



Request for Proposal (RFP)

for

Detailed technical inspection of important and major railway bridges & railway flyovers including NDT testing as per requirement and relevant guidelines and submitting detailed report including suitable corrective measures wherever required under the jurisdiction of CGM/DFCCIL/Ambala from SREN to CHAN

RFP No. CGM/DFCCIL/UMB/TI/2024/02

Issued on 02.11.2024

(Participation through e-Tender only)

Visit: www.ireps.gov.in/ its link at www.dfccil.com
(Help desk of IREPS: 011-23761525)

Client:

DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LIMITED

(A Government of India Enterprise)

**Under
Ministry of Railway**

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NOTICE INVITING TENDER

DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LIMITED

Notice Inviting Tender

RFP No. CGM/DFCCIL/UMB/TI/2024/02

Date: 02.11.2024

Name of Consultancy Work: Detailed technical inspection of important and major railway bridges & railway fly overs including NDT testing as per requirement and relevant guidelines and submitting detailed report including suitable corrective measures wherever required under the jurisdiction of CGM/DFCCIL/Ambala from SREN to CHAN.

The Chief General Manager/Ambala Unit, Old Railway Colony, Near Anand Market, Ambala Cantt on behalf of Managing Director/DFCCIL invites **E-Tenders on Single Stage Two Packet System** on prescribed forms from firms/Companies/Joint Ventures for undertaking “**Detailed technical inspection of important and major railway bridges & railway fly overs including NDT testing as per requirement and relevant guidelines and submitting detailed report including suitable corrective measures wherever required under the jurisdiction of CGM/DFCCIL/Ambala from SREN to CHAN**”. Brief particulars of the Project are as follows:

Table-1				
SN	Name of Work	Estimated Cost of Work (Rs.)	Earnest Money (Rs.)	Completion Period
1.	Detailed technical inspection of important and major railway bridges & railway fly overs including NDT testing as per requirement and relevant guidelines and submitting detailed report including suitable corrective measures wherever required under the jurisdiction of CGM/DFCCIL/Ambala from SREN to CHAN	18,50,380/-	37,000/-	03 Months

The complete Bid document can be viewed/downloaded from official portal of the website www.ireps.gov.in from 02.11.2024 to 15.11.2024 (upto 15.00 Hrs. IST). Bidder must submit its **Financial Bid and Technical Bid at www.ireps.gov.in on or before 15.11.2024 upto 15.00 hours IST.** Bids received online shall be opened on 15.11.2024 at 15.30 hours IST. Bid through any other mode shall not be entertained. Please note that the DFCCIL reserves the right to accept or reject all or any of the Bids without assigning any reason whatsoever.

Sandeep Kumar
PM/Engg.-I
DFCCIL, Ambala

**TECHNICAL BID
(PACKET-A)**

PART – I

Chapter - I

GENERAL INFORMATION

RFP No. CGM/DFCCIL/UMB/TI/2024/02

Dated 02.11.2024

Name of Consultancy Work: Detailed technical inspection of important and major railway bridges & railway fly overs including NDT testing as per requirement and relevant guidelines and submitting detailed report including suitable corrective measures wherever required under the jurisdiction of CGM/DFCCIL/Ambala from SREN to CHAN.

- 1.1.1 The Chief General Manager/Ambala Unit, Old Railway Colony, Near Anand Market, Ambala Cantt on behalf of Managing Director/DFCCIL invites **E-Tenders on Single Stage Two Packet System** on prescribed forms from firms/Companies/Joint Ventures for undertaking [Name of work] on Consultancy Mode. Brief particulars of the Project are as follows:

Table-1				
SN	Name of Work	Estimated Cost of Work (Rs.)	Earnest Money (Rs.)	Completion Period
1.	Detailed technical inspection of important and major railway bridges & railway fly overs including NDT testing as per requirement and relevant guidelines and submitting detailed report including suitable corrective measures wherever required under the jurisdiction of CGM/DFCCIL/Ambala from SREN to CHAN	18,50,380/-	37,000/-	03 Months

- 1.1.2 Eligibility shall be assessed on applicants, fulfilling the technical & Financial eligibility criteria and organizational resources as specified in clause no. 1.3.17.1 (A) & (B) and test of responsiveness as per clause No. 1.3.10.14 of Preamble and General Instruction to tenders (Part-I, Chapter III).
- 1.1.3 Tender document can be downloaded from www.ireps.gov.in w.e.f. from **17:00 Hrs of 02.11.2024** The Cost of the tender document is **Rs NIL (inclusive of taxes)** which is non-refundable and to be paid online through payment gateway provided at www.ireps.gov.in in the Account of DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LIMITED, New Delhi towards the cost of one set of tender documents. The tender documents shall have to be purchased in the name of Firms/Company/Joint Ventures and can be downloaded from web site www.ireps.gov.in. In case tenderer(s) do/does not deposit the cost of tender document (non-refundable) along with the submission of the tender their tender shall not be opened. Tenderer are advised not to make any correction /addition/alteration in the downloaded tender documents. If any such correction/addition /alteration in downloaded tender documents are made such tenders shall not be considered.
- 1.1.4 DFCCIL may issue addendum(s)/corrigendum(s) to the tender documents. In such cases the addendum(s)/corrigendum(s) shall be issued and placed on website www.ireps.gov.in at least three days in advance of date of opening of tender. The tenderer who has downloaded the tender documents from the website before issue of addendum(s)/ corrigendum(s) must visit the website and ensure that such addendum(s)/corrigendum(s) (if any) is also downloaded by them. Such

addendum(s)/corrigendum(s) (if any) shall also be submitted duly stamped and signed along with the submission of tenders. Any tender submitted without addendum(s)/corrigendum(s) (if any) shall be summarily rejected.

1.1.5 The tender documents shall be in two packets system containing TECHNICAL BID and FINANACIAL BID. Detailed credential for technical and financial eligibility as per the requirement given in clause No.1.3.17.1 (A) & (B) of Part-I, Chapter-III and all tender papers except bill of quantity are to be submitted in “Technical Bid”. Price Schedule (**Form No. 22**) with % age above or below or at par on the Estimated cost of work of Schedule duly filled are to be submitted in “Financial Bid” online at website www.ireps.gov.in. No physical **Form No. 22** needs to be submitted.

1.1.6 Tender shall be submitted as per “**Preamble and General Instruction to Tenderers**” forming as part of the complete tender documents.

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.

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.

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.

1.1.7 Submission of Offer

Tender shall be submitted through online mode only at www.ireps.gov.in. Tender submitted through any other mode will not be accepted. All the required documents (legible) as mentioned in Check list have to be uploaded along with the offer on www.ireps.gov.in failing which, the bid shall be summarily rejected and shall not be considered for further evaluation.

CHECK LIST FOR DOCUMENTS TO BE SUBMITTED

S. No.	Documents to be Attached	Tick (Yes/No)
1.	The Offer Letter as per format given in the Form No. 1	
2.	Power of Attorney of the person signing the tender documents in Original if specific to this work in the Form No. 10 or Attested Copy of the General Power of Attorney of the Company in favor of the person signing the tender.	
3.	Certified Copy of Registration of Company/Firm/Agency, Partnership Deed /Memorandum and Articles of Association of the Company/Firm/Agency.	
4.	Constitution of the Company/Firm/Agency and Form No. 2 C in the form prescribed and Form No. 7 & 11 (if applicable).	
5.	Form No. 2, 2A, 2B, 6, 9, 18 along with all documents mentioned in Forms No. 2A and 2B, Form No. 17 & 18.	
6.	BG in lieu of Earnest Money (if applicable) in Form No. 4A	
7.	Complete Tender Document including Corrigendum/ Addendums duly Signed (all pages of bid document) by the Bidder.	

Important Notes:

- i) Documents mentioned from Sr No. 1 to 7 above should be scanned and uploaded along with offer as attachment at website www.ireps.gov.in.
- ii) The detailed instructions of e-tendering can be read through website www.ireps.gov.in. The Addendum/Corrigendum, if any; shall be hosted on the website www.ireps.gov.in

- iii) The supporting documents for assessing the technical capability and responsiveness are essentially required to be uploaded on the website www.ireps.gov.in along with Technical Bid.
 - iv) 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.
- 1.1.8 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. All tenderers (except exempted MSEs) are mandatorily required to submit Bid Guarantee/EMD. MSEs registered with NSIC up to the monetary limit of their registration for the tendered items are exempted from depositing Earnest Money. Such tenderer (s) shall have to upload with their offer, a scanned copy of requisite valid documentary evidence in support of their claim
- 1.1.9 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 there of DFCCIL's assessment of technical capability and responsiveness as per criteria laid down in this tender document shall be final and binding.
- 1.1.10 Tenderers may note that they are liable to be disqualified at any time during the 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 regard shall be final and binding.
- 1.1.11 Information as required as per various Forms to tender document should be submitted by the tenderers without fail strictly as per formats.
- 1.1.12 The validity of offer shall be 90 days from the date of opening of the tender.**
- 1.1.13 Transfer of the tender document by intending tenderer to another tenderer is not admissible. Tenderer can submit tenders only on the basis of documents downloaded from website: www.ireps.gov.in by them.

PART – I
Chapter-II
DATA SHEET

Table-1		
1.	NIT No.	CGM/DFCCIL/UMB/TI/2024/02
2.	Name of Work	Detailed technical inspection of important and major railway bridges & railway fly overs including NDT testing as per requirement and relevant guidelines and submitting detailed report including suitable corrective measures wherever required under the jurisdiction of CGM/DFCCIL/Ambala from SREN to CHAN.
3.	Bidding Type	Domestic E-tender
4.	Tender Type	Open
5.	Bidding System	Single Stage Two Packet System
6.	Bidding Style	Single Percentage on complete price schedule
7.	Pre-Bid Required	Yes, 06.11.2024 at 11.00 hrs in DFCCIL CGM [unit]
8.	Advertised Tender Value	Rs. 18,50,380/- (Inclusive of GST@ 18%)
9.	Period of Completion	03 Months
10.	Validity of the offer	90 Days
11.	Are Joint Venture firms allowed to bid	Yes
12.	Tender Document Cost (Non-Refundable)	Rs NIL inclusive of all taxes to be deposited online through payment gateway provided at www.ireps.gov.in
13.	Earnest Money	[EMD/Bid Security to be as per clause 5 of Part-I (ITT) of IR GCC-2022] to be deposited online through payment gateway provided at www.ireps.gov.in
Date & Time Schedule		
14.	Date Time of Uploading of NIT & Tender Document	02.11.2024 at 17:00 hrs. on www.ireps.gov.in
15.	Date and Time of Issue of Tender	Tender document can be downloaded from 02.11.2024 (17.30 hrs.)
16.	Bidding Start Date	08.11.2024
17.	Last Date & Time of submission of Tender (Online)	15.11.2024 at 15 :00 hrs. on www.ireps.gov.in
18.	Date and Time of Opening of Technical bids (Packet A) online	15.11.2024 at 15 :30 hrs. on www.ireps.gov.in
19.	Date and Time of Opening of Financial bids (Packet- B) online	To be communicated later to only those bidders who are found Technically qualified and responsive after closer of technical evaluation.
20.	Retention Money/ Security Deposit	5% of Contract Value (to be deducted from On-account payment @ 6% till the value reaches 5% of Contract Value.

21.	Performance Bank Guarantee (PG)	PG have to be submitted within 21 days from the date of issue of Letter of Acceptance, for amount of 3 % of the Contract Value in the form as given in clause 16.4 of GCC (Chapter-IV of Part-I).
22.	Address for Communication	Office of Chief General Manager, DFCCIL Near Anand Market Old Railway Colony, Ambala cantt - 133001 (Haryana) Phone No: 96023 70346 E-mail: Sandeep.kumar@dfcc.co.in

Chapter-III

**PREAMBLE & GENERAL
INSTRUCTION TO TENDERERS**

PART- I

Chapter - III

PREAMBLE & GENERAL INSTRUCTIONS TO TENDERERS

1.3.1. Introduction

Dedicated Freight Corridor Corporation of India Ltd. (DFCCIL), a public sector undertaking has been set up under the Indian Companies Act, 1956 (Amended 2013). DFCCIL is a Special Purpose Vehicle set up under the administrative control of Ministry of Railways to undertake planning & development, mobilization of financial resources and construction, maintenance and operation of these Dedicated Freight Corridors on various identified routes in INDIA. Government of India is the sole shareholder of the DFCCIL. DFCCIL has planned to construct Dedicated Freight Corridor 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. DFCCIL has decided to Carry out “Detailed technical inspection of important and major railway bridges & railway fly overs including NDT testing as per requirement and relevant guidelines and submitting detailed report including suitable corrective measures wherever required under the jurisdiction of CGM/DFCCIL/Ambala from SREN to CHAN.”

1.3.2. Scope of Work (Terms of References)

On behalf of Managing Director/DFCCIL, CGM/Ambala unit herein after referred to as 'DFCCIL' invites tenders/offers from Firms /Companies/Joint Ventures having requisite technical and financial capacity for execution of the following work:

“Detailed technical inspection of important and major railway bridges & railway fly overs including NDT testing as per requirement and relevant guidelines and submitting detailed report including suitable corrective measures wherever required under the jurisdiction of CGM/DFCCIL/Ambala from SREN to CHAN”.

1.3.2.1 Functional Scope

- (i) The work to be carried out under this contract includes carrying out detailed inspection of the Girder bridge(s) and submitting an inspection report. Frequency of Inspection shall be decided by DFCCIL depending on condition of Bridge. Normally Frequency shall be once in 5 years.
- (ii) Notwithstanding anything to the contrary in the contract document, the scope of work briefed herein shall be treated as the scope of Work for the Contract in addition to the requirements of the other sections of the Contract documents.
- (iii) The scope of work is representative and will include all works required to successfully fulfil the requirement of “Detailed Inspection of Girder Bridges”, not limited to items listed herein below. The scope of work will apply to every Girder Bridge for which the detailed inspection is carried out under this contract.

1.3.2.2 The scope of work shall broadly consist of:

- (i) To study the drawings and records of previous inspections carried out and any repairs undertaken.
- (ii) To review the data regarding various parameters of the bridge recorded through the instrumentation carried out on the bridge, if any.
- (iii) To carry out detailed inspection of the bridge and record all observations and upload all relevant evidence related to the Bridge Inspection in the Bridge Management System

(BMS) App of DFCCIL and also record the inspection observations in **Bridge Inspection Register/e-register**. For this, the bridge inspector is directed to follow the Guidelines for bridge inspection issued by DFCCIL and if on any aspect of bridge DFCCIL's guidelines are not available, then Indian Railway Bridge Inspection guidelines are to be followed.

- (iv) To provide numerical rating with regards to the condition of the Bridge and its various components in line with the Numerical Rating system of Laid in Part-II of this tender document.
- (v) To submit an inspection report if there is a need for any special investigation/testing/repairs recommended to be carried out on the bridge or for any other recommendation which cannot be provided through the BMS.
- (vi) To provide any clarification sought by DFCCIL officials about the findings and recommendations related to the bridge inspection carried out.

1.3.3 Cost of the work: The estimated cost of the tendered work is approx. **Rs 18,50,380 /- including GST @ 18%. Any** firm recognized by the Department of Industrial Policy and Promotion (DIPP) as 'Startups' and any firm registered with under Udyam Registration for the item tendered as MSEs will be exempted from payment of cost of tender document.

1.3.3. The tenderer shall be governed by General Conditions of Contract (GCC), Preamble and General Instructions to Tenderers (GIT), Special Conditions of Contract (SCC) and technical specifications. Wherever there is a conflict in any condition between General Conditions of Contract (GCC) and Special Conditions of Contract mentioned in the tender documents, the condition mentioned in Special Conditions of Contract will prevail. However, the Engineer's decision in this connection shall be final and binding.

1.3.4. Location: Works are to be executed in the jurisdiction of CGM Ambala unit] from SREN to CHAN. However, DFCCIL reserves the right to change the site of work, anywhere in DFCCIL and the consultant shall be bound to execute the work.

1.3.5. Order of Precedence of Documents: In tender/contract, in case of any difference, contradiction, discrepancy, with regard to conditions of tender/contract, specifications, drawings, bill of quantities etc., forming part of the tender/contract, the following shall be the order of precedence:

- (i) Contract Agreement
- (ii) Letter of Award
- (iii) Schedule of Items, Rates & Quantities
- (iv) Special Conditions of Contract
- (v) Technical Specifications as given in tender documents
- (vi) Drawings
- (vii) General Conditions of Contract
- (viii) IR Specifications/Guidelines/ manuals
- (ix) Relevant B.I.S. Codes
- (x) International codes

For example, if any Item is found common in Special Conditions of Contract and General Conditions of Contract then the provision given in Special Conditions of Contract will prevail over General Conditions of Contract for the same Item.

1.3.6. LANGUAGE OF BID: The Bid, as well as all correspondence and document(s) relating to the bid exchanged by the Bidder and the DFCCIL, shall be written in English.

1.3.7. (a) Tender Bid: The Tender Bid shall have to be submitted in Two Packet System through IREPS as under:

Packet -A: Technical and Financial Eligibility and responsiveness element of the Tender Bid along

with other documents mentioned in para 1.3.17.4, here in after called “TECHNICAL BID “.

Packet – B: Price elements of the Tender Bid as per **Form No. 22**, herein after called “FINANCIAL BID”.

The TECHNICAL BID (Packet-A) shall be opened on the date of tender opening and the detailed scrutiny of TECHNICAL BID shall be carried out for responsiveness as per clause 1.3.10.14 of this chapter. The “FINANCIAL BID” (Packet-B) shall be opened only of those tenderers who are found responsive on basis of "Technical bid" and qualify Technical and Financial eligibility Criteria as laid down in clause No. 1.3.17.1 (A) & (B). The detailed procedure for tender opening and processing is given in Para 1.3.11.

1.3.8 (b) Form of Tender: Tenders not submitted in the proper Forms are liable to be rejected.

(i) Documents to be enclosed online with the TECHNICAL BID (Packet - A):

SN	Description	Documents
(1)	Offer letter complete.	Form No. 1
(2)	Tenderer's capability credentials in accordance with para 1.3.17.5 of Preamble and General Instructions to Tenderers.	Form No. 2A, 2B,2C
(3)	Various tender forms	Form No. 2, 6, 7, 9, 10, 11, 17, 18
(4)	Earnest money in accordance with Para 1.3.10.22 and Cost of Tender Document in accordance with Para 1.3.10.21 of Preamble and General Instructions to Tenderers (Part-I, Chapter-III).	

(ii) Documents to be enclosed online with the FINANCIAL BID (Packet B):-

SN	Description	Documents
(1)	Price Schedule	Form No. 22

(iii) Tenderers have to submit hard copy of following documents within tender closing date (in sealed envelope on which Name of work, RFP No. and Date of Tender opening to be clearly mentioned in office of CGM [Name of CGM unit]/DFCCIL at address given at Sr. No.22 of Table-1 of Chapter-II of Part-I, otherwise Bid shall be considered non-responsive:

- (a) Original Copy of BG for Bid security (if any).(Form No. 4A)
- (b) The Original Copy offer letter (Form No. 1), Original copy of Affidavits of all JV members (Form No. 18), MoU for JV bidding (Form No. 7), Participation form of all JV members (Form No. 9), Power of Attorney for Authorized Signatory of Bid (Form No. 10) and PoA for Lead Member (in case of JV) (Form No. 11).
- (c) Original Copy of Form No. 17

1.3.8. Tender Document: This tender document consists of following five parts:

CHAPTERS	DESCRIPTION
TECHNICAL BID	
Chapter I of Part-I	General Information
Chapter II of Part-I	Data sheet
Chapter III of Part-I	Preamble and General Instructions to Tenderers

CHAPTERS	DESCRIPTION
Chapter IV of Part-I	General Conditions of Contract
Chapter V of Part-I	Special Conditions of Contract
PART - II	Technical Specifications
PART - III	Tender Forms
FINANCIAL BID	
PART - IV	Schedule of Price

1.3.9. Sale and Submission of Tender Document

- 1.3.10.1** Tender shall be submitted through online mode only at www.ireps.gov.in. Tender submitted by any other mode will not be accepted.
- 1.3.10.2** All the required documents (legible) as mentioned in clause 1.1.7 (Check list from S.No.1-7) must be uploaded along with the offer on www.ireps.gov.in, failing which, the bid shall be summarily rejected and shall not be considered for further evaluation.
- 1.3.10.3** The detailed instructions of e-tendering can be read through website www.ireps.gov.in. The Addendum/Corrigendum, if any; shall be hosted on the website www.ireps.gov.in.
- 1.3.10.4** The supporting documents for Technical & financial capability & responsiveness are essentially required to be uploaded on the website www.ireps.gov.in as bid shall be accepted through online mode only.
- 1.3.10.5** Tenderers are required to give Un-conditional offers. A conditional offer is liable to be rejected. DFCCIL reserves the right to modify, expand, restrict, cancel, reject and re-float tender without assigning any reasons whatsoever.
- 1.3.10.6** 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. Should the Contractor have any doubt about the meaning of any portion of the Tender Document or find discrepancies/omissions in the tender document issued or require clarification, he shall at once contact the authority inviting the tender for clarification at least twenty days before the due date of submission of the tender.
- 1.3.10.7** 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.
- 1.3.10.8** 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.
- 1.3.10.9** After award of contract to the Successful bidder, 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.
- 1.3.10.10** Bidder must fill up all the schedules and furnish all the required information on e-modes as per the instructions given in various sections of the Tender Document.
- 1.3.10.11** Submission of a tender by a tenderer implies that he had read all the tender documents including amendments/corrigendum if any, visited the site and made himself aware of the scope of the work to be done, local conditions and other factors having any bearing on the execution of the work.

- 1.3.10.12** DFCCIL reserves all rights to reject any tender including of those tenders who fail to comply with the instructions without assigning any reason whatsoever and does not bind itself to accept the lowest financial bid or any specific tender. The decision of DFCCIL in this regard shall be final and binding. Any failure on the part of the tenderer to observe the prescribed procedure and any attempt to canvass for the work will prejudice the tenderer's bid.
- 1.3.10.13** 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. Earnest Money Deposit (EMD) of such tenderer shall be forfeited. The decision of the DFCCIL in this regard shall be final and binding.
- 1.3.10.14** Evaluation of tenders will be made on the basis of Technical and Financial eligibility criteria and responsiveness criteria mentioned in the Bid Document and value of Financial Bid. However, DFCCIL reserves the right to seek any clarification from the Contractor. As a first step towards evaluation of Bids, the DFCCIL will determine whether each Technical Bid is responsive to the requirements of this RFP. A Technical Bid shall be considered responsive only if:
- (a) Complete Technical Bid is received online.
 - (b) Technical Bid is accompanied by the Bid Security and Original Copy of BG for Bid security (if any) are received physically within tender closing date and time.
 - (c) The Original Copies of offer letter (Form No. 1), Affidavits of all JV members (Form No. 18), MoU for JV bidding (Form No. 7), Participation form of all JV members (Form No. 9), Power of Attorney for Authorised Signatory of Bid (Form No. 10) and PoA for a Lead Member (in case of JV) (Form No. 11), Integrity pact Form No. 17 are received physically within bid closing date and time.
 - (d) Technical Bid contains all the information (complete in all respects);
 - (e) Technical Bid does not contain any condition or qualification; and

The DFCCIL reserves the right to reject any Technical Bid which is non-responsive and no request for alteration, modification, substitution or withdrawal shall be entertained by the Authority in respect of such Bid.

1.3.10.15 Modification/Substitution/Withdrawal of Bids: Once bid is submitted, the tenderer's will not be allowed to modification/substitute/withdrawal the offer.

1.3.10.16 Opening and Evaluation of Bids:

- (i) E-Tender shall be opened on-line at the address given below at the time and date as specified in Chapter-II (Data sheet) of Part-I in the presence of Tenderers or their authorized representatives if they choose to attend the online tender opening.
- (ii) **Address:** Online Opening of Tender at [Name and address of CGM unit]
- (iii) 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 same, the Bid shall be considered non-Responsive.

1.3.10.17 Deadline for Submission of Tender: Tenderer must ensure to complete the tender submission process well before closing time, as www.ireps.gov.in will stop accepting any online Tender after Tender closing due date & time.

1.3.10.18 Cost of Tender Document: The Tenderer shall deposit cost of tender as prescribed, online through payment gateway of www.ireps.gov.in.

1.3.10.19 Earnest Money Deposit (Bid Security):

1.3.10.19.1(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. The Earnest Money Deposit for this work is Rs. 37000/-.

[*The Bid Security shall be as under:*

<u><i>Value of the Work</i></u>	<u><i>Bid Security</i></u>
<u><i>For works estimated to cost up to ₹ 1 crore</i></u>	<u><i>2% of the estimated cost of the work</i></u>
<u><i>For works estimated to cost more than ₹ 1 crore</i></u>	<u><i>₹ 2 lakh plus ½% (half percent) of the excess of the estimated cost of work beyond ₹ 1 crore subject to a maximum of ₹ 1 crore</i></u>

Note: The Bid Security shall be rounded off to the nearest ₹100. This Bid Security shall be applicable for all modes of tendering.

Note:-

- (i) Any firm recognized by the Department of Industrial Policy and Promotion (DIPP) as ‘Startups’ shall be exempted from payment of Bid Security.
- (ii) Any firm registered with under Udyam Registration for the item tendered as MSEs will be exempted from payment of earnest money.
- (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 resale 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.
- (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. 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.

1.3.10.19.2 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.-4A** and shall be valid for a period of 90 days beyond the bid validity period.

1.3.10.19.3 **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 tender opening time and date mentioned in the RFP.

- 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 Authority 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.

1.3.10.19.4 Tenders received without Earnest Money in full in the manner prescribed above shall be summarily rejected.

1.3.10.19.5 DFCCIL reserves the right of forfeiture of Earnest Money Deposit in case of Successful Tenderer if:

- a) Does not execute the Contract Agreement within 60 (sixty) days from the date of Issue of Letter of Acceptance; or
- b) Does not submit Performance Security of the requisite value (equal to 3% of contract value) as per Part-III (Tender Forms) of Tender Document, within 60 days of issue of Letter of Acceptance: or
- c) Does not commence the work within 7 days after receipt of Letter of Acceptance or date as specified in the Letter of Acceptance.
- d) Withdraws the offer during the period of validity/extended validity.
- e) When any of the information furnished by the tenderer not found true.

1.3.10.19.6 The forfeiture of Earnest Money Deposit (EMD) shall also be applicable if work is terminated at any stage as per terms and conditions of the contract.

1.3.10.20 Clause applicable for tender documents downloaded from Internet

Tenderer/s have 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 CGM [Name of CGM unit]. 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 CGM [Name of CGM unit]., DFCCIL, [Name of city] and not based on the tender documents submitted by the Tenderer. In case of any discrepancy between the tender documents downloaded from the internet and the Master Copy, later shall prevail and will be binding on the Tenderers. No claim on this account shall be entertained.

1.3.10.21 Complete tender documents must be submitted duly completed in all respects on www.ireps.gov.in upto 15.00 hrs on 15.11.2024. The “**Packet-A (TECHNICAL BID)**” will be opened at 15.30 hrs on the same day and read out in the presence of such tenderer(s) as is/are present. In case the intended date for opening of tenders is declared a holiday, the tenders will be opened on the next working day at the same time. Any modified date and time for submission of

tenders shall be uploaded on website www.ireps.gov.in. The detailed procedure of tender opening will be as per para 1.3.11.

1.3.10.22 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.

1.3.10.23 Each page of the bid document is to be signed by the tenderers or such person/s on his/their behalf who is/are legally authorized to sign for him/them.

1.3.10.24 Tenders containing erasures and/or alteration of the tender documents are liable to be rejected. Any correction made by Tenderer(s) in his/their entries must be attested by him/them.

1.3.10.25 Pre-bid conference: On 06.11.2024 at 11.00 hrs in DFCCIL CGM Ambala unit. All communication between the Employer and the tenderer shall be in writing. For the purposes of seeking clarification, the Employer's addressees:

Attention:

Sh. Sandeep Kumar, Project Manager, DFCCIL, Ambala

Mobile No.: 96023 70346

Mail ID: sandeep.kumar@dfcc.co.in

1.3.10. Opening of Tender:

(a) Tender will be opened online at **15.30 hrs on 15.11.2024** at the DFCCIL, CGM office, Ambala unit in the presence of the tenderers or their representatives as may be present at the prescribed date and time.

(b) After the opening of "TECHNICAL BID" (Packet-A) online of all the tenderers, these bids shall be scrutinized and analyzed. If found necessary by the DFCCIL, the tenderers shall be asked to furnish clarifications, if required. The names of the tenderers whose bid are considered complete, responsive and meet eligibility criteria shall be shortlisted.

(c) The **FINANCIAL BID (Packet -B)** shall be opened on a subsequent date and time duly notified well in advance. Financial bid of the tenders whose technical bid is not found responsive as per clause 1.3.10.17 and found technically eligible as per eligibility criteria mentioned in clause 1.3.17.1 (A) & (B) of this chapter shall not be opened. The time of opening, date and venue shall be advised to qualified tenderers well in advance to enable them to depute their representative. The earnest money of non-responsive bids/technically non-qualified bidders will be returned back within a reasonable period of completion of results of technical bid.

1.3.11. Validity of Tender: Tenderer shall keep his offer open for a minimum period of 90 days from the date of opening of the tender or as mentioned in the Tender Notice.

1.3.12. Execution of Contract Agreement: The Tenderer whose tender is accepted shall be required to appear in person at the office of CGM [Name of CGM unit] or if a firm or corporation, a duly authorized representative shall so appear and execute the contract agreement within 60 days after notice that the tender has been awarded to him. Failure to do so shall constitute a breach of the agreement affected by the acceptance of the tender in which case the full value of the earnest money accompanying the tender shall stand forfeited without prejudice to any other rights or remedies. In the event of any tenderer whose tender is accepted refuses to execute the contract agreement as here in before provided, DFCCIL may determine that such tenderer has abandoned the contract and there upon his tender and acceptance thereof shall be treated as cancelled and DFCCIL shall be entitled to forfeit the full amount of the Earnest Money.

1.3.13. Security Deposit: 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 Chapter-IV (GCC).

1.3.14. Tenderer's Address: The tenderer should state in the tender his postal/electronic e-mail address(s) 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.

1.3.15. Right of DFCCIL to Deal with Tenders:

- (a) The DFCCIL reserves the right to cancel/ accept the tender in whole or in part without assigning reasons for any such action.
- (b) The authority for the acceptance of the tender will rest with the DFCCIL. It shall not be obligatory on the said authority to accept 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.

1.3.17.1 Eligibility Criteria

(A) Technical Eligibility Criteria

Criteria	Compliance Requirement		Documents
	Requirement	Single Entity	Joint venture
<p>1. The Bidder or Lead member in case of JV firm should have been a registered company for at least 5 year as on the date of Bid submission.</p> <p>2. The Bidder or Lead member in case of JV firm should be an ISO9001-2015 certified company.</p> <p>3. The Bidder or Lead member in case of JV firm must have completed 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;</p> <ul style="list-style-type: none"> i. Three similar works each costing not less than the amount equal to 30% of advertised value of the tender or ii. Two similar works each costing not less than the amount equal to 40% of advertised value of the tender or iii. One similar work costing not less than the amount equal to 60% of advertised value of the tender. <p>4. The Bidder or Lead member in case of JV firm should have a minimum total staff of 10 (Ten) persons</p>	Must meet requirement	<p>'JV in its own name & style'</p> <p>- Must meet requirement.</p> <p>Or</p> <p>Lead Member of proposed JV- Must meet requirement</p>	<p>The tenderer shall submit the completion certificates/Certified completion certificates from the client(s).</p> <p>It shall be mandatorily incumbent upon the tenderer to identify, state and submit the supporting documents duly self-attested by which they/he is qualifying the Qualifying Criteria mentioned in the Tender Document.</p> <p>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</p>

including the key expert positions as on the date of submission. Key Expert Positions along with desirable qualification and experience is tabulated as under:			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.
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<u>Sr. No.</u>	<u>Key Expert Position</u>	<u>Minimum Qualification</u>	<u>Minimum Relevant Experience</u>
1	Structural Engineer	Postgraduate 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

Definition of Similar Work: Any work of bridge inspection and/or structural integrity audit of bridges and/or construction management services of civil engineering assets (involving bridges) for Railways (including Metros, High Speed Systems)/Highway”.

(B) Financial Eligibility Criteria

Criteria	Compliance Requirement		Documents
	Single Entity	Joint Venture	Submission Requirements
<p>The Bidder must have minimum average annual contractual turnover of V/N or “V” whichever is less.</p> <p>Where</p> <p>V= Advertised value of the tender in crores of Rupees</p> <p>N= Number of years prescribed for completion of work for which bids have been invited.</p>	Must meet Requirement	Must meet Requirement as whole JV	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

<p>The average annual contractual turnover shall be calculated as an average of “total contractual payments” in the previous three financial years, as per the audited balance sheet. However, in case balance sheet of the previous year is yet to be prepared/ audited, the audited balance sheet of the fourth previous year shall be considered for calculating average annual contractual turnover.</p>			<p>It shall be mandatorily incumbent upon the tenderer to identify, state and submit the supporting documents duly self-attested by which they/he is qualifying the Qualifying Criteria mentioned in the Tender Document.</p>
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Note:

1. Value of completed work done by a member in an earlier JV Firm shall be reckoned only to the extent of the concerned member's share in that JV firm for the purpose of satisfying his / her compliance to the abovementioned technical eligibility criteria in the tender under consideration. In case the tenderer/s is a partnership firm, the work experience shall be in the name of partnership firm only.
2. Work experience certificates issued by Railways/Highways, any Central /State Govt. Department/PSU of India or Autonomous Body of Central/State Govt. of India shall be accepted.

1.3.17.2 Credentials of Tenderer

The tenderer shall provide satisfactory evidence in support of their technical and financial eligibility, which are acceptable to DFCCIL, as follows:

- (a) For Technical eligibility criteria, the details will be submitted in **Form No. 2A** along with supporting documents.
- (b) For Financial eligibility criteria, the details will be submitted in **Form No. 2B** along with supporting documents.
- (c) The tenderer shall submit the completion certificates/certified completion certificates from the client(s) or certified Photostat of original certificates of client. All documents either original or photocopy should be attested by Notary. These certificates should indicate the details of works carried out and successful commissioning of similar type of work executed by the tenderer. Completion certificate issued by Railways/Highways, any Central /State Govt. Department/ PSU of India or Autonomous Body of Central/State Govt. of India will be accepted. The certificate from Private individual/Private Company for whom such works are executed shall not be accepted.

The following will be applicable for evaluating the eligibility:

- (i). For Similar nature of work – In case a work is started prior to 07 (seven) years, ending last day of month previous to the one in which tender is invited, but completed in last 07 (seven) years, ending last day of month previous to the one in which tender is invited, the completed work shall be considered for fulfillment of credentials.
- (ii). The total value of similar nature of work completed during the qualifying period and not the payment received within the qualifying period alone, shall be considered. In case the final bill of similar nature of work has not been passed and final measurements have not been recorded, the paid amount including statutory deductions is to be considered. If final measurements have been recorded and work has been completed with negative variation, then also the paid amount including statutory deductions is to be considered.
- (iii). However, if final measurements have been recorded and work has been completed with positive variation, but variation has not been sanctioned, original contract agreement value or last sanctioned contract agreement value whichever is lower, shall be considered for judging eligibility.
- (iv). Tenderer shall submit a statement of contractual payments received during last three financial years and current financial year on the prescribed Proforma as per Form No. 2B duly certified by Chartered Accountant clearly indicating the contractual amount received..

1.3.17.3 Care in Submission of Tenders:

- (i) 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.
- (ii) 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
- (iii) In case the successful tenderer is not liable to be registered under CGST/IGST/UTGST/SGST Act, the DFCCIL shall deduct the applicable GST from his/their bills under reverse charge mechanism (RCM) and deposit the same to the concerned authority.
- (iv) When work is tendered for by a firm or company, the tender shall be signed by the individual legally authorized to enter into commitments on their behalf.
- (v) DFCCIL will not be bound by any power of attorney granted by the tenderer or by changes in the composition of the firm made subsequent to the execution of the contract. It may, however, recognize such power of attorney and changes after obtaining proper legal advice, the cost of which will be chargeable to the Contractor

1.3.17.4 Documents testifying tenderer previous experience should be produced along with the tender. Tenderer(s) shall submit along with his / their tender:

- (a) A copy of notarized affidavit on a non-judicial stamp paper stating that they are not liable to be disqualified and all their statements/documents submitted along with bid are true and factual. Standard format of the affidavit to be submitted by the bidder is enclosed as **Form No. 18**. Non-submission of a copy of notarized affidavit by the bidder shall result in summary rejection of his/their bid. It shall be mandatorily incumbent upon the tenderer to identify, state and submit the supporting documents duly self-attested by which they/he are/is for showing Capabilities mentioned in the Tender Document.
- (b) 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 thereunder.
 - i. 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 Earnest Money Deposit besides banning of business for a period of upto five years.
 - ii. 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. Earnest Money Deposit (EMD), Performance Guarantee and Security Deposit available with the DFCCIL 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 five years.

1.3.18 Partnership Deeds, Power of Attorney etc.:

- (i) The tenderer shall clearly specify whether the tender is submitted on his own (Proprietary Firm) or on behalf of a Partnership Firm/Company/Joint Venture (JV)/ Registered Society / Registered Trust 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. Following documents shall be submitted by the tenderer in case tenderer is not JV/Partnership firm:

- (a) **Company registered under Companies Act-2013:** The tenderer shall submit (i) the copies of **MOA (Memorandum of Association) / AOA (Articles of Association)** of the company; and (ii) 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.
 - (b) **LLP (Limited Liability Partnership):** If the tender is submitted on behalf of a LLP registered under LLP Act-2008, the tenderer shall submit along with the tender- (i) a copy of LLP Agreement, (ii) a copy of Certificate of Incorporation; and (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.
 - (c) **Registered Society & Registered Trust:** The tenderer shall submit (i) a copy of the Certificate of Registration, (ii) Deed of Formation; and (iii) a copy of Power of Attorney in favour of the individual to sign the tender documents and create liability against the Society/Trust.
- (ii) 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.
 - (iii) After opening of the tender, any document pertaining to the constitution of Sole Proprietorship Firm / Partnership Firm / Registered Company/ Registered Trust / Registered Society etc. shall be neither asked nor considered, if submitted.
 - (iv) A tender from JV / Partnership firm etc. shall be considered only where permissible as per the tender conditions.
 - (v) DFCCIL will not be bound by any change 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.

1.3.19 The tenderer whether sole proprietor, a company or a partnership firm / joint venture (JV) / registered society / registered trust 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 submit the tender, sign the agreement, receive money, co-ordinate measurements through contractor's authorized engineer, witness measurements, sign measurement books, compromise, settle, relinquish any claim(s) preferred by the firm and sign "No Claim Certificate" and refer all or any disputes to arbitration.

1.3.20 Employment/Partnership etc. of Retired Employees:

- (a) Should a tenderer 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 DFCCIL for the time being, or should a tenderer being partnership firm/company /Joint Venture (JV) / registered society / registered trust etc have as one of its partners a retired Engineer or retired gazetted officer as aforesaid, or should a tenderer being an incorporated company have any such retired Engineer or retired officer as one of its directors or should a tenderer have in his employment any retired Engineer or retired gazetted officer as aforesaid, the full information as to the date of retirement of such Engineer or gazetted officer from the said service 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 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, or to take the employment under the Contractor, has been obtained by the tenderer or the Engineer or officer, as the case may be from the President of India or any officer, duly authorized by him in this behalf, shall be clearly stated in writing at the time of submitting the tender. Tenders without the information above referred to or a statement to the effect that no such retired Engineer or retired gazetted officer is so associated with the tenderer, as the case may be, shall be rejected.

- (b) Should a tenderer or Contractor being an individual, have a relative(s) or in the case of partnership firm/ company / joint venture (jv) / registered society / registered trust etc. one or more of his shareholder(s) or a relative(s) of the shareholder(s) employed in gazetted capacity in the DFCCIL, the authority inviting tenders shall be informed of the fact at the time of submission of tender, failing which the tender may be disqualified/rejected or if such fact subsequently comes to light, the contract may be rescinded in accordance with provision in Clause 62 of General Conditions of Contract.

1.3.21 The tenderer shall be considered disqualified/in-eligible if:

- (a) The Tenderer or any of its partners and/or subcontractors included in the tender has been banned for business with *Ministry of Railways* along with any of its attached and subordinate offices through an order issued by Ministry of Railways as per list available on Web site (http://www.indianrailway.gov.in/railway_board) of Railway Board/DFCCIL pertaining to banning of Business, with the banning being valid as on the date of submission the Tender.
- (b) The Tenderer or any of its partners has suffered bankruptcy/insolvency or it is in the process of winding-up or there is a case of insolvency pending before any Court on the deadline of submission of application.

1.2.22 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.

1.3.23 **Period of Completion:** The entire work is required to be completed in all respects within ----- months 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.

1.3.24 **JOINT VENTURE (JV): Participation of JV in Works:**

1.3.24.1 Separate identity/name shall be given to the Joint Venture.

1.3.24.2 Number of members in a JV shall not be more than 3. 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 foreign member(s), the Lead Member has to be an Indian firm/company with a minimum share of 51%.

1.3.24.3 A member of JV shall not be permitted to participate either in an individual capacity or as a member of another JV in the same tender

1.3.24.4 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 the tender.

1.3.24.5 Earnest Money Deposit (EMD) shall be deposited by JV or authorized person of JV through e-payment gateway or as mentioned in tender document. The EMD submitted in the name of any other individual member shall not be considered.

1.3.24.6 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 (**Form No. 7**).

- 1.3.24.7** Once the tender is submitted, the MoU shall not be modified /altered /terminated during the validity of the tender. In case the tenderer fails to observe/comply with this stipulation, the full Earnest Money Deposit (EMD) shall be liable to be forfeited.
- 1.3.24.8** Approval for change of constitution of JV shall be at the sole discretion of the DFCCIL. The constitution of the JV shall not be allowed to be modified after submission of the tender bid by the JV, except when modification becomes inevitable due to succession laws etc., provided further that there is no reduction in technical capability of 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.
- 1.3.24.9** Similarly, after the contract is awarded, the constitution of JV shall not be allowed to be altered during the currency of contract except when modification become inevitable due to succession laws etc. and technical capability of JV should not get vitiated. Failure to observe this stipulation shall be deemed to be breach of contract with all consequential.
- 1.3.24.10** 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 etc. shall be accepted only in the name of the JV and no splitting of guarantees among the members of the JV shall be permitted.
- 1.3.24.11** On issue of LOA (Letter of Acceptance), the JV entity to whom the work has been awarded, shall form a legal entity if not already formed, which shall have the same shareholding pattern, as was declared in the MOU/JV Agreement submitted along with the tender. Before entering into formal agreement with DFCCIL, this entity shall be got registered as per applicable Indian Law. A separate PAN shall be obtained for this entity. The documents pertaining to this entity including its PAN shall be furnished to the DFCCILs before signing the contract agreement for the work. In case the bidder 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 Earnest Money Deposit and other dues payable to the Contractor under this contract. The entity so registered, in the registered documents, shall have, inter-alia, following para:
- a. 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.
 - b. Duration of the Registered Entity: It shall be valid during the entire currency of the contract including the period of extension, if any
 - c. Governing Laws: The Registered Entity shall in all respect be governed by and accordance with Indian Laws.
- 1.3.24.12** Authorized Member - Joint Venture members in the JV MoU shall authorize one of the members on behalf of the Joint Venture to deal with the tender, sign the agreement or enter 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/correspondence with respect to the contract would be sent only to this authorized member the JV.
- 1.3.24.13** 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.
- 1.3.24.14** Documents to be enclosed by the JV along with the tender:
- 1.3.24.14.1** In case one or more of the members of the JV is/are partnership firm(s), following documents shall be submitted:
- a. A copy of registration certificate of each of the constituent partnership firms issued by competent authority.
 - b. A copy of consent of all the partnership firms to enter into the JV Agreement.

- c. A notarized or registered copy of Power of Attorney in favour of the individual to sign the MOU/JV Agreement on behalf of each of the constituent partnership firms.
- d. A copy of partnership deeds of each of the constituent partnership firms.
- e. A copy of MOU of JV firm, executed on non-judicial stamp paper of Rs. 100/-

1.3.24.15 In case one or more members is/are Hindu Undivided Family HUF, the A copy of notarized affidavit on Stamp Paper declaring that 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.

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

- a. A copy of Certificate of Incorporation of each of the constituent company.
- b. A copy of resolutions of the Directors of each of the constituent Company, permitting the company to enter into the JV agreement.
- c. A copy of Authorization/copy of Power of Attorney/Resolution of Board of Directors) in favour of the individual to sign the tender, sign MOU/JV Agreement on behalf of the constituent company.
- d. A copy of MOA (Memorandum of Association)/AOA (Articles of Association) of each of the constituent company.
- e. A copy of MOU of JV firm, executed on non-judicial stamp paper of Rs.100/-

1.3.24.17 All the Members of JV shall certify that they are not blacklisted or debarred by DFCCIL/Railways or any other Ministry/Department of the Govt. of India from participation in tenders/contract on the date of opening of bids either in their individual capacity or as a member of the JV in which they were/are members.

1.3.25 Participation of Partnership Firms in tenders:

1.3.25.1 The Partnership Firms participating in the tender should be legally valid under the provisions of the Indian Partnership Act.

1.3.25.2 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 prior to date of tender opening as per the Indian Partnership Act.

1.3.25.3 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.

1.3.25.4 Once the tender has been submitted, the constitution of the firm shall not 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 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 and the tenderer shall have no claims what-so-ever. Any change in the constitution of Partnership firm after opening of tender shall be with the consent of all partners and with the signatures of all partners as that in the Partnership Deed. Failure to observe this requirement shall render the offer invalid and full EMD shall be forfeited.

If any Partner/s withdraws from the firm after opening of the tender and before the award of the contract, the offer shall be rejected. If any new partner joins the firm after opening 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 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 GCC of Contract (Chapter-IV, Part-I).

- 1.3.25.5 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.
- 1.3.25.6 The tender form shall be submitted only in the name of partnership firm. The EMD shall be deposited by partnership firm through e-payment gateway or as mentioned in tender document. The EMD submitted in the name of any individual partner or in the name of authorized partner (s) shall not be considered.
- 1.3.25.7 Authorized Member: One or more of the partners of the firm or any other person(s) shall be designated as the authorized person(s) on behalf of the firm, who will be authorized by all the partners to act on behalf of the firm through a “Power of Attorney”, specifically authorizing him/them to submit & sign the tender, sign the agreement, receive payment, witness measurements, sign measurement books, make correspondences, compromise, settle, relinquish any claim(s) preferred by the firm, sign “No Claim Certificate”, refer all or any dispute to arbitration and to take similar such action in respect of the said tender/contract. Such “Power of Attorney” should be notarized/registered and submitted along with tender.
- 1.3.25.8 On issue of Letter of Acceptance (LOA) to the partnership firm, all the guarantees like Performance Guarantee etc, shall be submitted only in the name of the partnership firm and no splitting of guarantees among the partners shall be acceptable.
- 1.3.25.9 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.
- 1.3.25.10 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 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/Railways 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/alterd/ terminated during the currency of contract as contemplated in the conditions of the contract. Any change carried out by partners in the constitution of the firm without permission of DFCCIL, shall constitute a breach of the contract, liable for determination of the contract under Clause 62 of the GCC.
 - (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.
- 1.3.25.11 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:
- i. A copy of registration certificate of partnership firm issued by competent authority.
 - ii. A copy of partnership deed, specifying shares, role and responsibilities of each partner.
 - iii. A notarized or registered copy of Power of Attorney in favour of the individual authorizing him to sign the documents and to submit the bid on behalf of partnership firm.
 - iv. All information on specified format for evaluation of eligibility criteria.

- v. All documents in support of claim for eligibility criteria.
 - vi. 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 / any State Govt. from participation in tenders / contracts as on the date of opening of bids, either in their individual capacity or in any firm in which they were / are partners. Concealment / wrong information in regard to above shall make the contract liable for determination under Clause 62 of the General Conditions of Contract.
- 1.2.26 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.
- 1.3.27 **Schedule of Prices:** The Price Schedule of the tender document lists out the Schedule of Prices for various items. Based on these, the total tender value has also been worked out.
- 1.3.28 **Performance Guarantee:** Provisions of Performance Guarantee as per Para 16. (4) of Chapter-IV (GCC) shall be followed.
- 1.3.29 **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.....dated my original tender shall remain open for acceptance on its original terms and conditions,".
- 1.3.30 **Site Inspection:** Tenderers are requested to inspect the site and carry out careful examination 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., and satisfy themselves regarding the feasibility of transporting the girders, etc. from the yard to the final site of placement etc.
- 1.3.31 **Provisions Applicable for MSEs (Micro & Small enterprises)-** In pursuance of the Public Procurement Policy for MSEs Order, 2018 effective from 1st Apr,2019 (notified under section 11 of MSME Act, 2006 - Notification dated 9 Nov,2018) following conditions are applicable for eligible MSEs:
- i) Participating MSEs quoting a price within price band of L1 + 15% shall be allowed to execute work by bringing down their price to L1 price in a situation where L1 price is from someone other than an MSE and such MSEs can be together ordered upto 25% of the total tendered value.
- The MSEs must also indicate the terminal validity date of their registration, otherwise, such offers will not be liable for consideration of benefits detailed in MSE notification of Government of India dt. 23.03.12.
- 1.3.32 **Integrity Pact:** The integrity pact duly executed and signed by the Bidder or his Authorized Representative shall be submitted at time of Bidding. The Performa for Integrity Pact is placed as **Form No. 17**.
- 1.3.33 GoI Public Procurement (Preference to make in India), Order 2017 issued vide DPIIT letter No. P-45021/2/2017-PP (BE-II) dated 16.9.2020 shall be followed for this tender. The copy of DPIIT letter dated 16.09.2020 is as under:

No. P-45021/2/2017-PP (BE-II)
Government of India
Ministry of Commerce and Industry
Department for Promotion of Industry and Internal Trade
(Public Procurement Section)

Udyog Bhawan, New Delhi
Dated: 16th September, 2020

To

All Central Ministries/Departments/CPSUs/All concerned

ORDER

Subject: Public Procurement (Preference to Make in India), Order 2017– Revision; regarding.

Department for Promotion of Industry and Internal Trade, in partial modification [Paras 2, 3, 5, 10 & 13] of Order No.P-45021/2/2017-B.E.-II dated 15.6.2017 as amended by Order No.P-45021/2/2017-B.E.-II dated 28.05.2018, Order No.P-45021/2/2017-B.E.-II dated 29.05.2019 and Order No.P-45021/2/2017-B.E.-II dated 04.06.2020, hereby issues the revised 'Public Procurement (Preference to Make in India), Order 2017' dated 16.09.2020 effective with immediate effect.

Whereas it is the policy of the Government of India to encourage 'Make in India' and promote manufacturing and production of goods and services in India with a view to enhancing income and employment, and

Whereas procurement by the Government is substantial in amount and can contribute towards this policy objective, and

Whereas local content can be increased through partnerships, cooperation with local companies, establishing production units in India or Joint Ventures (JV) with Indian suppliers, increasing the participation of local employees in services and training them,

Now therefore the following Order is issued:

1. This Order is issued pursuant to Rule 153 (iii) of the General Financial Rules 2017.
2. **Definitions:** For the purposes of this Order:

'Local content' means the amount of value added in India which shall, unless otherwise prescribed by the Nodal Ministry, be the total value of the item procured (excluding net domestic indirect taxes) minus the value of imported content in the item (including all customs duties) as a proportion of the total value, in percent.

'Class-I local supplier' means a supplier or service provider, whose goods, services or works offered for procurement, meets the minimum local content as prescribed for 'Class-I local supplier' under this Order.

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'Class-II local supplier' means a supplier or service provider, whose goods, services or works offered for procurement, meets the minimum local content as prescribed for 'Class-II local supplier' but less than that prescribed for 'Class-I local supplier' under this Order.

'Non - Local supplier' means a supplier or service provider, whose goods, services or works offered for procurement, has local content less than that prescribed for 'Class-II local supplier' under this Order.

'L1' means the lowest tender or lowest bid or the lowest quotation received in a tender, bidding process or other procurement solicitation as adjudged in the evaluation process as per the tender or other procurement solicitation.

'Margin of purchase preference' means the maximum extent to which the price quoted by a "Class-I local supplier" may be above the L1 for the purpose of purchase preference.

'Nodal Ministry' means the Ministry or Department identified pursuant to this order in respect of a particular item of goods or services or works.

'Procuring entity' means a Ministry or department or attached or subordinate office of, or autonomous body controlled by, the Government of India and includes Government companies as defined in the Companies Act.

'Works' means all works as per Rule 130 of GFR- 2017, and will also include 'turnkey works'.

3. Eligibility of 'Class-I local supplier' / 'Class-II local supplier' / 'Non-local suppliers' for different types of procurement

(a) In procurement of all goods, services or works in respect of which the Nodal Ministry / Department has communicated that there is sufficient local capacity and local competition, only 'Class-I local supplier', as defined under the Order, shall be eligible to bid irrespective of purchase value.

(b) Only 'Class-I local supplier' and 'Class-II local supplier', as defined under the Order, shall be eligible to bid in procurements undertaken by procuring entities, except when Global tender enquiry has been issued. In global tender enquiries, 'Non-local suppliers' shall also be eligible to bid along with 'Class-I local suppliers' and 'Class-II local suppliers'. In procurement of all goods, services or works, not covered by sub-para 3(a) above, and with estimated value of purchases less than Rs. 200 Crore, in accordance with Rule 161(iv) of GFR, 2017, Global tender enquiry shall not be issued except with the approval of competent authority as designated by Department of Expenditure.

(c) For the purpose of this Order, works includes Engineering, Procurement and Construction (EPC) contracts and services include System Integrator (SI) contracts.

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3A. Purchase Preference

(a) Subject to the provisions of this Order and to any specific instructions issued by the Nodal Ministry or in pursuance of this Order, purchase preference shall be given to 'Class-I local supplier' in procurements undertaken by procuring entities in the manner specified here under.

(b) In the procurements of goods or works, which are covered by para 3(b) above and which are divisible in nature, the 'Class-I local supplier' shall get purchase preference over 'Class-II local supplier' as well as 'Non-local supplier', as per following procedure:

- i. Among all qualified bids, the lowest bid will be termed as L1. If L1 is 'Class-I local supplier', the contract for full quantity will be awarded to L1.
- ii. If L1 bid is not a 'Class-I local supplier', 50% of the order quantity shall be awarded to L1. Thereafter, the lowest bidder among the 'Class-I local supplier' will be invited to match the L1 price for the remaining 50% quantity subject to the Class-I local supplier's quoted price falling within the margin of purchase preference, and contract for that quantity shall be awarded to such 'Class-I local supplier' subject to matching the L1 price. In case such lowest eligible 'Class-I local supplier' fails to match the L1 price or accepts less than the offered quantity, the next higher 'Class-I local supplier' within the margin of purchase preference shall be invited to match the L1 price for remaining quantity and so on, and contract shall be awarded accordingly. In case some quantity is still left uncovered on Class-I local suppliers, then such balance quantity may also be ordered on the L1 bidder.

(c) In the procurements of goods or works, which are covered by para 3(b) above and which are not divisible in nature, and in procurement of services where the bid is evaluated on price alone, the 'Class-I local supplier' shall get purchase preference over 'Class-II local supplier' as well as 'Non-local supplier', as per following procedure:

- i. Among all qualified bids, the lowest bid will be termed as L1. If L1 is 'Class-I local supplier', the contract will be awarded to L1.
- ii. If L1 is not 'Class-I local supplier', the lowest bidder among the 'Class-I local supplier', will be invited to match the L1 price subject to Class-I local supplier's quoted price falling within the margin of purchase preference, and the contract shall be awarded to such 'Class-I local supplier' subject to matching the L1 price.
- iii. In case such lowest eligible 'Class-I local supplier' fails to match the L1 price, the 'Class-I local supplier' with the next higher bid within the margin of purchase preference shall be invited to match the L1 price and so on and contract shall be awarded accordingly. In case none of the 'Class-I local supplier' within the margin of purchase preference matches the L1 price, the contract may be awarded to the L1 bidder.

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- (d) "Class-II local supplier" will not get purchase preference in any procurement, undertaken by procuring entities.

3B. Applicability in tenders where contract is to be awarded to multiple bidders -
In tenders where contract is awarded to multiple bidders subject to matching of L1 rates or otherwise, the 'Class-I local supplier' shall get purchase preference over 'Class-II local supplier' as well as 'Non-local supplier', as per following procedure:

- a) In case there is sufficient local capacity and competition for the item to be procured, as notified by the nodal Ministry, only Class I local suppliers shall be eligible to bid. As such, the multiple suppliers, who would be awarded the contract, should be all and only 'Class I Local suppliers'.
- b) In other cases, 'Class II local suppliers' and 'Non local suppliers' may also participate in the bidding process along with 'Class I Local suppliers' as per provisions of this Order.
- c) If 'Class I Local suppliers' qualify for award of contract for at least 50% of the tendered quantity in any tender, the contract may be awarded to all the qualified bidders as per award criteria stipulated in the bid documents. However, in case 'Class I Local suppliers' do not qualify for award of contract for at least 50% of the tendered quantity, purchase preference should be given to the 'Class I local supplier' over 'Class II local suppliers' / 'Non local suppliers' provided that their quoted rate falls within 20% margin of purchase preference of the highest quoted bidder considered for award of contract so as to ensure that the 'Class I Local suppliers' taken in totality are considered for award of contract for at least 50% of the tendered quantity.
- d) First purchase preference has to be given to the lowest quoting 'Class-I local supplier', whose quoted rates fall within 20% margin of purchase preference, subject to its meeting the prescribed criteria for award of contract as also the constraint of maximum quantity that can be sourced from any single supplier. If the lowest quoting 'Class-I local supplier', does not qualify for purchase preference because of aforesaid constraints or does not accept the offered quantity, an opportunity may be given to next higher 'Class-I local supplier', falling within 20% margin of purchase preference, and so on.
- e) To avoid any ambiguity during bid evaluation process, the procuring entities may stipulate its own tender specific criteria for award of contract amongst different bidders including the procedure for purchase preference to 'Class-I local supplier' within the broad policy guidelines stipulated in sub-paras above.
4. **Exemption of small purchases:** Notwithstanding anything contained in paragraph 3, procurements where the estimated value to be procured is less than Rs. 5 lakhs shall be exempt from this Order. However, it shall be ensured by procuring entities that procurement is not split for the purpose of avoiding the provisions of this Order.
5. **Minimum local content:** The 'local content' requirement to categorize a supplier as 'Class-I local supplier' is minimum 50%. For 'Class-II local supplier', the 'local content' requirement is minimum 20%. Nodal Ministry/ Department may prescribe only a higher

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percentage of minimum local content requirement to categorize a supplier as 'Class-I local supplier'/ 'Class-II local supplier'. For the items, for which Nodal Ministry/ Department has not prescribed higher minimum local content notification under the Order, it shall be 50% and 20% for 'Class-I local supplier'/ 'Class-II local supplier' respectively.

6. **Margin of Purchase Preference:** The margin of purchase preference shall be 20%.
7. **Requirement for specification in advance:** The minimum local content, the margin of purchase preference and the procedure for preference to Make in India shall be specified in the notice inviting tenders or other form of procurement solicitation and shall not be varied during a particular procurement transaction.
8. **Government E-marketplace:** In respect of procurement through the Government E-marketplace (GeM) shall, as far as possible, specifically mark the items which meet the minimum local content while registering the item for display, and shall, wherever feasible, make provision for automated comparison with purchase preference and without purchase preference and for obtaining consent of the local supplier in those cases where purchase preference is to be exercised.
9. **Verification of local content:**
 - a. The 'Class-I local supplier'/ 'Class-II local supplier' at the time of tender, bidding or solicitation shall be required to indicate percentage of local content and provide self-certification that the item offered meets the local content requirement for 'Class-I local supplier'/ 'Class-II local supplier', as the case may be. They shall also give details of the location(s) at which the local value addition is made.
 - b. In cases of procurement for a value in excess of Rs. 10 crores, the 'Class-I local supplier'/ 'Class-II local supplier' shall be required to provide a certificate from the statutory auditor or cost auditor of the company (in the case of companies) or from a practicing cost accountant or practicing chartered accountant (in respect of suppliers other than companies) giving the percentage of local content.
 - c. Decisions on complaints relating to implementation of this Order shall be taken by the competent authority which is empowered to look into procurement-related complaints relating to the procuring entity.
 - d. Nodal Ministries may constitute committees with internal and external experts for independent verification of self-declarations and auditor's/ accountant's certificates on random basis and in the case of complaints.
 - e. Nodal Ministries and procuring entities may prescribe fees for such complaints.
 - f. False declarations will be in breach of the Code of Integrity under Rule 175(1)(i)(h) of the General Financial Rules for which a bidder or its successors can be debarred for up to two years as per Rule 151 (iii) of the General Financial Rules along with such other actions as may be permissible under law.

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- g. A supplier who has been debarred by any procuring entity for violation of this Order shall not be eligible for preference under this Order for procurement by any other procuring entity for the duration of the debarment. The debarment for such other procuring entities shall take effect prospectively from the date on which it comes to the notice of other procurement entities, in the manner prescribed under paragraph 9h below.
- h. The Department of Expenditure shall issue suitable instructions for the effective and smooth operation of this process, so that:
 - i. The fact and duration of debarment for violation of this Order by any procuring entity are promptly brought to the notice of the Member-Convenor of the Standing Committee and the Department of Expenditure through the concerned Ministry /Department or in some other manner;
 - ii. on a periodical basis such cases are consolidated and a centralized list or decentralized lists of such suppliers with the period of debarment is maintained and displayed on website(s);
 - iii. in respect of procuring entities other than the one which has carried out the debarment, the debarment takes effect prospectively from the date of uploading on the website(s) in the such a manner that ongoing procurements are not disrupted.

10. Specifications in Tenders and other procurement solicitations:

- a. Every procuring entity shall ensure that the eligibility conditions in respect of previous experience fixed in any tender or solicitation do not require proof of supply in other countries or proof of exports.
- b. Procuring entities shall endeavour to see that eligibility conditions, including on matters like turnover, production capability and financial strength do not result in unreasonable exclusion of 'Class-I local supplier'/ 'Class-II local supplier' who would otherwise be eligible, beyond what is essential for ensuring quality or creditworthiness of the supplier.
- c. Procuring entities shall, within 2 months of the issue of this Order review all existing eligibility norms and conditions with reference to sub-paragraphs 'a' and 'b' above.

d. Reciprocity Clause

- i. When a Nodal Ministry/Department identifies that Indian suppliers of an item are not allowed to participate and/ or compete in procurement by any foreign government, due to restrictive tender conditions which have direct or indirect effect of barring Indian companies such as registration in the procuring country, execution of projects of specific value in the procuring country etc., it shall provide such details to all its procuring entities including CMDs/CEOs of PSEs/PSUs, State Governments and other procurement agencies under their administrative control and GeM for appropriate reciprocal action.

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- ii. Entities of countries which have been identified by the nodal Ministry/Department as not allowing Indian companies to participate in their Government procurement for any item related to that nodal Ministry shall not be allowed to participate in Government procurement in India for all items related to that nodal Ministry/ Department, except for the list of items published by the Ministry/ Department permitting their participation.
 - iii. The stipulation in (ii) above shall be part of all tenders invited by the Central Government procuring entities stated in (i) above. All purchases on GeM shall also necessarily have the above provisions for items identified by nodal Ministry/ Department.
 - iv. State Governments should be encouraged to incorporate similar provisions in their respective tenders.
 - v. The term 'entity' of a country shall have the same meaning as under the FDI Policy of DPIIT as amended from time to time.
- e. Specifying foreign certifications/ unreasonable technical specifications/ brands/ models in the bid document is restrictive and discriminatory practice against local suppliers. If foreign certification is required to be stipulated because of non-availability of Indian Standards and/or for any other reason, the same shall be done only after written approval of Secretary of the Department concerned or any other Authority having been designated such power by the Secretary of the Department concerned.
- f. "All administrative Ministries/Departments whose procurement exceeds Rs. 1000 Crore per annum shall notify/ update their procurement projections every year, including those of the PSEs/PSUs, for the next 5 years on their respective website."

10A. Action for non-compliance of the Provisions of the Order: In case restrictive or discriminatory conditions against domestic suppliers are included in bid documents, an inquiry shall be conducted by the Administrative Department undertaking the procurement (including procurement by any entity under its administrative control) to fix responsibility for the same. Thereafter, appropriate action, administrative or otherwise, shall be taken against erring officials of procurement entities under relevant provisions. Intimation on all such actions shall be sent to the Standing Committee.

11. Assessment of supply base by Nodal Ministries: The Nodal Ministry shall keep in view the domestic manufacturing / supply base and assess the available capacity and the extent of local competition while identifying items and prescribing the higher minimum local content or the manner of its calculation, with a view to avoiding cost increase from the operation of this Order.

12. Increase in minimum local content: The Nodal Ministry may annually review the local content requirements with a view to increasing them, subject to availability of sufficient local competition with adequate quality.

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13. **Manufacture under license/ technology collaboration agreements with phased indigenization:** While notifying the minimum local content, Nodal Ministries may make special provisions for exempting suppliers from meeting the stipulated local content if the product is being manufactured in India under a license from a foreign manufacturer who holds intellectual property rights and where there is a technology collaboration agreement / transfer of technology agreement for indigenous manufacture of a product developed abroad with clear phasing of increase in local content.

13A. In procurement of all goods, services or works in respect of which there is substantial quantity of public procurement and for which the nodal ministry has not notified that there is sufficient local capacity and local competition, the concerned nodal ministry shall notify an upper threshold value of procurement beyond which foreign companies shall enter into a joint venture with an Indian company to participate in the tender. Procuring entities, while procuring such items beyond the notified threshold value, shall prescribe in their respective tenders that foreign companies may enter into a joint venture with an Indian company to participate in the tender. The procuring Ministries/Departments shall also make special provisions for exempting such joint ventures from meeting the stipulated minimum local content requirement, which shall be increased in a phased manner.

14. **Powers to grant exemption and to reduce minimum local content:** The administrative Department undertaking the procurement (including procurement by any entity under its administrative control), with the approval of their Minister-in-charge, may by written order, for reasons to be recorded in writing,

- a. reduce the minimum local content below the prescribed level; or
- b. reduce the margin of purchase preference below 20%; or
- c. exempt any particular item or supplying entities from the operation of this Order or any part of the Order.

A copy of every such order shall be provided to the Standing Committee and concerned Nodal Ministry / Department. The Nodal Ministry / Department concerned will continue to have the power to vary its notification on Minimum Local Content.

15. **Directions to Government companies:** In respect of Government companies and other procuring entities not governed by the General Financial Rules, the administrative Ministry or Department shall issue policy directions requiring compliance with this Order.

16. **Standing Committee:** A standing committee is hereby constituted with the following membership:

Secretary, Department for Promotion of Industry and Internal Trade—Chairman
Secretary, Commerce—Member
Secretary, Ministry of Electronics and Information Technology—Member
Joint Secretary (Public Procurement), Department of Expenditure—Member
Joint Secretary (DPIIT)—Member-Convenor

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The Secretary of the Department concerned with a particular item shall be a member in respect of issues relating to such item. The Chairman of the Committee may co-opt technical experts as relevant to any issue or class of issues under its consideration.

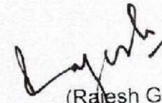
17. Functions of the Standing Committee: The Standing Committee shall meet as often as necessary, but not less than once in six months. The Committee

- a. shall oversee the implementation of this order and issues arising therefrom, and make recommendations to Nodal Ministries and procuring entities.
- b. shall annually assess and periodically monitor compliance with this Order
- c. shall identify Nodal Ministries and the allocation of items among them for issue of notifications on minimum local content
- d. may require furnishing of details or returns regarding compliance with this Order and related matters
- e. may, during the annual review or otherwise, assess issues, if any, where it is felt that the manner of implementation of the order results in any restrictive practices, cartelization or increase in public expenditure and suggest remedial measures
- f. may examine cases covered by paragraph 13 above relating to manufacture under license/ technology transfer agreements with a view to satisfying itself that adequate mechanisms exist for enforcement of such agreements and for attaining the underlying objective of progressive indigenization
- g. may consider any other issue relating to this Order which may arise.

18. Removal of difficulties: Ministries /Departments and the Boards of Directors of Government companies may issue such clarifications and instructions as may be necessary for the removal of any difficulties arising in the implementation of this Order.

19. Ministries having existing policies: Where any Ministry or Department has its own policy for preference to local content approved by the Cabinet after 1st January 2015, such policies will prevail over the provisions of this Order. All other existing orders on preference to local content shall be reviewed by the Nodal Ministries and revised as needed to conform to this Order, within two months of the issue of this Order.

20. Transitional provision: This Order shall not apply to any tender or procurement for which notice inviting tender or other form of procurement solicitation has been issued before the issue of this Order.



(Rajesh Gupta)

Director

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CHAPTER-IV
GENERAL CONDITIONS OF CONTRACT

GENERAL CONDITIONS OF CONTRACT

DEFINITIONS AND INTERPRETATION

- 1 (1). Definitions:** In these General Conditions of Contract, the following terms shall have the meaning assigned hereunder except where the context otherwise requires:
- (a). **"DFCCIL"** shall mean the Dedicated Freight Corridor Construction India Limited, a PSU under Ministry of Railways, GoI or of the Successor authorized to deal with any matters which these presents are concerned on his behalf.
 - (b). **"Managing Director"** shall mean the Officer in-charge of the General Superintendence and Control of the DFCCIL and shall mean and include their successors.
 - (c). **"Group General Manager (GGM)"** shall mean the Officer in-charge of the Engineering Department of DFCCIL and shall also include Chief General Manager (CGM), General manager (Co) and shall mean & include their successors.
 - (d). **"Engineer"** shall mean the Dy.Chief Project Manager (Dy.CPM), Project Manager (PM) of DFCCIL and shall mean & include the Engineers of the Successors.
 - (e). **"Engineer's Representative"** shall mean the Dy. Project Manager (DPM), Assistant Project manager (APM) of DFCCIL shall mean and include the Engineer's Representative.
 - (f). **"Consultant/Contractor"** shall mean the Person/Firm/LLP/Trust/Co-operative Society or Company whether incorporated or not who enters into the consultancy contract with the DFCCIL and shall include their executors, administrators, successors and permitted assigns.
 - (g). **"Consultancy Contract or Contract"** shall mean and include the Consultancy Agreement, the Work Order, the accepted Bill(s) of Quantities of the DFCCIL modified by the tender percentage for items of works quantified, or not quantified, the 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.
 - (h). **"Works"** shall mean the consultancy works to be executed in accordance with the contract.
 - (i). **Specifications"** shall mean the Specifications for works of DFCCIL as specified by DFCCIL under the authority of the Group General Manager (GGM) or as amplified, added to or superseded by Special Specifications, if any.
 - (j). **"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.
 - (k). **"Constructional Plant"** shall mean all appliances or things of whatsoever nature required for the execution, completion of the consultancy **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.
 - (l). **"Temporary Works"** shall mean all temporary works of every kind required for the execution of bridge inspection work.
 - (m). **"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 DFCCIL for the purpose of the contract.
 - (n). **" Contractor's authorized Engineer"** shall mean a graduate Engineer or equivalent, having more than 3 years' experience in the relevant field of Railway consultancy work involved in the contract, duly approved by Engineer.
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- (o). Date of inviting tender shall be the date of publishing tender notice on IREPS website if tender is published on website.
 - (p). **“Bill of Quantities”** shall mean Schedule of Item(s) included in the tender document along with respective quantities and rates, accepted by the DFCCIL.
- 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 and 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 the consultancy contract.

GENERAL OBLIGATIONS

- 2 (1). **Execution Co-Relation and Intent of Contract Documents:** The consultancy contract documents shall be signed in triplicate by the DFCCIL and the Consultant. The consultancy 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 proper execution of consultancy work. Materials or works not covered by or properly inferable from any heading or class of the specifications shall not be supplied by the DFCCIL to the Consultant unless distinctly specified in the consultancy 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 present jurisdiction of DFCCIL to any CGM unit of DFCCIL or to a Project authority or vice versa while consultancy contract is in subsistence, the consultancy contract shall be binding on the Consultant and the Successor CGM unit of DFCCIL/Project in the same manner & take effect in all respects as if the Consultant and the Successor CGM unit of DFCCIL/Project were parties thereto from the inception and the corresponding officer or the Competent Authority in the Successor CGM unit of DFCCIL/Project will exercise the same powers and enjoy the same authority as conferred to the present DFCCIL CGM unit under the original consultancy contract/agreement entered into.
- 2 (3). If for administrative or other reasons the contract is transferred to the Successor CGM unit of DFCCIL, the contract shall, notwithstanding any things contained herein contrary there to, be binding on the Consultant and the Successor CGM unit of DFCCIL in the same manner and take effect in all respects as if the Consultant and the Successor CGM unit of DFCCIL had been parties thereto from the date of this consultancy contract.
- 3 (1). **Law Governing the consultancy Contract:** This agreement and the relationship between the parties shall be governed construed and interpreted in accordance with applicable laws of India. Applicable laws shall mean all laws, bye-laws, statutes, rules, regulations, orders, ordinances, codes, guidelines, notices, directions, judgements, decrees or other requirements or official directives and/or of any statutory authority in the Republic of India.
- 3 (2). **Compliance to Regulations and Bye-Laws:** The Consultant shall conform to the provision of any statute relating to the works and regulations and bye-laws of any local authority. The Consultant 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:** Not Applicable for this work.

4. **Communications to be in Writing:** All notices, communications, reference and complaints made by the DFCCIL or the Engineer or the Engineer's Representative or the Consultant 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 consultancy contract agreement, otherwise e-mail id registered with IREPS and no notice, communication, reference or complaint not in writing or through e-mail, shall be recognized.
 5. **Service of Notices on Consultants:** The Consultant 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 Consultant, if delivered to the Consultant or his authorized agent or left at or posted to the address so given and shall be deemed to have been so given in the case of posting on day on which they would have reached such address in the ordinary course of post/ e-mail or on the day on which they were so delivered or left. In the case of contract by partners, any change in the constitution of the firm shall be forthwith notified by the Consultant to the Engineer.
 6. **Occupation and Use of Land:** No land belonging to or in the possession of the DFCCIL shall be occupied by the Consultant without the permission of the DFCCIL. The Consultant shall not use, or allow to be used the site for any purposes other than that of executing the consultancy works. Whenever non-DFCCIL bodies/persons are permitted to use DFCCIL premises with competent authority's approval, conservancy charges as applicable from time to time may be levied.
 7. **Assignment or Subletting of Contract:** Not Permitted in this work.
 8. **Assistance by DFCCIL for the Stores to be obtained by the Consultant:** Owing to difficulty in obtaining certain materials (including Tools & Plant) in the market, the DFCCIL may have agreed without any liability therefore to endeavor to obtain or assist the Consultant 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 Consultant shall not be deemed absolved of his own responsibility and shall keep in touch with the day to day position regarding their availability and accordingly adjust progress of works including employment of labour and the 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. **Railway/DFCCIL Passes:** Not Applicable for this work.
 10. **Carriage of Materials:** Not Applicable for this work.
 11. **Use of Ballast Trains:** Not Applicable for this work.
 12. **Representation on Works:** The Consultant shall, when he is not personally present on the site of the works place, keep a responsible agent at the works during working hours who shall on receiving reasonable notice, present himself to the Engineer and orders given by the Engineer or the Engineer's representative to the agent shall be deemed to have the same force as if they had been given to the Consultant. Before absenting himself, the Consultant shall furnish the name and address of his agent for the purpose of this clause and failure on the part of the Consultant to comply with this provision at any time will entitle the DFCCIL to rescind the consultancy contract under Clause 62 of these Conditions.
 13. **Relics and Treasures:** Not applicable for this work.
 14. **Excavated Material:** Not applicable for this work.
 15. **Indemnity by Consultants:** The Consultant shall indemnify and save harmless the 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 DFCCIL by reason of any act or omission of the Consultant, 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.
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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 DFCCILs as part of security for the due and faithful fulfillment 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 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 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 8% 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 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 Consultant along with or after, the following:

- (a) Final Payment of the Contract as per clause 51(1),
- (b) Execution of Final Supplementary Agreement or Certification by Engineer that DFCCIL has No Claim on Consultant

16.(2).(ii.) **Forfeiture of Security Deposit:** Forfeiture of Security Deposit: Whenever the contract is rescinded as a whole under clause 62 (1) of these conditions, the Security Deposit already with DFCCILs 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 Consultant 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 (PG) is outlined below:

- (a). The successful bidder shall have to submit a PG within 21 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 consultancy 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 DFCCIL, submission of PG can be accepted on the next working day.

In all other cases, if the Consultant 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 DFCCIL shall be entitled to forfeit Bid Security and other dues payable to the Consultant 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 Consultant 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 3% 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 DFCCIL (free from any encumbrance) may be accepted.
- (c). The PG shall be submitted by the successful bidder after the LOA has been issued, but before signing of the consultancy 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 Consultant shall get the validity of P.G. extended to cover such extended time for completion of consultancy work plus 60 days.
- (d). The value of PG to be submitted by the Consultant is based on original contract value and shall not change due to subsequent variation(s) in the original contract value.
- (e). The PG shall be released after physical completion of the work based on 'Completion Certificate' issued by the competent authority stating that the Consultant has completed the work in all respects satisfactorily.
- (f). Whenever the contract is rescinded, the PG already submitted for the consultancy contract shall be encashed.
- (g). The Engineer shall not make a claim under the PG except for amounts to which the 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 Consultant to extend the validity of the Performance Guarantee as described herein above, in which event the Engineer may claim the full amount of the PG.
 - (ii) Failure by the Consultant to pay DFCCIL any amount due, either as agreed by the Consultant 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 Consultancy Contract being determined or rescinded under clause 62 of these conditions.

17. **Force Majeure Clause:** If at any time, during the continuance of this consultancy contract, the performance in whole or in part by either party of any obligation under this contract shall be prevented or delayed by reason of any war, hostility, acts of public enemy, civil commotion, sabotage, serious loss or damage by fire, explosions, epidemics/pandemics, strikes, lockouts or acts of God (hereinafter, referred to events) provided, notice of the happening of any such event is given by either party to the other within 30 days from the date of occurrence thereof, neither party shall by reason of such event, be entitled to terminate this contract nor shall either party have any claim for damages against the other in respect of such non-performance or delay in performance, and works under the contract shall be resumed as soon as practicable after such event has come to an end or ceased to exist, and the decision of the Engineer as to whether the works have been so resumed or not shall be final and conclusive, PROVIDED FURTHER that if the performance in whole or in part of any obligation under this contract is prevented or delayed by reason of any such event for a period exceeding 120 days, either party may at its option terminate the contract by giving notice to the other party. Notice Period in this case shall not be less than 90 Days.

17A. **Extension of Time in Contracts:** The Consultant 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 consultancy contract) by the date entered in the consultancy 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 Consultant 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 DFCCIL or Consultant:** If in the opinion of the Engineer, the progress of work has any time been delayed by any act or neglect of DFCCIL's employees or by other Consultant/agencies employed by the 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 Consultant's performance necessarily depends or by reason of proceeding taken or threatened by or dispute with adjoining or to neighboring owners or public authority arising otherwise through the Consultant's own default etc. or by the delay authorized by the Engineer pending arbitration or in consequences of the Consultant not having received in due time necessary instructions from the 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 Consultant shall immediately give notice thereof in writing to the Engineer within 15 days of such happening, but shall nevertheless make constantly his best endeavors to bring down or make good the delay and shall do all that may be reasonably required of him to the satisfaction of the Engineer to proceed with the works. The Consultant 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 DFCCIL:** In the event of any failure or delay by the DFCCIL to hand over the Consultant possession of the site 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 DFCCIL due to any other cause whatsoever, then such failure or delay shall in no way affect or vitiate the consultancy contract or alter the character thereof or entitle the Consultant to damages or compensation therefor, but in any such case, the DFCCIL may grant such extension or extensions of the completion date as may be considered reasonable.

The Consultant 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 one month before the expiry of the date fixed for completion of the consultancy 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 consultancy contract being applicable, as if such extended period of time was originally provided in the original consultancy contract itself.

The non-submission of request for extension or submission of request within less than one month before the expiry of the date fixed for completion of the consultancy works, shall make him ineligible for extension under these sub clauses, subject to final decision of Engineer.

17B. Extension of Time with Liquidated Damages (LD) for delay due to Consultant: The time for the execution of the consultancy work specified in the consultancy contract documents shall be deemed to be the essence of the consultancy contract and the works must be completed not later than the date(s) as specified in the consultancy contract. If the Consultant fails to complete the works within the time as specified in the consultancy works for the reasons other than the reasons specified in Clause 17 and 17A, the DFCCIL may, if satisfied that the works can be completed by the Consultant within reasonable short time thereafter, allow the Consultant for further extension of time (in Proforma **Form No. 12**) as the Engineer may decide. On such extension the DFCCIL will be entitled without prejudice to any other right and remedy available on that behalf, to recover from the Consultant as agreed damages and not by way of penalty for each week or part of the week, a sum calculated at the following rates of the consultancy works value of the works.

For the purpose of this Clause, the consultancy works value of the works shall be taken as value of work as per consultancy works agreement including any supplementary work order/consultancy works agreement issued. Provided also, that the total amount of liquidated damages under this condition shall not exceed 5% of the consultancy works value.

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

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

NOTE: In a consultancy works, 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.

17C. Bonus for Early Completion of Work: Not Applicable to this consultancy work.

18 (1). Illegal Gratification: Any bribe, commission, gift or advantage given, promised or offered by or on behalf of the Consultant or his partner or agent or servant or anyone on his behalf, to any officer or employee of the DFCCIL or to any person on his behalf in relation to obtaining or execution of this or any other contract with the DFCCIL shall, in addition to any criminal liability which he may incur, subject Consultant to the rescission of the consultancy works and all other contracts with the DFCCIL and to the payment of any loss or damage resulting from such decision and the DFCCIL shall be entitled to deduct the amounts so payable from the Consultant's bills/Security Deposit or any other dues of Consultant with the Government of India.

18 (2). The Consultant shall not lend or borrow from or have or enter into any monetary dealings or transactions either directly or indirectly with any employee of the DFCCIL and if he shall do so, the DFCCIL shall be entitled forthwith to rescind the consultancy works and all other contracts with the DFCCIL. Any question or dispute as to the commission of any such offence or compensation payable to the DFCCIL under this Clause shall be settled by the Managing Director of the DFCCIL, in such a manner as he shall consider fit & sufficient and his decision shall be final & conclusive. In the event of rescission of the consultancy works under this Clause, the Consultant will not be paid any compensation whatsoever except payments for the work done upto the date of rescission.

EXECUTION OF WORKS

19 (1). Consultant's understanding: It is understood and agreed that the Consultant 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 consultancy works.

19 (2). Commencement of Works: The Consultant 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: The Consultant who has been awarded the work shall as soon as possible but not later than 15 days after the date of receipt of the acceptance letter have to submit the detailed programme of work indicating the time schedule of various inspections of bridges along with Performa of Bridge registers for steel and PSC girder in mutual consultation of DFCCIL. He shall also submit the details of organization (in terms of bridge inspectors and supervisors), plant and machinery that he intends to utilize (from time to time) for execution of the inspection 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 consultancy works and the Consultant shall endeavor to fulfill this programme of work. The progress of work will be watched accordingly and the liquidated damages will be with reference to the overall completion date. Nothing stated herein shall preclude the Consultant in achieving earlier completion of item or whole of the works than indicated in the programme.

The Consultant shall also submit a revised programme whenever the previous programme is inconsistent with actual progress. Each programme shall include: a general description of the methods which the Consultant intends to adopt the execution of this consultancy Works, and details showing the Consultant's reasonable estimate for the number of each class of Consultant's Personnel & Equipment, required on the Site for completing the work as per his overall planning.

Unless the Engineer, within 15 days after receiving a programme, gives notice to the Consultant stating the extent to which it does not comply with the Consultancy works, the Consultant shall proceed in accordance with the programme, subject to his other obligations under the Consultancy work. The Engineer shall be entitled to rely upon the programme when planning their activities.

If, at any time, the Engineer gives notice to the Consultant that a programme fails (to the extent stated) to comply with the Consultancy works or to be consistent with actual progress and the Consultant's stated intentions, the Consultant shall submit a revised programme to the Engineer within 15 days in accordance with this Sub-Clause.

- 19 (4). Setting out of Works:** The Consultant 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 Consultant shall execute the work as directed by the Engineer's representative and check these at frequent intervals. The Consultant shall provide all facilities like labour and instruments and shall co-operate with the Engineer's representative for checking of all alignment, grades, levels and dimensions. If, at any time, during the progress of the works any error appear or arise in any part of the work, the Consultant, 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 Consultant of his own responsibility of maintaining accuracy in the work. The Consultant 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 Consultant shall execute without delay all orders given by the Engineer from time to time; but the Consultant 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 authorised, except under written instructions from the Engineer.

- 20 (3) Extra Works:** Should works over and above those included in the consultancy works require to be executed at the site, the Consultant shall have no right to be entrusted with the execution of such works which may be carried out by another Consultant or Consultants or by other means at the option of the DFCCIL.

- 21 Separate Contracts in Connection with Works:** Not applicable for this work.

- 22 Instruction of Engineer's Representative:** Any instructions or approval given by the Engineer's representative to consultant in connection with the works shall bind the Consultant 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 Consultant 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 Consultant 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 consultancy works. If Consultant performs any works in a manner contrary to the specifications or

drawings or any of them and without such reference to the Engineer, he shall bear all the costs arising or ensuing therefrom and shall be responsible for all loss to the DFCCIL.

- 22 (2) Drawings and Specifications of the Works:** The Consultant shall keep one copy of Drawings and Specifications at the site, in good order, and such consultancy 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 Consultant are deemed to be the property of the DFCCIL. They shall not be used on other works and with the exception of the signed consultancy works set, shall be returned by the Consultant to the DFCCIL on completion of the work or termination of the Consultancy works.
- 22 (4) Compliance with Consultant's Request for Details:** The Engineer shall furnish with reasonable promptness, after receipt by him of the Consultant's request, additional instructions by means of drawings or otherwise, necessary for the proper execution of the works or any part thereof. All such drawings and instructions shall be consistent with the Consultancy 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 Consultant) to the Group General Manager (GGM) of 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 Consultant shall not carry out any work between sun-set and sun-rise without the previous permission of the Engineer. However, if the Engineer is satisfied that the work is not likely to be completed in time except by resorting to night work, he may order the same without confirming any right on the Consultant for claiming any extra payment for the same.
- 24 Damage to DFCCIL Property or Private Life and Property:** The Consultant 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 or the lives, persons or property of others from whatsoever cause in connection with the works until they are taken over by the DFCCIL, although all reasonable and proper precautions may have been taken by the Consultant. In case the DFCCIL shall be called upon to make good any costs, loss or damages, or to pay any compensation, including that payable under the provisions of the Workmen's Compensation Act or any statutory amendments thereof to any person or persons sustaining damages as aforesaid by reason of any act, or any negligence or omissions on the part of the Consultant; the amount of any costs or charges including costs and charges in connection with legal proceedings, which the DFCCIL may incur in reference thereto, shall be charged to the Consultant. The 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 Consultant, to take such steps as may be considered necessary or desirable to ward off or mitigate the effect of such proceedings, charging to Consultant, 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 Consultant.
- 25 Sheds and Storehouses:** The Consultant shall at his own expense provide himself with sheds and storehouses in such situations and in such numbers as in the opinion of the Engineer is requisite for carrying on the works and the Consultant shall keep at each such sheds, storehouses 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 at any time for the purpose of inspecting the stock of materials or plant so kept in hand, and any materials or plant

which the Engineer may object to shall not be brought upon or used in the works, but shall be forthwith removed from the sheds, storehouses by the Consultant. The Consultant shall at his own expenses provide other equipment's necessary for the execution of the works.

26 Provision of Efficient and Competent Staff at Work Sites by the Consultant:

- 26.1** The Consultant shall place and keep on the works at all times efficient and competent staff to give the necessary directions to his workmen and to see that they execute their work in sound & proper manner and shall employ only such supervisors, workmen & labourers in or about the execution of any of these works as are careful and skilled in the various trades.
- 26.2** The Consultant 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 Consultant is not employing on the works a sufficient number of technical experts, staff and workmen as is necessary for proper completion of the works within the time prescribed, the Consultant shall forthwith on receiving intimation to this effect deploy the additional number of technical experts, staff and labour as specified by the Engineer within seven days of being so required and failure on the part of the Consultant to comply with such instructions will entitle the DFCCIL to rescind the consultancy works under Clause 62 of these conditions.

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

- 26.A.1** The Consultant shall also employ qualified Graduate Engineer(s) or equivalent, or qualified Diploma Engineer(s) required for executing the consultancy work on time and in proper manner.
- 26.A.2** In case the Consultant fails to employ the Engineer, as aforesaid in Para 26A.1, Engineer shall take remedial action as per the contract provisions.
- 26.A.3** Deleted.

27.1 Workmanship and Testing: The whole of the works specified and provided in the consultancy works 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 Consultants may from time to time receive from the Engineer. Testing charges of all the materials, tool & plants, equipment's and other electronic Gadgets required for this consultancy work is to be borne by Consultant himself.

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/equipment's which in his opinion are not in accordance with the specifications or drawings.
- (b). The substitution of proper and suitable materials/equipment's, and
- (c). the removal and proper re-execution, notwithstanding any previous tests thereof or on account payments therefor, of any work which in respect of materials/equipment's or workmanship is not in his opinion in accordance with the specifications and in case of default on the part of the Consultant

in carrying out such order, the DFCCIL shall be entitled to rescind the consultancy works 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 Consultant. Consultant shall implement these provisions at worksites, for which no extra payment will be payable.

- 28 Facilities for Inspection:** The Consultant 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, 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.
- 29 Examination of Work before Covering Up:** Not Applicable for this work.
- 30 Temporary Works:** All temporary works necessary for the proper execution of the works shall be provided and maintained by the Consultant 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 Consultant 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 Consultant. If temporary huts are provided by the Consultant on the DFCCIL land for labour engaged by him for the execution of works, the Consultant shall arrange for handing over vacant possession of the said land after the work is completed; if the Consultant's labour refuse to vacate, and have to be evicted by the DFCCIL, necessary expenses incurred by the DFCCIL in connection therewith shall be borne by the Consultant.
- 31.1 Supply Water for Works:** Not Applicable for this work.
- 31.2 Water Supply from DFCCIL System:** Not Applicable for this work.
- 31.3 Water Supply by DFCCIL Transport:** Not Applicable for this work.
- 31.4 (a) Consultant to Arrange Supply of Electric Power for Works:** Unless otherwise provided in the consultancy works, the Consultant shall be responsible for arrangements to obtain supply of Electric Power for the works.
- (b) Electric Supply from the DFCCIL System:** Not Applicable for this work.
- 33.(1). Property in Materials and Plant:** Not applicable for this work.
- 33.(2). Tools, Plant and Materials Supplied by DFCCIL:** Not Applicable for this work.
- 33.(3). Hire of DFCCIL's Plant:** Not Applicable for this work.
- 34.(1). Precaution During Progress of Works:** During the execution of consultancy works, unless otherwise specified, the Consultant 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:** Not Applicable for this work.
- 34.(3). Provision of Access to Premises:** Not Applicable for this work.
- 34.(4). Safety of Public:** The Consultant shall be responsible to take all precautions to ensure the safety of the public whether on public or DFCCIL property and shall post such look out men as may, in the opinion of the Engineer, be required to comply with regulations appertaining to the work.
- 34.(5). Display Board:** The Consultant 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 Consultant and address of Engineer on a proper steel Board of size not less than 1m x 1m.

35 Use of Explosives: Not Applicable for this work.

36.(1). Suspension of Works: The Consultant 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:

- i. Provided for in the consultancy works, or
- ii. Necessary for the proper execution of the works or by the reason of weather conditions or by some default on the part of the Consultant, and or
- iii. Necessary for the safety of the works or any part thereof, or
- iv. 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
- v. Necessary to avoid disruption of traffic and utilities, as also to permit fast repair and restoration of any damaged utilities.

36.(2). The Consultant shall not be entitled to the extra costs, if any, incurred by him during the period of suspension of the works, but in the event of any suspension ordered by the Engineer for reasons other than aforementioned and when each such period of suspension exceeds 14 days, the **Consultant** shall be entitled to such extension of time for completion of the works as the Engineer may consider proper having regard to the period or periods of such suspensions and to such compensations as the Engineer may consider reasonable in respect of salaries or wages paid by the Consultant 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 Consultant 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 Consultant 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 consultancy works by the DFCCIL.

37 Rates for Items of Works:

- (i) The rates, entered in the accepted Bill(s) of Quantities of the Consultancy works are intended to provide for works duly and properly completed in accordance with the General and Special (if any) Conditions of the Consultancy works and the Specifications 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, shoring props, timber, machinery, pegs, posts, tools and all apparatus and plant required on the works, the erection, maintenance and removal of all temporary works and buildings, all watching, lighting, 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 center lines, bench marks and level pegs thereon, site clearance, all fees duties, royalties, rent and compensation to owners for surface damage or taxes and impositions payable to local authorities in respect of land, structures and all material supplied for the work or other duties or expenses for which the Consultant 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 consultancy works 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 is increased or any new tax /cess on Consultancy Works 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 Consultant thereupon properly pays such taxes/cess, the Consultant shall be reimbursed the amount so paid.

Further, if rates of existing GST or cess on GST for works is decreased or any tax/cess on Works is decreased / removed by Statute after the date of opening of tender, the reduction in tax amount shall be recovered from Consultant's bills/Security Deposit or any other dues of Consultant with the Government of India.

38 Demurrage and Wharfage Dues: Not Applicable for this work.

39.(1). Rates for Extra Item(s) of Works:

(a). Deleted

(b). For any item of work to be carried out by the Consultant but not included in the accepted Bill(s) of Quantities, the Consultant 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 Consultant, in as short a period as possible after the need for the special item has come to the notice. In case the Consultant fails to attend the meeting after being notified to do so or in the event of no settlement being arrived at, the DFCCIL shall be entitled to execute the extra works by other means and the Consultant 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 rate Analysis

39.(2). Provided that if the Consultant 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 Consultant shall only be entitled to be paid in respect of the work carried out or expenditure incurred by him prior to the date of determination of the rates as aforesaid according to the rates as shall be fixed by the Engineer. However, if the Consultant is not satisfied with the decision of the Engineer in this respect, he may appeal to the Group General Manager (GGM) of DFCCIL within 30 days of getting the decision of the Engineer, supported by analysis of the rates claimed. The Group General Manager (GGM) of DFCCIL's decision after hearing both the parties in the matter would be final and binding on the Consultant and the DFCCIL.

40.(1). Handing over of Works: The Consultant shall be bound to hand over the consultancy works executed and reports made under the consultancy works 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 the consultancy work shall have been completed, and the Consultant shall be bound to observe any such determination of the Engineer.

40.(2). Clearance of Site on Completion: On completion of the consultancy works, the Consultant shall clear away and remove from the site all 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, Consultant till, in addition to any other condition necessary for final payment, site clearance shall have been affected by him, and such clearance may be made by the Engineer at the expense of the Consultant 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 Consultant, the DFCCIL shall not be held liable for any loss or damage to such of the Consultant's property as may be on the site and due to such removal, there from which removal may be affected by means of public sales of such materials and property or in such a way as deemed fit and convenient to the Engineer.

40A Offloading of Part(s) of Work: Not Applicable for this work.

VARIATIONS IN EXTENT OF CONTRACT

- 41 Modification to Contract to be in Writing:** In the event of any of the provisions of the consultancy works required to be modified after the consultancy contract documents have been signed, the modifications shall be made in writing and signed by the DFCCIL and the Consultant 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 consultancy contracts 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 Consultant, and till then the DFCCIL shall have the right to repudiate such arrangements.
- 42.(1). Powers of Modification to Contract:** The Engineer on behalf of the 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 Consultant 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) Not Applicable for this work.
(ii). Not Applicable for this work.
(iii). Not Applicable for this work.
- 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 therefor shall be calculated in accordance with the accepted Bill(s) of Quantities. Any extra item(s)/quantities of work falling outside the purview of the provisions of Sub-Clause (2) above shall be paid for at the rates determined under Clause-39 of these Conditions.

CLAIMS

- 43.(1). Monthly Statement of Claims:** The Consultant shall prepare and furnish to the Engineer once in every month 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 Consultant 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 Consultant shall not be entitled to make any claim whatsoever against the DFCCIL under or by virtue of or arising out of this consultancy contracts, nor shall the DFCCIL entertain or consider any such claim, if made by the Consultant, 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.

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 Consultant in fulfillment of his obligations under the consultancy contracts.
- 45.(i). Measurement of Works by DFCCIL:** The Consultant 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. Such measurements will be taken of the consultancy 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 Consultant 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 Consultant's attendance, the work may be measured up in his absence and such measurements shall, notwithstanding such absence, be binding upon the Consultant 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 Consultant 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 Consultant or in his absence after due notice has been given to him in consequence of objection made by the Consultant shall be final and binding on the Consultant and no claim whatsoever shall thereafter be entertained regarding the accuracy and Classification of the measurements.
- (b) If an objection raised by the Consultant is found by the Engineer to be incorrect the Consultant shall be liable to pay the actual expenses incurred in measurements.

45.(ii). Not Applicable.

46.(1). **"On-Account " Payments:** The Consultant shall be entitled to be paid from time to time by way of "On-Account" payment only for such works as in the opinion of the Engineer he has executed in terms of the consultancy contracts. All payments due on the Engineer's/Engineer's Representative's certificates of measurements shall be subject to any deductions which may be made under these presents and shall further be subject to, unless otherwise required by Clause 16 of these Conditions, a retention of six percent by way of Security Deposits, until the amount of Security Deposit by way of such retentions shall amount to 5% of the total value of the consultancy **contracts** 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 upto ₹1 will be reckoned as ₹ 1.

46.(3). **On Account Payments not Prejudicial to Final Settlement:** "On-Account" payments made to the Consultant 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 Consultant 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). **No advance Payment of any kind** are applicable in this consultancy contract.

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

46A. **Price Variation Clause (PVC):** Price variation formula for this work is as under:

$$P = P_0/100 \{15 + (5 \times M1/M2) + (80 \times B1/B2)\}$$

P = Escalated/De-escalated Price

Po = Price as per contract

B1 = Consumer Price Index Number for Industrial Workers (Base: 2011=100) published by Government of India, Ministry of Labour & Employment, Labour Bureau for the 3 months of the quarter under consideration

B2 = Consumer Price Index Number for Industrial Workers (Base: 2011=100) published by Government of India, Ministry of Labour & Employment, Labour Bureau for the month of the opening of tender.

M1 = Index Number of Wholesale Prices- All commodities- as published in the R.B.I Bulletin for the 3 months of the quarter under consideration

M2 = Index Number of Wholesale Prices- All commodities- as published in the R.B.I Bulletin for the month of the opening of tender.

47 Maintenance of Works: Not Applicable for this consultancy contract.

48.(1). Certificate of Completion of Works: As soon as in the opinion of the Engineer, the consultancy work has been completed, the Engineer shall issue a certificate of completion duly indicating the date of completion in respect of the work. 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 Consultant and that there is no due from the Consultant to DFCCIL against the consultancy contracts concerned.

48.(2). Consultant not Absolved by Completion Certificate: Not Applicable for this consultancy contract.

48.(3). Final Supplementary Agreement: After the consultancy work is completed or otherwise concluded by the parties with mutual consent, and taken over by the DFCCIL 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 & 5 of Form NO. 19 the parties shall execute the Final Supplementary Agreement as per Form NO. 19.

49 Approval only by Maintenance Certificate: Not Applicable for this consultancy contract

50.(1). Deleted

50.(2). Cessation of DFCCIL's Liability: The DFCCIL shall not be liable to the Consultant for any matter arising out of or in connection with the consultancy contracts for execution of the works unless the Consultant has made a claim in writing in respect thereof before passing final bill.

51.(1). Final Payment: On the Engineer's certificate of completion in respect of the consultancy 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 measurements" of the total quantity of work executed by the Consultant 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 Consultant subject always to any deduction which may be made under these presents and further subject to the Consultant having signed delivered to the Engineer enclosing either a full account in detail of all claims he may have on the DFCCIL 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 8, 18, 22(5), 39.2, 43(2), 45(i)(a), 55, 55-A(5), 57, 61(1), 61(2), 62(1) and 63(iv) of the 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 Consultancy contract 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 DFCCIL 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 consultancy contract.

51.(2). Post Payment Audit: It is an agreed term of consultancy 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 Consultant for the refund of any excess amount paid to him till the release of security deposit or settlement of claims, whichever is later, if as a result of such examination any over-payment to him is discovered to have been made in respect of any works done or alleged to have been done by him under the consultancy contract.

51-A. Production of Vouchers etc. by the Consultant:

(i) The Consultant 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 consultancy contract or relevant for verifying or ascertaining cost of execution of this consultancy 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 Consultant 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 consultancy contract.

52 Withholding and Lien in Respect of Sums Claimed: Whenever any claim or claims for payment of a sum of money arises out of or under the consultancy contract against the Consultant, 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 Consultant 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 Consultant, 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 Consultant under the same consultancy 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 consultancy 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 consultancy 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 Consultant 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 Consultant. For the purpose of this clause, where the Consultant is a partnership firm or a 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 / 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 Consultant (including the Security Deposit returnable to him) under the consultancy 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 payment of a sum of money arising out of or under any other contract made by the Consultant 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 Bill, Security Deposits and Performance Guarantees of other contract or contracts, executed by the Consultant. The Performance Guarantees submitted by the Consultant 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's dues against the terminated consultancy contract.
- (iii) It is an agreed term of the consultancy 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 Consultant 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 Consultant.

53 Signature on Receipts for Amounts: Every receipt for money which may become payable or for any security which may become transferable to the Consultants under these presents, shall, if signed in the partnership name by anyone of the partners of a Consultant'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 Consultant, partners during the pendency of the consultancy contract, it is hereby expressly agreed that every receipt by anyone of the surviving Consultant partners shall if so signed as aforesaid be good and sufficient discharge as aforesaid provided that nothing in this Clause contained shall be deemed to prejudice or effect any claim which the DFCCIL may hereafter have against the legal representative of any Consultant partner so dying for or in respect to any breach of any of the conditions of the consultancy contract, provided also that nothing in this clause contained shall be deemed to prejudice or effect the respective rights or obligations of the Consultant partners and of the legal representatives of any deceased Consultant partners interse.

LABOUR

54 Wages to Labour: The Consultant 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-Consultants employed by him for the purpose of carrying out this consultancy contract.

If, in compliance with the terms of the consultancy contract, the Consultant 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 Consultant 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 Consultant.

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, such money shall be deemed to be moneys payable to the DFCCIL by the Consultant and on failure by the Consultant to repay the DFCCIL any moneys paid by it as aforesaid within seven days after the same shall have been demanded, the DFCCIL shall be entitled to recover the same from Consultant's bills/Security Deposit or any other dues of Consultant with the Government of India.

54-A. Apprentices Act: The Consultant 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-Consultant employed by him for the purpose of carrying out the Consultancy contract.

If the Consultant directly or through petty Contractors or sub-Consultant fails to do so, his failure will be a breach of the consultancy contract and the DFCCIL may, in its discretion, rescind the consultancy contract. The Consultant 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 Consultant 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-Consultants in the works. If in compliance with the terms of the consultancy contract, the Consultant directly or through petty contractors or sub-Consultants shall supply any labour to be used wholly or partly under the direct orders and control of the Engineer whether in connection with the works to be executed hereunder or otherwise for the purpose of the Engineer, such labour shall nevertheless be deemed to comprise persons employed by the Consultant 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 Consultant and the Engineer may on failure of the Consultant to repay such money to the DFCCIL deduct the same from any moneys due to the Consultant in terms of the consultancy contract. The DFCCIL shall be entitled to recover the same from Consultant's bills/Security Deposit or any other dues of Consultant with the Government of India all moneys paid or payable by the DFCCIL 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 Consultant.

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

55.A.(1) The Consultant 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.

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

55.A.(3) The Consultant shall pay to the labour employed by him directly or through sub-Consultants the wages as per provision of the aforesaid Act and the Rules wherever applicable. The Consultant 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 sub-Consultants in connection with the said work, as if the labour had been immediately employed by him.

55.A.(4) In respect of all labour directly or indirectly employed in the work for performance of the Consultant's part of the contract, the Consultant shall comply with or cause to be complied with the provisions of the aforesaid Act and Rules wherever applicable.

55.A.(5) In every case in which, by virtue of the provisions of the aforesaid Act or the rules, the DFCCIL is obliged to pay any amount of wages to a workman employed by the Consultant or his sub-Consultant in execution of the work or to incur any expenditure on account of the contingent, liability of the DFCCIL due to the Consultant's failure to fulfill his statutory obligations under the aforesaid Act or the rules, the DFCCIL will recover from the Consultant, 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 from Consultant's bills/Security Deposit or any other dues of Consultant with the Government of India. 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 Consultant 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 Group General Manager (GGM) of DFCCIL regarding the amount actually recoverable from the Consultant as stated above shall be final and binding on the Consultant.

55.B Provisions of Employees Provident Fund and Miscellaneous Provisions Act, 1952: The Consultant 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) Consultant is to abide by the provisions of various labour laws in terms of above clause 54, 55, 55-A and 55-B of the General Conditions of Contract. In order to ensure the same, an application has been developed and hosted on website ‘www.shramikkalyan.indian railway.gov.in’. Consultant 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) Consultant 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 Consultant's registration in the portal within 7 days of receipt of such request.
- (b) Consultant 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 Consultant 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 Consultant within 7 days of receipt of such request.
- (d) After approval of LoA by Engineer, Consultant 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 Consultant 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 ‘Performance Guarantee / Security Deposit’, Consultant 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 DFCCIL's Shramikkalyan portal at ‘www.shramikkalyan.indianrailway.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”: Not Applicable for this consultancy work.

56 Reporting of Accidents: The Consultant shall be responsible for the safety of all employees directly or through petty Contractors or sub-Consultant employed by him on the works and shall report serious accidents to any of them however and wherever occurring on the works to the Engineer or the Engineers Representative and shall make every arrangement to render all possible assistance.

57 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 sub-Consultant employed by the Consultant in executing the work, DFCCIL will recover from the Consultant 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 from Consultant's bills/Security Deposit or any other dues of Consultant with the Government of India. 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 Consultant and upon his giving to DFCCIL full security for all costs for which DFCCIL might become liable in consequence of contesting such claim.

57-A. Provision of Mines Act: Not Applicable for this consultancy work.

- 58 DFCCIL not to Provide Quarters for Consultants:** No quarters shall be provided by the DFCCIL for the accommodation of the Consultant or any of his staff employed on the work.
- 59.(1). Labour Camps:** The Consultant 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-Consultants and for temporary creche (Bal-Mandir) where 50 or more women are employed at a time. Suitable sites on DFCCIL land, if available, may be allotted to the Consultant 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 Consultant at his own cost.
- 59.(2). Compliance to Rules for Employment of Labour:** The Consultant(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-Consultants on the works.
- 59.(3). Preservation of Peace:** The Consultant shall take requisite precautions and use his best endeavours to
- (i) Prevent any riotous or unlawful behavior by or amongst his workmen and other employed directly or through the petty contractors or sub-Consultants on the works and for the preservation of peace and protection of the inhabitants and
 - (ii) Security of property in the neighborhood 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 Consultant and if paid by the DFCCIL shall be recoverable from the Consultant.
- 59.(4). Sanitary Arrangements:** The Consultant shall obey all sanitary rules and carry out all sanitary measures that may from time to time be prescribed by the DFCCIL Medical Authority and permit inspection of all sanitary arrangements at all times by the Engineer, the Engineer's Representative or the Medical Staff of the DFCCIL. Should the Consultant fail to make the adequate sanitary arrangements, these will be provided by the DFCCIL and the cost thereof recovered from the Consultant.
- 59.(5). Outbreak of Infectious Disease:** The Consultant 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 Medical Authority. Should cholera, plague, or other infectious disease break out, the Consultant shall burn the huts, beddings, clothes and other belongings of or used by the infected parties and promptly erect new huts on healthy sites as required by the Engineer, failing which within the time specified in the Engineer's requisition, the work may be done by the DFCCIL and the cost thereof recovered from the Consultant.
- 59.(6). Treatment of Consultant's Staff in DFCCIL Hospitals:** Not Applicable for this contract.
- 59.(7). Medical Facilities at Site:** The Consultant shall provide medical facilities at the site as may be prescribed by the Engineer on the advice of the DFCCIL Medical Authority in relation to the strength of the Consultant'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 Consultant or any of his employees shall be forbidden and the Consultant 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 Government Services Within One Year of their Retirement:** The Consultant 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 of India and if the Consultant is found to have contravened this provision it will constitute a breach of contract and DFCCIL will be entitled to terminate the contract and forfeit his Performance Guarantee as well as Security Deposit. Same shall be applicable for DFCCIL retired employee.

- 60.(1). Non-Employment of Labourers below the age of 15:** The Consultant shall not employ children below the age of 15 as labourers directly or through petty contractors or sub-consultants for the execution of work.
- 60.(2). Medical Certificate of Fitness for Labour:** It is agreed that the Consultant shall not employ a person above 15 and below 19 years of age for the purpose of execution of work under the contract unless a medical certificate of fitness in the prescribed form (Proforma at **Form No. 13**) 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 Consultant 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 Consultant 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 Consultant, or on the person nominated by him in this regard, a notice requiring that such persons shall be examined by a certifying surgeon and such person shall not if the concerned official so directs, be employed or permitted to do any work under this contract unless he has been medically examined and certified that he is fit to work in the capacity stated in the certificate.

EXPLANATIONS: 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. The Certifying surgeon may be a medical officer in the service of State or Municipal Corporation.

DETERMINATION OF CONTRACT

- 61.(1). Right of DFCCIL to Determine the Contract:** The DFCCIL shall be entitled to determine and terminate the consultancy contract at any time should, in the DFCCIL'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 Consultant will be paid for in full at the rate specified in the contract or otherwise to be decided mutually. Notice in writing from the DFCCIL of such determination and the reasons therefor 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 Consultant claims payment for expenditure incurred by him in the expectation of completing the whole of the work, the DFCCIL shall admit and consider such claims as are deemed reasonable and are supported by vouchers to the satisfaction of the Engineer. The DFCCIL's decision on the necessity and propriety of such expenditure shall be final and conclusive.

61.(3). The Consultant 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 Consultant:

If the Consultant 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 consultancy contract documents in time.
- x. Fail 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 these Conditions, or
- xiii. Fail to afford the Engineer or Engineer's representative proper facilities for inspecting the works or any part thereof as required under Clause 28 of these Conditions, or
- xiv. Promise, offer or give any bribe, commission, gift or advantage either himself or through his partner, agent or servant to any officer or employee of the 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. 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 Consultant with a notice (Proforma at Form No. 14) in writing to that effect and if the Consultant does not within seven days after the delivery to him of such notice proceed to make good his default in so far as the same is capable of being made good and carry on the work or comply with such directions as aforesaid of the entire satisfaction of the Engineer, the DFCCIL shall be entitled after giving 48 hours' notice (Proforma at Form No. 15 as the case may be) in writing under the hand of the Engineer to rescind the contract as a whole and after expiry of 48 hours' notice, a final termination notice (Proforma at Form No. 16 , as the case may be) should be issued.

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

- (a) The Consultant 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 Consultant 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 Consultant 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 Consultant. The failed Consultant shall be debarred from participating in the tender for executing the balance work. If the failed Consultant 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 Consultant cannot be accepted as authorized representative in new contract.
- (c) Deleted.
- (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 Consultant 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 Consultant 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 Consultant 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 temporary works upon the site. The legitimate amount due to the Consultant after making necessary deductions and certified by the Engineer should be released expeditiously.

SETTLEMENT OF DISPUTES – ARBITRATION AND CONCILIATION

63 Conciliation of Disputes:

- i) 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 Consultant to the Group General Manager (GGM)/DFCCIL 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. GGM/DFCCIL shall, within 30 days after receipt of the Consultant’s “Notice of Dispute”, notify the name of conciliator(s) (from latest List of DFCCIL’s empaneled Arbitrators) to the Consultant.
- ii) The Conciliator(s) shall assist the parties to reach an amicable settlement in an independent and impartial manner within the terms of contract.
- iii) 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, Consultant and conciliator(s). When the parties sign the settlement agreement, it shall be final and binding on the parties.
- iv) 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.
- v) The conciliation proceedings shall be subject to the provisions of the Arbitration and Conciliation Act, 1996 and its amendment thereof.

- vi) The conciliator Fee shall be as per latest Fee structure fixed by DFCCIL for Arbitrators/ Conciliators.

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 Consultant to the Managing Director/DFCCIL and the Managing Director/DFCCIL shall, within 120 days after receipt of the Consultant's representation, make and notify decisions on all matters referred to by the Consultant in writing provided that matters for which provision has been made in Clauses 8, 18, 22(5), 39.2, 43(2), 45(i)(a), 55, 55-A(5), 57, 61(1), 61(2), 62(1) and 63(iv) of the General Conditions of Contract or in any Clause (stated as excepted matter) of the Special Conditions of the Contract, shall be deemed as 'excepted matters' (matters not arbitrable) and decisions of the DFCCIL authority, thereon shall be final and binding on the Consultant; provided further that 'excepted matters' shall stand specifically excluded from the purview of Arbitration.

63.2. Dispute Adjudication Board (DAB): Not Applicable for this consultancy contract.

64.1 Demand for Arbitration:

64.1.(i). In the event of any dispute or difference between the parties hereto as to the operation of this consultancy 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 Consultant 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 Consultant, 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). Not Applicable for this work.

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.

64.1.(iii).(b). The claimant shall submit his claims stating the facts supporting the claims alongwith all the relevant documents and the relief or remedy sought against each claim within a period of 30 days from the date of appointment of the Arbitral Tribunal.

64.1.(iii).(c). The 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.

64.1.(iii).(d). Place of Arbitration: The place of arbitration would be New Delhi where the cause of action arose or the Headquarters of the concerned Field unit of 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 defense thereof during the course of arbitration proceedings subject to acceptance by Tribunal having due regard to the delay in making it.

64.1.(v). If the Consultant(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 DFCCIL that the final bill is ready for payment, he/they will be

deemed to have waived his/their claim(s) and the 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 consultancy 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: The Arbitrator Fee shall be as per latest Fee structure fixed by DFCCIL for Arbitrators.

64.(3).(a). 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 from DFCCIL Arbitrator Panel. For this purpose, the DFCCIL will send a panel of at least four (4) names of DFCCIL empaneled Arbitrators to work as Sole Arbitrator duly indicating their retirement dates to the Consultant within 60 days from the day when a written and valid demand for arbitration is received by the Managing Director of DFCCIL.

Consultant will be asked to suggest to Managing Director of 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. The Managing Director of DFCCIL shall appoint one out of them as the sole arbitrator within 30 days from the receipt of the names of Consultant's nominees.

64.(3).(b). In cases where the total value of all claims in question added together exceed ₹ 1,00,00,000/- (Rupees one crore), the Arbitral Tribunal shall consist of a Panel of three (3) arbitrators. For this purpose, the DFCCIL will send a panel of at least four (4) names of DFCCIL's empaneled Arbitrators to work as Arbitrator duly indicating their retirement date to the Consultant within 60 days from the day when a written and valid demand for arbitration is received by the Managing Director of DFCCIL.

Consultant will be asked to suggest to Managing Director of DFCCIL at least 2 names out of the panel for appointment as Consultant's nominee within 30 days from the date of dispatch of the request by DFCCIL. The Managing Director of DFCCIL shall appoint at least one out of them as the Consultant'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. Managing Director of DFCCIL shall complete this exercise of appointing the Arbitral Tribunal within 30 days from the receipt of the names of Consultant's nominees.

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 fails to act without undue delay, the Managing Director of 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.

64.(3).(c).(iii).(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, court 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).(iv). I Qualification of Arbitrator (s):

- a. Retired Government Servant/Judges of Indian Judicial system one year after his date of retirement.
- b. 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), 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 DFCCIL servant(s) expressed views on all or any of the matters under dispute or differences. Certification to this effect as per **Form No. 20** 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 therefrom.

64.(3).(d).(ii). A party may apply for corrections of any computational errors, any typographical or clerical errors or any other error of similar nature occurring in the award of a Tribunal and interpretation of a specific point of award to Tribunal within 60 days of receipt of the award.

64.(3).(d).(iii). A party may apply to Tribunal within 60 days of receipt of award to make an additional award as to claims presented in the arbitral proceedings but omitted from the arbitral award.

64.(4). In case of the Tribunal, comprising of three members, any ruling on award shall be made by a majority of members of Tribunal. In the absence of such a majority, the views of the Presiding Arbitrator shall prevail.

64.(5). Where the arbitral award is for the payment of money, no interest shall be payable on whole or any part of the money for any period till the date on which the award is made.

64.(6). The cost of arbitration shall be borne by the respective parties. The cost shall inter-alia include fee of the arbitrator(s), as per the rates fixed by DFCCIL 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. 21** 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 DFCCIL Board from time to time irrespective of the fact whether the arbitrator(s) is/are appointed by the DFCCIL 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 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 DFCCIL to Consultant, the terms & conditions as incorporated in the Ministry of Railway letter No. 2016/CE(I)/CT/ARB/3(NITI Aayog)/Pt. dated 08th Mar,2017 as amended from time to time, shall be followed. In case Consultant has to pay to the DFCCIL, then 75% of the award amount shall be deducted by the DFCCIL from the Consultant's bills, Performance Guarantee/ Security Deposit or any other dues of Consultant with the Government of India.

Chapter V

SPECIAL CONDITIONS OF CONTRACT

PART - I

CHAPTER V

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 consultancy 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 consultant.
- 1.5.3 Terminology**
- Inspection Agency:** An agency appointed by DFCCIL to undertake inspection of the bridges
- Detailed Inspection:** Inspection of the entire bridge structure at “touching distance” except of the parts which are physically impossible to be reached.
- Bridge Inspection App:** Bridge Management module of CRIS which facilitates easy recording of all observations during detailed bridge Inspection.
- Bridge Instrumentation:** Sensors/instruments installed on the bridge structure to monitor/record various parameters related to the health and performance of the bridge.
- Touching distance:** Such distance that allows inspecting official to touch part of the bridge and allow inspection from close quarters.
- Competency:** Knowledge, skills and attitudes that are essential for effectively performing the specified task (Bridge Inspection).
- Inspector/Inspecting engineer:** An inspector is a competent person who undertakes the inspection of the bridge and submits reports. Consultants have to deploy the inspectors who have requisite competency as laid down in clause No. 1.5.8.4 of SCC.
- 1.5.4 Scheme of work:** Within a period of 15 days beginning from the date of issue of Letter of Acceptance of Tender, the Contractor/consultant shall submit the detailed planning and methodology for inspection of various bridges along with the inspection Equipment list and their procurement planning and various documents enumerated in tender papers to the employer.
- 1.5.5 Facilities to be provided by DFCCIL:** DFCCIL shall provide the following facilities to consultant:
1. Access to the bridge and any traffic block required to facilitate the bridge inspection.
 2. All safety preparedness required to provide safer access to various parts of the bridge and protection against any injury that is likely to be caused in the course of bridge inspection.
 3. 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 App and how to use it.
 4. All information related to the Bridge(s) to be inspected, such as drawings, previous inspection reports and instrument data.
- 1.5.6 Professional liability of the consultant:** It should be noted that the quality of the Bridge Inspections and reporting thereof have a strong impact on the stability and long-term health of the structures. The Inspection agency shall be professionally liable for the quality of the inspection and reports. The Inspection Engineer shall reach out to all parts of the bridge to which access has been provided by DFCCIL and will not leave any part un-inspected. The inspection Engineer shall also apply his professional judgement about the observations in a consistent manner and should be in a position to provide rationale for the same if called for. The inspection agency shall take out and maintain a ‘Professional Liability Insurance’ for an amount of **Rs. One crore** valid till the date of completion of the inspection work.
- 1.5.7 Occupational Health & Safety:** It should be noted that the Bridge Inspection is an essentially hazardous activity. DFCCIL will impart required training to train Consultant Engineer(s)/staff(s) who
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will be involved in Bridge inspection activity on safety aspects when working on/along Railway track. Despite such arrangements, the responsibility of personal safety and security of the inspection Engineer shall rest with the inspection agency. The inspection Engineer shall at all times follow the instructions and advice of the representative of DFCCIL as far as access to the track or any part of the bridge is concerned. The inspection agency shall take out and maintain a Workmen Compensation insurance policy which shall cover every employee of the inspection agency that is required to visit the DFCCIL bridge locations in connection with the Bridge Inspections.

It will be presumed that all data entered into the Bridge inspection App using the authorized Login id of the Inspecting engineer is actually recorded/entered by the Inspection engineer. It shall be the responsibility of the Inspecting Engineer to ensure that no person other than him has access to his registered cellphone for making unauthorized entries in the App.

1.5.8 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.

1.5.8.1 The inspecting Engineer assigned to carry out the Bridge Inspection shall have the requisite competency 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.

1.5.8.2 The Inspection agency shall submit along with the bid detailed CV, in the prescribed format, of the Inspecting Engineer(s) that the agency proposes to deploy for carrying out bridge inspections. The quality of the CV submitted along with the bid shall be one of the criteria for selection of the Inspection agency. DFCCIL shall approve the deployment of the Inspection Engineer on the basis of any or all of the following, at its discretion:

- a. Review and verification of the profile
- b. Personal interview
- c. Written test

1.5.8.3 DFCCIL shall communicate in writing the approval or otherwise of the Inspection Engineers. The inspection agency shall deploy only the Engineers thus approved by DFCCIL for the Bridge Inspections. Should the inspection agency desire to change the inspection engineer, for every change, the same process shall be followed, and the inspection agency shall have to obtain the approval of DFCC by submitting the required details of the inspection engineer. The inspection agency shall deploy only the Engineers thus approved by DFCCIL for the Bridge Inspections.

1.5.8.4 Qualifications: The Bridge Inspector should have acquired a bachelor's degree in civil engineering from a college / university recognized by the UGC.

- i. **Work Experience:** The Bridge Inspector should have a minimum experience of 5 years, out of which a minimum experience of 3 years should be in Bridge design **or** Bridge construction **or** Bridge maintenance.
- ii. **Competence:** The assessment of the competency of Bridge Inspector will be on **ASK** model, where **A**, **S** and **K** stand for **Attitude**, **Skills** and **Knowledge** respectively is to be followed. For the Bridge Inspectors the requirement against attitude, Skills and Knowledge are laid down below.
- iii. **ATTITUDE:** The following attitude shall be exhibited by the bridge Inspector while discharging their duties:
 - Shall carry out their tasks with the firm belief that Bridge Inspection is a serious and professionally rewarding task impacting public property and safety.
 - Shall make report only on the basis of personal observation and not on the basis of guesswork or input from someone else.
 - Shall make all efforts to reach the bridge elements at touching distance during detailed inspection.
 - Shall not hesitate in escalating the matter if he is not confident about the matter at hand.

iv. **SKILLS:** The Bridge Inspector shall have the skill to perform the following specific tasks and be proficient at the level prescribed. The description of different level of proficiency is as given below:

- **Level 1:** Can perform the task but requires supervision
- **Level 2:** Can perform some part of the task independently, but not totally
- **Level 3:** Can perform the entire task independently without supervision

S.N.	Task to be performed	Level of proficiency
1	To identify 'deviation from normal' situation of a bridge from visual observation.	3
2	To assess seriousness of any observed deviation	3
3	To express the observations in a clear and concise manner	3
4	To propose immediate measures for serious observations	2
5	To draft inspection reports	2
6	To review Bridge instrumentation data and detect abnormalities	2
7	To operate the Bridge Inspection App and enter bridge inspection finding through it	3

v. **KNOWLEDGE:** In order to perform the given tasks, the Bridge Inspector should possess knowledge about various subjects at the proficiency prescribed. The description of different level of proficiency is as given below:

- **Level 1:** Has basic knowledge about the subject, but does not know the subject in totality
- **Level 2:** Has width of knowledge about the subject, but does not know the 'why' of it
- **Level 3:** Has width and depth on knowledge about the subject, knows 'why' of it and can explain it to others

S.N.	Knowledge about subjects to have	Level of proficiency
1	Structural Engineering as applied to Bridges	2
2	Different IRS bridge codes (Bridge Rules, IRS: SBC, IRS: CBC, IRS: WBC, IRS B1, IRS Substructure code)	2
3	Types of superstructures of Railway Bridges, key terminology, their behavior and typical defects	3
4	Types of substructures of Railway Bridges, key terminology, their behavior and typical defects	3
5	Types of bridge bearings, key terminology, their behavior and typical defects	3
6	River training works, key terminology and typical abnormalities	2
7	Indian Railways' Numerical rating system for Bridges	3
8	Workflow of Bridge Inspection App of DFCCIL	3

1.5.9 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 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 labours. with supervisors 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.

1.5.10 Infringement of patents:

- (a) The Consultant 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 Consultant. The consultant shall advise the DFCCIL 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 Consultant 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 consultancy Contract automatically gives the DFCCIL 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 DFCCIL, 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 consultant:** In the event of any claim or demand being made or action being brought against the D F C C I L for infringement of later patent in respect of any equipment, machine, plant, work or thing used or supplied by the Consultant under this consultancy contract or in respect of any methods of using or working by the DFCCIL 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 consultant immediately any claim is made and that the consultant shall be at liberty, if he so desires with the assistance of the DFCCIL if required but at the Consultant'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 D F C C I L for any purpose or in any manner other than that for which they have been The Policies of the consultant 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 Consultant 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 Consultant. 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 Consultant or from the consultant's Performance security. However, the Consultant shall not be absolved from his responsibility and /or liability in this regard

1.5.11 Accident

- (a) The Consultant shall, in respect of all staff engaged by him or by his sub-contractor, indemnify and keep the DFCCIL 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 Consultant 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 Consultant r, 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 Consultant'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 Consultant and further the liability of the Consultant will be limited to Rs.5 lakh for any one accident.
- (d) The Consultant 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

1.5.12 Safety Measures:

- (a) The Consultant shall take all precautionary measures in order to ensure the protection of his own personnel moving about or working on the DFCCIL premises, but shall then conform to the rules and regulations of the DFCCIL if and when, in the course of the work there is likely to be any danger to persons in the employment of the Consultant due to running traffic while working in the DFCCIL/Railway lines and premises, the Consultant shall provide flagman or look out men for protection of such persons normal course of work, arising out of the failure of Consultant or his men to exercise reasonable precaution at all places of work.
- (b) Work shall be done only after due notice is given to the DFCCIL and time/s and date/s for experiments/trial operations agreed to by the employer. The contractor shall follow detailed instructions which will be issued to him regarding blasting operations in the vicinity of tracks.
- (c) 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 DFCCIL, in such a way that they do not hinder DFCCIL 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.
- (d) If safety of track 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.

1.5.13 **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 Consultant arising out of this consultancy work for any default of the Consultant. Payment against Bridge Inspection work shall be made on submission of an invoice along with the following documents.

- a. Hard copy Bridge Inspection report in approved format of Bridge registers
- b. Inspection Data entry in BMS of DFCCIL
- c. Bridge stability/safety certificate
- d. Log of bridge inspections carried out; certified by the DFCCIL official who accompanied the bridge inspection
- e. 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 Consultant 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). If any portion of the work be carried out by a sub-contractor or any subsidiary or allied firm or company the DFCCIL shall have power to secure the books of such sub-contractor or any subsidiary or allied firm or company, through the Consultant, and such books shall be open to his inspection. The Consultant should seek prior permission from the DFCCIL 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 Consultant under any statute, rules or order binding to the Consultant or other conditions of the Consultant.
- (iv). 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

1.5.14 All payments in respect of the Consultancy during the currency of the Consultant 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. 6** 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.

1.5.15 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 placed as **Form No.-17**. The details of present DFCCIL's IEMs are as under:

i) **Shri. V. Kannan, Ex-CMD, Vijaya Bank,**

Address: TA-1, Krishna Regency, Third Floor, Tata Silk Farm, K R Road, Basavanagudi, Bangalore – 4,
Mobile No.08105305555, (email: Kannan.venkata@gmail.com)

ii) **Ms.Rashmi Verma, IAS (Retd.)**

Address: D-87, Ground Floor, Panchsheel Enclave, New Delhi – 110017
Mobile No.9810735544, (email: verma.rashmi@rediffmail.com)

- 1.5.16 **Frequency of Bridge Inspection:** Normally inspection frequency of Girder Bridges shall be once in a [5 year], until advised by DFCCIL in writing. Preferably all inspections are to be carried out between month of September and January. The Performa of Bridge Inspection registers for Girder Bridges is to be developed by Consultant in consultation of DFCCIL based on inspection Performa of Indian Railways for PSC and Steel Girder Bridges. Inspection rating to be done as per methodology mentioned in Technical specification chapter of this tender.
- 1.5.17 The manpower employed by the contractor shall have no right, whatsoever, for any appointment in the DFCCIL in temporary/adhoc/daily wages/regular capacity on the basis of their work in the DFCCIL.
- 1.5.18 The contractor shall ensure compliance with all relevant Central/State laws and rules as applicable such as Tax Laws, Labour Laws and Insurance Laws etc with regard to the contract and shall be solely responsible for the same and shall keep the DFCCIL fully indemnified against the liability of any Taxes, interest, penalty etc if any arising any connection with the contract may be incorporated. If any accident occurs with any worker of the contractor while doing his job, the DFCCIL will not be liable in any way and the sole responsibility for payment of compensation, etc. will be of the contractor.
- 1.5.19 “Except with the prior written consent of the Client, the Consultant and the Experts shall not at any time communicate to any person or entity any confidential information acquired in the course of the Services, nor

shall the Consultant and the Experts make public the recommendations formulated in the course of, or as a result of, the Services.”

- 1.5.20 All reports and relevant data and information such as maps, diagrams, plans, databases, other documents and software, supporting records or material compiled or prepared by the Consultant for the DFCCIL in the course of the Services shall be confidential and become and remain the absolute property of the DFCCIL. The Consultant shall, not later than upon termination or expiration of this Contract, deliver all such documents to the DFCCIL, together with a detailed inventory thereof. The Consultant may retain a copy of such documents, data and/or software but shall not use the same for purposes unrelated to this Contract without prior written approval of the Client.’
- 1.5.21 That both the parties shall hereby submit to the jurisdiction of the courts situated at [New Delhi] for the purpose of actions and proceedings arising out of the contract and the courts at [New Delhi] shall alone have the sole and exclusive jurisdiction to hear and decide such actions and proceedings.
- 1.5.22 **Imposition of minor penalty on account of minor lapses:** For serious defaults of consultants related to breach of safety of DFCCIL/IR Railway system, non-seriousness in bridge inspection/ preparation of inspection reports and delay in inspection of bridges penalty ranging from 0.055% to 0.05% of contract value per case may be imposed by DFCCIL subjected to maximum limit of 5% of contract price.

PART-II

TECHNICAL SPECIFICATIONS

- A. BRIDGE INSPECTION GUIDELINES**
- B. NUMERICAL RATING SYSTEM (NRS)**

Bridge Inspection Guidelines

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:
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- 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. **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.
- d. **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.
- e. **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.
- f. **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.

- g. **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 conformed. 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
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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.

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.
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- 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. **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.
- f. **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.
- g. **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. 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
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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. 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.

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

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

PART - III
TENDER FORMS (INCLUDING SCHEDULE OF PRICES)

PART- III

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	Contract Agreement
Form No. 4A	Bank Guarantee Bond for EMD
Form No.4B	Performance Guarantee Bond
Form No. 5	Standing indemnity bond for on account payment.
Form No. 6	ECS / NEFT / RTGS
Form No. 7	Draft MOU for Joint Venture Participation
Form No. 8	Draft Agreement for JV
Form No. 9	Pro-forma of Participation from each partner of JV
Form No. 10	Power of Attorney for authorized signatory of JV Partners
Form No. 11	Power of Attorney to lead partner of JV
Form No. 12	Proforma for Time Extension
Form No. 13	Certificate of Fitness
Form No. 14	Proforma of 7 days' Notice
Form No. 15	Proforma of 48 Hours' Notice
Form No. 16	Proforma of Termination Notice
Form No. 17	Format of Integrity pact.
Form No. 18	Format for affidavit to be uploaded by tenderer along with the tender document
Form No. 19	Final Supplementary Agreement
Form No.20	Proforma for Certification by Arbitrators appointed under Cl. 63 & 64 of GCC
Form No.21	Proforma for Agreement for Arbitration
Form No. 22	Price schedule for Inspection of Bridges

OFFER LETTER

RFP No. CGM/DFCCIL/UMB/TI/2024/02

Dated: 02.11.2024

Name of Work: Detailed technical inspection of important and major railway bridges & railway fly overs including NDT testing as per requirement and relevant guidelines and submitting detailed report including suitable corrective measures wherever required under the jurisdiction of CGM/DFCCIL/Ambala from SREN to CHAN.

I/We, the undersigned, declare that:

- 1) 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 90 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 [Name of work] on Consultancy Mode at the rates quoted in the attached bill(s) of quantities and hereby bind myself/ourselves to complete the work in all respects **within 03 months from the date of issue** of letter of acceptance of the tender.
- 2) I/We also-hereby agree to abide by the 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 DFCCIL in the annexed Special Conditions/Specifications, for the present contract.
- 3) A Bid Security of ₹ _____ 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) 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 with..... and hence required to deposit only 50% of Bid Security.
- 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.
- 7) We have not been blacklisted/banned in accordance with Preamble and General Instructions to tenderers.

- 8) 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.
- 9) If our bid is accepted, we commit to deploy all key experts as indicated in this Bid, and
- 10) 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.

SIGNED, SEALED AND DELIVERED

By the said _____ Name

By the said _____ Name

On behalf of the Contractor in the Presence of

On behalf of the Contractor in the Presence of

Witness: _____

Witness: _____

Name: _____

Name: _____

Address: _____

Address: _____

Enclosures:- Complete Bid document (Total --- Pages).

TENDERER'S CREDENTIALS

S. No	Description
1.	For technical experience/competence, give details of similar completed works during the last three financial years (i.e., current financial year and three previous Financial Years) in the proforma 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 proforma given in Form-2B
3.	Give the 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 1.3.17 (A) of Preamble and General Instructions to Tenderers)

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	<i>[insert a percentage amount]</i>	<i>Total contract amount in Rs.</i>
Employer's Name: Address: Telephone/fax number E-mail:		
Description of the similarity in accordance with Criteria 1.3.17 (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
(As per Para 1.3.17 (B) of Preamble and General Instructions to Tenderers)

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

NAME OF BIDDER/JV PARTNER:

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.
4. **The bidder shall attach necessary documents in support of the above.**

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

<p>Applicant name: <i>[insert full name]</i></p>
<p>Applicant's Party name: <i>[insert full name of Applicant's Party]</i></p>
<p>Applicant's Party country of registration: <i>[indicate country of registration]</i></p>
<p>Applicant Party's year of constitution: <i>[indicate year of constitution]</i></p>
<p>Applicant Party's legal address in country of constitution: <i>[insert street/ number/ town or city/ country]</i></p>
<p>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 citycodes]</i> E-mail address: <i>[indicate e-mail address]</i></p>
<p>1. Attached are copies of original documents of</p> <p>D Articles of Incorporation (or equivalent documents of constitution or association), and/or registration documents of the legal entity named above.</p> <p>D 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.</p> <p>2. Included are the organizational chart, a list of Board of Directors, and the beneficial ownership.</p>

Signature of
the Tenderer
with Seal

CGM / [Unit] / DFCCIL
CONTRACT AGREEMENT OF CONSULTANCY WORKS

THIS AGREEMENT ("Agreement") is made at _____ on the _____ day of _____ BETWEEN

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, 1956/2013 having its registered office at 5th Floor, Supreme Court Metro Station Complex, New Delhi-110001 represented through its Managing Director or acting through the GM/Technical (hereinafter referred to as "DFCCIL" which expression shall, unless repugnant to the context, be deemed to include its successors and assigns' of the one part and (complete address and legal status) _____, a company / corporation / JV incorporated under the laws of _____ having its principal place of business at _____ (herein after called the "Contractor or Consultant" which expression shall, unless repugnant to the context, be deemed to include its successors and assigns) of other part.

WHEREAS the Contractor has agreed with the DFCCIL for performance of the works _____ set forth in the SOR hereto annexed upon the General Conditions of Contract, and the Specifications of _____ and the Special Conditions and Special Specifications, if any and in conformity with the drawings here-into annexed AND WHEREAS the performance of the said works is an act in which the public are interested.

NOW THIS INDENTURE WITNESSETH that in consideration to the payments to be made by the DFCCIL, the Consultant will duly perform the said works in the said SOR set forth and shall execute the same with great promptness, care and accuracy in a workman like manner to the satisfaction of the DFCCIL and will complete the same in accordance with the said specifications and said drawings and said conditions of contract on or before the _____ day of _____ 20__ and will maintain the said works for a period of _____ Calendar months from the certified date of their completion and will observe, fulfill and keep all the conditions therein mentioned (which shall be deemed and taken to be part of this contract, as if the same have been fully set forth herein), and the DFCCIL, both hereby agree that if the Contractor shall duly perform the said works in the manner aforesaid and observe and keep the said terms and conditions, the DFCCIL will pay or cause to be paid to the Consultant for the said works on the final completion thereof the amount due in respect thereof at the rates specified in the SOR hereto annexed.

This Agreement shall not be varied, altered, modified, cancelled, changed, or in any way amended except by mutual agreement of the parties in a written instrument executed by the parties hereto, their legal representatives or their respective successors or assignees.

In case any one or more of the provisions contained in this Agreement shall for any reason be held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provisions of this Agreement, but this Agreement shall be construed as if such invalid or illegal or unenforceable provision had never been contained herein.

IN WITNESS WHEREOF the parties hereto 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 DFCCIL

Signature of the authorized official
 Name of the official

Signature of the authorized official
 Name of the official

Stamp/seal of the Contractor

Stamp/Seal of the DFCCIL

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 DFCCIL in the presence of:

Witness _____
Name _____
Address _____

Enclosures:-

1. Tender Papers No.
2. Letter of Acceptance of Tender No. _____ Dated _____ along with Summary of Prices

(Refer Clause 1.3.11.22 of Chapter-III of Part-I)

PROFORMA FOR BANK GUARANTEE FOR BID GUARANTEE/BID SECURITY

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

Ref.: _____

Date: _____

(ON BANK'S LETTER-HEAD WITH ADHESIVE STAMP) .

To
Chief General Manager
DFCCIL, Ambala Cantt

Dear Sir,

Bank Guarantee Bond No.:

Date:-----

In consideration of the Managing Director/DFCCIL acting through---- (*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 DFCCIL:

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 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 DFCCIL any amount up to and including aforementioned full amount without any demur, reservation or recourse. Any such demand made by the 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.
3. The Bank shall pay the amount as demanded immediately on presentation of the demand by DFCCIL without any reference to the Bidder and without the 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 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 DFCCIL at any time.
6. This guarantee will remain valid and effective from.....*[insert date of issue]*till*[insert date, which should be minimum 60 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 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 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 Branch
CITY NAME	New Delhi
ADDRESS	Moti Bagh -1, New Delhi - 110066
STATE	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 DFCCIL. The Bank, under this Guarantee, shall be deemed as Principal Debtor of the DFCCIL.

Date

Place.....

Bank's Seal and authorized signature(s)

[Name in Block letters]

[Designation with Code No..].....

[P/Attorney] No.

Witness:

- 1 Signature, Name & Address & Seal
- 2 Signature, Name & address & Seal

(Bank's Common Seal)

Note:

1. It shall be ensured that the complete particulars of the Banks' (issuing bank guarantee) mailing

address including telephone number, fax number & E-mail ID are invariably indicated on the Bank Guarantee.

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

SAMPLE
(Refer Clause 1.3.28 of Chapter-III of Part-I)

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 [Designation & Address of Contract Signing Authority], Dedicated Freight Corridor Corporation of India Limited, [New Delhi] 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 a 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 DFCCIL an amount not exceeding Rs. _____ (Rs. _____ only) on demand by the DFCCIL.
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 DFCCIL through the GROUP GENERAL MANAGER/ FINANCE Dedicated Freight Corridor Corporation of India Limited, New Delhi 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 DFCCIL 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 DFCCIL any money so demanded notwithstanding any dispute or dispute raised by the contractor (s) in any suit or proceeding pending before any court 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 DFCCIL 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 DFCCIL, 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 any thing 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 DFCCIL 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 DFCCIL 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 DFCCIL. If the guarantee is not renewed or the period extended on demand, we (indicate the name of the Bank) shall pay the DFCCIL the full amount guarantee on demand and without demur.
6. We, _____ (indicate the name of Bank) further agree with the DFCCIL that the DFCCIL 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 DFCCIL 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 DFCCIL or any indulgence by the DFCCIL 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).
8. We, ___(indicate the name of the Bank) lastly undertake not to revoke this guarantee except with the previous consent of the DFCCIL in writing.
9. This guarantee shall be valid upto _____ (Date of completion plus 60 days beyond that). Unless extended on demand by DFCCIL. Notwithstanding anything to the contrary contained herein before, our liability under this guarantee is restricted to Rs. _____ (Rs/ _____ only) unless a demand under this guarantee is made on us in writing on or before _____ we, shall be discharges from our liabilities under this guarantee thereafter

Dated _____ the day of _____ for _____
_____ (indicate the anme of bank)

Signature of Bank Authorize official (Name):
Designation:
Full Address

Witness:

1. _____
2. _____

SAMPLE

STANDING INDEMNITY BOND FOR PAYMENTS
(Against supply and installation and functionality of material/equipment/sensors)

(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 Project Manager]/DFCCIL 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 [CPM] in charge of Dedicated Freight Corridor Corporation of India Limited.

Should any loss, damage or deterioration of materials/equipment/sensors occur or surplus material disposed off
 and refund becomes due, the Employer shall be entitled to recover from us the 85% of supply portion 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 _202

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,

[Designation of Finance Officer of CGM unit]

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 book	
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.	
GST Number	
PAN Number	
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 particulars can be intimated through SMS	
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**

((Refer Clause 1.3.24.14.3 of Chapter-III of Part-I)

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

and

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

and

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

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

WHEREAS:

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/s..... shall be the lead member of the JV for all intents and purpose and shall represent the Joint Venture in its dealing with the Client. For the purpose of submission of bid proposals, the parties agree to nominateas 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 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.....
.....
(Seal)

M/s.....
.....
(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,

[Name and address of CGM unit]

Re: ...“[Insert name of work].....”.

Ref: Your notice for Invitation for

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)**

- 3. In this group we act as leader and, for the purposes of applying for Bid, represent the Joint Venture:
- 4. In the event of our JV being awarded the contract, we agree to be jointly with i) & ii) (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.
- 5. *I/We, further agree that entire execution of the contract shall be carried out exclusively through the lead partner.

Yours faithfully, (Signature)
(Name and 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..... 202..

(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:

Address:

*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] on Consultancy Mode.”

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 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 executant(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, our said attorney, pursuant to this power of attorney and that all acts deeds and things done by our *aforsaid* attorney shall and shall always be deemed to have been done by us/ Joint Venture.

Dated this the Day of.....202

.....
(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 Consultant/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 liquidated damage fixed earlier) will be recovered from you as mentioned in Clause 17B of the GCC 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 upto this extension to complete the work by _____ (here mention the extended date), further action will be taken in terms of Clause 62 of the GCC.

Yours faithfully

For and on behalf of the DFCCIL
Name of the Official:-
Stamp/Seal of the DFCCIL

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

(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 through various letters of even no. _____, dated _____; you have failed to start work/show adequate progress and/or submit detailed programme for completing the work/ part of work (details of part of work to be mentioned).
2. Your attention is invited to this office/ _____ 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 the General Conditions of Contract to commence works / to make good the progress, failing which further action as provided in Clause 62 of the GCC 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 DFCCIL
Name of the Official: -
Stamp/Seal of the DFCCIL

PROFORMA OF 48 HRS. NOTICE

(Without Prejudice)

To

M/s _____

Dear Sir,

Contract Agreement No. _____

In connection with _____

1. Seven days' notice under Clause 62 of the GCC was given to you under this office letter of even no., dated _____; but you have taken no action to commence the work/show adequate progress of the work.
2. You are hereby given 48 hours' notice in terms of Clause 62 of the GCC to commence works / to make good the progress of works, failing which and on expiry of this period your above contract will be rescinded and the work under this contract will be carried out independently without your participation and your Security Deposit shall be forfeited and Performance Guarantee shall also be encashed and any other consequences which may please be noted.

Kindly acknowledge receipt.

Yours faithfully

For and on behalf of the DFCCIL

Name of the Official: -
Stamp/Seal of the DFCCIL

PROFORMA OF TERMINATION NOTICE

(Without Prejudice)

No. _____ Dated _____

To

M/s _____

Dear Sir,

Contract Agreement No. _____

In connection with _____

1. Forty-eight hours (48 hrs.) notice was given to you under this office letter of even no., dated _____; but you have taken no action to commence the work/show adequate progress of the work.
2. Since the period of 48 hours' notice has already expired, the above contract stands rescinded in terms of Clause 62 of the GCC and the balance work under this contract will be carried out independently without your participation. Your participation as well as participation of every member/partner in any manner as an individual or a partnership firm/JV is hereby debarred from participation in the tender for executing the balance work and your Security Deposit shall be forfeited and Performance Guarantee shall also be encashed.

Kindly acknowledge receipt.

Yours faithfully

For and on behalf of the DFCCIL

Name of the Official: -

Stamp/Seal of the DFCCIL

Performa for Integrity Pact

This pre-bid pre-contract Agreement (hereinafter called the Integrity Pact) is made on-----
 --day of the month of----- 2022, between, on one hand, the DFCCIL acting through **GM/Tech/DFCCIL**, (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" 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 Consultancy Service, Name of Works Contract) and the [A] is willing to Offer/has offered for 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.

NOW, THEREFORE,

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. 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 exchange for an advantage in the bidding process, bid evaluation, contracting or implementation process related to the [B].
- 1.0 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.
- 1.1 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.
- 1.2 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

- 1.3 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 committee itself to the following:-
- 1.3.1 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].
- 1.3.2 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 person in relation to the [B] or any other [B] with the Government.
- 1.3.3 * [A] shall disclose the name and address of agents and representatives and Indian [A] shall disclose their foreign principals or associates.
- 1.3.4 *[A] shall disclose the payments to be made by them to agents/brokers or any other intermediary, in connection with this bid/contract.
- 1.3.5 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
- 1.3.6 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.
- 1.3.7 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].
- 1.3.8 The [A] will not accept any advantage in exchange for any corrupt practice, unfair means and illegal activities.
- 1.3.9 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.
- 1.3.10 The [A] commits to refrain from giving any complaint directly or through any other manner without Supporting it with full and verifiable facts.

- 1.3.11 The [A] shall not instigate or cause to instigate any third person to commit any of the actions mentioned above.
- 1.3.12 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.
- 1.3.13 The term 'relative' for this purpose would be as defined in section 6 of the companies act 1956.
- 1.3.14 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.

2. Previous Transaction

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 exclusion from the tender process.

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.

3. Earnest Money (Security Deposit)

- 3.1 While submitting commercial bid, the [A] shall deposit an amount (to be specified in BID) as Earnest Money/Security Deposit, with the CLIENT through any of the following instruments:
- (i). 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 or payment.
 - (ii). Any other mode or through any other instrument (to be specified in the BID).
- 3.2 The earnest money/Security deposit shall be valid up to a period of five years or the contractual obligations to the complete satisfaction of both the BIDDER and the CLIENT, including warranty period, whichever is later.
- 3.3 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.
- 3.4 No interest shall be payable by CLIENT to the [A] on earnest Money /Security Deposit for the period of its currency

4. Sanctions for Violations

- 4.1 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 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 DFCCIL/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.

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.

- 4.2 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.
 - 5.1 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 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.
 - 6.1 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)
 - 6.2 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.
 - 6.3 The monitors shall not be subject to instructions by the representatives of the parties and perform their functions neutrally and independently.
 - 6.4 Both the parties accept that the Monitors have the right to access all the documents relating to the project/procurement, including minutes of meetings.
 - 6.5 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
 - 6.6 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 under contractual obligation to treat the information and documents of the [A] with confidentiality.

- 6.7 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.
- 6.8 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
- 10.1 The validity of this integrity pact shall be from date of its signing and extend upto 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].
- 10.2 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.
- 10.3 The parties hereby sign this integrity pact at on

CLIENT
Name & Designation of DFCCIL
Witness

BIDDER
CHIEF EXECUTIVE OFFICER

Witness

1. 2.

Note:

[A]- To be replaced by BIDDER/Seller provider as the case may be.

[B]- To be replaced by contract/supply contract as the case may be

**FORMAT FOR AFFIDEVIT TO BE UPLADED BY TENDERER
ALONGWITH THE TENDER DOCUMENT**

(Clause 1.3.17 Part - I, Chapter - III)

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

Tender Notice No.....
Name of Work:.....

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 RFP No. of DFCCIL, 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 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 DFCCIL 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 capability/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/DFCCIL or any other Ministry / Department of Govt. of India from participation in tender on the date of submission of bids, either in individual capacity or as a HUF/ member of the partnership firm/LLP/JV/Society/Trust.
8. I/we understand that if the contents of the affidavit submitted by us are found to be forged/false or incorrect at any time during process for evaluation of tenders, it shall lead to forfeiture of the Bid Security besides banning of business for a period of upto five year. Further, I/we (insert name of the tenderer) ** and all my/our constituents understand that my/our offer shall be summarily rejected.
9. I/we also understand that if the contents of the affidavit submitted by us are found to be false/forged or incorrect at any time after the award of the contract, it will lead to termination of the contract, along with forfeiture of

Bid Security/Security Deposit and Performance guarantee besides any other action provided in the contract including banning of business for a period of upto five year.

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)

Place:
Dated:

DEPONENT
SEAL AND SIGNATURE OF THE TENDERER

VERIFICATION

I/we above named tenderer do hereby solemnly affirm and verify that the contents of my/our above affidavit are true and correct. Nothing has been concealed and no part of it is false.

Place:
Dated:

DEPONENT
SEAL AND SIGNATURE OF THE TENDERER

** The contents in Italics are only for guidance purpose. Details as appropriate are to be filled in suitably by tenderer
This affidavit is to be given by each member of JV in case of JV

FINAL SUPPLEMENTARY AGREEMENT

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

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

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

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

Or

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

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

Now, it is hereby agreed by and between the parties in the consideration of sums already paid through various On Account Bills and sums to be paid through Final Bill duly adjusted as per price variation clause (PVC), if applicable, based on accepted final measurements including the Security Deposit by the party hereto of the first part to the party hereto of the second part against all outstanding dues and claims for all works done under the aforesaid principal agreement, the party hereto of the second part have no further dues of claims against the party hereto of the first part under the said Principal Agreement.

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

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

Signature of the Consultant/s

for and on behalf of the DFCCIL

Witnesses

ADDRESS: _____

Certification by Arbitrators appointed under Clause 63 & 64 of 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 _____ w.e.f. _____ and empaneled as DFCCIL 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:

Agreement For Arbitration under Arbitration and Conciliation (Amendment) Act 1996

I/we..... (Name of agency/Contractor) with reference to agreement noraise 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..... 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:

We further agree that the cost of arbitration will be shared by the parties as per Clause 64(6) of the GCC.

Signature of Claimant _____ Signature of Respondent _____



Tender No. **CGM/DFCCIL/UMB/TI/2024/02**
E-Tender Document For
Carrying out Girder Bridge Inspection For DFCCIL

(Participation through e-Tender only)

Visit: www.ireps.gov.in/ its link at www.dfccil.com (Help desk of IREPS: 011-23761525)

FINANCIAL BID
(PACKET-B)

TENDER DOCUMENT XXXX

Employer:
DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA
LIMITED (A GOVERNMENT OF INDIA ENTERPRISE)
Under **MINISTRY OF RAILWAY**

PRICE SCHEDULE FOR INSPECTION OF BRIDGES

RFP NO. CGM/DFCCIL/UMB/TI/2024

Form No. 22

Name of Work: Detailed Technical Inspection of Important and major railway bridges, ROBs and Railway Flyovers including NDT testing as per requirement and relevant guidelines and submitting detailed report including suggesting suitable corrective measures wherever required under the jurisdiction of CGM/DFCCIL/UMB from SREN to CHAN of EDFC.						
Schedule	NS1-NS1					
Item - 1	Carry out detailed technical inspection including necessary testing of girders of bridge (of ROB's, RFOs, Aqua duct and important/Major Bridges) as per the terms of this document, and relevant IRC/ Railway guidelines or as directed by engineer in charge and analysing the collected data of girders. The detailed inspection shall be close examination of all elements of bridge above pier cap/bed blocks. Contractor has to prepare and submit detailed inspection report in prescribed Performa of this RFP in 3 (three) sets of in hard copy as well as soft copy with all necessary supporting documents and photographs. The inspected bridge data is also to be entered in DFCCIL BMS software if directed by DFCCIL. The rate includes all cost of required tools & plant, testing equipment, Mobile bridge inspection unit (road Base)/man lifting crane required for detailed inspection of girders and other associated logistic costs.					
S No.	Item No	Description of Item	Unit	Qty	Rate	Amount
	a.	RCC/PSC Girder spans	Each Span	33	18320	604560
	b.	Composite Girders	Each Span	3	18320	54960
	c.	Open Web/ under slung girder/Bow string Girders {OWG/USG/BSG) spans upto upto 30.5 M effective SPAN	Each Span	34	29500	1003000
		Total (a, b & c)				1662520
Note						
1	In case deck slab for UP and DN line of Railway track are different then it will be treated as separate spans.					
2	In case UP and DN line of Railway Track is passing on same deck slab, then it will be treated as single span and additional payment of 25% of rate of single span for RCC/PSC /PSC Box girders will be made.					
3	In case UP and DN line of ROB is passing on same deck slab, then it will be treated as single span. In case deck slab for UP and DN lane are different then it will be treated as 2 spans.					
4	In case Ht of Bridge (distance between bed level of Bridge (at middle of span) and soffit of girder) is more than 6m then 10% additional payment of above tabulated items.					
5	In case effective span of OWG/USG/BSG girders are more than 30.5 m, then additional payment@ of 0.7 times of rate of span upto 30.5 m corresponding to difference in effective span length of girders and 30.5 m shall also be made. i.e. if span length is 45.7 m and rate for 30.5 m is X then rate for 45.7 m will be = $X * [1.0 + 0.7 * (45.7 - 30.5) / 30.5]$					

Item-2	Carryout Non-Destructive Testing required for detailed technical inspection of bridges as per the terms & Conditions, Specifications of this document, and relevant IRC/Railway guidelines or as directed by engineer in charge including submission of testing reports to DFCCIL.					
S No.	Item No	Description of Item	Unit	Qty	Rate	Amount
1	(i)	Rate for Rebound Hammer (Schmidt Hammer) Test	Each	20	988	19760
2	(ii)	Pull out CAPO test	Each	20	8405	168100
					Total	187860.00
Total of Item 1 & 2 (inclusive of GST)						1850380.00
						(Say) Rs. 18,50,400.00

Note: The above rates cover total cost involved in inspection of bridges and documentation of inspection observations including cost of all tool and plants, equipment's, sensors etc involved in inspection of bridges and other various costs for inspection, documentation of inspection observations and submission of reports and all logistic cost involved in doing all activities as per TOR of this tender.