite of repeated instructions to you by the subordinate offices as well as by this office in various letters of even no. _____, dated _____; you have failed to start work/show adequate progress and/or submit detailed program me for completing the work.
2. Your attention is invited to this office/Chief Engineer's office letter no. _ _____, 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 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
Employer Name of the
Official:- Stamp/Seal of the
Employer

PROFORMA OF 48 HRS. NOTICE
DFCCIL
(Without Prejudice)

To

M/s _____

Dear Sir,

Contract Agreement No. _____
In connection with _____

1. Seven days" notice under Clause 62 of 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 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 stand 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 encased and consequences which may please be noted.

Kindly acknowledge receipt.

Yours faithfully

For and on behalf of the Employer
Name of the Official:-
Stamp/Seal of the Employer

PROFORMA OF TERMINATION NOTICE
DFCCIL
(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 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 encased.

The Final measurements of work executed by you against the said contract will be taken/started on _____ at _____ hrs. at site. The measurement will be continued till \all the measurement are taken. You are advised to be present at site on the above-mentioned date and time to witness the measurements, otherwise measurements will be taken ex-parte and thereafter, variation (addendum & corrigendum) & final bill of work executed till date of termination based on ex-parte final measurements shall also be processed ex-parte.

Yours faithfully

For and on behalf of the Employer
Name of the Official:-
Stamp/Seal of the Employer

**SAMPLE
FORMAT OF BANK GUARANTEE FOR MOBILISATION ADVANCE**

(Clause 1.5.20, Part - I, Chapter - V)

Bank guarantee made on this Between (Hereinafter called “**the Bank**”) of the One Part and Dedicated Freight Corridor Corporation of India Limited. (Hereinafter called “**the Employer**”) of the other Part.

WHEREAS Dedicated Freight Corridor Corporation of India Limited has awarded the Contract no..... for “.....” (hereinafter called “**the Contractor**”), having its registered office at

AND WHEREAS vide Clause 1.5.20 of Part - I, Chapter V , Special Conditions of Contract, Mobilization Advance up to % (percent) of the original contract value of Rs..... Is payable to the contractor against Bank Guarantees, the contractor hereby applies for Mobilization Advance of ___% (___percent) amounting to Rs...../- (Rupees.....) of the Contract Price,

Now, we the undersigned, Bank of, being fully authorized to sign and to incur obligations for and on behalf of and in the name of Bank ofhereby declare that the said Bank will guarantee the Employer the full amount of Rs.-/- (Rupees.....) as stated above.

We, Bank of, do hereby unconditionally, irrevocably and without demur guarantee and undertake to pay the Employer immediately on demand any or all money payable by the contractor to the extent of Rs.-/(Rupees.....) without any demur, reservation, context, recourse or protest and/or without any reference to the contractor. Any such demand made by the Employer on the Bank shall be conclusive and binding notwithstanding any difference between the Employer and the contractor on any dispute pending before any court, Tribunal, Arbitrator or any other authority. We agree that the guarantee herein contained shall be irrevocable and shall continue to be enforceable till the Employer discharges this guarantee.

This guarantee is valid till

At any time during the period in which this guarantee still valid of the contractor fails to fulfil its obligation under the Contract, it is understood that the Bank will extend this guarantee under the same condition for the required time on demand by the Employer at the cost of the contractor.

The Guarantee hereinbefore contained shall not be affected by any change in the constitution of the Bank or of the contractor.

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The neglect or forbearance of the Employer in enforcement of payment of any money, the payment whereof is intended to be hereby secured or the giving of time by the Employer for the payment hereof shall in no way relieve the Bank of their liability under this Deed.

The expressions “the Employer”, “the Bank” and “the contractor” hereinbefore used shall include their respective successors and assigns.

Notwithstanding anything contained herein:

Our liability under this Bank Guarantee shall not exceed Rs...../-
(Rupees.....)

This bank Guarantee shall be valid up to.....

We are liable to pay the guaranteed amount or any part thereof under this Bank Guarantee only and only if you serve upon us a written claim or demand on or before(date of expiry of Guarantee).

In witness whereof we of the Bank have signed and sealed this Guarantee on the Day of Being herewith duly authorized.

For and on behalf of the Bank of.....

Signature of Authorized Bank Official

Name

Designation

Stamp/Seal of the bank

Signed, sealed and delivered for and on
Behalf of the bank by the above named

..... In the presence of

Witness 1

Signature

Name

Address

Witness 2

Signature

Name

Address

PRE CONTRACT INTEGRITY PACT

General

This pre-bid pre-contract Agreement (hereinafter called the Integrity Pact) is made on-----day of the month of----- 2024, between, on one hand, the DFCCIL acting through Shri ----- Designation of the officer, (hereinafter called the CLIENT, which expression shall mean and include, unless the context otherwise requires, his successors in office and assigns) of the First Part and M/s----- represented by Shri -----Chief Executive Officer (hereinafter called the "BIDDER/SELLER" which expression shall mean and include, unless the context otherwise requires, his successors and permitted assigns) of the Second part.

WHEREAS the CLIENT proposes to procure (Name of the Stores/Equipment/Item, Name of the Consultancy Service, Name of Works Contract, Name of Services) and the [A] is willing to Offer/has offered for stores or works.

WHEREAS the [A] is a private company/ public company/ Government undertaking/ partnership/ registered export agency, constituted in accordance with the relevant law in the matter and the CLIENT is a PSU performing its functions or behalf of the President of India/DFCCIL.

NOW, THEREFOR,

To avoid all forms of corruption by following a system that is fair, transparent and free from any influence/prejudiced dealings prior to, during and subsequent to the currency of the contract to be entered into with a view to:-

Enabling the CLIENT to obtain the desired said (Name of the Stores/Equipment/Item, Name of the Consultancy Service, Name of Works Contract, Name of Services) at a competitive price in conformity with the defined specifications by avoiding the high cost and the distortionary impact of corruption on public procurement, and

Enabling BIDDERS to abstain from bribing or indulging in any corrupt practice in order to secure [B] by providing assurance to them that their competitors will also abstain from bribing and other corrupt practices and the CLIENT will commit to prevent corruption, in any form, by its Officials by following transparent procedures.

The parties hereto hereby agree to enter into this Integrity Pact and agree as follows: Commitments of the CLIENT

- 1.1 The CLIENT undertakes that no official of the CLIENT, connected directly or indirectly with the [B], will demand, take a promise for or accept, directly or through intermediaries, any bribe, consideration, gift, reward, favour or any material or immaterial benefit or any other advantage from the [A] either for themselves or for any person, organization or third party related to the [B], in

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exchange for an advantage in the bidding process, bid evaluation, contracting or implementation process related to the [B].

- 1.2 The CLIENT will, during the pre-contract stage, treat all BIDDERS alike, and will provide to all BIDDERS the same information and will not provide any such information to any particular BIDDER which could afford an advantage to that particular [A] in comparison to other BIDDERS.
- 1.3 All the officials of the CLIENT will report to the appropriate Government office any attempted or completed breaches of the above commitments as well as any substantial suspicion of such a breach.
2. In case any such preceding misconduct on the part of such official(s) is reported by the [A] to the CLIENT with full, and verifiable facts and the same is prima facie found to be correct by the CLIENT, necessary disciplinary proceedings, or any other action as deemed fit, including criminal proceedings may be initiated by the CLIENT and such a person shall be debarred from further dealings related to the [B] process. In such a case while an enquiry is being conducted by the CLIENT the proceedings under the [B] would not be stalled.

Commitments of BIDDERS

3. The [A] commits itself to take all measures necessary to prevent corrupt practices, unfair means and illegal activities during any stage of its bid or during any pre-contract or post- contract stage) in order to secure the [B] contract or in furtherance to secure it and in particular commit itself to the following:-
 - 3.1 The [A] will not offer, directly or through intermediaries, any bribe, gift, consideration, reward, favour, any material or immaterial benefit or other advantage, commission fees, brokerage or inducement to any official of the CLIENT, connected directly or indirectly with the bidding process, or to any person, organization or third party related to the [B] in exchange for any advantage in the bidding, evaluation, contracting and implementation of the [B].
 - 3.2 The [A] further undertakes that it has not given, offered or promised to give, directly or indirectly any bribe, gift, consideration, reward, favour, any Material or immaterial benefit or other advantage, commission, fees, brokerage or inducement to any official of the CLIENT or otherwise in procuring the Contract or forbearing to do or having done any act in relation to the obtaining or execution of the [B] or any other [B] with the Government for showing or forbearing to show favour or disfavour to any

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person in relation to the [B] or any other [B] with the Government.

- 3.3 * [A] shall disclose the name and address of agents and representatives and Indian [A] shall disclose their foreign principals or associates.
- 3.4 * [A] shall disclose the payments to be made by them to agents/brokers or any other intermediary, in connection with this bid/contract.
- 3.5 The [A] further confirms and declares to the CLIENT that the [A] is the original manufacturer/ integrator/ authorized government sponsored export entity of the defense stores and has not engaged any individual or firm or company whether Indian or foreign to intercede, facilitate or in any way to recommend to the CLIENT or any of its functionaries, whether officially or unofficially to the award of the [B] to the [A] nor has any amount been paid, promised or intended to be paid to any such individual, firm or company in respect of any such intercession, facilitation or recommendation.
- 3.6 The [A] either while presenting the bid or during pre-contract negotiations or before signing the [B] shall disclose any payments he has made, is committed to or intends to make to officials of the CLIENT or their family members, agents, brokers or any other intermediaries in connection with the [B] and the details of services agreed upon for such payments.
- 3.7 The [A] will not collude with other parties interested in the [B] to impair the transparency, fairness and progress of the bidding process, bid evaluation, contracting and implementation of the [B].
- 3.8 The [A] will not accept any advantage in exchange for any corrupt practice, unfair means and illegal activities.
- 3.9 The [A] shall not use improperly, for purposes of competition or personal gain, or pass on to others, any information provided by the CLIENT as part of the business relationship, regarding plans, technical proposals and business details, including information contained in any electronic data carrier. The [A] also undertakes to exercise due and adequate care lest any such information is divulged.
- 3.10 The [A] commits to refrain from giving any complaint directly or through any other manner without supporting it with full and verifiable facts.
- 3.11 The [A] shall not instigate or cause to instigate any third person to commit

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any of the actions mentioned above.

- 3.12 If the, [A] or any employee of the [A] or any person acting on behalf of the [A], either directly or Indirectly, is a relative of any of the officers of the CLIENT, or alternatively, if any relative of an officer of the CLIENT has financial. Interest/stake in the Bidder"s firm, the same shall be disclosed by the [A] at the time of filling of tender.

The term „relative" for this purpose would be as defined in section 6 of the companies" act 1956.

- 3.13 The [A] shall not lend to or borrow any money from or enter into any monetary dealings or transactions, directly or indirectly, with any employee of the CLIENT.

4. Previous Transaction

- 4.1 The [A] declares that no previous transgression occurred in the last three years immediately before signing of this integrity Pact, with any other company in any country in respect of any corrupt practices envisaged hereunder or with any public sector enterprise in India or any Government department in India that could justify BIDDER"s from the tender process.

- 4.2 The [A] agrees that if it makes incorrect statement on this subject, [A] can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason.

5. Earnest Money (Security Deposit)

- 5.1 While submitting commercial bid, the [A] shall deposit an amount ___ (to be specified in RFP) as Earnest Money/Security Deposit, with the CLIENT through any of the following instruments:-

- i. Bank draft or a pay order in favour of _____.
- ii. A confirmed guarantee by an Indian nationalized bank, promising payment of the guaranteed sum to the CLIENT on demand within three working days without any demur whatsoever and without seeking any reasons whatsoever. The demand for payment by the CLIENT shall be treated as conclusive proof of payment.
- iii. Any other mode or through any other instrument (to be specified in the RFP).

- 5.2 The earnest money/Security deposit shall be valid up to a period of five

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years or the contractual obligations to the complete satisfaction of both the BIDDER and the CLIENT, including warranty period, whichever is later.

5.3 In case of the successful [A] a clause would also be incorporated in the article pertaining to performance Guarantee in the [B] that the provisions of sanctions for violation shall be applicable for forfeiture of performance bond in case of a decision by client to forfeit the same without assigning any reason for imposing sanction for violation of this pact.

5.4 No interest shall be payable by CLIENT to the [A] on earnest Money/Security Deposit for the period of its currency.

6. Sanctions for Violations

6.1 Any breach of the aforesaid provisions by the [A] or any one employed by it or acting on its behalf (whether with or without the knowledge of the [A]) shall entitle the CLIENT to take all or any one of the following actions, wherever required :-

- (i) To immediately call off the pre-contract negotiations without assigning any reason or giving any compensation to the [A]. However, the proceedings with the other BIDDER(s) would continue.
- (ii) The earnest money deposit (in pre-contract stage) and/or security Deposit/performance Bond (after the [B] is signed) shall stand forfeited fully and the CLIENT shall not be required to assign any reason therefore.
- (iii) To immediately cancel the [B], if already signed, without giving any compensation to the [A].
- (iv) To recover all sums already paid by the CLIENT, and in case of an Indian [A] with interest thereon at 2% higher than the prevailing prime lending rate of state bank of India, while in case of a [A] from the country other than India with interest thereon at 2% higher than the LIBOR. If any outstanding payment is due to [A] from the CLIENT in connection with any other [B], such outstanding payment could also be utilized to recover the aforesaid sum and interest.
- (v) To encash the advance bank guarantee and performance bond, if furnished by the [A], in order to recover the payments, already

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made by CLIENT, along with interest.

- (vi) To cancel all or any other contracts with the [A]. The [A] shall be liable to pay compensation for any loss or damage to the Client resulting from such cancellation/rescission and the client shall be entitled to deduct the amount so payable from the money(s) due to the [A].
 - (vii) To debar the [A] from participating in future bidding processes of the Government of India for a minimum period of five years, which may be further extended at the discretion of the CLIENT.
 - (viii) To recover all sums paid in violation of this pact by [A] to any middleman or agent or broker with a view a view to securing [B] the contract.
 - (ix) In cases where irrevocable letters of credit have been received in respect of any [B] signed by the client with the [A], The shall not be opened.
 - (x) Forfeiture of Performance Bond in case of a decision by the client to forfeit the same without assigning any reason for imposing sanction for violation of this pact.
- 6.2 The client will entitled to take all or any of the actions mentioned at para 6.1(i) to (x) of this pact also on the commission by the [A] or any one employed by it or acting on its behalf (whether with or without the knowledge of the [A], of an offence as defined in chapter IX of the Indian penal code, 1860 or prevention of Corruption Act, 1988 or any other statute enacted for prevention of corruption.
- 6.3 The decision of the CLIENT to the effect that a breach of the provisions of this pact has been committed by the [A] shall be final and conclusive on the [A]. However, the [A] can approach the Independent Monitor(s) appointed for the purposes of this Pact.
7. Fall Clause
- 7.1 The [A] undertakes that it has not supplied/is not supplying similar product/systems or subsystems at a price lower than that offered in the present bid in respect of any other Ministry/Department of the Government of India or PSU and if it is found at any stage that similar product/system or sub systems way supplied by [A] to any other Ministry/Department of the Government of India or a PSU at a lower

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price, then that very price, with due allowance for elapsed time, will be applicable to the present case and the difference in the cost would be refunded by the [A] to the CLIENT, if the [B] has already been concluded.

8. Independent Monitors

- 8.1 The CLIENT has appointed Independent Monitors (hereinafter referred to as Monitors) for this pact in consultant with the central vigilance commission (Names and addresses of the Monitors to be given)
- 8.2 The task of the Monitors shall be to review independently and objectively, whether and to what extent the parties comply with the obligations under this pact.
- 8.3 The monitors shall not be subject to instructions by the representatives of the parties and perform their functions neutrally and independently.
- 8.4 Both the parties accept that the Monitors have the right to access all the documents relating to the project/procurement, including minutes of meetings.
- 8.5 As soon as the Monitor notices, or has reason to believe, a violation of this Pact, he will so inform the Authority designated by the CLIENT
- 8.6 The BIDDER(s) accepts that the Monitor has the right to access without restriction to all Project documentation of the CLIENT including that provided by the BIDOER. The [A] will also grant the Monitor, upon his request and demonstration of a valid Interest, unrestricted and unconditional access to his project documentation. The same is applicable to Subcontractors. The Monitor shall be und 'contractual obligation to treat the information and documents of the [A] with confidentiality.
- 8.7 The client will provide to the Monitor sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the contractual relations between the parties. The parties will offer to the Monitor the option to participate in such meetings.
- 8.8 The monitor will submit a written report to the MD/DFCCIL within 8 to 10 weeks from the date of reference or intimation to him by the CLIENT/BIDDER and, should the occasion arise, submit proposal for correcting problematic situations.

9. Facilitation of Investigation

In case of any allegation of violation of any provisions of this Pact or payment of commission, the CLIENT or its agencies shall be entitled to examine all the documents including the Books of Accounts of the [A] and the [A] shall provide necessary information and documents in English and shall extend all possible help for the purpose of such examination.

9.1 Law and Place of Jurisdiction

This pact is subject to Indian law. The place of performance and jurisdiction is the seat of the CLIENT.

10. Other Legal Actions

The actions stipulated in this integrity pact are without prejudice to any other legal action that may follow in accordance with the provisions of the extant law in force relating to any civil or criminal proceedings.

10.1 Validity

10.2 The validity of this integrity pact shall be from date of its signing and extend up to 5 years or the complete execution of the [B] to the satisfaction of both the CLIENT and the [A] including warranty period, whichever is later. In case [A] is unsuccessful, this integrity pact shall expire after six months from the date of the signing of the [B].

10.3 Should one or several provisions of this pact turn out to be invalid; the remainder of this pact shall remain valid. In this case, the parties will strive to come to an agreement to their original intentions.

11. The parties hereby sign this integrity pact at On

CLIENT
Name of the Officer
OFFICER Designation
Deptt./Ministry/PSU

BIDDER
CHIEF EXECUCTIVE

Witness
1. _____

2. _____

Witness
1. _____

2. _____

 Note:
[A] - To be replaced by BIDDER/Seller/Consultant/Consultancy firm/Service provider as the case was may be.
[B] - To be replaced by Contract/Supply Contract/Consultancy Contract/Works Contract as the case was may be.

ANTI-PROFITEERING DECLARATION

TO WHOMSOEVER IT MAY CONCERN

I, age, years, Son/Daughter of, resident of Do solemnly affirm and state as under:

- 1) That I am the _____ <Designation of the authorized signatory> of
And I am duly authorized to furnish this undertaking/declaration on behalf of (Name of the company).
- 2) That (Name of the company) has been awarded the work (Name of Work) vide Letter of Award number Dated by M/s Dedicated Freight Corridor Corporation of India Limited.
- 3) That the Company is fully aware of the anti-profiteering provision under the Goods & Services Tax ("GST") Law(s),
- 4) That the Company Has passed the benefit of input tax credit available on the (good/services) having HSN supplied to M/s Dedicated Freight Corridor Corporation of India Limited which it is getting on account of reduced tax liability and input tax credit because of enactment of GST Laws after introduction of Goods and Service Tax w.e.f. 1st July, 2017. The details and amounts being passed on to DFCCIL are provided in Annexure Of this document and are as per applicable GST Laws. These are true and correct to the best of my knowledge, information and belief.
- 5) Further, it is to confirm also that in case..... (name of the organization) will receive any further benefit in future after 1st July, 2017 by way of availment of input tax credits which were not allowed to be availed before 1st July, 2017 or

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reduction in tax rates or in any other manner which results in reduction of cost of the goods/services supplied to M/s Dedicated Freight Corridor Corporation of India Limited, then Company will pass that benefit to M/s Dedicated Freight Corridor Corporation of India Limited also.

- 6) That I declare that the foregoing is true and correct and the same is a legal obligation and failure to fulfil it could result in penalties under the law.
- 7) I confirm that I am aware of the implication of the above undertaking and our liability on account of incorrect/misleading declaration under the GST Laws.

Signature of the Authorized signatory/ person

Name and Designation of the Auth. Sign/person of the person

Name of the Organization and Seal

Executed on a non-judicial stamp paper of Rs.100/- duly notarized by notary public

FORMAT FOR CERTIFICATE TO BE SUBMITTED / UPLOADED BY TENDERER
ALONGWITH THE TENDER DOCUMENTS

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

M/s.....(hereinafter called the tenderer) for the purpose of the Tender documents for the work of..... as per the

tender No..... of(DFCCIL/Railway)**, do hereby solemnly affirm and state on the behalf of the tenderer including its constituents as under:

1. I/we the tenderer (s) am/are signing this document after carefully reading the contents.
2. I/We the tenderer(s) also accept all the conditions of the tender and have signed all the pages in confirmation thereof.
3. I/we hereby declare that I/we have downloaded the tender documents from Indian Railway website www.ireps.gov.in
- . I/we have verified the content of the document from the website and there is no addition, no deletion or no 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 the railway Administration shall be final and binding upon me/us.
4. I/we declare and certify that I/we have not made any misleading or false representation in the forms, statements and attachments in proof of the qualification requirements.
5. I/We also understand that my/our offer will be evaluated based on the documents/credentials submitted along with the offer and same shall be binding upon me/us.
6. I/We declare that the information and documents submitted along with the tender by me/us are correct and I/we are fully responsible for the correctness of the information and documents, submitted by us.
7. I/we certify that I/we the tenderer(s) is/are not blacklisted or debarred by Railways or any

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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/N/Society/Trust.

8. I/we understand that if the contents of the **certificate** submitted by us are found to be forged/false at any time during process for evaluation of tenders, it shall lead to forfeiture of the Bid Security and may also lead to any other action provided in the contract including banning of business for a period of upto two year. Further, I/we (insert name of the tenderer) ** _____ and all my/our constituents understand that my/our offer shall be summarily rejected. (ACS-4)
9. I/we also understand that if the contents of the **certificate** submitted by us are found to be false/forged at any time after the award of the contract, it will lead to termination of the contract, along with forfeiture of Bid Security/Security Deposit and Performance guarantee and may also lead to any other action provided in the contract including banning of business for a period of upto two year. (ACS-4)
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) I Hindu Undivided Family (HUF) I Limited Liability Partnership (LLP) etc.)

I/We(Name), attorney/authorized signatory of the
.....(constituent firm/constituent partner) and member/partner of the
.....(tendering firm) hereby solemnly affirm and state as under:

1. I/we certify that (Constituent firm/constituent partner) is/are not blacklisted or debarred by Railways or any other Ministry I 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/N/Society/ trust.
2. 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 CONSTITUENT FIRM/CONSTITUENT PARTNER

Place:

Dated:

TENDERER'S CREDENTIALS (BID CAPACITY)
DFCCIL

For tenders having advertised value more than Rs 20 crore wherein eligibility criteria includes bid capacity also, the tenderer will be qualified only if its available bid capacity is equal to or more than the total value of the present tender. The available bid capacity shall be calculated as under:

Available Bid Capacity = $[A \times N \times 2] - 0.33 \times N \times B$ Where,

A = Maximum value of construction works executed and payment received in any one of the previous three financial years or the current financial year (up to date of inviting tender), taking into account the completed as well as works in progress.

N= Number of years prescribed for completion of work for which bids has been invited.

B = Existing commitments and balance amount of ongoing works with the tenderer as per the prescribed proforma of DFCCIL/Railway for statement of all works in progress and also the works which are awarded to tenderer but yet not started upto the date of inviting of tender. (ACS-1 dt. 14.07.2022)

Note:

(a) The Tenderer(s) shall furnish the details of -

- (i) Maximum value of construction works executed and payment received in any one of the previous three financial years or the current financial year (up to date of inviting tender) for calculating A, and
- (ii) Existing commitments and balance amount of ongoing works with tenderer as per the prescribed proforma of Railway for statement of all works in progress and also the works which are awarded to tenderer but yet not started upto the date of inviting of tender for calculating B. In case of no works in hand, a 'NIL' statement should be furnished.

The submitted details for (i) and (ii) above should be duly verified by Chartered Accountant.

(b) In case if a bidder is JV , the tenderer(s) must furnish the details of

- (i) Maximum value of construction works executed and payment received in any one of the previous three financial years or the current financial year (up to date of inviting tender) by each member of JV for calculating A, and
- (ii) Existing commitments and balance amount of ongoing works with each member of JV either in individual capacity or as a member of other JV as per the prescribed proforma of Railway for statement of all works in progress and also the works which are awarded to each member of JV either in individual capacity or as a member of other JV but yet not started upto the date of inviting of tender for calculating B. In case of no works in hand, a 'NIL' statement should be furnished.

The submitted details for (i) and (ii) above should be duly verified by Chartered Accountant.

(c) Value of a completed work/work in progress/work awarded but yet not started for a Member in an earlier JV shall be reckoned only to the extent of the concerned member's share in that JV for the purpose of satisfying his/her compliance to the above mentioned bid capacity in the tender under consideration.

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- (d) The arithmetic sum of individual “bid capacity” of all the members shall be taken as JV’s “bid capacity”.
- (e) In case, the tenderer/s failed to submit the above statement along with offer, their/his offer shall be considered as incomplete and will be rejected **summarily**.
- (f) The available bid capacity of tenderer shall be assessed based on the details submitted by the tenderer. In case, the available bid capacity is lesser than estimated cost of work put to tender, his offer shall not be considered even if he has been found eligible in other eligibility criteria/tender requirement.

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Statement of Works in Progress for Bid Capacity

Form No. 23A

S. N	Name and place of work	Organization for whom work is being carried out	Date of award of contract. Contract Agreement No. & Date	Original Cost of Work/Revised Cost (Up to latest corrigendum)	Date of Completion (Original/ Extended)	Payment Received till date of opening of present tender	Balance amount of the work to be executed	B "value of work to be done in "N" years

Note:-

1. Available Bid Capacity = $[A \times N \times 2] - B$ Where

A= Maximum value of construction works executed and payment received in any one financial year during the current and last three financial years immediately preceding the current financial year, upto date of opening of tender, taking into account the completed as well as works in progress.

N= Number of years prescribed for completion of work for which bids has been invited.

B = Value of existing commitments and balance amount of ongoing works with the tenderer to be completed in next „N“ years.

2. This statement should be submitted duly verified by Chartered Accountants.

FINAL SUPPLEMENTARY AGREEMENT

1. Articles of agreement made this day _ in the year between the President of India, acting through the Railway Administration having his office at _ herein after called the Railway 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 Rs _____ 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 Rs. _____ 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)

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.

(Bid Security)

Bank Guarantee Bond from any scheduled commercial bank of India
(On non-judicial stamp paper, which should be in the name of the Executing Bank)

Name of the Bank: _____

MD DFCCIL

Acting through Chief General Manager,
DFCCIL, Ahmedabad

Beneficiary: Dedicated Fright Corridor Corporation of India Limited, Ahmedabad

Date: _____

Bank	Guarantee	Bond	No.:
Date: _____			

In consideration of the MD DFCCIL acting through Chief General Manager, DFCCIL Ahmedabad (**Designation & address of Contract Signing Authority**), DFCCIL, (hereinafter called "The DFCCIL") having invited the bid for _____ through Notice inviting tender (NIT) No.. _____, We have been informed that [**Insert name of the Bidder**]..... (**hereinafter called "the Bidder"**) intends to submit its bid (**hereinafter called "the Bid"**) .

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

AND

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

1. KNOW ALL MEN that by these present that I/We the undersigned [**Insert name(s) of authorized representatives of the Bank**], being fully authorized to sign and incur obligations for and on behalf of the Bank, confirm that the Bank, hereby, unconditionally and irrevocably guarantee to pay to the Railway/DFCCIL full amount in the sum of [**Insert required Value of Bid Security**] as above stated.
2. The Bank undertakes to immediately pay on presentation of demand by the Railway/DFCCIL any amount up to and including aforementioned full amount without any demur, reservation or recourse. Any such demand made by the Railway/DFCCIL on the Bank shall be final, conclusive and binding, absolute and unequivocal on the Bank notwithstanding any disputes raised/ pending before any Court, Tribunal, Arbitration or any Authority or any threatened litigation by the Bidder or Bank.

Tender No. DFC_ADI_ENG_BRINSP17_PNUN

3. The Bank shall pay the amount as demanded immediately on presentation of the demand by Railway/DFCCIL without any reference to the Bidder and without the Railway/DFCCIL being required to show grounds or give reasons for its demand of the amount so demanded.
4. The guarantee hereinbefore shall not be affected by any change in the constitution of the Bank or in the constitution of the Bidder.
5. The Bank agrees that no change, addition, modifications to the terms of the Bid document or to any documents, which have been or may be made between the Railway/DFCCIL and the Bidder, will in any way absolve the Bank from the liability under this guarantee; and the Bank, hereby, waives any requirement for notice of any such change, addition or modification made by Railway/DFCCIL at any time.
6. This guarantee will remain valid and effective from.....[**insert date of issue**] till[**insert date, which should be minimum 90 days beyond the expiry of validity of Bid**]. Any demand in respect of this Guarantee should reach the Bank within the validity period of Bid Security.
7. The Bank Guarantee is unconditional and irrevocable.
8. The expressions Bank and Railway/DFCCIL herein before used shall include their respective successors and assigns.
9. The Bank hereby undertakes not to revoke the guarantee during its currency, except with the previous consent in writing of the Railway/DFCCIL. This guarantee is subject to the Uniform Rules for Demand Guarantees, ICC Publication No.758.
10. The Bank hereby confirms that it is on the SFMS (Structured Financial Messaging System) and shall invariably send the advice of this Bank Guarantee to the following bank details –

IFSC CODE	UBIN0546836
IFSC TYPE	BRANCH
BANK NAME	Union Bank of India
BRANCH NAME	Motibagh-1, Delhi Branch
CITY NAME	New Delhi
ADDRESS	Palika Bhawan, Motibagh-I, R.K. Puram, Delhi-110066
DISTRICT	New Delhi
STATE	New Delhi
BG ENABLED	YES

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

Date

Place..... Bank's Seal and authorized signature(s)

[Name in Block letters]
 [Designation with Code No.].....
 [P/Attorney] No.

Tender No. DFC_ADI_ENG_BRINSP17_PNUN

Witness:

1 Signature, Name & Address & Seal

2 Signature, Name & address & Seal

Seal

Bank's

[P/Attorney] No.

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

**PROFORMA OF 14 DAYS NOTICE FOR OFFLOADING OF PART OF CONTRACT
WORK
DFCCIL RAILWAY
(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 show adequate progress of work so as to complete the contract within the original / extended date of completion of contract and part(s) of contract work are yet to be started/ still lagging behind the agreed program of work, listed as under:

(Details of part(s) of work which is delayed and can be executed independently, to be mentioned).

2. Your attention is invited to this office/Chief Engineer's office letter no. _____, 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 14 days' notice in accordance with Clause 40A of the Standard General Conditions of Contract to deploy adequate resources i.e. (the details of resource requirement, to be mentioned) and commence / to make good the progress for part(s) of works detailed above, failing which action as provided in Clause 40A of the Standard General Conditions of Contract shall be commenced after expiry of 14 days' notice period viz. to offload few/ all part(s) of work mentioned above to any of the existing or new contractor without your participation and at your Risk & Cost, not exceeding the value of Performance Guarantee of this contract, which may please be noted.

Kindly acknowledge receipt.

Yours faithfully

For and on behalf of the DFCCIL

NOTICE FOR PART OF CONTRACT WORK OFFLOADED
DFCCIL RAILWAY
(Without Prejudice)

To
M/s _____

Dear Sir,
Contract Agreement No. _____

In connection with _____

1. Fourteen days notice under Clause 40A of the Standard General Conditions of Contract was given to you under this office letter of even no., dated _____; but you have taken no/inadequate action to deploy adequate resources to commence the part(s) of work/show adequate progress of the part(s) of work, mentioned therein.

As you have failed to abide by the instructions issued to commence the part(s) of work/show adequate progress of the part(s) of work even at the lapse of 14 days' notice period under Clause 40A of the Standard General Conditions of Contract, few part(s) of the work under the contract have been offloaded and being executed by other mode(s) at the cost detailed below:

Or,

1. Please refer your request letter no..... dated, wherein it was requested under clause 40 A of the Standard General Conditions of Contract to offload part(s) of works at your risk & cost. The details of part(s) of the work under the contract which have been offloaded and being executed by other mode(s) at the cost detailed below:

(List of Part(s) of work offloaded, Details of mode of execution of such offloaded work alongwith approximate cost thereof to be mentioned)

2. The final measurement of work(s) already executed for above part(s) of work recorded as per clause 45 (A) or/and 45 (B) of the Standard General Conditions of Contract is enclosed herewith.

3. The Bill(s) of Quantities for Part(s) of work offloaded is enclosed herewith.

4. The additional cost in execution of offloaded work through mode(s) mentioned in para (1) above is determined as Rs. _____, over& above the cost of execution under this contract (including the PVC amount payable as per contract, as on the date of issue of this notice). This additional cost shall be recovered from your next on account bill(s) or any other dues payable to you under contract.

5. The Contract value gets reduced to Rs.....

6. You are requested to continue with the balance work in the contract subsequent to offloading of above part(s) of work.

Kindly acknowledge receipt.

Yours faithfully
For and on behalf of the DFCCIL

**PART V
DRAWINGS**

- - - - - NA - - - - -

END OF DOCUMENT
