

Tender No. MGS/EN/RUB/Approach/172/3/2016



Tender No. MGS/EN/RUB/Approach/172/3/2016

For

Construction of DFC side approaches of RUB/LHS at LC no. 35C(556/26-28), 37C(562/12-14), 44C(576/11-13), 48C(585/5-7), 51C(590/23-25), 52C(594/17-19), 54C(603/17-19), 57C(612/25-27), 58C(615/3-5), 64C(630/9-11), 65C(633/7-9), 66C(637/5-7), 67C(638/7-9), 77C(659/13-15) AND 79C(662/7-9) IN BETWEEN SONNAGAR—MUGHALSARAI SECTION.

**TECHNICAL BID
(PACKET-A)**

TENDER DOCUMENT
DEC' 2016

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

Signature of Tenderer

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NOTICE INVITING TENDER

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PART - I Chapter I

DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LIMITED (A GOVERNMENT OF INDIA ENTERPRISE)

Tender No: MGS/EN/RUB/Approach/172/3/2016

DATE: 23.12.2016

NOTICE INVITING E-TENDER

National Competitive Bidding

Dear Sir,

Name of Work: Construction of DFC side approaches of RUB/LHS at LC no. 35C(556/26-28), 37C(562/12-14), 44C(576/11-13), 48C(585/5-7), 51C(590/23-25), 52C(594/17-19), 54C603/17-19), 57C(612/25-27), 58C/615/3-5), 64C630/9-11), 65C(633/7-9), 66C/637/5-7), 67C(638/7-9), 77C(659/13-15) AND 79C(662/7-9) IN BETWEEN SONNAGAR—MUGHALSARAI SECTION.

- 1.1.1 Chief Project Manager, Dedicated Freight Corridor Corporation of India Limited, Swarna Complex, 2nd Floor, Susuwahi, Varanasi (U.P.)-221011, India, **invites E-Tenders on two packet system** on prescribed forms from firms / Companies / Joint Ventures having requisite experience and financial capacity for execution of the following work:

Table 1				
S. No.	Name of work	Tender cost (Rs)	Earnest money (Rs)	Completion Period
1	Construction of DFC side approaches of RUB/LHS at LC no. 35C(556/26-28), 37C(562/12-14), 44C(576/11-13), 48C(585/5-7), 51C(590/23-25), 52C(594/17-19), 54C603/17-19), 57C(612/25-27), 58C/615/3-5), 64C630/9-11), 65C(633/7-9), 66C/637/5-7), 67C(638/7-9), 77C(659/13-15) AND 79C(662/7-9) IN BETWEEN SONNAGAR—MUGHALSARAI SECTION.	10000/-	2699080/-	24 Months

1. THE BANK DETAILS

Bank Details for depositing EMD and Tender Document cost through online is as under:

Name of Bank	Union Bank of India
Name	Dedicated Freight Corridor Corporation of India Limited
A/C No	356101010200796
IFSC Code	UBIN0539945
Branch	TIKRI -1, Branch, VARANASI



2. Eligibility Criteria:

The Minimum Eligibility Criteria is as per Clause 1.2.12 (A & B) at page no. 22 & 23, of Part I chapter III “Preamble & general instructions to tender of Tender Documents.

3. Interested bidders who wish to participate should visit website www.tenderwizard.com/DFCCIL, which is the only website for bidding their offer
4. DFCCIL may issue addendum(s)/corrigendum(s) to the tender documents. In such case, the addendum(s)/corrigendum(s) shall be issued and placed on DFCCIL’s website at least three days in advance of date fixed for opening of tenders. The tenderers who have downloaded the tender documents from website must visit the website and ensure that such addendum(s)/corrigendum(s) (if any) is also downloaded by them.
5. The tender documents should be submitted through online mode in website www.tenderwizard.com/DFCCIL. The offer submitted other than online will not be accepted. Please refer Para-1.1, ‘Procedure for submission of E-tender’ of ‘Instructions to Bidder’ (ITB), Section-2 for clarification.
6. To participate in the E-Bid submission, it is mandatory for the bidders to have user ID & password to login www.tenderwizard.com/DFCCIL, which has to be obtained by submitting an annual registration charges of INR 2000/- + Service tax @ 15% to M/s ITI through e-payment. Bidders have to pay the Tender Processing Fee to ITI through e-payment at the time of request of bid. Already registered vendors with M/s. Indian Telephone Industries (ITI) need not pay registration charges. For further details please refer Para-1.1, ‘Procedure for submission of E-tender’ of ‘Instructions to Bidder’ (ITB), Section-2 for clarification.
7. E-Tenders shall be opened online at the address given below at the time and date given in NIT. The tenderer or their representative may attend the tender opening.

Address of Office of the Chief Project Manager/MGS:-

Chief Project Manager/MGS, DFCCIL, Swarna Complex, 2nd Floor, Susuwahi, Post-Susuwahi(near Union Bank of India), Thana-Lanka, -221011).

Tender shall be submitted as per “Instructions to Bidders (ITB)” forming a part of the tender document.

8. Any tender received without Earnest Money in the form as specified in tender documents shall not be considered and shall be summarily rejected.
9. DFCCIL reserves the right to cancel the tenders before submission/opening of tenders, postpone the tender submission/opening date and to accept / reject any or all tenders

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without assigning any reasons thereof. DFCCIL's assessment of suitability as per eligibility criteria shall be final and binding.

- 10.** Tenderers may note that they are liable to be disqualified at any time during tendering process in case any of the information furnished by them is not found to be true. EMD of such tenderer shall be forfeited. The decision of DFCCIL in this regard shall be final and binding.
- 11.** DFCCIL reserves the right to pre-qualify the bidder(s) provisionally based on the documents submitted by them and open financial bid(s), subject to their final verification. In the event of any document being found false, the provisional qualification shall stand withdrawn, and the next lower bidder shall automatically come to the position of such disqualified bidder.

We look forward for your active participation.

For & on behalf of DFCCIL
Chief Project Manager/MGS



Instructions to Bidders (ITB)

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Part – I
Chapter - II
Instructions to Bidders (ITB)

- 1. General:** All bidders must note that this being E-tender, bids received only through E-tendering portal shall be considered as an offer. Any bid received in paper form will not be opened and shall be summarily rejected.

Further following instructions should be noted by bidders

1.1 Procedure for submission of E-tender:

1.1.1 Bid Document obtaining process:

The Bidder who wish to view free Notification and tender documents can visit DFCCIL's website www.dfccil.gov.in OR www.tenderwizard.com/DFCCIL OR Central Procurement Portal www.eprocure.gov.in.

Interested bidders who wish to participate should visit website www.tenderwizard.com/DFCCIL, which is the only website for bidding their offer. Further the procedure is as follows:

- Register yourself with M/s. Indian Telephone Industries (ITI) for obtaining Login ID and Password (after paying necessary charges). This is one time annual payment and applicable for bidding other tenders also.
- Obtain Class-III Digital Signature Certificate from ITI or any other digital signature issuing authority. In case bidder wish to obtain the digital signature certificate from ITI, they may contact helpdesk numbers **011- 49424365 or 8090426426**.
- Using the login ID, password and digital signature enter the tender portal to purchase the tender document.
- The tender document charge has to be paid through DD/Bankers Cheque drawn in favour of Dedicated Freight Corridor Corporation of India Limited payable at Varanasi .
- Payment of processing fees of Rs. 8625/- through e-payment. This payment can be done only through e-payment gateway of ITI at the time of request.



- After the payment of E-Tender processing fee and Tender Document cost the bidder can download the 'financial bid' (Microsoft Excel file 'Financialbid.xls') by clicking the link "Edit Attachment".

1.1.2 Bid submission process:

- Before quoting the rate and uploading the 'Financial Bid' in given format only. Bidders are advised to upload scanned copies of the following supporting document (please refer Check list) in 'document library'. The list is indicative and not extensive.
 - i. Payment document of 'Tender Document Charge' (Statutory document).
 - ii. EMD Document in accordance para 6 of Information to Bidders (ITB) of Tender document (Statutory document).
 - iii. Supporting Documents for Credentials in accordance with para 1.3.13 (A&B) preamble and general instructions of tenders.
 - iv. Service Tax Registration Certificate- If application
 - v. Partnership deed/Memorandum and Articles of Association of the firm or company - If applicable.
 - vi. Power of attorney of the person signing the tender document or photocopy duly attested by Notary Public - if application.
 - vii. Any other supporting document as required.
 - viii. Complete Tender / Bid document should be uploaded either digitally signed or physically signed and scanned copy of Tender documents should be uploaded except financial bid, which will be downloaded and edited as per para (ix) below.
 - ix. After uploading above documents, bidder should quote their rates in the downloaded 'Financial Bid' file and save the file. After saving, the bidder can upload the filled file. The name of the downloaded 'Financial Bid'('Financialbid.xls') file should not be changed.

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- . Bidder should submit the original EMD & Tender Document Fees in Chief Project Manager/MGS's Office on/or before closing time and date of tender. On failure of the same, the offer of the bidder is liable to be rejected.
- 1.2 **Cost of biddings:** The Bidder shall bear all costs associated with the preparation and submission of its Bid, and the DFCCIL shall not be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.
- 1.3 **Language of Bid:** The Bid, as well as all correspondence and documents relating to the bid exchanged by the Bidder and the DFCCIL, shall be written in English.
- 1.4 **Currencies of Bid and Payment:** The Bidder shall quote the unit rates and the prices entirely in the Indian Rupees.
- 1.5 **Period of Validity of Bids:** Bids shall be signed by a authorized person and shall be valid for 90 days from the date of opening of the tender. The Bid for shorter validity period shall be rejected by the DFCCIL as non-responsive.
- 1.6 **Format and Signing of Bid:** Bid document shall be signed by a person duly authorized to sign on behalf of the Bidder on all pages and upload or soft copy of Tender document shall be digitally signed and uploaded. Any interlineations, erasures, or overwriting shall be valid only if they are signed or initialed by the person signing the bid.
- 1.7 **Signing of Contract:** The successful bidder, whose tender has been accepted by the competent authority of DFCCIL, will be informed by the DFCCIL through a letter
of acceptance. In response the successful bidder should sign the contract agreement **(Annexure-III)** within Fifteen days from the date of issue of acceptance letter.
- 1.8 **Corrupt Practices:** The DFCCIL require that bidders, suppliers, and contractors observe the highest standard of ethics during the execution of such contracts.
- 1.9 Tenderer may carefully 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. In addition, the EMD of such tenderer shall be forfeited. The decision of DFCCIL in this respect shall be final and binding.
- 1.10 The bidder shall submit only one bid in the capacity of an individual or sole proprietor, partnership firm or company. Violation of this condition is liable to



disqualify the tender in which bidder has participated and EMD of all such tenderers shall stand forfeited.

2. The bidder is expected to examine all instructions, terms, conditions, forms, specifications and other information in the bidding document. Failure to furnish all information required by the bidding documents or submission of a bid not substantially responsive according to the bidding document in every respect will be at the bidders risk and may result in rejection of his bid.

3. Understanding and Amendments of Tender Documents:

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

4. Signing of All Bid Papers and completing Financial Bid:

This tender being E-tender, the digital signature obtained from approved Controller of Certificate Authorities (CCA) shall only be considered as authentic. The process of obtaining digital signature has been specified at Para-1.1 of ITB.

5. **Deviations:** The tenderer should clearly read and understand all the terms and conditions, specifications, etc. mentioned.

6. Earnest Money Deposit: The tender must be accompanied by a sum of Rs.26,99,080/- (Rs. Twenty six Lakh Ninty Nine Thousand Eighty only) as Earnest money deposited either by directly in DFCCIL account by online payments through NEFT/RTGSas per the details provided in Clause 2 of section 1, or alternately in the form of:-

a. Demand Drafts/Bankers Cheque/FDR drawn on any nationalized bank or a Scheduled Bank. Earnest money shall be in favour of “Dedicated freight Corridor Corporation of India Limited” payable at Varanasi.

i. The bids not accompanied by valid EMD shall be summarily rejected. In case the EMD as well as tender document cost is being deposited in any form mentioned above in Clause 6 (a), the scanned copy of the same shall be uploaded with the bid and the same shall be submitted in physical form at the “ Office of Chief Project Manager, DFCCIL Unit **Swarna Complex, 2nd Floor, Susuwahi, Post-Susuwahi(near Union Bank of India), Thana-Lanka, - 221011).** before opening of the Tender. Failing which, the bid shall be summarily rejected and shall not be considered for further evaluation.

6.1 No interest shall be allowed on Earnest Money Deposit.

6.2 Forfeiture of Earnest Money:

6.2.1 The Earnest Money of the tenderer shall be forfeited if he withdraws his tender during the period of tender validity specified in the “Appendix to Tender” or extended validity period as agreed to in writing by the tenderer.

6.2.2 The Earnest Money of the successful tenderer is liable to be forfeited if he fails to:

- i) Sign the Contract Agreement in accordance with the terms of the tender, or
- ii) Furnish Performance Guarantee in accordance with the terms of the tender, or
- iii) Commence the work within the time period stipulated in the tender.

6.2.3 In case of forfeiture of EMD, the tenderer shall be debarred from bidding in case of re-invitation of the tenders.

6.3 Return of Earnest Money:

6.3.1 The Earnest Money of the unsuccessful tenderers shall be discharged and returned as promptly as possible.

6.3.2 The Earnest Money Deposit of the successful tenderer shall be dealt as under:

- i) The Earnest Money Deposit (EMD) shall be retained towards Security Deposit and further deduction of Security Deposit from the bills shall commence after adjusting this EMD amount.

7. Deadline for submission of tender:

- 7.1 The bidder must ensure that the tender document is submitted before the closing time of the tender. The tender submission shall stop at prescribed date and time as mentioned in NIT.
- 7.2 Tenderer should submit the original EMD and Tender Document Fee (*in case payment of the same by offline mode*) in Chief Project Manager/MGS's Office on/or before closing time of tender. Tenderer should also upload the scanned copy of the above on the tender Portal while submitting the tender. The Bid of tenderer is liable to be rejected in case they fail to submit the above original EMD & Tender document fee physical form in CPM office before closing of tender.
- 7.3 Bidder can anytime change the quoted rates before date & time of closing of tender.

- 8. Withdrawal of Tender:** No tender can be withdrawn after submission and during tender validity period.

9 Opening of the tender

- 9.1 Tenders will be opened online at the address mentioned in "Notice Inviting Tender" in presence of tenderers or authorized representatives of tenderers who wish to attend the opening of tenders.
- 9.2 Tenderers or their authorized representatives who are present shall sign in register as evidence of their attendance.

10 Clarification of the tenders

- 10.1 To assist the examination, evaluation and comparison of the tenders, DFCCIL may at his discretion ask the tenderers for any clarifications as considered essential. All such correspondence shall be in writing and no change in price or substance of the tender shall be sought or permitted. The above clarification for submission of the details shall form part of the tender and shall be binding on tenderer.

11 Preliminary examination of bids

- 11.1 The DFCCIL shall examine the bids to determine whether they are complete, whether any computational errors have been made, whether the documents have been properly signed and whether the bids are generally in order.

- 11.2 Arithmetical errors shall be rectified on the following basis if found. If there is a discrepancy between the unit price and the total price, which is obtained by multiplying the unit price and quantity, or between subtotals and the total price, the unit or subtotal price shall prevail, and the total price shall be corrected.
- 11.3 Prior to the detailed evaluation, DFCCIL shall determine whether each bid is of acceptable quality, is generally complete and is substantially responsive to the bidding documents. For purposes of this determination, a substantially responsive bid is one that conforms to all the terms, conditions and specifications of the bidding documents without material deviations, objections, conditionality or reservation. A material deviation, objections, conditionality or reservation is one:
- i) That affects in any substantial way the scope, quality or Performance of the contract.
 - ii) That limits in any substantial way, inconsistent with the bidding documents, the DFCCILs" rights or the successful Bidder"s obligations under the contracts; or
 - iii) Whose rectification would unfairly affect the competitive position of other Bidders who are presenting substantially responsive bids.
- 11.4 If a bid is not substantially responsive, it shall be rejected by the DFCCIL.
- 11.5 In case of tenders containing any conditions or deviations or reservations about contents of tender document. DFCCIL can summarily reject such tender.

12 Evaluation and comparison of tenders

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

13 Canvassing

- 13.1 No tenderer is permitted to canvass to DFCCIL on any matter relating to this tender. Any tenderer found doing so may be disqualified and his bid may be rejected.
14. Right to accept any tender or reject all tenders:
DFCCIL reserves the right to accept, split, divide, negotiate, cancel or reject any tender or to annul and reject all tenders at any time prior to the award of the



contract without incurring any liability to the affected tenderers or any obligation to inform affected tenderer, the grounds of such action.

15. If the tenderer, as individual or as a partner of partnership firm, expires after the submission of his tender but before award of work, the DFCCIL shall deem such tender as invalid.

16. Award of Contract

16.1 DFCCIL shall notify the successful tenderer in writing by a Registered Letter/Courier/Speed Post or through bearer that his tender has been accepted.

16.2 Letter of Acceptance after it is signed by the Contractor in token of his acceptance shall constitute a legal and binding contract between DFCCIL and the contractor till such time the contract agreement is signed.

17. Security Deposits (SD):

The Security Deposit will be equal to 5 % of the value of the contract. Security Deposit shall be deducted at the rate of 10% from each of the bill of the contractor till the realization of full amount of Security Deposit as per contract after adjusting the EMD.

18 Help desk for E-Tendering

18.1 For any difficulty in downloading & submission of tender document at website www.tenderwizard.com/DFCCIL, please contact at tenderwizard.com helpdesk no. . **011- 49424365 or 8090426426**

18.2 Bidder manual & system requirement is available on web site www.tenderwizard.com/DFCCIL for necessary help.

19 SUBMISSION OF BIDS

- a) In case Tender opening date is declared as holiday, the tender will be opened on next working day at 11:00 hrs.
- b) All bids shall be submitted in accordance with the instruction contained in these documents (hereinafter called as tender documents). Non-compliance with any of the instructions set forth herein above is liable to result in the tender being rejected.
- c) The bid submitted / received after the time and date fixed for receipt of Bids as set out in the documents are liable to be rejected.

Conditional tenders are liable to be rejected straightway. DFCCIL reserves the right to reject such tenders summarily without assigning any reasons whatsoever. In case tenderer/s still decides to have conditional offer, all such conditions are required to be listed separately and shall be supplemented by the details of exact financial implications,



if applicable. DFCCIL will not take cognizance of any other conditions / variations from the tender stipulations mentioned at any other place in the tender documents.

20. Mobilization Advance: - Not applicable.

21.0 ELIGIBILITY CRITERIA

21.1 The Tenderer(s) should satisfy the minimum Eligibility Criteria as laid down in the tender document and in support of eligibility criteria, the Tenderer(s) should have to submit documents as stipulated below along with their tenders.

21.2 The Minimum Eligibility Criteria is as per Clause 1.3.12(i), of Part I chapter III "Preamble & general instructions to tender of Tender Documents.

Tenderer(s) shall submit along with the tender, adequate documentary proof of having fulfilled the prescribed eligibility criteria as laid down in the Tender notice & Tender conditions.

21.3 In case the Tenderer(s) do not submit any proof for meeting with the eligibility criteria as laid down above in the Tender notice & Tender conditions, along with the tender, the offer shall be considered as in-complete.

21.4 All photo copies should be enclosed with the tender form duly attested.

22. INCOME TAX

Income Tax as per rates applicable/amended under the Income Tax Act of work shall be deducted at source.

23. SERVICE TAX

Service Tax as applicable on gross value of each running account bill shall be paid by DFCCIL as per prevailing law (if applicable).

24. PERMITS, FEES, TAXES & ROYALTIES

Unless otherwise provided in the contract documents, the contractor shall secure and pay for all permits, Government fees and licenses necessary for the execution and completion of the works. The contractor shall pay all duties including excise duty, sales tax, works contract tax, local taxes, income tax, octroi and other taxes State and Central Government.

The contractor has to submit the documentary evidence for payment of all statutory remittances along with Bill.

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

25. STATUTORY INCREASE IN DUTIES, TAXES ETC

All the taxes and duties levied by the State and Central Govt. and by Local Bodies at the prevailing rates applicable on the date of receipt of tender shall be fully borne by the



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Contractor and shall not be reimbursed to him on any account. The tender shall be inclusive of all taxes levies, octroi etc.

Further **DFCCIL** shall not honour any claim arising out of any increase in any of the prevailing statutory duties, taxes, levies, octroi, etc. At the time of quoting/bidding contractor should bear the above fact in mind.

26. **Jurisdiction of Courts:** Jurisdiction of courts for dispute resolution shall be at VARANASI (U.P)/only.
27. All the uploaded scanned documents should be digitally signed by the bidder.



PREAMBLE & GENERAL INSTRUCTION TO TENDERERS

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PART I
Chapter - III

PREAMBLE & GENERAL INSTRUCTIONS TO TENDERERS

1.1 Introduction

(i) General

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

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

(ii) Dedicated Freight Corridor

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

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

Proposed alignment of DFC has been generally kept parallel to existing Indian Railway line except provision of detours at some stations where the existing yards /cities are congested .

Level Crossings (LC's) are generally unsafe locations and also a congestion points for road/rail's users. These LC's are operational bottlenecks for Railways / DFCCIL in terms of loss in punctuality and reduction in line capacity. Construction of ROB(s)/ RUB(s) is financially and operationally beneficial apart from the fact that it improves the safety of Rail / Road users.

(iii) Scope of Work

On behalf of President of India, Chief Project Manager, Dedicated Freight Corridor Corporation of India Limited, Swana Complex, 2nd Floor, Susuwahi, Varanasi (U.P.)- 221011 India, herein after referred to as 'DFCCIL' is inviting sealed tenders from Firms /Companies / Joint Ventures having requisite experience and financial capacity for execution of the following work:

" Construction of DFC side approaches of RUB/LHS at LC no. 35C(556/26-28), 37C(562/12-14), 44C(576/11-13), 48C(585/5-7), 51C(590/23-25), 52C(594/17-19), 54C(603/17-19), 57C(612/25-27), 58C(615/3-5), 64C(630/9-11), 65C(633/7-9), 66C(637/5-7), 67C(638/7-9), 77C(659/13-15) AND 79C(662/7-9) IN BETWEEN SONNAGAR— MUGHALSARAI SECTION"

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- (v) **Cost of the work:** The estimated cost of the tendered work is approximately Rs. 13,49,54,007/- (Rupees Thirteen Crorefortynine lakh fifty four thousand seven only).
- (vi) The tenderer shall be governed by Instruction to Bidders (ITB), General Conditions of Contract (GCC), Preamble and General Instructions to Tenderers (ITT) and Special Conditions of Contract (SCC). Wherever, there is a conflict in any condition between GCC and Special Conditions of Contract mentioned in the tender documents, the condition mentioned in Special Conditions of Contract will prevail. However, Engineer's decision in this connection shall be final and binding.

Part I, Chapter-IV and V of the tender document contains General Conditions of Contract and Special Conditions of Contract specific to this work and shall be applicable in the contract.

(vii) **Location**

Works are to be executed in the jurisdiction of Chief Project Manager/DFCCIL/ Mughalsarai. However, DFCCIL reserves right to change the site of work anywhere in adjacent / adjoining area of the work defined in Para 1.1 (iii) above in the jurisdiction and the contractor shall be bound to execute the work without any extra cost.

1.2 Constitution of the Firm:-

- 1.2.1 Tenderer shall clearly specify whether the tender is submitted on his own or on behalf of a partnership firm / Company. The tenderer(s) who is / are constituents of the firm / Company, shall enclose self-attested copies of the constitution of their concern, Partnership Deed and Power of attorney along with their tender. Tender documents in such cases shall be signed by such persons as may be legally competent to sign them on behalf of the firm / company as the case may be.
- 1.2.2 The tenderer shall give full details of the constitution of the Firm / Company and shall also submit following documents (as applicable), in addition to documents mentioned above:
- (a) Sole Proprietorship Firm: The tenderer shall submit the notarized copy of the affidavit.
 - (b) Partnership Firm : The tenderer shall submit self-attested copies of (i) registered / notarized Partnership Deed and (ii) Power of Attorney duly authorizing one or more of the partners of the firm or any other person(s), authorized by all the partners to act on behalf of the firm and to submit & sign the tender, sign the agreement, witness measurements, sign measurement books, receive payments, make correspondences, compromise / settle / relinquish any claim (s) preferred by the firm, Sign "No claim Certificate",



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refer all or any dispute to arbitration and to take similar action in respect of all tenders / contracts or said tender / contract.

- (c) Joint Venture: The tenderer shall submit documents as mentioned in clause 65 to GCC.
- (d) Companies registered under Companies Act-1956: The tenderer shall submit (i) the copies of Memorandum of Association (MOA) and Articles of Association (AOA) of the company; and (ii) Power of attorney duly registered / notarized by the company (backed by the resolution of Board of Directors) in favour of the individual, signing the tender on behalf of company.

1.2.3 If it is mentioned in the tender submission that it is being submitted on behalf of / by a sole Proprietorship Firm / Partnership Firm / Joint venture / registered Company etc. but above-mentioned documents (as applicable) are not enclosed along with tender; the tender shall be summarily rejected.

If it is NOT mentioned in the tender submission that it is being submitted on behalf of / by 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.

After opening of the tender, any document pertaining to the constitution of the Firm / Joint Venture etc. shall neither be asked nor be entertained / considered by DFCCIL.

- 1.2.4 A tender from Joint Venture / Partnership Firm etc. shall be considered only where permissible as per the tender conditions.
- 1.2.5 The 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 submission of tender. It may, however, recognize such power of attorney and changes after obtaining proper legal advice.

1.2.6 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.

1.2.7 Earnest Money:-

- (a) The tender must be accompanied by Earnest Money in favour of '**Dedicated Freight Corridor Corporation of India Limited, Varanasi**' deposited in any of the forms as mentioned in Para 6 of ITB, failing which the tender will not be considered.
- (b) The earnest money shall remain deposited with the DFCCIL for the period of validity of the offer prescribed in this tender i.e. 90 days from the date of opening of tender. If the validity of the offer is extended, the validity of earnest money should also be extended failing which the offer after the expiry of the aforesaid period may not be considered by the DFCCIL.



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- (c) The Earnest money should be in any of the following forms:
FDR/Banker's cheque / Demand Draft executed by State bank of India or any of the nationalized banks or any Indian Scheduled Bank.
- (d) The earnest money of the unsuccessful tenderer(s) will, save as here- in-before provided, be returned to the unsuccessful tenderer(s) within a reasonable time but the DFCCIL shall not be responsible for any loss or depreciation that may happen for the due performance of the stipulation to keep the offer open for the period specified in the tender documents or to the earnest money while in their possession nor be liable to pay interest thereon.

NOTE: No interest shall be paid by DFCCIL on earnest money amount.

1.2.8 Execution of Contract Agreement:-

The Tenderer whose tender is accepted shall be required to appear in person at the office of Chief Project Manager, Dedicated Freight Corridor Corporation of India Limited, Swana Complex, 2nd Floor, Susuwahi, Varanasi (U.P.)- 221011 India or if a firm or corporation, a duly authorized representative shall so appear and execute the contract agreement within 30 days after notice that the contract 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.

1.2.9 Security Deposit on Acceptance of Tender:

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

1.2.10 Tenderer's Address

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

1.2.11 Right of DFCCIL to Deal with Tenders

- (a) The DFCCIL reserves the right of not to invite tenders for any of DFCCIL work or works or to invite open or limited tenders and when tenders are called to accept a tender in whole or in part or to reject any tender or all tenders 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.



1.2.12 Eligibility Criteria

(A): Technical Eligibility Criteria

Criteria	Compliance Requirement		Documents
Requirement	Single Entity	Joint venture	Submission Requirements
<p>(i) The tenderer must have Satisfactorily completed at least one similar single work in last three previous financial years and the current financial year upto the date of submission of tender, in Govt. Org./PSU for a minimum 35% of advertised tender value i.e. Rs. 47233902/-</p> <p style="text-align: center;">Or</p> <p>in case of composite work (ii) The tenderer must have satisfactorily completed in last three previous financial years and the current financial year upto the date of submission of tender, at least one work in any Govt. organization/PSU having component of similar work for minimum 35% of advertised tender value i.e. Rs.47233902/-</p> <p>Note: Similar work means “any civil work”.</p>	Must meet requirement	Existing JV must meet requirement or Lead member of proposed JV must meet requirement.	The tenderer shall submit the completion certificates / certified completion certificates from the client(s) and or Photostat of original certificates of client. All documents either original or photocopy should be attested by Notary.

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 above mentioned technical eligibility criteria in the tender under consideration.

2. In case the tenderer/s is a partnership firm, the work experience shall be in the name of partnership firm only.



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(B): Financial Eligibility Criteria

Criteria	Compliance Requirement		Documents
Requirement	Single Entity	Joint Venture	Submission Requirements
The contractual payments received by the tenderer/JV firm or the arithmetic sum of contractual payments received by all the member of the JV firm in the previous three financial year and the current financial year up to the date of submission of tender shall be at least 150% of advertised value of tender.	Must meet Requirement	Must meet requirement	TDS certificates/ Audited balance Sheets and or Photostat of TDS certificates/Audited Balance sheets Clearly indicating the Contractual amount received. All documents either original or photocopy should be attested by Notary.

Note: 1 .Contractual payments received by a Member in an earlier JV firm shall be reckoned only to extent of the concerned member's share in that JV Firm for the purpose of satisfying compliance of the above mentioned financial eligibility criteria in tender for considerations.

2. In case the tenderer/s is a partnership firm, the turnover etc. shall be in the name of partnership firm only.

1.2.13 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 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



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certificate from Govt. organization /PSUs/Public Limited Company will be accepted. The certificate from Private individual/Private Company for whom such works are executed shall not be accepted. In case, the work is executed for Public Limited Company, copy of work order, bill of Quantity, TDS certificate payments received and copy of final/last bill paid by client shall be submitted.

The following will be applicable for evaluating the eligibility:

- (i) Similar nature of work physically completed within the qualifying period, i.e. last three financial year and current financial year (even though the work might have commenced before the qualifying period) shall only be considered in evaluating the eligibility.
- (ii) The total value of similar nature of work completed during the qualifying period and not the payment received within 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.

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.

- (iii) As proof of sufficient financial capacity and organizational resources, contractor should have received total payments against satisfactory execution of all completed /on-going works of all types (not confined to only similar works) during the last three financial years and in the current financial year (up to the date of submission of the tender) of a value not less than 150% of advertised tender value.
- (iv) Tenderer shall submit a statement of contractual payments received during last three financial years and current financial year on the prescribed Performa as per Form No. 2B. The details shall be based on the form 16-A, issued by the employer i.e. the certificate of deduction of tax at source as per Income Tax Act 1961. The photocopies of Form 16-A shall be enclosed duly attested by Notary Public with seal and Notarial Stamp thereon or a certificate from auditor or audited balance sheet certified by Chartered Accountant clearly indicating the contractual amount received duly attested by Notary Public with seal and Notarial Stamp thereon.
- (v) 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/DFCCIL 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.indianrailways.gov.in/railwayboard>) of Railway Board



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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.
- (vi) For the purposes of conversion of foreign currency to Indian rupees (INR) Bank Currency (BC) selling exchange rates as published by State Bank of India on the date 28 days prior to date of submission of tender shall be used. For few of the currencies where BC selling rates are not published by SBI or reserve bank of India, the exchange rate may be obtained from website-<http://www.oanda.com/currency/historical-rates> or <http://www.xe.com>.
- (vii) For the purpose of evaluation of proposals ,all values given in INR in eligible qualification criteria and the values provided by the applicants in the proposal in the currencies other than INR shall be converted into one i.e. INR as per exchange rate mentioned in para (vi) above.

1.2.14 Period of Completion

The entire work is required to be completed in all respects within **24 months(Twenty four 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.

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

1.2.16 Quantum of work and materials:

The indicative schedule of quantities of various items of works is included in Form - 4 of the tender documents.

1.2.17 Employer not bound to accept any tender:

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

1.2.18 Schedule of Prices

The Schedule-1 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.

1.2.19 Performance Guarantee: Refer relevant clause of GCC.

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

1.2.21 Negotiation:

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

"I..... do declare that in the event of failure of contemplated negotiations relating to Tender No..... (mention present tender no.), dated my original tender shall remain open for acceptance on its original terms and conditions".

1.2.22 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 with regard to the feasibility of transporting the girders, etc. from the yard to the final site of placement etc.

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



GENERAL CONDITIONS OF CONTRACT

A handwritten signature in black ink, consisting of a stylized, cursive script.

PART - I
CHAPTER IV

GENERAL CONDITIONS OF CONTRACT

DEFINITIONS AND INTERPRETATION

1. (1) Definition:-In these General conditions of Contract, the following terms shall have the meaning assigned hereunder except where the context otherwise requires:-

- (a) "Railway" shall mean the President of the Republic of India or the Administrative Officers of the Railway/DFCCIL or of the Successor Railway / DFCCIL authorized to deal with any matters which these presents are concerned on his behalf.
- (b) "General Manager of Railway " shall mean the officer - in-charge of the General Superintendence and Control of the Railway and shall mean and include their successors, of the successor Railway;
- (c) "Chief Engineer" shall mean the officer - in-charge of the Engineering Department of Railway and shall also include Chief Engineer (Construction), Chief Signal and Telecommunication Engineer, Chief Signal and Telecommunication Engineer(Construction), Chief Electrical Engineer, Chief Electrical Engineer (Construction) and shall also include GGM/GM/CPM of DFCCIL.
- (d) "Divisional Railway Manager" shall mean the Officer in-charge of a Division of the Railway and shall also mean any officer nominated by "Railway" and shall mean and include their successors of the successor Railway.
- (e) "Engineer" and Employer's Engineer shall mean the Chief Project Manager of DFCCIL / PMC appointed by DFCCIL.
- (f) "Engineer's Representative" shall mean the Assistant Engineer, Assistant Signal and Telecommunication Engineer and Assistant Electrical Engineer, APM / PM / Dy. CPM / Add. CPM of DFCCIL in direct charge of the work and shall include any Sr. Sec. / Sec / Jr. Engineer / Executive / Sr. Executive, APM/PM / Dy. CPM of DFCCIL of Civil Engineering / Signal & Telecommunication Engineering / Electrical Engineering Department appointed by the Railway / DFCCIL and shall mean and include the Engineer's Representative of the successor Railway / DFCCIL.
- (g) "Contractor" shall mean the person / Firm / Company / JV whether incorporated or not who enters into the contract with the DFCCIL and shall include their executors, administrators, and successors and permitted assigns.
- (h) "Contract" shall mean and include the Agreement of Work Order, the accepted schedule of rates of the Schedule or Rates of Railway / DFCCIL modified by the tender percentage for items of work quantified, or not quantified, General Conditions of Contract, Special Conditions of Contracts, if any, Drawings, Specifications, Additional / Special Specifications, if any and tender forms, if any, and all other documents included as part of contract .

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- (i) "Works" shall mean the works to be executed in accordance with the contract.
 - (j) "Specifications" shall mean the Specifications for materials and works referred / mentioned in tender documents.
 - (k) "Schedule of rates of Railway" shall mean the schedule of rates issued under the authority of the Chief Engineer from time to time and shall also includes Rates specified in tender document.
 - (l) "Drawing" shall mean the maps, drawings, plans and tracings or prints there of annexed to the contract and shall include any modifications of such drawings and further drawings as may be issued by the Engineer from time to time.
 - (m) "Constructional Plan" shall mean all appliances or things of whatsoever nature required for the execution, completion or maintenance of the works or temporary works (as hereinafter defined) but does not include materials or other things intended to form or forming part of the permanent work.
 - (n) "Temporary Works" shall mean all temporary works of every kind required for the execution completion and/or maintenance of the works.
 - (o) "Site" shall mean the lands and other places on, under, in or through which the works are to be carried out and any other lands or places provided by the Railway for the purpose of the contract.
 - (p) "Period of Maintenance" shall mean the defect liability period from the date of completion of the works as certified by the Engineer.
- 1.(2) Singular and Plural:-** Words importing the singular number shall also include the plural and vice versa where the context requires.
- 1.(3) Headings & marginal headings:-**The headings and marginal headings in these general conditions are solely for the purpose of facilitating reference and shall not be deemed to be part thereof or be taken into consideration in the interpretation or construction thereof or the contract.



GENERAL OBLIGATION

- 2.(1) Execution Co-relation and intent of contract Documents:-**The contract documents shall be signed in triplicate by the DFCCIL and the Contractor. The contract documents are complementary, and what is called for by any one shall be as binding as if called for by all, the intention of the documents is to include all labour and materials, equipments and transportation necessary for the proper execution of work. Materials or work not covered by or properly inferable from any heading or class of the specifications shall not be supplied by the DFCCIL to the contractors unless distinctly specified in the contract documents. Materials or works described in words which so applied have a well known technical or trade meaning shall be held to refer to such recognized standards.
- 2.(2)** If a work is transferred from the jurisdiction of one Railway to another Railway or to a Project Authority/DFCCIL or vice versa while contract is in subsistence, the contract shall be binding on the Contractor and the Successor Railway/Project in the same manner & take effect all respects as if the Contractor and the Successor Railway/Project were parties there to from the inception and the corresponding officer or the Competent Authority in the Successor Railway/Project will exercise the same powers and enjoy the same authority as conferred to the Predecessor Railway/Project under the original contract/agreement entered into.
- 2.(3)** If for administrative or other reasons the contract is transferred to the Successor Railway/Successor Project Authority of DFCCIL the contract shall notwithstanding any things contained herein contrary there to, be binding on the Contractor and the Successor Railway /Project Authority/ DFCCIL in the same manner and take effect in all respect as if the Contractor and the Successor Railway/ successor Project Authority of DFCCIL had been parties thereto from the date of this contract. The contract shall be Administered/Managed by GGM/GM/CPM/nominated by DFCCIL.
- 3.(1) Law governing the contract:-**The contract shall be governed by the law for the time being in force in the Republic of India.
- 3.(2) Compliance to regulations and bye-laws:-**The contractor shall conform to the provision of any statute relating to the works and regulations and by-laws of any location authority and of any water and lighting companies or undertakings, with whose system the work is proposed to be connected and shall before making any variation from the drawings or the specifications that may be necessitated by so confirming give to the Engineer notice specifying the variation proposed to be made and the reasons for making the variation and shall not carry out such variation until he has received instructions from the Engineer in respect thereof. The contractor shall be bound to give all notices required by statute, regulations or bye-laws as aforesaid and to pay all fees and taxes payable to any authority in respect hereof.
- 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 contractor inters concerning the work shall be in writing and no notice, communication, reference or complaint not in writing shall be recognized.
- 5. Service of Notices on Contractors:-**The contractor shall furnish to the Engineer the name designation and address of his authorized agent and all complaints, notices, communications and references shall be deemed to have

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been duly given to the contractor if delivered to the contractor or his authorized agent or left at or posted to the address so given and shall be deemed to have been so given in the case of posting on day on which they would have reached such address in the ordinary course of post or on the day on which they were so delivered or left. In the case of contract by partners, any change in the constitution of the firm shall be forthwith notified by the contractor to the Engineer.

6. **Occupation and use of land:-** No land belonging to or in the possession of the Railway / DFCCIL shall be occupied by the Contractor without the permission of the Railway / DFCCIL. The Contractor shall not use, or allow to be used, the site for any purposes other than that of executing the works. Whenever non-railway bodies / persons are permitted to use railway premises with competent authority's approval, conservancy charges as applicable from time to time may be levied.
7. **Assignment or subletting of contract:-** The contractor shall not assign or sublet the contract or any part thereof or allow any person to become interested therein any manner whatsoever without the special permission in writing of the DFCCIL. Any breach of this condition shall entitle the DFCCIL to rescind the contract under clause 62 of these conditions and also render the contractor liable for payment to the DFCCIL in respect of any loss or damage arising or ensuing from such cancellation. Provided always that execution of the details of the work by petty contractor under the direct and personal supervision of the Contractor or his agent shall not be deemed to be sub-letting under this clause. The permitted subletting of work by the contractor shall not establish any contractual relationship between the sub- contractor and the DFCCIL and shall not relieve the contractor of any responsibility under the contract.
8. **Assistance by the DFCCIL for the Stores to be obtained by the Contractor:-** Owing to difficulty in obtaining certain materials (including Tools & Plant) in the market, the DFCCIL may have agreed without any liability therefore to endeavour to obtain or assist the contractor in obtaining the required quantities of such materials as may be specified in the tender. In the event of delay or failure in obtaining the required quantities of the aforesaid material the contractor shall not be deemed absolved of his own responsibility and shall keep in touch with day to day positions regarding their availability and accordingly adjust progress of works including employment of labour and the DFCCIL shall not in any way be liable for the supply of materials or for the non-supply thereof for any reasons whatsoever nor for any loss or damage arising in consequence of such delay or no supply.

9. Deleted
10. **Carriage of materials:-** No forwarding orders shall be issued by the DFCCIL for the conveyance of contractor's materials, tools and plant by Rail which may be required for use in the works and the contractor shall pay full freight charges at public tariff rates therefore.
11. Deleted
12. **Representation on Works:-**The contractor shall, when he is not personally present on the site of the works place and keep a responsible agent at the works during working hours who shall on receiving reasonable notice, present himself to the Engineer and orders given by the Engineer or the engineer's representative to the agent shall be deemed to have the same force as if they had been given to the Contractor. Before absenting himself, the contractor shall furnish the name and address of his agent for the purpose of this clause and failure on the part of the Contractor to comply with this provision at any time will entitle the DFCCIL to rescind the contract under clause 62 of these conditions.
13. **Relics and Treasures:-**All gold, silver, oil and other minerals of any description and all precious stones, coins, treasures relics antiquities and other similar things which shall be found in or upon the site shall be the property of the DFCCIL and the Contractor shall duly preserve the same to the satisfaction of the DFCCIL and shall from time to time deliver the same to such person or persons as the DFCCIL may appoint to receive the same.
14. **Excavated material:-**The contractor shall not sell or otherwise dispose of or remove except for the purpose of this contract, the sand, stones, clay, ballast, earth, rock or other substances or materials which may be obtained from any excavation made for the purpose of the works or any building or produced upon the site at the time of delivery of the possession thereof but all the substances, materials, buildings and produce shall be the property of the DFCCIL provided that the contractor may, with the permission of the Engineer, use the same for the purpose of the works either free of cost or pay the cost of the same at such rates as may be determined by the Engineer.
15. **Indemnity by Contractors:-** The contractor shall indemnify and save harmless the Railway/DFCCIL from and against all actions, suit proceedings losses, costs, damages, charges, claims and demands of every nature and description brought or recovered against the Railways /DFCCIL by reason of any act or omission of the contractor, his agents or employees, in the execution of the works or in his guarding of the same. All sums payable by way of compensation under any of these conditions shall be considered as reasonable compensation to be applied to the actual loss or damage sustained, and whether or not any damage shall have been sustained.

16.(1) Security Deposit:- The earnest money deposited by the contractor with this tender will be retained by the Railways / DFCCIL as part of security for the due and faithful fulfilment of the contract by the contractor. The balance to make up the security deposit, the rates for which are given below, may be deposited by the contractor in cash or may be recovered by percentage deduction from the contractor's "on account" bills. 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 may not exceed 10% of the total value of the contract.

16.(2) Recovery of Security Deposit: - Unless otherwise specified in the special conditions, if any, the Security Deposit / rate of recovery / mode of recovery shall be as under:

- (a) Security Deposit for each work should be 5% of the contract value.
- (b) The rate of recovery should be at the rate of 10% of the bill amount till the full security deposit is recovered.
- (c) Security Deposits will be recovered only from the running bills of the contract and no other mode of collecting SD such as SD in the form of instruments like BG (except Note (ii) below); FD etc. shall be accepted towards Security Deposit. Security deposit shall be returned to the contractor after the expiry of the Defect Liability Period in all the cases other than Note (i) mentioned below and after passing the final bill based on No Claim Certificate with the approval of the Competent Authority. The Competent Authority shall normally be the authority who is competent to sign the contract. If this competent authority is of the rank lower than JA grade / CPM, DFCCIL, then JA grade officer / CPM, DFCCIL (Concerned with the work) should issue the certificate. The certificate, inter alia, should mention that the work has been completed in all respects and that all the contractual obligations have been fulfilled by the contractor and that there is no due from the contractor to Railways / DFCCIL against the contract concerned. Before releasing the SD, an unconditional and unequivocal no claim certificate from the contractor concerned should be obtained.

Note:

- (i) After the work is physically completed, security deposit recovered from the running bills of a contractor can be returned to him if he so desires, in lieu of FDR

/ irrevocable Bank Guarantee for equivalent amount to be submitted by him.
 - (ii) In case of contracts of value Rs.50 crore and above, irrevocable Bank Guarantee can also be accepted as a mode of obtaining security deposit.
- 16.(3)** No interest will be payable upon the Earnest Money and Security Deposit or amounts payable to the contractor under the contract, but Government Securities deposited in terms of Sub-clause (1) of this clause will be payable with interest accrued thereon.

16.(4) Performance Guarantee (P.G.)

The procedure for obtaining Performance Guarantee is outlined below:

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- (a) The successful bidder shall have to submit a Performance Guarantee (PG) within 30 (thirty) days from the date of issue of Letter of Acceptance (LOA). Extension of time for submission of PG beyond 30 (thirty) days and upto 60 days from the date of issue of LOA may be given by the Authority who is competent to sign the contract agreement. However, a penal interest of 15% per annum shall be charged for the delay beyond 30 (thirty) days, i.e. from 31st day after the date of issue of LOA. In case the contractor fails to submit the requisite PG even after 60 days from the date of issue of LOA, the contract shall be terminated duly forfeiting EMD and other dues, if any payable against that contract. The failed contractor shall be debarred from participating in re-tender for that work.
- (b) The successful bidder shall submit the performance Guarantee in any of the following forms amounting to 5% of the contract value:-
- (i) A deposit of Cash
 - (ii) Irrevocable Bank Guarantee
 - (iii) Government Securities including State Loan Bonds at 5 percent below the market value
 - (iv) Deposit receipts, pay orders, Demand Drafts and Guarantee Bonds. These forms of Performance Guarantee could be either of the State Bank of India or of any of the Nationalized Banks;
 - (v) Guarantee Bonds executed or Deposits Receipts tendered by all Scheduled Banks;
 - (vi) A Deposit in the Post Office Saving Bank;
 - (vii) A 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 per cent below market value or at the face value whichever is less.

Note: The instruments as listed above will also be acceptable for Guarantees in case of Mobilization advance.

- (c) The performance Guarantee shall be submitted by the successful bidder after the letter of acceptance has been issued, but before signing of the contract agreement. The agreement should normally be signed within 30 (thirty) days after the issue of LOA and the Performance Guarantee shall also be submitted within this time limit. This PG shall be initially valid up to stipulated date of completion plus 60 days beyond that. In case, the time limit for completion of work gets extended, the contractor shall get the validity of Performance Guarantee extended to cover such extended time for completion of work plus 60 days.
- (d) The value of PG to be submitted by the contractor will not change for variation upto 25 % (either increase or decrease). In case during the course of execution, value of the contract increases by more than 25 % of the original contract value, an additional performance guarantee amounting to 5 % (five percent) for the excess value over the original contract value shall be deposited by the contractor.
- (e) The performance Guarantee (PG) shall be released after the physical completion of the work based on the 'completion certificate' issued by the competent authority stating that the contractor has completed the work in all respects satisfactorily. The security deposit shall, however, be released only after the expiry of the defect



liability period and after passing the final bill based on 'No Claim Certificate' from the contractor.

- (f) Whenever the contract is rescinded, the security deposit shall be forfeited and the Performance Guarantee shall be encashed. The balance work shall be got done independently without risk and cost of the failed contractor, the failed contractor shall be debarred from participating in the tender for executing the balance work. If the failed contractor is a JV or a partnership firm, then every member / partner of such a firm shall be debarred from participating in the tender for the balance work in his / her individual capacity or as a partner of any other JV / partnership firm.
- (g) The Engineer shall not make a claim under the Performance Guarantee except for amounts to which the President of India / DFCCIL is entitled under the contract (no withstanding and/or without prejudice to any other provisions in the contract agreement) in the event of:
- (i) Failure by the contractor to extend the validity of the Performance Guarantee as described herein above, in which event the Engineer may claim the full amount of the Performance Guarantee.
 - (ii) Failure by the contractor to pay President of India / DFCCIL any amount due, either as agreed by the contractor or determined under any of the Clauses/conditions of the agreement, within 30 days of the service of the notice to the effect by Engineer.
 - (iii) The contract being determined or rescinded under provision of the GCC the Performance Guarantee shall be forfeited in full and shall be absolutely at the disposal of the President of India.

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

17- A Extension of time in Contracts:- Subject to any requirement in the contract as to completion of any portion or portions of the works before completion of the whole, the contractor shall fully and finally complete the whole of the works comprised in the contract (with such modifications as may be directed under conditions of this



contract) by the date entered in the contract or extended date in terms of the following clauses:-

- (i) **Extension due to modification:-** If any modifications have been ordered which in the opinion of the Engineer have materially increased the magnitude of the work, then such extension of the contracted date of completion may be granted as shall appear to the Engineer to be reasonable in the circumstances, provided moreover that the Contractor shall be responsible for requesting such extension of the date as may be considered necessary as soon as the cause thereof shall arise and in any case not less than one month before the expiry of the date fixed for completion of the works.
- (ii) **Extension for delay not due to DFCCIL or Contractor:-** If in the opinion of the Engineer the progress of work has any time been delayed by any act or neglect of DFCCIL's employees or by other contractor 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 contractor's performance necessarily depends or by reasons of proceeding taken or threatened by or dispute with adjoining or to neighbouring owners or public authority arising otherwise through the Contractor's own default etc. or by the delay authorized by the Engineer pending arbitration or in consequences of the contractor not having received in due time necessary instructions from the DFCCIL for which he shall have specially applied in writing to the Engineer or his authorized representative then upon happening of any such event causing delay, the contractor shall immediately give notice thereof in writing to the Engineer within 15 days of such happening but shall nevertheless make constantly his best endeavours to bring down or make good the delay and shall do all that may be reasonably required of him to the satisfaction of the Engineer to proceed with the works. The contractor may also indicate the period for which the work is likely to be delayed and shall be bound to ask for necessary extension of time. The Engineer on receipt of such request from the contractor shall consider the same and shall grant such extension of time as in his opinion is reasonable having regard to the nature and period of delay and the type and quantum of work affected thereby.
No other compensation shall be payable for works so carried forward to the extended period of time, the same rates, terms and conditions of contract being applicable as if such extended period of time was originally provided in the original contract itself.
- (iii) **Extension for delay due to DFCCIL:-** In the event of any failure or delay by the DFCCIL to hand over the Contractor possession of the lands necessary for the execution of the works or to give the necessary notice to commence the works or to provide the necessary drawings or instructions or any other delay caused by the DFCCIL due to any other cause whatsoever, then such failure or delay shall in no way affect or vitiate the contract or alter the character thereof or entitle the contractor to damages or compensation therefore, but in any such case, the DFCCIL may grant such extension or extensions of the completion date as may be considered reasonable.

17-B Extension of time for delay due to contractor:- The time for the execution of the work or part of the works specified in the contract documents shall be deemed to be the essence of the contract and the works must be completed not later than the date(s)



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as specified in the contract. If the contractor fails to complete the works within the time as specified in the contract for the reasons other than the reasons specified in clause 17 and 17-A, the DFCCIL may, if satisfied that the works can be completed by the contractor within reasonable short time thereafter, allow the contractor for further extension of (Performa at Form No. 14) time 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 contractor as agreed damages and not by way of penalty a sum equivalent to $\frac{1}{2}$ of 1% of the contract value of the works for each week or part of the week.

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

- (i) For contract value up to Rs. 2 lakhs - 10% of the total value of the contract
- (ii) For contracts valued above Rs. 2 lakhs- 10% of the first Rs.2 lakhs and 5% of the balance

Further competent authority while granting extension to the currency of contract under clause 17(B) of GCC may also consider levy of token penalty as deemed fit based on the merit of the case. Provided further, that if the DFCCIL is not satisfied that the works can be completed by the Contractor and in the event of failure on the part of the contractor to complete the work within further extension of time allowed as aforesaid, the DFCCIL shall be entitled without prejudice to any other right or remedy available in that behalf, to appropriate the contractor's security deposit and rescind the contract under clause 62 of these conditions, whether or not actual damage is caused by such default.

18.(1) Illegal Gratification:- Any bribe, commission, gift or advantage given, promised or offered by or on behalf to the contractor or his partner, agent or servant or, anyone on his behalf, to any officer or 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 contractor to the rescission of the contract 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 any moneys due to the Contractor(s) under this contract or any other contracts with the DFCCIL.

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



EXECUTION OF WORKS

- 19.(1) Contractor's understanding:-** It is understood and agreed that the contractor has, by careful examination, satisfied himself as to the nature and location of the work, the conformation of the ground, the character, quality and quantity of the materials to be encountered, the character of equipment and facilities needed preliminary to and during the progress of the works, the general and local conditions, the labour conditions prevailing therein and all other matters which can in any way affect the works under the contract.
- 19.(2) Commencement of works:-** The contractor shall commence the works within 15 days after the receipt by him of an order in writing to this effect from the Engineer and shall proceed with the same with due expedition and without delay.
- 19.(3) Accepted Programme of work:-** The contractor who has been awarded the work shall as soon as possible but not later than 30 days after the date of receipt of the acceptance letter in respect of contracts with initial completion period of two years or less or not later than 90 days for other contracts have to submit the detailed programme of work indicating the time schedule of various items of works in the form of Bar Chart/PERT/CPM. He shall also submit the details of organization (in terms of labour and supervisors) plant and machinery, that he intends to utilize (from time to time) for execution of the work within stipulated date of completion. The programme of work amended as necessary by discussions with the Engineer, shall be treated as the agreed programme of the work for the purpose of this contract and the contractor shall endeavour to fulfill this programme of work. The progress of work will be watched accordingly and the liquidated damages will be with reference to the overall completion date. Nothing stated herein shall preclude the contractor in achieving earlier completion of item or whole of the works than indicated in the programme.
- 19.(4) Setting out of works:-** The contractor shall be responsible for the correct setting out of all works in relation to original points, lines and levels of reference at his cost. The contractor shall execute the work true to alignment, grade, levels and dimensions as shown in the drawing and as directed by the Engineer's representative and shall check these at frequent intervals. The contractor shall provide all facilities like labour and instruments and shall co-operate with the Engineer's representative to check all alignment, grades, levels and dimensions. If, at any time, during the progress of the works any error shall appear or arise in any part of the work, the contractor, on being required so to do by the Engineer's representative shall, at his own cost rectify such errors, to the satisfaction of the Engineer's representative. Such checking shall not absolve the contractor of his own responsibility of maintaining accuracy in the work. The contractor shall carefully protect and preserve all bench marks, sight rails, pegs and other things used in setting out the work.
- 20.(1) Compliance to Engineer's instructions:-** The Engineer shall direct the order in which the several parts of the works shall be executed and the contractor shall execute without delay all orders given by the Engineer from time to time but the contractor shall not be relieved thereby from responsibility for the due performance of the works in all respects.

- 20.(2) Alterations to be authorized:-**No alterations in or additions to or omissions or abandonment of any part of the works shall be deemed authorized, except under instructions from the Engineer, and the contractor shall be responsible to obtain such instructions in each and every case in writing from the Engineer.
- 20.(3) Extra works:-** Should works over and above those included in the contract require to be executed at the site, the contractor shall have no right to be entrusted with the execution of such works which may be carried out by another contractor or contractors or by other means at the option of the DFCCIL.
- 20.(4) Separate contracts in connection with works:-** The DFCCIL shall have the right to let other contracts in connection with the works. The contractor shall afford other contractors reasonable opportunity for the storage of their materials and the execution of their works and shall properly connect and coordinate his work with theirs. If any part of the contractor's work depends for proper execution or result upon the work of another contractor(s), the contractor shall inspect and promptly report to the Engineer any defects in such works that render it unsuitable for such proper execution and results. The contractor's failure so to inspect and report shall constitute an acceptance of the other contractor's work as fit and proper for the reception of his work, except as to defects which may develop in the other contractor's work after the execution of his work.
- 21. Instruction of Engineer's Representative:-** Any instructions or approval given by the Engineer's representative to contractor in connection with the works shall bind the contractor as though it had been given by the Engineer provided always as follows:
- (a) Failure of the Engineer's representative to disapprove any work or materials shall not prejudice, the power of the Engineer thereafter to disapprove such work or material and to order the removal or breaking up thereof.
 - (b) If the Contractor shall be dissatisfied by reason of any decision of the Engineer's representative, he shall be entitled to refer the matter to the Engineer who shall there upon confirm or vary such decision.
- 22.(1) Adherence to specifications and drawings:-** The whole of the works shall be executed in perfect conformity with the specifications and drawings of the contract. If contractor performs any works in a manner contrary to the specifications or drawings or any of them and without such reference to the Engineer he shall bear all the costs arising or ensuing therefore and shall be responsible for all loss to the DFCCIL.

- 22.(2) Drawings and specifications of the works:-** The contractor shall keep one copy of drawings and specifications at the site, in good order, and such contract documents as may be necessary available to the Engineer or the Engineer's representative.
- 22.(3) Ownership of drawings and specifications:-** All drawings and specifications and copies thereof furnished by the DFCCIL to the Contractor are deemed to be the property of the DFCCIL. They shall not be used on other works and with the exception of the signed contract set, shall be returned by the contractor to the DFCCIL on completion of the work or termination of the contract.
- 22.(4) Compliance with Contractor's request for details:-** The Engineer shall furnish with reasonable promptness, after receipt by him of the contractor's request for the same, additional instructions by means of drawings or otherwise, necessary for the proper execution of the works or any part thereof. All such drawing and instructions shall be consistent with the contract Documents and reasonably inferable therefrom.
- 22.(5) Meaning and intent of specification and drawings:-** If any ambiguity arises as to the meaning and intent of any portion of the specifications and drawings or as to execution or quality of any work or material, or as to the measurements of the works the decision of the Engineer thereon shall be final subject to the appeal (within 7 days of such decision being intimated to the contractor) to the Chief Engineer/ General Manager/ROB,/CPM who shall have the power to correct any errors, omissions, or discrepancies in aforementioned items and whose decision in the matter in dispute or doubt shall be final and conclusive.
- 23 Working during night:-** The contractor shall not carry out any work between sun-set and sun-rise without the previous permission of the Engineer.
- 24. Damage to Railway / DFCCIL property or private life and property:-** The contractor shall be responsible for all risk to the work and for trespass and shall make good at his own expense all loss or damage whether to the works themselves or to any other property of the Railway or the lives, persons or property of others from whatsoever cause in connection with the works until they are taken over by the Railway / DFCCIL and this although all reasonable and proper precautions may have been taken by the contractor, and in case the Railway / DFCCIL shall be called upon to make good any costs, loss or damages, or to pay an compensation, including that payable under the provisions of the Workmen's Compensation Act or any statutory amendments thereof to any person or persons sustaining damages as aforesaid by reason of any act, or any negligence or omissions on the part of the contractor the amount of any costs or charges including costs and charges in connection with legal proceedings, which the Railway / DFCCIL may incur in reference thereto, shall be charged to the contractor. The Railway / DFCCIL shall have the power and right to pay or to defend or compromise any claim of threatened legal proceedings or in anticipation of legal proceedings being instituted consequent on the action or default of the contractor, to take such steps as may be considered necessary or desirable to ward off or mitigate the effect of such proceedings, charging to contractor, as aforesaid any sum or sums of money which may be paid and any expenses whether for reinstatement or otherwise which may be incurred and the propriety of any such payment, defence or compromise,



and the incurring of any such expenses shall not be called in question by the contractor.

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

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

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

26.2 The contractor shall at once remove from the works any agents, permitted sub-contractor, supervisor, workman or labourer who shall be objected to by the Engineer and if and whenever required by the Engineer, he shall submit a correct return showing the names of all staff and workmen employed by him.

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

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

26A.1 The contractor shall also employ Qualified Graduate Engineer or Qualified Diploma Holder Engineer, based on value of contract, as may be prescribed by the Ministry of Railways through separate instructions from time to time.

26A.2 In case the contractor fails to employ the Engineer, as aforesaid in Para 26A.1, he shall be liable to pay penalty at the rates, as may be prescribed by the Ministry of Railways through separate instructions from time to time for the default period for the provisions, as contained in Para 26A.1.

26A.3 Deleted

27.(1) Workmanship and testing:- The whole of the works and / or supply of materials specified and provided in the contract or that may be necessary to be done in order to form and complete any part thereof shall be executed in the best and most substantial workman like manner with materials of the best and most approved quality of their respective kinds, agreeable to the particulars contained in or implied by the specifications and as referred to in and represented by the drawings or in such other additional particulars, instructions and drawings may be found requisite to be given during the carrying on of the works and to the entire satisfaction of the Engineer according to the instructions and directions which the contractors may from time to time receive from the Engineer. The materials may be subjected to tests by means of such machines, instruments and appliances as the Engineer may direct and wholly at the expense of the contractor.

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

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

28. Facilities for inspection:- The contractor shall afford the Engineer and the Engineer's Representative every facility for entering in and upon every portion of the work at all hours for the purpose of inspection or otherwise and shall provide all labour, materials, planks, ladders, pumps, appliances and things of every kind required for the purpose and the Engineer and the Engineer's Representative shall at all times have free access to every part of the works and to all places at which materials for the works are stored or being prepared.

29. Examination of work before covering up:- The contractor shall give 7 days' notice to the Engineer or the Engineer's representative whenever any work or materials are intended to be covered up in the earth, in bodies or walls or otherwise to be placed beyond the reach of measurements in order that the work may be inspected or that correct dimensions may be taken before being so covered, placed beyond the reach of measurement in default whereof, the same shall at the option of the Engineer or the Engineer's representative be uncovered and measured at the contractor's expense or no allowance shall be made for such work or materials.

30. Temporary Works:- All temporary works necessary for the proper execution of the works shall be provided and maintained by the contractor and subject to the consent of the Engineer shall be removed by him at his expenses when they are no

longer required and in such manner as the Engineer shall direct. In the event of failure on the part of the contractor to remove the temporary works, the Engineer will cause them to be removed and cost as increased by supervision and other incidental charges shall be recovered from the contractor. If temporary huts are provided by the contractor on the Railway / DFCCIL land for labour engaged by him for the execution of works, the contractor shall arrange for handing over vacant possession of the said land after the work is completed; if the contractor's labour refuse to vacate, and have to be rejected by the Railway / DFCCIL necessary expenses incurred by the Railway / DFCCIL in connection therewith shall be borne by the contractor.

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

31.(2) Deleted

31.(3) Deleted

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

31.(4)(b) Deleted

30. Property in materials and plant:- The materials and plant brought by the Contractor upon the site or on the land occupied by the Contractor in connection with the works and intended to be used for the execution thereof shall immediately, they are brought upon the site of the said land, be deemed to be the property of the Railway / DFCCIL. Such of them as during the progress of the works are rejected by the Engineer under Clause 25 of these conditions or are declared by him not to be needed for the execution of the works or such as on the grant of the certificate of completion remain unused shall immediately on such rejection, declaration or grant cease to be deemed the property of the Railway / DFCCIL and the Contractor may then (but not before) remove them from the site or the said land. This clause shall not in any way diminish the liability of the Contractor nor shall the Railway / DFCCIL be in any way answerable for any loss or damage which may happen to or in respect of any such materials or plant either by the same being lost, stolen, injured or destroyed by fire, tempest or otherwise.

33.(1) Tools, Plant and Materials Supplied by DFCCIL:- The Contractor shall take all reasonable care of all tools, plant and materials or other property whether or a like description or not belonging to the DFCCIL and committed to his charge for the purpose of the works and shall be responsible for all damage or loss caused by him, his agents, permitted subcontractor, or his workmen or others while they are in his charge. The Contractors shall sign accountable receipts for tools, plants and materials made over to him by the engineer and on completion of the works shall hand over the unused balance of the same to the Engineer in good order and repair, fair wear and tear excepted, and shall be responsible for any failure to account for the same or any damage done thereto.

- 33.(2) Hire of DFCCIL / Railway's Plant:-** The DFCCIL may hire to the Contractor such plant as concrete mixers, compressors and portable engines for use during execution of the works on such terms as may be specified in the special conditions or in a separate agreement for Hire of Plant.
- 34.(1) Precaution during progress of works:-** During the execution of works, unless otherwise specified, the Contractor shall at his own cost provide the materials for and execute all shoring, timbering and strutting works as is necessary for the stability and safety of all structures, excavations and works and shall ensure that no damage, injury or loss is caused or likely to be caused to any person or property.
- 34.(2) Roads and Water courses:-** Existing roads or water courses shall not be blocked, cut through, altered, diverted or obstructed in any way by the Contractor, except with the permission of the Engineer. All compensations claimed for any unauthorized closure, cutting through, alterations, diversion or obstruction to such roads or water courses by the Contractor or his agent or his staff shall be recoverable from the Contractor by deduction from any sums which may become due to him in terms of contract, or otherwise according to law.
- 34.(3) Provision of access to premises:-** During progress of work in any street or thoroughfare, the Contractor shall make adequate provision for the passage of traffic, for securing safe access to all premises approached from such street or thoroughfare and for any drainage, water supply or means of lighting which may maintain at his own cost barriers, lights and other safeguards as prescribed by the Engineer, for the regulation of the traffic, and provide watchmen necessary to prevent accidents. The works shall in such cases be executed night and day if so ordered by the Engineer and with such vigour so that the traffic way be impeded for as short a time as possible
- 34.(4) Safety of Public:-** The Contractor shall be responsible to take all precautions to ensure the safety of the public whether on public or DFCCIL/Railway property and shall post such look out men as may in the opinion of the Engineer be required to comply with regulations pertaining to the work.
- 35. Deleted.**
- 36.(1) Suspension of works:-** The Contractor shall on the order of the Engineer, suspend the progress of the works or any part thereof for such time or times and in such manner as the Engineer may consider necessary and shall during such suspension properly protect and secure the work so far as is necessary in the opinion of the Engineer. If such suspension is:-
- (a) Provided for in the contract, or
 - (b) Necessary for the proper execution of the works or by the reason of weather conditions or by some default on the part of the Contractor, and/or
 - (c) Necessary for the safety of the works or any part thereof.
- 36.(2)** The Contractor shall not be entitled to the extra costs, if any, incurred by him during the period of suspension of the works, but in the event of any suspension ordered by the Engineer for reasons other than aforementioned and when each

such period of suspensions exceeds 14 days, the contractor shall be entitled to such extension of time for completion of the work as the Engineers may consider proper having regard to the period or periods of such suspensions and to such compensations as the Engineer may consider reasonable in respect of salaries or wages paid by the Contractor to his employees during the periods of such suspension.

36.(3) Suspension lasting more than 3 months:- If the progress of the works or any part thereof is suspended on the order of the Engineer for more than three months at a time, the Contractor may serve a written notice on the Engineer requiring permission within 15 days from the receipt thereof to proceed with the works or that part thereof in regard to which progress is suspended and if such permission is not granted within that time the Contractor by further written notice so served may, but is not bound to, elect to treat the suspension where it affects part only of the works as an omission of such part or where it affects the whole of the works, as an abandonment of the contract by the DFCCIL.

37. Rates for items of works:- The rates, entered in the accepted Schedule of Rates of the Contract are intended to provide for works duly and properly completed in accordance with the general and special (if any) conditions of the contract and the specifications and drawings together with such enlargements, extensions, diminutions, reductions, alterations or additions as may be ordered in terms of Clause 42 of these conditions and without prejudice to the generality thereof and shall be deemed to include and cover superintendence and labour, supply, including full freight, of materials, stores, patterns, profiles, moulds, fittings, centring, scaffolding, shoring props, timber, machinery, barracks, tackle, roads, pegs, posts, tools and all apparatus and plant required on the works, except such tools, plant or materials as may be specified in the contract to be supplied to the Contractor by the DFCCIL, the erection, maintenance and removal of all temporary works and, buildings, all watching, lighting, bailing, pumping and draining, all prevention of or compensation for trespass, all barriers and arrangements for the safety of the public or of employees during the execution of works, all sanitary and medical arrangements for labour camps as may be prescribed by the DFCCIL, the setting of all work and of the construction, repair and upkeep of all centre lines, bench marks and level pegs thereon, site clearance, all fees duties, royalties, rent and compensation to owners for surface damage or taxes and impositions payable to local authorities in respect of land, structures and all material supplied for the work or other duties of expenses for which the Contractor may become liable or may be put to under any provision of law for the purpose of or in connection with the execution of the contract, and all such other incidental charges or contingencies as may have been specially provided for in the specifications.

38. Deleted

39.(1) Rates for extra items of works:- Any type of work carried out by the Contractor on the instructions of the Engineer which is not included in the accepted schedules of rates shall be executed at the rates set forth in the "Schedule of Rates of Railway" modified by the tender percentage and such items are not contained in the latter, at the rate agreed upon between the Engineer and the Contractor before the execution of such items of work and the Contractor shall be bound to notify the Engineer at least seven days before the necessity arises for the execution of such items of works that the accepted schedule of rates does not include rate or rates for the extra work involved. The rates payable for such items shall be decided at the



meeting to be held between the Engineer and Contractor, in as short a period as possible after the need for the special item has come to the notice. In case the Contractor fails to attend the meeting after being notified to do so or in the event of no settlement being arrived at, the DFCCIL shall be entitled to execute the extra works by other means and the Contractor shall have no claim for loss or damage that may result from such procedure.

39.(2) Provided that if the Contractor commences work or incurs any expenditure in regard thereto before the rates as determined and agreed upon as lastly hereunto fore-mentioned, then and in such a case the Contractor shall only be entitled to be paid in respect of the work carried out or expenditure incurred by him prior to the date of determination of rates as aforesaid according to the rates as shall be fixed by the Engineer. However if the Contractor is not satisfied with the decision of the Engineer in this respect he may appeal to the CPM/General Manager/ROB within 30 days of getting the decision of the Engineer, supported by analysis of the rates claimed. The CPM's/ General Manager's decision after hearing both the parties in the matter would be final and binding on the Contractor and the DFCCIL.

40.(1) Handing over of works:- The Contractor shall be bound to hand over the works executed under the contract to the DFCCIL complete in all respects to the satisfaction of the Engineer. The Engineer shall determine the date on which the work is considered to have been completed, in support of which his certificate shall be regarded as sufficient evidence for all purposes. The Engineer shall determine from time to time, the date on which any particular section of the work shall have been completed, and the contractor shall be bound to observe any such determination of the Engineer.

40.(2) Clearance of site on completion:- On completion of works, the Contractor shall clear away and remove from the site all constructional plant, surplus materials, rubbish and temporary works of every kind and leave the whole of the site and works clean and in a workman like condition to the satisfaction of the Engineer. No final payment in settlement of the accounts for the works shall be paid, held to be due or shall be made to the, Contractor till, in addition to any other condition necessary for final payment, site clearance shall have been effected by him, and such clearance may be made by the Engineer at the expense of the Contractor in the event of his failure to comply with this provision within 7 days after receiving notice to that effect. Should it become necessary for the Engineer to have the site cleared at the expenses of the Contractor, the DFCCIL shall not be held liable for any loss or damage to such of the Contractor's property as may be on the site and due to such removal there from which removal may be effected by means of public sales of such materials and property or in such a way as deemed fit and convenient to the Engineer.

VARIATIONS IN EXTENT OF CONTRACT

41. Modification to contract to be in writing:- In the event of any of the provisions of the contract requiring to be modified after the contract documents have been signed, the modifications shall be made in writing and signed by the DFCCIL and the Contractor and no work shall proceed under such modifications until this has been done. Any verbal or written arrangement abandoning, modifying, extending, reducing or supplementing the contract or any of the terms

thereof shall be deemed conditional and shall not be binding on the DFCCIL unless and until the same is incorporated in a formal instrument and signed by the Contractor, and till then the DFCCIL shall have the right to DFCCIL and puidateuch 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 contractor will not be entitled, to any compensation for any increase/reduction in the quantities of work but will be paid only for the actual amount of work done and for approved materials supplied against a specific order.
- 42.(2)** (i) Unless otherwise specified in the contract, the accepted variation in quantity of each individual item of the contract would be up to 25% of the quantity originally contracted, except in case of foundation work. The contractor shall be bound to carry out the work at the agreed rates and shall not be entitled to any claim or any compensation whatsoever up to the limit of 25% variation in quantity of individual item of works.
- (ii) In case of earthwork, the variation limit of 25% shall apply to the gross quantity of earth work and variation in the quantities of individual classifications of soil shall not be subject to this limit.
- (iii) In case of foundation work, no variation limit shall apply and the work shall be carried out by the contractor on agreed rates irrespective of any variation.
- 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 expressly included and provided for in the specifications and drawings and the amounts to be paid therefore shall be calculated in accordance with the accepted schedule of rates. Any extra items / quantities of work falling outside the purview of the provisions of sub-clause (2) above shall be paid for at the rates determined under clause-39 of these conditions.
- 42.(4) Variations In Quantities During Execution Of Works Contracts :-** The procedure detailed below shall be adopted for dealing with variations in quantities during execution of works contracts:
1. Individual NS items in contracts shall be operated with variation of plus or minus 25% and payment would be made as per the agreement rate.
 2. In case an increase in quantity of an individual item by more than 25% of the agreement quantity is considered unavoidable, the same shall be got
- item is considered not practicable, quantity of that item may be operated in excess of 125% of the agreement quantity subject to the following conditions:

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- (a) Operation of an item by more than 125% of the agreement quantity needs the approval of DFCCIL;
 - (i) Quantities operated in excess of 125% but upto 140% of the agreement quantity of the concerned item, shall be paid at 98% of the rate awarded for that item in that particular tender;
 - (ii) Quantities operated in excess of 140% but upto 150% of the agreement quantity of the concerned item shall be paid at 96% of the rate awarded for that item in that particular tender;
 - (iii) Variation in quantities of individual items beyond 150% will be prohibited and would be permitted only in exceptional unavoidable circumstances with the concurrence of associate finance and shall be paid at 96% of the rate awarded for that item in that particular tender.
- (b) The variation in quantities as per the above formula will apply only to the Individual items of the contract and not on the overall contract value.
- (c) Execution of quantities beyond 150% of the overall agreemental value should not be permitted and, if found necessary, should be only through fresh tenders or by negotiating with existing contractor, with approval of DFCCIL .

3. In cases where decrease is involved during execution of contract:

- (a) The contract signing authority can decrease the items upto 25% of individual item.
- (b) For decrease beyond 25% for individual items or 25% of contract agreement value, the approval of competent authority, after obtaining 'No Claim Certificate' from the contractor and with finance concurrence, giving detailed reasons for each such decrease in the quantities.
- (c) It should be certified that the work proposed to be reduced will not be required in the same work.

4. The limit for varying quantities for minor value items shall be 100% (as against 25% prescribed for other items). A minor value item for this purpose is defined as an item whose original agreement value is less than 1 % of the total original agreement value.

5. No such quantity variation limit shall apply for foundation items.

6. As far as SOR items are concerned, the limit of 25% would apply to the value of SOR schedule as a whole and not on individual SOR items. However, in case of NS items, the limit of 25% would apply on the individual items irrespective of the manner of quoting the rate (single percentage rate or individual item rate).

7. - Deleted -



- 8. - Deleted -
- 9. - Deleted -

- 10. The aspect of vitiation of tender with respect to variation in quantities should be checked and avoided. In case of vitiation of the tender (both for increase as well as decrease of value of contract agreement), sanction of the competent authority as per schedule of power of DFCCIL as per single tender should be obtained.

Note: Variation to be approved should be limited so as not to completely change the scope, character and purpose of the original contract.

CLAIMS

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

MEASUREMENTS, CERTIFICATES AND PAYMENTS

- 44. **Quantities in schedule annexed to Contract:-**The quantities set out in the accepted schedule of rates with items of works quantified are the estimated quantities of the work to be executed by the Contractor in fulfilment of his obligations under the contract.
- 45. **Measurement of works:-**The Contractor shall be paid for the works at the rates in the accepted schedule of rates 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 schedule of rates is 100 or 1000 shall be calculated to the nearest whole number, any; fraction below half being dropped and half and above being taken as one; for items the unit of which in the accepted schedule of rates is single, the quantities shall be calculated to two places of decimals. Such measurements will be taken of the work in progress from time to time and at such intervals as in the opinion of the Engineer shall be proper having regard to the progress of works. The date and time on which “on account” or final measurements are to be made shall be communicated to the Contractor who shall be present at the site and shall sign



the results of the measurements (which shall also be signed by the Engineer or the Engineer's representative) recorded in the official measurements book as an acknowledgement of his acceptance of the accuracy of the measures. Failing the Contractor's attendance the work may be measured up in his absence and such measurements shall, notwithstanding such absence, be binding upon the Contractor whether or not he shall have signed the measurement books provided always that any objection made by him to measurement shall be duly investigated and considered in the manner set out below:-

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

46.(1) "On-Account" Payments:- The Contractor shall be entitled to be paid from time to time by way of "One-Account" payment only for such works as in the opinion of the Engineer he has executed in terms of the contract.

All payments due on the Engineer's or the Engineer's representative's certificates of measurements shall be subject to any deductions which may be made under these presents and shall further be subject to, unless otherwise required by Clause 16 of these conditions, a retention of ten percent by way of security deposits, until the amount of security deposit by way of retained earnest money and such retentions shall amount to 10% of the total value of the contract provided always that the Engineer may by any certificate make any correction or modification in any previous certificate which shall have been issued by him and that the Engineer may withhold any certificate if the works or any part thereof are not being carried out to his satisfaction.

46.(2) Rounding off amounts: - The total amount due on each certificate shall be rounded off to the nearest rupee i.e. sum less than 50 paise shall be omitted and sums of 50 paise and more upto Re. 1/- will be reckoned as Re. 1/-

46.(3) On Account Payments not prejudicial to final settlement: - "On-Account" payments made to the Contractor shall be without prejudice to the final making up of the accounts (except where measurements are specifically noted in the Measurement Book as "Final Measurements" and as such have been signed by the Contractor) and 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) Manner of payment: - Unless otherwise specified payments to the Contractor will be made by RTGS/NEFT only.

46A PRICE VARIATION CLAUSE:

46A.1 Applicability: Price variation clause shall be applicable for this contract and irrespective of the contract completion period. Variation in quantities shall not be taken into account for applicability of PVC in the contract.

Materials supplied free of cost by DFCCIL to the contractors shall fall outside the purview of price variation clause. If, in any case, accepted offer include some specific payment to be made to consultant or some materials supplied by DFCCIL free or at fixed rate, such payment shall be excluded from the gross value of the work for the purpose of payment /recovery of price variation.

46A.2 Base month: The base month for the 'Price Variation Clause' shall be taken as month of opening of tender including extensions, if any, unless otherwise stated elsewhere. The quarter of applicability of PVC shall commence from the month following the month of opening of tender. The price variation shall be based on the average price Index of the quarter under consideration.

46A.3 Validity : Rates accepted by DFCCIL shall hold good till completion of work and no additional claim shall be admissible on account of fluctuations in market rates increase in taxes / any other levies / tolls etc except that payment recovery for overall market situation shall be made as per Price variation clause given hereunder.

46A.4 Adjustment for variation in prices of material, labour, fuel, explosives detonators, steel, concreting, ferrous, nonferrous, insulator, zinc and cement shall be determined in the manner prescribed hereunder.

46A.5 Components of various items in a contract on which variation in prices be admissible shall be material, labour, fuel, explosives detonators, steel, cement and lime, concreting, ferrous, nonferrous, insulator, zinc, erection, etc. However, for fixed component, no price variation shall be admissible.

46A.6 The percentages of labour, material, fuel, component etc. in various types of Engineering Works shall be as under:

Component	% age	Component	% age
(A) Earthwork contracts	N.A		
Labour component	-	Other material components	-
Fuel component	-	Fixed component *	-
(B) Ballast and Quarry products Contracts	N.A		
Labour component	-	Other material components	-
Fuel component	-	Fixed component*	-
(C) Tunnelling Contracts	N.A		
Labour component		Detonator Component	-



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Fuel component	-	Other material components	-
Explosive Component	-	Fixed component*	-
(D) Other work Contracts**			
Labour component	30%	Fuel component	15%
Material component	40%	Fixed component*	15%

* It shall not be considered for any price variation

** Category of PVC applicable for Schedule A, B and C(other than supply of cement and steel in schedule D & E)

46A.7 Formulae: The amount of variation in prices (increase / decrease) in the several components (labour, material etc.) shall be worked out by the following formulae:

(i)
$$L = \frac{W \times (L_Q - L_B)}{L_B} \times \frac{L_C}{100}$$

(ii)
$$M = \frac{W \times (M_Q - M_B)}{M_B} \times \frac{M_C}{100}$$

(iii)
$$F = \frac{W \times (F_Q - F_B)}{F_B} \times \frac{F_C}{100}$$

(iv)
$$S = S_W \times (S_Q - S_B)$$

- Applicable for Schedule E.
- No other PVC shall be paid on Schedule E

(v)
$$C = \frac{C_V \times (C_Q - C_B)}{C_B}$$

- Applicable for Schedule D.
- No other PVC shall be paid on Schedule D

L Amount of price variation in Labour.

M Amount of price variation in Materials.

F Amount of price variation in Fuel.

S Amount of price variation in Steel.

C Amount of price variation in Cement.

W Gross value of the work done by the contractor as per on account bill(s), excluding cost of materials supplied by DFCCIL at fixed price, minus the price values of cement and steel. This will also exclude specific payment, if any, to be made to the consultants engaged by contractors (such payment shall be indicated in the contractor's offer)

L_B Consumer price index number for industrial workers- All India- published in RBI bulletin for the base period.



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- L_Q Consumer Price Index Number for industrial workers -All India- Published in RBI bulletin for the average Price Index of the three months of the quarter under consideration.
- M_B Index Number of wholesale prices – By groups and sub groups-All commodities-As published in the RBI Bulletin for the base period
- M_Q Index Number of wholesale prices – By Groups and sub Groups-All
- F_B Index Number of wholesale prices – By Groups and sub Groups for fuel, power, light and lubricants as published in the RBI Bulletin for the base period.
- F_Q Index Number of wholesale prices – By Groups and sub Groups for fuel and power as published in the RBI Bulletin for the average Price Index of the three months of the quarter under consideration.
- Sw Weight of steel in tonnes supplied by the contractor as per the on accounts bill for the Month under consideration.
- S_Q SAIL's (Steel Authority of India Limited) ex-works / ex plant price plus excise duty there of (in rupees per tonne) for the relevant category of steel supplied by the contractor as prevailing rate on the first day of the month in which the steel was purchased by the contractor or as prevailing rate on the first day of the month in which the steel was brought to the site by contractor whichever is lower.

In case there is no notification by SAIL for the month under consideration, the price of steel as notified in the last available month is to taken.

- S_B SAIL's Ex- works price plus excise duty there of (in rupees per tonne) for the relevant category of steel supplied by the contractor as prevailing on the first day of month in which the tender was opened.

If the rates in negotiated tenders are accepted, this will be the month in which negotiations were held. In case there is no notification by SAIL for the month under consideration, the price of steel as notified in the last available month is to taken.

- C_V Value of cement supplied by contractor as per on account bill in the quarter under consideration.
- C_B Index Number of wholesale prices of sub Group (of cement & lime) as published in the RBI Bulletin for the base period.
- C_Q Index Number of wholesale prices of sub Group (of cement & lime) as published in the RBI Bulletin for the average price index of three months of quarter under consideration.
- L_C % of labour component

M_C % of Material component
F_C % of Fuel component



46A.9 Relevant categories of steel for the purpose of operating the above price variation, as mentioned in this clause, based on SAILS ex works price plus excise duty thereof are as under:

S. No.	Category of steel supplied in Railway work ex-works price plus excise duty would be adopted to	Category of steel produced by SAIL whose determined price variation.
1	Reinforcement bars and other rounds	TMT 8 mm, IS 1786 Fe 415/Fe 500
2	All types and sizes of angles	Angle 65X65X6 mm IS 2062 E250 A SK
3	All types and sizes of plates	PM Plates above 10-20 mm IS 2062 E 250 A SK
4	All types and sizes of channels and joists	Channels 200x75 mm IS 2062 E250 A SK
5	Any other section of steel not covered in the above categories and excluding HTS	Average of price for the 3 categories covered under S. No. 1, 2, 3 above

Special Note

- (1) It is clearly indicated that price variation implies both increase as well decrease in input prices and therefore price variation during the currency of the contract may result in extra payment or recovery as the case may be.
- (2) The Index Number for the base period will be the Index Number as obtained for the month of opening of the tender and the quarter will commence from the month following the month of opening of tender. If the rates quoted in negotiated tenders are accepted, the base month for PVC will be month in which Negotiations are held.
- (3) General Conditions of Contract shall be applicable in context of Price variation. However, decision of Engineer shall be final & finding, in case of any conflict.

46A.10 Price Variation During Extended Period of Contract

The price adjustment as worked out above, i.e. either increase or decrease shall be applicable upto the stipulated date of completion of work including the extended period of completion where such extension has been granted under Clause 17-A of the General Conditions of Contract. However, where extension of time has been granted due to contractor's failure under Clause 17 -B of the General Conditions of Contract, price adjustment shall be done as follows :



(a) In case the indices increase above the indices applicable to the last month of original completion period or the extended period under Clause 17-A, the price adjustment for the period of extension granted under Clause 17-B shall be limited to the amount payable as per the Indices applicable to the last month of the original completion period or the extended period under Clause 17-A of the General Conditions of Contract; as the case may be.

(b) In case the indices fall below the indices applicable to the last month of original/extended period of completion under Clause 17-A, as the case may be; then the lower indices shall be adopted for the price adjustment for the period of extension under Clause 17-B of the General Conditions of Contract.

47.0 Maintenance of works:- The Contractor shall at all times during the progress and continuance of the works and also for the period of maintenance specified in the Tender Form after the date of passing of the certificate of completion by the Engineer or any other earlier date subsequent to the completion of the works that may be fixed by the Engineer be responsible for and effectively maintain and uphold in good substantial, sound and perfect condition all and every part of the works and shall make good from time to time and at all times as often as the Engineer shall require, any damage or defect that may during the above period arise in or be discovered or be in any way connected with the works, provided that such damage or defect is not directly caused by errors in the contract documents, act of providence or insurrection or civil riot, and the contractor shall be liable for and shall pay and make good to the DFCCIL or other persons legally entitled thereto whenever required by the Engineer so to do, all losses, damages, costs and expenses they or any of them may incur or be put or be liable to by reasons or in consequence of the operations of the Contractor or of his failure in any respect.

48.(1) Certificate of completion of works:- As soon as in the opinion of the Engineer, the works has been completed and has satisfactorily passed any final test or tests that may be prescribed, the Engineer shall issue a certificate of completion duly indicating the date of completion in respect, of the work and the period of maintenance of the work shall commence from the date of completion mentioned in such certificate. The Engineer may also issue such a certificate indicating date of completion with respect to any part of the work (before the completion of the whole of work), which has been both completed to the satisfaction of the Engineer and occupied or used by the DFCCIL. When any such certificate is given in respect of part of a work, such part shall be considered as completed and the period of maintenance of such part shall commence from the date of completion mentioned in the completion certificate issued for that part of the work.

- 48.(2) Contractor not absolved by completion Certificate:-** The Certificate of completion in respect of the works referred to in sub-clause (1) of this clause shall not absolve the Contractor from his liability to make good any defects imperfections, shrinkages or faults which may appear during the period of maintenance specified in the tender arising in the opinion of the Engineer from materials or workmanship not in accordance with the drawings or specifications or instruction of the Engineer, which defects, imperfections, shrinkages or faults shall upon the direction in writing of the Engineer be amended and made good by the Contractor at his own cost: and in case of default on the part of Contractor the Engineer may employ labour and materials or appoint another Contractor to amend and make good such defects, imperfections, shrinkages and faults and all expenses consequent thereon and incidental thereto shall be borne by the Contractor and shall be recoverable from any moneys due to him under the contract.
- 49.0 Approval only by maintenance Certificate:-** No certificate other than maintenance certificate referred to in Clause 50 of the conditions shall be deemed to constitute approval of any work or other matter in respect of which it is issued or shall be taken as an admission of the due performance of the contract or any part thereof or of the accuracy of any claim or demand made by the Contractor or of additional varied work having been ordered by the Engineer nor shall any other certificate conclude or prejudice any of the powers of the Engineer.
- 50.(1) Maintenance Certificate:-** The Contract shall not be considered as completed until a Maintenance Certificate shall have been signed by the Engineer stating that the works have been completed and maintained to his satisfaction. The Maintenance Certificate shall be given by the Engineer upon the expiration of the period of maintenance or as soon thereafter as any works ordered during such period pursuant to sub clause (2) Clause 48 of these conditions shall have been completed to the satisfaction of the Engineer and full effect shall be given to this Clause notwithstanding the taking possession of or using the works or any part thereof by the DFCCIL.
- 50.(2) Cessation of DFCCIL Liability: -** The DFCCIL shall not be liable to the Contractor for any matter arising out of or in connection with the contract of the execution of the works unless the contractor shall have made a claim in writing in respect thereof before the issue of the Maintenance Certificate under this clause.
- 50.(3) Unfulfilled Obligations:-** Notwithstanding the issue of the Maintenance certificate the Contractor and (subject to sub-clause 2 of this clause) the DFCCIL shall remain liable for the fulfilment of any obligation incurred under the provision of the contract prior to the issue of the maintenance Certificate which remains unperformed at the time such certificate is issued and for the purposes of determining the nature and extent of any such obligations the contract shall be deemed to remain in force between the parties thereto.

51.(1) Final Payment:- On the Engineer's certificate of completion in respect of the works, adjustment shall be made and the balance of account based on the Engineer or the Engineer's representative's certified measurements of the total quantity of work executed by the contractor upto the date of completion and on the accepted schedule or rates and for extra works on rates determined under Clause 39 of these conditions shall be paid to the Contractor subject always to any deduction which may be made under these presents and further subject to the Contractor having delivered to the Engineer 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 correct, that the whole of the works to be done under the provisions of the Contracts have been completed, that they have been inspected by him since their completion and found to be in good and substantial order, that all properties, works and things, removed, disturbed or injured in consequence of the works have been 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 contract.

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

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

- (i) For a contract of more than one crore of rupees, the contractor shall, whenever required, produce or cause to be produced for examination by the Engineer any quotation, invoice, cost or other account, book of accounts, voucher, receipt, letter, memorandum, paper of writing or any copy of or extract from any such document and also furnish information and returns verified in such manner as may be required in any way relating to the execution of this contract or relevant for verifying or ascertaining cost of execution of this contract (the decision of the engineer on the question of relevancy of any documents, information or return being final and binding in the parties). The contractor shall similarly produce vouchers; etc., if required to prove to the Engineer, that materials supplied by him, are in accordance with the specifications laid down in the contract.
- (ii) If any portion of the work in a contract of value more than one crore of rupees be carried out by a sub-contractor or any subsidiary or allied firm or company (as per Clause 7 of the General Conditions of Contract), the Engineer shall have power to secure the books of such sub-contract or any subsidiary or allied firm or company, through the contractor, and such books shall be open to his inspection.

- (iii) The obligations imposed by sub clause (i) & (ii) above is without prejudice to the obligations of the contractor under any statute rules or orders binding on the contractor.

52.0 Withholding and lien in respect of sums claimed:- Whenever any claim or claims for payment of a sum of money arises out of or under the contract against the contractor, the DFCCIL shall be entitled to withhold and also have a lien to retain such sum or sums in whole or in part from the security, if any, deposited by the contractor and for the purpose aforesaid, the DFCCIL shall be entitled to withhold the said cash security deposit or the security if any, furnished as the case may be and also have a lien over the same pending finalization or adjudication of any such claim. In the event of the security being insufficient to cover the claimed amount or amounts or if no security has been taken from the contractor, the DFCCIL shall be entitled to withhold and have a lien to the extent of the such claimed amount or amounts referred to supra, from any sum or sums found payable or which at any time thereafter may become payable to the contractor under the same contract or any other contract with this or any other DFCCIL or any Department of the Central Government pending finalization or adjudication of any such claim.

It is an agreed term of the contract that the sum of money or moneys so withheld or retained under the lien referred to above, by the DFCCIL will be kept withheld or retained as such by the DFCCIL till the claim arising out of or under the contract is determined by the arbitrator (if the contract governed by the arbitration clause) or by the competent court as the case may be and that the contractor will have no claim for interest or damages whatsoever on any account in respect of such withholding or retention under the lien referred to supra and duly notified as such to the contractor. For the purpose of this clause, where the contractor is a partnership firm or a limited company, the DFCCIL shall be entitled to withhold and also have a lien to retain towards such claimed amount or amounts in whole or in part from any sum found payable to any partner/limited company, as the case may be whether in his individual capacity or otherwise.

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

(i) Any sum of money due and payable to the contractor (including the security deposit returnable to him) under the contract may be withheld or retained by way of lien by the DFCCIL, against any claim of this or any other DFCCIL or any other Department of the Central Government in respect of a payment of a sum of money arising out of or under any other contract made by the contractor with this or any other Department of the Central Government.

(ii) However, recovery of claims of DFCCIL in regard to terminated contracts may be made from the Final Bills, Security Deposits and Performance Guarantees of other contract or contracts, executed by the contractor. The Performance Guarantees submitted by the Contractor against other contracts, if required, may be withheld and encashed. In addition, 10% of each subsequent 'on-account bill' may be withheld, if required, for recovery of DFCCIL's dues against the terminated contract.

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

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

LABOUR

54.0 Wages to Labour :- The Contractor shall be responsible to ensure compliance with the provision of the Minimum Wages Act, 1948 (hereinafter referred to as the "said Act" and the Rules made there under in respect of any employees directly or through petty contractors or subcontractors employed by him on road construction or in building operations or in stone breaking or stone crushing for the purpose of carrying out this contract. If, in compliance with the terms of the contract, the Contractor supplied any labour to be used wholly or partly under the direct orders and control of the DFCCIL whether in connection with any work being executed by the Contractor or otherwise for the purpose of the DFCCIL such labour shall, for the purpose of this clause, still be deemed to be persons employed by the Contractor.

If any moneys shall, as a result of any claim or application made under the said Act be directed to be paid by the DFCCIL, such money shall be deemed to be 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 any moneys due or accruing to the Contractor under this or any other Contract with the DFCCIL.

54A. Apprentices Act:-The Contractor shall be responsible to ensure compliance with the provisions of the Apprentices Act, 1961 and the Rules and Orders issued there under from time to time in respect of apprentices directly or through petty contractors or sub-contractors employed by him for the purpose of carrying out the Contract.

If the contractor directly or through petty contractors or sub-contractors fails to do so, his failure will be a breach of the contract and the DFCCIL may, in its discretion, rescind the contract. The contractor shall also be liable for any pecuniary liability arising on account of any violation of the provisions of the Act.

Note: The contractors are required to engage apprentices when the works undertaken by them last for a period of one year or more and / the cost of works is rupees one lakh or more.

55.0 Provisions of payments of Wages Act:-The Contractor shall comply with the provisions of the Payment of Wages Act, 1936 and the rules made there under in respect of all employees directly or through petty contractors or sub-contractors employed by him in the works. If in compliance with the terms of the contract, the Contractor directly or through petty contractors or sub-contractors shall supply any labour to be used wholly or partly under the direct orders and control of the Engineer whether in connection with the works to be executed hereunder or otherwise for the purpose of the Engineer such labour shall never the less be deemed to comprise persons employed by the contractor and any moneys which may be ordered to be paid by the Engineer shall be deemed to be moneys payable by the Engineer on behalf of the Contractor and the Engineer may on failure of the contractor to repay such money to the DFCCIL deduct the same from moneys due to contractor in the terms of contract. The DFCCIL shall be entitled to deduct from any moneys due to the contractor (whether under this contract or any other contract) all moneys paid or payable by the DFCCIL by the way of compensation of aforesaid or for costs of expenses in connection with any claim thereto and the decision of the Engineer upon any question arising out of the effect or force of this clause shall be final and binding upon the Contractor.



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

- 55A.(1)** The contractor shall comply with the provision of the contract labour (Regulation and Abolition) Act, 1970 and the Contract labour (Regulation and Abolition) Central Rules 1971 as modified from time to time, wherever applicable and shall also indemnify the DFCCIL from and against any claims under the aforesaid Act and the Rules.
- 55A.(2)** The Contractor shall obtain a valid licence under the aforesaid Act as modified from time to time before the commencement of the work and continue to have a valid licence until the completion of the work. Any failure to fulfil the requirement shall attract the penal provision of the Contract arising out of the resultant non-execution of the work.
- 55A.(3)** The Contractor shall pay to the labour employed by him directly or through subcontractors the wages as per provision of the aforesaid Act and the Rules wherever applicable. The Contractor shall notwithstanding the provisions of the contract to the contrary, cause to be paid the wages to labour indirectly engaged on the works including any engaged by subcontractors in connection with the said work, as if the labour had been immediately employed by him.
- 55A.(4)** In respect of all labour directly or indirectly employed in the work for performance of the contractor's part of, the contract, the Contractor shall comply with or cause to be complied with the provisions of the aforesaid Act and Rules wherever applicable.
- 55A.(5)** In every case in which, by virtue of the provisions of the aforesaid Act or the Rules, the DFCCIL is obliged to pay any amount of wages to a workman employed by the Contractor or his sub-contractor in execution of the work or to incur any expenditure on account of the Contingent, liability of the DFCCIL due to the contractor's failure to fulfil his statutory obligations under the aforesaid Act or the rules the DFCCIL will recover from the Contractor, the amount of wages so paid or the amount of expenditure so incurred, and without prejudice to the rights of the DFCCIL under the section 20, sub-section (2) and section 2, sub-section (4) of the aforesaid Act, the DFCCIL shall be at liberty to recover such amount or part thereof by deducting it from the security deposit and/ or from any sum due by the DFCCIL to the contractor whether under the contract or otherwise. The DFCCIL shall not be bound to contest any claim made against it under sub-section (1) of section 20 and sub-section (4) of section 21 of the aforesaid Act except on the written request of the contractor and upon his giving to the DFCCIL full security for all costs for which the DFCCIL might become liable in contesting such claim. The decision of the DFCCIL regarding the amount actually recoverable from the contractor as stated above shall be final and binding on the Contractor.

55B. Provisions of Employees Provident Fund and Miscellaneous Provisions Act, 1952 :

The Contractor shall comply with the provisions of Para 30 & 36- B of the Employees Provident Fund Scheme, 1952; Para 3 & 4 of Employees' Pension Scheme, 1995; and Para 7 & 8 of Employees Deposit Linked Insurance Scheme, 1976; as modified from time to time through enactment of "Employees Provident Fund & Miscellaneous Provisions Act, 1952", wherever applicable and shall also indemnify the DFCCIL from and against any claims under the aforesaid Act and the Rules.

55C. Provisions of "The Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996" and "The Building and Other Construction Workers' Welfare Cess Act, 1996" :

The tenderers, for carrying out any construction work, must get themselves registered with the Registering Officer under Section-7 of the Building and Other Construction Workers Act, 1996 and rules made thereto by the concerned State Govt. and submit certificate of Registration, issued from the Registering Officer of the concerned State Govt. (Labour Dept.) . As per this Act, the tenderer shall be levied a cess @1% of cost of construction work, which would be deducted from each bill. Cost of material, when supplied under a separate schedule item, shall be outside the purview of cess.

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

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

- 57A. Provision of Mines Act:-** The contractor shall observe and perform all the provisions of the Mines Act, 1952 or any statutory modifications or re-enactment thereof for the time being in force and any rules and regulations made there under in respect of all the persons directly or through the petty contractors or sub-contractors employed by him under this contract and shall indemnify the DFCCIL from and against any claims under the Mines Act, or the rules and regulations framed there under, by or on behalf of any persons employed by him or otherwise.
- 58.0 DFCCIL not to provide quarters for Contractors:-**No quarters shall normally be provided by the DFCCIL for the accommodation of the contractor or any of his staff employed on the work.
- 59.(1) Labour Camps:-** The contractor shall at his own expense make adequate arrangements for the housing, supply of drinking water and provision of latrines and urinals for his staff and workmen, directly or through the petty contractors or sub-contractors and for temporary crèche (Bal-mandir) where 50 or more women are employed at a time. Suitable sites on DFCCIL land, if available, may be allotted to the contractor for the erection of labour camps, either free of charge or on such terms and conditions that may be prescribed by the DFCCIL. All camp sites shall be maintained in clean and sanitary conditions by the contractor at his own cost.
- 59.(2) Compliance to rules for employment of labour:-** The contractor(s) shall conform to all laws, by-laws rules and regulations for the time being in force pertaining to the employment of local or imported labour and shall take all necessary precautions to ensure and preserve the health and safety of all staff employed directly or through petty contractors or sub-contractors on the works.
- 59.(3) Preservation of peace:-** The contractor shall take requisite precautions and use his best endeavours to prevent any riotous or unlawful behaviour by or amongst his workmen and other employed directly or through the petty contractors or sub-contractors on the works and for the preservation of peace and protection of the inhabitants and security of property in the neighbourhood of the works. In the event of the DFCCIL requiring the maintenance of a special Police Force at or in the vicinity of the site during the tenure of works, the expenses thereof shall be borne by the contractor and if paid by the DFCCIL shall be recoverable from the contractor.
- 59.(4) Sanitary arrangements:-** The contractor shall obey all sanitary rules and carry out all sanitary measures that may from time to time be prescribed by the Railway Medical Authority and permit inspection of all sanitary arrangements at all times by the Engineer, the Engineer's Representative of the Medical staff of the DFCCIL. Should the contractor fail to make the adequate sanitary arrangements, these will be provided by the DFCCIL and the cost therefore recovered from the contractor.
- 59.(5) Outbreak of infectious disease:-** The contractor shall remove from his camp such labour and their families as refuse protective inoculation and vaccination when called upon to do so by the Engineer or the Engineer's representative on the advice of the DFCCIL. Should cholera, plague or other infectious disease

break out, the contractor shall burn the huts, beddings, clothes and other belongings of or used by the infected parties and promptly erect new huts on health sites as required by the engineer, failing which within the time specified in the Engineer's requisition, the work may be done by the DFCCIL and the cost therefore recovered from the contractor.

59.(6) Deleted

59.(7) Medical facilities at site: - The Contractor shall provide medical facilities at the site as may be prescribed by the Engineer on the advice of the DFCCIL in relation to the strength of the Contractor's resident staff and workmen.

59.(8) Use of intoxicants: - The sale of ardent spirits or other intoxicating beverages upon the work or in any of the buildings, encampments or tenements owned, occupied by or within the control of the contractor or any of his employees shall be forbidden and the Contractor shall exercise his influence and authority to the utmost extent to secure strict compliance with this condition.

59.(9) Non-employment of female labour: - The Contractor shall see that the employment of female labour on / in Cantonment areas, particularly in the neighbourhood of soldier's barracks, should be avoided as far as possible.

59.(10) Restrictions On The Employment Of Retired Engineers Of Railway/DFCCIL Services Within one Year Of Their Retirement : The Contractor shall not, if he is a retired Government Engineer of Gazetted rank, himself engage in or employ or associate a retired Government Engineer of Gazetted rank, who has not completed one year from the date of retirement, in connection with this contract in any manner whatsoever without obtaining prior permission of the President and if the Contractor is found to have contravened this provision it will constitute a breach of contract and administration will be entitled to terminate the contract and forfeit Earnest Money Deposits (EMD), Performance Guarantee (PG) and Security Deposits (SD) of that contract.

60.(1) Non-employment of labours below the age of 15:- the Contractor shall not employ children below the age of 15 as labourers directly or through petty contractors or subcontractors for the execution of work.

60.(2) Medical Certificate of fitness for labour: - It is agreed that the contractor shall not employ a person above 15 and below 19 years of age for the purpose of execution of work under the contract unless a medical certificate of fitness in the prescribed form (Proforma at Form No.15) granted to him by a certifying surgeon certifying that he is fit to work as an adult is obtained and kept in the custody of the contractor or a person nominated by him in this behalf and the person carries with him, while at work; a token giving a reference to such certificate. It is further agreed that the responsibility for having the adolescent examined medically at the time of appointment or periodically till he attains the age of 19 years shall devolve entirely on the contractor and all the expenses to be incurred on this account shall be borne by him and no fee shall be charged from the adolescent or his parent for such medical examination.

60.(3) Period of validity of medical fitness certificate:- A certificate of fitness granted or renewed for the above said purposes shall be valid only for a period of one year at a time. The certifying surgeon shall revoke a certificate granted or renewed if in his opinion the holder of it is, no longer fit for work in the capacity stated therein. Where a certifying surgeon refuses to grant or renew a certificate or revoke a certificate, he shall, if so required by the person concerned, state his reasons in writing for doing so.

60.(4) Medical re-examination of labourer:- Where any official appointed in this behalf by the Ministry of labour is of the opinion that any person employed in connection with the execution of any work under this contract in the age group 15 to 19 years is without a certificate of fitness or is having a certificate of fitness but no longer fit to work in the capacity stated in the certificate, he may serve on the Contractor, or on the person nominated by him in the regard, a notice requiring that such persons shall be examined by a certifying surgeon and such person shall not if the concerned official so directs, be employed or permitted to do any work under this contract unless he has been medically examined and certified that he has been granted a certificate of fitness or a fresh certificate of fitness, as the case may be.

EXPLANATIONS:-

- (1) Only qualified medical practitioners can be appointed as "Certifying Surgeons" and the term "Qualified Medical Practitioners" means a person holding a qualification granted by an authority specified in the Schedule to the Indian Medical Degrees Act, 1916 (VII to 1916) or in the Schedule to the Indian Medical Council Act, 1933 (XXVII) of 1933.
- (2) The Certifying surgeon may be a medical officer in the service of State or Municipal Corporation.

DETERMINATION OF CONTRACT

61.(1) Right of DFCCIL of determine the contract:- The DFCCIL shall be entitled to determine and terminate the contract at any time should, in the DFCCIL's opinion, the cessation of work becomes necessary owing to paucity of funds or from any other cause whatever, in which case the value of approved materials at site and of work done to date by the Contractor will be paid for in full at the rate specified in the contract. Notice in writing from the DFCCIL of such determination and actions therefore shall be conclusive evidence thereof.

61.(2) Payment on determination of contract:- Should the contract be determined under sub clause (1) of this clause and the Contractor claims payment for expenditure incurred by him in the expectation of completing the whole of the work, the 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 contractor shall have no claim to any payment of compensation or otherwise, howsoever on account of any profit or advantage which he might have derived from the execution of the work in full but which he did not derive in consequence of determination of contract.

62.(1) Determination of contract owing to default of contractor:- If the Contractor should:-

- (i) Becomes bankrupt or insolvent, or
- (ii) Make an arrangement with of 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 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
- (x) Fail to take steps to employ competent or additional staff and labour as required under clause 26 of the conditions
- (xi) Fail to afford the Engineer or Engineer's representative proper facilities for inspecting the work or any part thereof as required under clause 28 of the conditions, or
- (xii) 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.
- (xiii)(A) At any time after the tender relating to the contract, has been signed and submitted by the Contractor, being a partnership firm admit as one of its partners or employee under it or being an incorporated company elect or nominate or allow to act as one of its directors or employee under it in any capacity whatsoever any retired engineer of the gazetted rank or any other retired gazetted officer working before his retirement, whether in the executive or administrative capacity, or whether holding any pensionable post or not, in the DFCCIL for the time being owned and administered by the President of India before the expiry of one year from the date of retirement from the said service of such Engineer or Officer unless such Engineer or Officer has



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

(xiii) (B) Fail to give at the time of submitting the said tender:-

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

Then and in any of the said clause, the Engineer on behalf of the DFCCIL may serve the Contractor with a notice (Proforma at Form No.16) in writing to that effect and if the contractor does not within seven days after the delivery to him such notice proceed to make good his default in so far as theof being made good and carry on the work or comply with such directions as aforesaid of the entire satisfaction of the Engineer, the DFCCIL shall be entitled after giving 48 hour's notice (Proforma at Form No. 17) in writing under the hand of the Engineer to rescind the contract as a whole or in part or parts (as may be specified in such notice) and after expiry of 48 hour's notice, a final termination notice (Proforma at Form No. 18) should be issued and adopt the following courses:

To measure up or the whole or part of the work from which the contractor has been removed and get it completed by another contractor, the manner and method in which such work is completed shall be in the entire discretion of the Engineer whose decision shall be final.

62.(2) Right of DFCCIL after, rescission of contract owing to default of contractor:

In the event of any or several of the courses, referred to in sub-clause (1) of the clause, being adopted.

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

- (b) The Engineer or the Engineer's representative shall be entitled to take possession of any materials, tools, implements, machinery and buildings on the works or on the property on which these are being or ought to have been executed, and to retain and employ the same in the further execution of the works or any part thereof until the completion of the works without the contractor being entitled to any compensation for the use and employment thereof or for wear and tear or destruction thereof.
- (c) The Engineer shall as soon as may be practicable after removal of the contractor fix and determine ex-parte or by or after reference to the parties or after such investigation or enquiries as he may consider fit to make or institute and shall certify what amount(if any) had at the time of rescission of the contract been reasonably earned by or would reasonably accrue to the contractor in respect of the work then actually done by him under the contract and what was the value of any unused, or partially used materials, any constructional plan and any temporary works upon the site. The legitimate amount due to the contractor after making necessary deductions and certified by the Engineer should be released expeditiously.

STATEMENT OF DISPUTES - INDIAN RAILWAY ARBITRATION RULES

63.0 Matters finally determined by the DFCCIL – All disputes and differences of any kind whatsoever arising out of or in connection with the contract, whether during the progress of the work or after its completion and whether before or after the determination of the contract, shall be referred by the contractor to the Director /General Manager/CPM, DFCCIL and the Director/General Manager/CPM, DFCCIL shall within 120 days after receipt of the contractor's representation make and notify decisions on all matters referred to by the contractor in writing provided that matter for which provision has been made in clauses 8, 18, 22.(5), 39, 43.(2), 45.(a), 55, 55A.(5), 57, 57A, 61.(1), 61.(2) and 62.(1) to (xiii)(B) of General Conditions of contract or in any special clause of the conditions of the contract shall be deemed as 'excepted matters' (matters not arbitrable) and decisions of the DFCCIL authority, thereon shall be final and binding on the contractor; provided further that 'excepted matters' shall stand specifically excluded from the purview of the arbitration clause.

64. (1) Demand for Arbitration:-

64. (1) (i) In the event of any dispute or difference between the parties hereto as to the construction or operation of this contract, or the respective rights and liabilities of the parties on any matter in question, dispute or difference on any account or as to the withholding by the DFCCIL of any certificate to which the contractor may claim to be entitled to, or if the DFCCIL fails to make a decision within 120 days, then and in any such case, but except in any of the 'excepted matters' referred to in clause 63 of these conditions, the contractor, after 120 days but within 180 days of his presenting his final claim on disputed matters shall demand in writing that the dispute or difference be referred to arbitration.

64.(1) (ii) 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) (iii) (a) The arbitration proceedings shall be assumed to have commenced from the day, a written and valid demand for arbitration is received by the DFCCIL.

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

(c) The DFCCIL shall submit its defence statement and counter claim(s), if any, within a period of 60 days of receipt of copy of claims from Tribunal thereafter, unless otherwise extension has been granted by Tribunal.

64.(1) (iv) No new claim shall be added during proceedings by either party. However, a party may amend or supplement the original claim or defence thereof during the course of arbitration proceedings subject to acceptance by Tribunal having due regard to the delay in making it.

64.(1) (v) – If the contractor(s) does/do not prefer his/their specific and final claims in writing, within a period of 90 days of receiving the intimation from the 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 contract shall, unless otherwise directed by the Engineer, continue during the arbitration proceedings, and no payment due or payable by the DFCCIL shall be withheld on account of such proceedings, provided, however, it shall be open for Arbitral Tribunal to consider and decide whether or not such work should continue during arbitration proceedings.

64.(3) Appointment of arbitrator

64.(3)(a)(i) In cases where the total value of all claims in question added together does not exceed Rs.25,00,000 (Rupees twenty five lakhs only), the Arbitral tribunal shall consist of a sole arbitrator nominated by the MD/DFCCIL. The sole arbitrator shall be appointed within 60 days from the day when a written and valid demand for arbitrator is received by MD/DFCCIL .

64.(3)(a)(ii) In cases not covered by the clause 64(3)(a)(i), the Arbitral Tribunal shall consist of a Panel of three officials, as the arbitrators. For this purpose, the DFCCIL will send a panel of more than 3 names of DFCCIL officers which may also include the name(s) of Officer(s) empanelled to work as Arbitrator to the contractor within 60 days from the day when a written and valid demand for arbitration is received by the MD/DFCCIL. Contractor will be asked to suggest to MD/DFCCIL at least 2 names out of the panel for appointment as contractor's nominee within 30 days from the date of dispatch of the request by DFCCIL. The MD/DFCCIL shall appoint at least one out of them as the contractor's nominee and will, also simultaneously appoint the balance number of arbitrators either from the panel or from outside the panel, duly indicating the 'presiding arbitrator' from amongst the 3 arbitrators so



appointed. MD/DFCCIL shall complete this exercise of appointing the Arbitral Tribunal within 30 days from the receipt of the names of contractor's nominees. While nominating the arbitrators it will be necessary to ensure that one of them is from the Accounts department. An officer of selection grade of accounts department shall be considered of equal status to the officers in SA grade of other department of DFCCIL for the purpose of appointment of arbitrator.

- 64. (3)(a)(iii)** If one or more of the arbitrators appointed as above refuses to act as arbitrator, withdraws from his office as arbitrator, or vacates his/their office/offices or is/are unable or unwilling to perform his functions as arbitrator for any reason whatsoever or dies or in the opinion of the MD/DFCCIL fails to act without undue delay, the MD/DFCCIL shall appoint new arbitrator/arbitrators to act in his/their place in the same manner in which the earlier arbitrator/arbitrators had been appointed. Such re-constituted Tribunal may, at its discretion, proceed with the reference from the stage at which it was left by the previous arbitrator(s).
- 64.(3) (a) (iv)** 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 arbitral Tribunal should record day-to-day proceedings. The proceedings shall normally be conducted on the basis of documents and written statements.
- 64.(3)(a)(v)** While appointing arbitrator(s) under sub-clause (i), (ii) & (iii) above, due care shall be taken that he/they is/are not the one/those who had an opportunity to deal with the matters to which the contract relates or who in the course of his/their duties as DFCCIL servant(s) expressed views on all or any of the matters under dispute or differences. 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)(b)(i)** The arbitral award shall state item wise, the sum and reasons upon which it is based. The analysis and reasons shall be detailed enough so that the award could be inferred there from.
- 64.(3)(b)(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)(b)(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



- 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 the DFCCIL from time to time and the fee shall be borne equally by both the parties.
- 64(7)** Subject to the provisions of the aforesaid Arbitration and Conciliation Act 1996 and the rules there under and any statutory modifications thereof shall apply to the arbitration proceedings under this clause.

JOINT VENTURE (JV) FIRMS IN WORKS TENDERS

- 65.0 Participation Of Joint Venture (JV) Firms In Works Tender:** This Clause shall be applicable for works tenders of value as approved and communicated by Railway Board /DFCCIL from time to time.
- 65.1** Separate identity / name shall be given to the Joint Venture Firm.
- 65.2** Number of members in a JV Firm shall not be more than three.
- 65.3** A member of JV Firm shall not be permitted to participate either in individual capacity or as a member of another JV Firm in the same tender.
- 65.4** The tender form shall be purchased and submitted only in the name of the JV Firm and not in the name of any constituent member.
- 65.5** Normally earnest money deposit (EMD) shall be submitted only in the name of Employer "Dedicated Freight Corridor Corporation of India Limited" A/C JV Firm and not in the name of constituent member. However, in exceptional cases EMD in the name of Employer "Dedicated Freight Corridor Corporation of India Limited" A/C JV Firm and not in the name of Lead Member can be accepted subject to written confirmation from JV members to the effect, that EMD submitted by the Lead Member may be deemed as EMD submitted by JV Firm.
- 65.6** One of the members of the JV Firm shall be its Lead Member who shall have a majority (at least 51%) share of interest in the JV Firm and also, must have satisfactorily completed in the last three previous financial years and the current financial year upto the date of opening of the tender, one similar single work for a minimum value of 35% of advertised tender value and as defined in technical eligibility criteria. The other members shall have a share of not less than 20% each in case of JV Firms with upto three members. In case of JV Firm with foreign member(s), the Lead Member has to be an Indian Firm with a minimum share of 51%.
- 65.7** A copy of Memorandum of Understanding (MoU) executed by the JV members shall be submitted by the JV Firm along with the tender. The complete details of the member JV firm, their share and responsibility and the JV firm etc. Particularly with reference to financial, technical and other obligation shall be furnished in the MOU. (The MOU format for this purpose is enclosed along with the tender, Form No. 9).

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- 65.8** Once the tender is submitted, the MoU shall not be modified / altered / terminated during the validity of the tender. In case the tenderer fails to observe/comply with this stipulation, the full Earnest Money Deposit (EMD) shall be liable to be forfeited.
- 65.9** Approval for change of constitution of JV Firm shall be at the sole discretion of the Employer (DFCCIL). The constitution of the JV Firm shall not be allowed to be modified after submission of the tender bid by the JV Firm, except when modification becomes inevitable due to succession laws etc. and in any case the minimum eligibility criteria should not get vitiated. However, the Lead Member shall continue to be the Lead Member of the JV Firm. Failure to observe this requirement would render the offer invalid.
- 65.10** Similarly, after the contract is awarded, the constitution of JV Firm shall not be allowed to be altered during the currency of contract except when modification become inevitable due to succession laws etc. and in any case the minimum eligibility criteria should not get vitiated. Failure to observe this stipulation shall be deemed to be breach of contract with all consequential penal action as per contract conditions.
- 65.11** On award of contract to a JV Firm, a single Performance Guarantee shall be submitted by the JV Firm as per tender conditions. All the Guarantees like Performance Guarantee, Bank Guarantee for Mobilization Advance, Machinery Advance etc. shall be accepted only in the name of the JV Firm and no splitting of guarantees amongst the members of the JV Firm shall be permitted.
- 65.12** On issue of LOA (Letter Of Acceptance), an agreement among the members of the JV Firm (to whom the work has been awarded) shall be executed and got registered before the Registrar of the Companies under Companies Act or before the Registrar/Sub-Registrar under the Registration Act, 1908. This JV Agreement shall be submitted by the JV Firm to the DFCCIL before signing the contract agreement for the work. In case the tenderer fails to observe/comply with this stipulation, the full Earnest Money Deposit (EMD) shall be forfeited and other penal actions due shall be taken against partners of the JV and the JV. This Joint Venture Agreement shall have, inter-alia, following Clauses :
- 65.12.1** Joint And Several Liability - Members of the JV Firm to which the contract is awarded, shall be jointly and severally liable to the Employer (DFCCIL) for execution of the project in accordance with General and Special Conditions of Contract. The JV members shall also be liable jointly and severally for the loss, damages caused to the Railways / DFCCIL during the course of execution of the contract or due to non-execution of the contract or part thereof.
- 65.12.2** Duration of the Joint Venture Agreement - It shall be valid during the entire currency of the contract including the period of extension, if any and the defect liability period after the work is completed.
- 65.12.3** Governing Laws - The Joint Venture Agreement shall in all respect be governed by and interpreted in accordance with Indian Laws.



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- 65.13** Authorized Member - Joint Venture members shall authorize one of the members on behalf of the Joint Venture Firm to deal with the tender, sign the agreement or enter into contract in respect of the said tender, to receive payment, to witness joint measurement of work done, to sign measurement books and similar such action in respect of the said Tender/contract. All notices/correspondences with respect to the contract would be sent only to this authorized member of the JV Firm.
- 65.14** No member of the Joint Venture Firm shall have the right to assign or transfer the interest right or liability in the contract without the written consent of the other members and that of the employer (DFCCIL) in respect of the said tender/contract.
- 65.15** Documents to be enclosed by the JV Firm along with the tender :
- 65.15.1** In case one or more of the members of the JV Firm is/are partnership firm(s), following documents shall be submitted :
- (a) Notary certified copy of the Partnership Deed,
 - (b) Consent of all the partners to enter into the Joint Venture Agreement on a stamp paper of appropriate value (in original).
 - (c) Power of Attorney (duly registered as per prevailing law) in favour of one of the partners of the partnership firm to sign the JV Agreement on behalf of the partnership firm and create liability against the firm.
- 65.15.2** In case one or more members is/are Proprietary Firm or HUF, the following documents shall be enclosed :
- Affidavit on Stamp Paper of appropriate value declaring that his/her Concern is a Proprietary Concern and he/she is sole proprietor of the Concern OR he/she is in position of "KARTA" of Hindu Undivided Family (HUF) and he/she has the authority, power and consent given by other partners to act on behalf of HUF.
- 65.15.3** In case one or more members is/are limited companies, the following documents shall be submitted :
- a) Notary certified copy of resolution of the Directors of the Company, permitting the company to enter into a JV agreement, authorizing MD or one of the Directors or Managers of the Company to sign JV Agreement, such other documents required to be signed on behalf of the Company and enter into liability against the company and/or do any other act on behalf of the company.
 - b) Copy of Memorandum and Articles of Association of the Company.
 - c) Power of Attorney (duly registered as per prevailing law) by the Company authorizing the person to do/act mentioned in the para (a) above.
- 65.15.4 Deleted**
- 65.16 Credentials & Qualifying Criteria :** Technical and financial eligibility of the JV Firm shall be adjudged based on satisfactory fulfillment of the following criteria :



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65.16.1 Technical Eligibility Criteria :As defined in Preamble and General Instructions totenderers.

65.16.2 Financial Eligibility Criteria : As defined in Preamble and General Instructions totenderers.

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SPECIAL CONDITIONS OF CONTRACT

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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 contract, Engineer shall be deciding authority with regard to the intention of the provision and decision of Engineer will be final and binding on the contractor.
- 1.5.3** **Scheme of work:-** Within a period of 30 days beginning from the date of issue of Letter of Acceptance of Tender, the Contractor shall submit the detailed time schedule for execution of work and various documents enumerated in tender papers to the employer.
- 1.5.4** **Quality Assurance Plan for Substructure and foundation**
All materials used in the work shall be of the best quality as per codes. Quality Assurance Plan shall include for materials used and for workmanship of work. The contractor shall submit Quality Assurance Plan for the substructure and foundation. The contractor shall also ensure that the Employer's prescribed Quality Assurance Standards are rigidly followed in for the construction of substructure and foundation. These are to be approved from the client / DFCCIL
- 1.5.5** **Quality Assurance Plan for Superstructure including bearings**
- (a) All materials used in the work shall be of the best quality as per codes / Specifications respective IS Quality Assurance Plan shall include for materials used and for workmanship of work. Quality Assurance Plan shall also be prepared for erection of RCC Box.
- (b) The contractor shall ensure quality at all necessary points, whether at manufacturer's works, or in his depot or at work site as well as during erection through Quality Assurance Plan.
- (c) The Contractor shall adopt a suitable Quality Assurance Programme according to approved instructions, drawings, specifications, etc.
- 1.5.6** **Expenses of Employer' Representative** – All the expenses of Engineer's representative shall be borne by the Employer whether the inspected material is finally utilised in work or not.
- 1.5.7** The decision of the Engineer shall be final in respect of acceptability or otherwise of any material, fittings, component or equipment required for the work.

1.5.8 This programme of the Contractor shall generally cover the followings: -

1.5.8.1 The organization to manage and implement the Quality Assurance programme.

1.5.8.2 The documentation control system:

- (i) Basic control system.
- (ii) Adopted at manufacturer's work
- (iii) Adopted at the Contractor Depot and work site.

1.5.8.3. Procedure adopted for:

- (i) Source Inspection.
- (ii) Incoming raw material inspection.
- (iii) Verification of material purchased.
- (iv) Site erection controls.

1.5.8.4 Inspection and Test Procedure for:

- (i) Manufacture and quality control procedure.
- (ii) Field activity.

1.5.8.5 System of handling and storage.

1.5.8.6 System of quality audit.

1.5.8.7 System of maintenance of records.

1.5.8.8 For the purpose of obtaining 'On Account Payment', the Contractor shall submit along with the invoice, the documents indicated in the prescribed quality Assurance standards which should inter alia cover the following as may be applicable in each case.

- (i) Material test reports on raw materials used.
- (ii) Material type and routine test report on components specification.
- (iii) Inspection Plan with reports of the inspection Plan check points.
- (iv) Routine test report.
- (v) Factory test results as required under the specification.
- (vi) Quality audit report including test check report of Employer's representative if any.

1.5.9 Traffic Blocks / Power Blocks / Shut Down:

- (a) The contractor shall obtain Power / Traffic / Shut down in the name of authorized representative of DFCCIL. Engineer/Engineer's representative will facilitate to make arrangements to obtain power blocks / shutdown (hereinafter referred to as blocks) for works to be carried out along or adjacent to the track work. Works such as foundations of abutments/piers shall generally be done without blocks. However if block is required due to safety considerations, the construction shall be done under block. The requirement of shut down, power blocks etc. shall be assessed by the contractor and will be submitted to the Engineer/Engineer's representative. All the erection of girders etc. shall be done under minimum power block/shut down. Contractor

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will arrange minimum two gangs of labours i.e. expert of TR line fitters, Semi skilled fitters, labours etc. with supervisors and sufficient tools and tackles required as per site conditions. Work will be done day & night with war foot level with the approval of the Engineer/Engineer's representative.

- (b) Blocks will be granted during day & night hours continuous. The Contractor shall confirm that he will equip himself to carry out all construction during night blocks efficiently by suitable special lighting equipments without any extra cost.
- (c) Block period shall be counted from the time the TR-line is placed at the Contractor's disposal at the work-spot till it is cleared by the Contractor.
- (d) Blocks will be subject to normal operating conditions and rules of the Railway. All formalities of exchanging private number etc with the traffic control/traction power controller will be carried out by the Engineer staff and for this purpose the Engineer will depute a representative for each ROB, who

will be responsible for imposing power blocks/shut down and also removing the same after men, material and equipment have been cleared by the Contractor from running tracks and the same declared safe for traffic by Engineer/Engineer's representative in case of works involving safety of running tracks.

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

1.5.10 Work By Other Agencies

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



1.5.11 Infringement of patents:

- (a) The Contractor is forbidden to use any patents or registered drawings, process or pattern in fulfilling his contract without the previous consent in writing of the owner of such patent, drawing, pattern or trade mark, except where these are specified by the Employer himself. Royalties where payable for the use of such patented processes, registered drawings or patterns shall be borne exclusively by the Contractor. The contractor shall advise the Employer of any proprietary right that may exist on such processed drawings or patterns which he may use of his own accord.
- (b) In the case of patent taken out by the Contractor of the drawings or patterns registered by him, or of those patents, drawings, or patents for which he holds a licence, the signing of the Contract automatically gives the Employer the right to repair by himself the purchased articles covered by the patent or by any person or body chosen by him and to obtain from any sources he desires the component parts required by him in carrying out the repair work. In the event of infringement of any patent rights due to above action of the Employer, he shall be entitled to claim damages from the contractor on the grounds of any loss of any nature which he may suffer e.g. in the case of attachment because of counterfeiting.
- (c) **Indemnification by contractor:-** In the event of any claim or demand being made or action being brought against the Employer for infringement of later patent in respect of any equipment, machine, plant, work or thing used or supplied by the Contractor under this contract or in respect of any methods of using or working by the Employer of such equipment machine, plant work or thing, the contractor shall indemnify the employer and keep him indemnified and harmless against all claims, costs, charges and expenses arising from or incurred by reason of such claim provided that the Employer shall notify the contractor immediately any claim is made and that the contractor shall be at liberty, if he so desires with the assistance of the Employer if required but at the Contractor's expense, to conduct all negotiations for the settlement of the same or any litigation that may arise there from and provided that no such equipment, machine, plant work or thing, shall be used by the Employer for any purpose or in any manner other than that for which they have been supplied by the Contractor and specified under this contract.

1.5.12 Insurance:-

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

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

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

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

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

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

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

1.5.13 Accident:-

- (a) The contractor shall, in respect of all staff engaged by him or by his sub-contractor, indemnify and keep the employer at all times indemnified and protected against all claims made and liabilities incurred under Workman's Compensation Act, the Factories Act and the Payment of Wages Act, and rules made there under from time to time or under any other labour and Industrial Legislation made from time to time.
- (b) The contractor shall indemnify and keep the employer indemnified and harmless against all actions, suits, claim demands, costs, charges or expenses arising in connection with any death or injury sustained by any person or persons sustained due to the acts or omission of the contractor, his sub-contractors, his agents or his staff during the executions of this contract irrespective of whether such liability arises under the Workman's Compensation Act, or Fatal Accident Act or any other statute in force for the time being.

- (c) The contractor's liability to meet third party claims of the type outlined above will be applicable only in cases where accidents have been caused by workmanship, material, execution or negligence on the part of the contractor and further the liability of the contractor will be limited to Rs.5 lakh for any one accident.
- (d) The contractor shall be responsible for all repairs and rectification of damages to completed works or works under execution due to DFCCIL accidents, thefts, pilferage or any other cause, without delay to minimize or to avoid traffic detentions, in a section until the installation are provisionally handed over to the employer.

1.5.14 Safety Measures:-

- (a) The contractor shall take all precautionary measures in order to ensure the protection of his own personnel moving about or working on the railway premises, but shall then conform to the rules and regulations of the Railway if and when, in the course of the work there is likely to be any danger to persons in the employment of the contractor due to running traffic while working in the Railway siding and premises, the contractor shall provide flagman or look out men for protection of such persons. The employer shall remain indemnified by the contractor in the event of any accident occurring in the normal course of work, arising out of the failure of contractor or his men to exercise reasonable precaution at all places of work.
- (b) Blasting of rocks for foundation work shall be done only after due notice is given to the employer and time/s and date /s for blasting operations agreed to by the employer. Blasting, if required to be done in the vicinity of the track, shall not be undertaken until the Employer's flagmen on duty take necessary step to protect trains and the track is adequately protected by the contractor against damage by blasted rock. The contractor shall follow detailed instructions which will be issued to him regarding blasting operations in the vicinity of tracks.
- (c) The contractor shall abide by all Railway regulations in force for the time being and ensure that the same are followed by his representatives, Agents or sub-contractors or workmen. He shall give due notice to his employees and workers about provision of this para.
- (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 Railway, in such a way that they do not hinder Railway operation or affect the proper functioning of or damage any DFCCIL equipment, structure or rolling stock except as agreed to by the employer, provided that all damage and disfiguration caused by the contractor at his own cost failing which cost of such repairs shall be recovered from the contractor
- (e) If safety of track or track drainage etc. is affected as a consequence of works undertaken by the contractor, the contractor shall take immediate steps to restore normal conditions. In case of delay, the employer shall, after giving due notice to the contractor in writing, take necessary steps and recover the costs from the contractor.

1.5.15 Guarantee / Defect Liability Period:-

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

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

- (e) The repaired or renewal parts structure shall be delivered / supplied and erected / executed on site free of charge to the employer.

- (f) Any materials, fittings, components or equipments / structure supplied under items for supplying / providing and fixing in schedule shall also be covered by the provisions of this paragraph. The liability of the Contractor under the guarantee will be limited to re-supply of components / structure installation and fittings.

1.5.16 Final Acceptance:-

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

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

1.5.17 Payment:-

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

- (i) The Contractor shall, whenever required, produce or cause to be produced for examination by the Employer any quotation / invoice, cost of other account,

book of account, voucher, receipt letter, memorandum paper or writing or any copy of or extract from any such document and also furnish information and returns verified in such manner as may be required in anyway relating to the execution of this contract or relevant for verifying or ascertaining the cost of the execution of this Contract (the decision of the employer on the question of relevancy of any documents, information or return being final and binding on the parties). The Contractor shall similarly produce vouchers etc., if required, to prove to the Employer that materials supplied by him are in accordance with the specifications laid down in the contract.

- (ii) If any portion of the work be carried out by a sub-contractor or any subsidiary or allied firm or company the Employer shall have power to secure the books of such sub-contractor or any subsidiary or allied firm or company, through the Contractor, and such books shall be open to his inspection. The Contractor should seek prior permission from the employer for subletting whole and/or part of the work to any sub-contractor.
- (iii) The obligations imposed by sub-clause (i) and (ii) above are without prejudice to the obligation of the Contractor under any statute, rules or order binding to the Contractor or other conditions of the contract.
- (iv) It is an agreed term of the contract that the employer reserves the right to carry out post-payment Audit and/or technical examination of the works and the final bill, including all supporting vouchers, abstracts etc. and to make a claim on the Contractor for the refund of any excess amount paid to him if as a result of such examination any over payment to him is discovered to have been made in respect of any work done or alleged to have been done by him under the contract.

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

1.5.19 Performance Guarantee:-

- (i) The Bank Guarantee for performance Guarantee shall remain valid until a date 60 days (or as specified in the Contract) after expiry of Defects Liability Period.
- (ii) The Bank Guarantee for performance Guarantee shall be submitted invariably in the format given in the bidding document.
- (iii) The performance Guarantee shall be released 21 days after issue of performance certificate.

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

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- (a) The Tenderer/Contractor may be granted a recoverable interest bearing mobilization advance upto 10% of the contract value provided mobilization advance is admissible as per the tender conditions and he specifically applies for it while tendering. If the tenderer fails to apply specifically for Mobilization Advance while giving his offer at the tendering stage in case where grant of Mobilization Advance is permissible, no subsequent requests from him for grant of this advance will be entertained. The rate of interest is 4.5% per annum above the Base Rate of State Bank of India, as effective on the date of approval of payment of Mobilization Advance by the competent authority.
- (b) The advance will be granted in two instalments viz., 5% of the contract value on signing of the contract agreement and the balance 5% on Mobilization of site establishment, setting up offices, bringing in equipment and actual commencing of work. Each instalment will be released on submission of a security in a form acceptable to the DFCCIL (similar to Performance Guarantee notified in Clause 16.(4) (b) of General conditions of contract for the amount of the at least 110% of the value of the sanctioned advance amount covering instalment together with interest charges calculated upto the end of the contract period. The tenderer who seeks Mobilization Advance should be specific about the course of action proposed to be followed in producing the security to the satisfaction of the Railway. Each security should be at least not less than one lakh rupees. These securities shall be returned as and when the value of the advance plus interest is recovered from the running bill.
- (c) The recovery of the advance and interest thereon will be made through the every on account bills, pro-rata, commencing from the time the value of the work executed under the contract reaches 15% of the contract value and completed when the value of the work executed under the contract reaches 85% of the contract value or assessed value whichever is less.
- (d) The Mobilization Advance granted shall be returned back to the DFCCIL in case the work is not completed in the original contract completion period.
- (e) The Bank Guarantee shall be from a Nationalized Bank in India or State Bank of India, in a form acceptable to DFCCIL. (Tender Form No. 19 placed at Part IV of the tender documents).

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

1.5.21 Arbitration:- Refer to clause 63 of GCC.



TECHNICAL SPECIFICATION

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PART - II

TECHNICAL SPECIFICATIONS

For technical specifications, refer East Central Railways Unified Standard Specifications (Works and Materials), 2012.amendedupto date.

Indian Railways Unified Standard Specifications (Works and materials), are available for sale at the offices of General Managers and DRMs at all Zonal Railways & Production Units.

2.1 GENERAL GUIDELINES REGARDING SPECIFICATIONS AND SPECIAL CONDITIONS FOR SUPPLY OF CEMENT FOR CONSTRUCTION WORKS

2.1.1 SUPPLY OF CEMENT:

2.1.1.1 Supply of cement to various specifications as required for various items under different schedules will be paid under the items in Schedule.

2.1.1.2 The cement required for various items of work under Schedule shall be supplied by the Contractor at the site of work in accordance with the requirements and specifications.

2.1.1.3 For supply and use of cement in various works, relevant Indian Railways Unified Standard Specifications (Works and Materials), Volume I & II - 2010, IRS codes and IS Specifications will be applicable. Wherever, relevant specifications are not available, decision of the Engineer shall be final and binding on the contractor.

2.1.2 SPECIFICATIONS FOR CEMENT:

2.1.2.1 Depending upon grade of cement to be used as per specification and contract conditions, relevant IS/IRS specifications shall be applicable as under:-

- (i) 33 Grade Ordinary Portland Cement conforming to IS: 269
- (ii) 43 Grade Ordinary Portland Cement conforming to IS: 8112
- (iii) 53 Grade Ordinary Portland Cement conforming to IS: 12269
- (iv) Rapid Hardening Ordinary Cement conforming to IS: 8041
- (v) High Strength Portland Cement conforming to IRS: T: 40
- (vi) Hydrophobic Portland cement conforming to IS: 8043
- (vii) Low heat Portland cement conforming to IS: 12600
- (viii) Sulphate Resistance Cement conforming to IS: 12330

2.1.3 SOURCE AND PACKAGING:

2.1.3.1 Cement to be used on the works shall be procured from the main / reputed cement plants or from their authorized dealers. Decision of DFCCIL regarding reputed firms shall be final and binding on the contractor.

2.1.3.2 Cement shall be packed in jute sacking bags conforming to IS: 2580-1982, double hessian bituminised (CRI type) or woven HDPE conforming to IS: 11652-1986, woven polypropylene conforming to IS: 11653:1986, Jute synthetic union conforming to IS: 12174:1987, or any other approved composite bags, bearing the following information in legible markings:

- (i) Manufacturer's name or Registered Trade Mark of manufacturer, if any.
- (ii) Grade of cement
- (iii) Type of cement
- (iv) Weight of each bag in Kg.
- (v) Date of manufacture,
- (vi) IS Code No. to which the cement conforms.

2.1.3.3 All cement bags shall have company stitches intact and if any sign of tampering with company stitches is noticed, the same will be rejected without any test and no compensation shall be payable in this regard.

2.1.4 TEST CERTIFICATE REGARDING QUALITY OF CEMENT:

2.1.4.1 Necessary test certificates will have to be produced by the contractor regarding the quality of the cement conforming to the specification in addition to the manufacturer's certificates.

2.1.4.2 DFCCIL reserves the right to take samples during the course of the work and get the cement tested in reputed laboratories to ascertain the conformity to the specification. Cost of such testing shall be borne by the contractor without any extra payment.

2.1.4.3 Tests on cement shall be done as per relevant IS Codes. These tests are as follows:

- (i) Compressive strength
- (ii) Initial and final setting time
- (iii) Consistency
- (iv) Soundness.
- (v) Fineness

2.1.4.4 The Contractor shall arrange to carry out above tests for every 100 Tonnes of cement and for every change in lot/batch and the same shall be submitted to the DFCCIL and take approval of the DFCCIL before using in work. No extra payment will be made for conducting such tests.

2.1.4.5 Any temporary structure required for storage of cement, has to be provided by the tenderer at his cost and shall be removed after completion of work. The DFCCIL will only provide suitable land wherever land is available and is free for use. On completion of the work or as directed by the Engineer, the shed if put up by the Contractor, should be removed by the contractor and site cleared at his cost.

2.1.5 CONSUMPTION OF CEMENT:

2.1.5.1 The cement consumption for other than design mix concrete, shall be as per East Central Railway Unified Standard Schedule of Rates (Works and Materials), Engineering Department - 2010 and for approved design mix concrete, the quantity of cement will be decided based on the approved design mix keeping in mind Minimum and Maximum cement content specified for various grades. Excess cement used will not be paid for and the decision of the Engineer in this connection shall be final and binding on the Contractor.

2.1.6 PAYMENT FOR CEMENT:-

Cement supplied for the work and measured under the Schedule will be paid only after its use in various works under the Schedules of the contract as per conditions and no advance payment for supply will be admissible.

2.1.7 GENERAL:-

2.1.7.1 No wastage of any of the materials supplied and used in the work by the contractor including cement is payable by DFCCIL, contractor shall make his own arrangements for storing cement for use in work.

2.1.7.2 Contractor should take proper precautionary measures to store the cement in good condition against rains, etc. Storage of cement at the work site shall be at the contractor's expense and risk. Any damage occurring to cement due to faulty storage in contractor's shed or on account of negligence on his part shall be the liability of the contractor.

2.1.7.3 53 Grade/43 Grade/33 Grade of cement should be stacked separately in countable manner.

2.1.7.4 Admixture as per IS: 9103 of approved manufacturer by the Engineer shall be permitted to be used in concrete wherever required. However, no extra payment for the admixtures used shall be payable unless otherwise specified in the Schedule.

2.1.7.5 Cement for temporary and enabling works shall be arranged by the contractor at his own cost and no extra payment will be paid on this account.

2.1.7.6 Empty Cement bags on release from the work is the property of the Contractor and shall be disposed off by the Contractor himself.

2.2 GENERAL GUIDELINES REGARDING SPECIFICATIONS AND SPECIAL CONDITIONS FOR CONCRETE WORKS

2.2.1 Specifications:-

2.2.1.1 Concrete for PCC, RCC (Including piling and RCC deck slab) shall be as per relevant Indian Railway Unified Standard Specifications (Works & Materials), Engineering Department, 2012 and IS Specifications. Some important guide lines are listed below. Along with these, all other relevant IRS, IRC and IS specifications with their up to date versions shall also govern. These govern all concrete works in bridges, etc., as applicable.

- (i) IRS Concrete Bridge Code.
- (ii) IS 456: Code of Practice for Plain and Reinforced Concrete.
- (iii) Relevant Indian Railway Unified Standard Specifications (Works & Materials), Engineering Department, 2012
- (iv) Relevant IRS/IRC/IS Specifications/Codes

2.2.1.2 Specifications for cement, steel, binding wire, used in concrete construction shall be as per IRS/IRC/IS specifications. Any other specifications/rules/guidelines issued from time to time by Railway Board/RDSO shall also govern the works.

2.2.1.3 In all matters of execution, including testing of various components, where the above codes/specifications/guidelines are not clear or explicit or at variance, the directions given by the Engineer shall be final and binding on the contractor.

2.2.2 Cement:-

2.2.2.1 The cement used in concrete construction shall be 43 Grade Ordinary Portland cement as per the design and as specified in the relevant schedules. Specifications for cement are covered under the supply schedule.

2.2.3 Reinforcement:-

2.2.3.1 All Reinforcement Steel (TMT Bars of Grade Fe 500) shall be procured as per specification mentioned in IS: 1786. Independent tests shall be conducted, wherever required, to ensure that the materials procured conform to the Specifications.

These steel shall be procured only from those firms, which are Established, Reliable, Indigenous & Primary Producers of Steel, having Integrated Steel Plants (ISP), using iron ore as the basic raw material and having in – house iron rolling facilities, followed by production of liquid steel and crude steel, as per Ministry of Steel's guidelines.

2.2.3.2 Bars shall be cut, bent and placed correctly and accurately to the size and shape as shown in the detailed drawing. Preferably bars of full length shall be used. The reinforcement shall be tied with annealed steel binding wire. Overlapping of bars, where necessary, shall be done as directed by Engineer. Rates quoted include the cost of annealed steel binding wire of appropriate specifications. Rate also include necessary cutting and straightening is also included.

2.2.3.3 Welding of reinforcement will not be generally permitted except in special circumstances under the written approval of the Engineer.

2.2.3.4 A register shall be maintained by the Contractor with full details of reinforcement provided for accountal and payment of steel reinforcement. The contractor should sign a similar such register maintained by DFCCIL before undertaking concreting works, as a token of acceptance of the details of reinforcement steel provided in works, failing which the details as recorded by DFCCIL shall be binding on the contractor for the purpose of payment and no dispute will be entertained by DFCCIL on this account.

2.2.3.5 Contractor shall remove from site any steel materials rejected by the Engineer within a reasonable time as specified by him.

2.2.3.6 Protective Coatings:- In order to offer adequate resistance against corrosion, reinforcement bars may be provided with suitable protective coatings depending upon the environmental conditions In aggressive environments (severe, and extreme) application of cement slurry coating after removal of rust and other loose material from the surface of the reinforcement bar will generally be sufficient.

2.2.3.7 The steel consumption shall be as per the drawings issued by the DFCCIL. Quantity of steel reinforcement consumption shall be as per reinforcement actually utilized in the work based on approved bar bending schedule. Nothing extra will be paid for wastage or for cut rods, if any, which will be property of the contractor. The weight

of the steel will be calculated from the nominal weight given in the producer's hand / IRUSS (W & M), 2010-Volume-I books.

2.2.4 Coarse & Fine Aggregates:-

2.2.4.1 Aggregates shall comply with the requirements of IS: 383 and shall be subjected to the tests in accordance with IS: 2386. Coarse aggregates shall be from crushed stone from approved quarries. Sand shall be from good river sources of approved quarries only.

2.2.4.2 The size of the coarse aggregates shall be as per relevant IRS / IS specifications.

2.2.4.3 The size of the fine aggregates shall be as per relevant IRS / IS specifications.

2.2.4.4 Coarse aggregate shall be crushed and roughly cubical in shape. Fine aggregate shall be naturally produced. Creek/ Marine sand shall not be used in permanent works.

2.2.4.5 The grading of the sand shall conform to relevant IS specification. The sand shall be screened on a 4.75 mm size screen to eliminate over size particles. The sand, if required, shall be washed in screw type mechanical washers in potable water to remove excess silt, clay and chlorides wherever required. The screening and washing of sand shall be completed at least one day before using it in concrete. The washed sand shall be stored on a sloping platform and in such a manner as to avoid contamination.

2.2.5 Water:-

2.2.5.1 Water used for washing of aggregates and for mixing and curing concrete shall be clean, potable and free from injurious amounts of oils, acids, alkalis, salts, sugar, organic materials or other substances that may be deleterious to concrete or steel and shall conform to clause 5.4 of IS : 456.

2.2.5.2 In case of doubt regarding development of strength, the suitability of water for making concrete shall be ascertained by the compressive strength as per IS : 4031 (Part VI) and initial setting time tests IS : 4031 (Part V).

2.2.5.3 Water found satisfactory for mixing is also suitable for curing concrete. However, water used for curing should not produce any objectionable stain or unsightly deposit on the concrete surface. The presence of tannic acid or iron compounds is objectionable.

2.2.6 Admixtures:-

2.2.6.1 In bridges, use of admixtures is governed by clause 4.4 of IRS Concrete Bridge Code.

2.2.6.2 The admixtures, when permitted, shall conform to IS: 9103. Calcium chloride or admixtures containing calcium chloride shall not be used in structural concrete containing reinforcement, prestressing tendon or other embedded metal. The admixture containing Cl⁻ & SO₃ ions shall not be used. Admixtures containing nitrates shall also not be used. Admixtures based on thiocyanate may promote corrosion and therefore shall be prohibited.

2.2.6.3 Concrete admixtures shall be obtained only from established manufactures with proven track record or as per approved list wherever available.

2.2.6.4 The contractor shall provide the following information concerning each admixture after obtaining the same from the manufacturer before the same is put to use:

- (a) The chemical names of the main ingredients in the admixtures.
- (b) The chloride iron content, if any, expressed as a percentage by mass of the total admixture.
- (c) Values of dry material content, ash content and relative density of the liquid admixture which can be used for Uniformity Tests.
- (d) Whether or not the admixture leads to the entrainment of air when used as per the manufacturer's recommended dosage, and if so to what extent.
- (e) Where two or more admixtures are proposed to be used in any one mix, confirmation as to their compatibility.
- (f) There would be no increase in risk of corrosion of the reinforcement or other embodiments as a result of using the admixture.
- (g) Retardation achieved in initial setting time.
- (h) Normal dosage and detrimental effects, if any, of under dosage and over dosage.
- (i) Recommended dosages and expected results, including proof for the same wherever required. Independent test results shall be produced by the contractor on demand/as specified.

2.2.7 Storage of materials:-

2.2.7.1 Storage of materials shall be as per IS: 4082. All materials may be stored at proper places so as to prevent their deterioration or intrusion by foreign matter and to ensure their satisfactory quality and fitness for the work. The storage space must also permit easy inspection, removal and restoring of the materials. All such materials even though stored in approved godowns / places, must be subjected to acceptance test prior to their immediate use.

2.2.7.2 Aggregate shall be stored at site on a hard and dry level patch of ground. If such a surface is not available, a platform of planks or of corrugated iron sheets, or a floor of dry bricks, or a thin layer of lean concrete shall be made so as to prevent the admixture of clay, dust, vegetable and other foreign matter.

Stacks of fine and coarse aggregate shall be kept in separate stack piles, sufficiently removed from each other to prevent the materials at the edge of the piles getting intermixed. On a large job it is desirable to construct dividing walls to give each type of aggregate its own compartment. Fine aggregate shall be stacked in place where loss due to the effect of wind is minimum.

Unless specified otherwise or necessitated by site conditions, stacking of aggregate should be carried out in regular sizes.

2.2.7.3 Cement shall be transported, handled and stored at the site in such a manner as to avoid deterioration or contamination. Cement shall be stored above ground level in perfectly dry and water-tight sheds and shall be stacked not more than eight bags high. Wherever bulk storage containers are used their capacity should be sufficient

to cater to the requirement at site and should be cleaned at least once every 3 months. Cement older than 3 months from the date of manufacture shall not be used. Each consignment shall be stored separately so that it may be readily identified and inspected and cement shall be used in the sequence in which it is delivered at site. Any consignment or part of a consignment of cement which had deteriorated in any way, during storage, shall not be used in the works and shall be removed from the site by the Contractor without charge to DFCCIL. For more details regarding stacking and storage of cement, refer clause 17.10.1, 17.10.2 and 26.1.2.7 of Indian Railway Unified Standard Specifications (Works & Materials), Volume II, - 2010.

2.2.7.4 The reinforcement bars, when delivered on the job, shall be stored above the surface of the ground level by at least by 150mm and shall ordinarily be stored in such a way as to avoid distortion and to prevent deterioration and corrosion. Every bar shall be inspected before assembling on the works and any defective, brittle, excessively rusted or burnt bars shall be removed. Cracked ends of bars shall be cut out.

2.2.8 Testing of cement & others:-

Cement and other items shall be tested as per specifications. However, the contractor shall also arrange for additional tests at his own cost as required by the Engineer as and when required. The decision of the Engineer shall be final in this regard.

2.2.9 Concreting:

2.2.9.1 The contractor shall make his own arrangements for supply of water and electricity for all his works at his own cost. He shall arrange potable quality water for use in all concrete works and samples of water shall be got tested from approved laboratory/approved by the Engineer before being used in concreting. Apart from water, fine & coarse aggregates and all other materials shall be tested from time to time by the contractor at his cost to ensure proper quality works.

2.2.9.2 Maximum / minimum size of aggregates, standards of quality of materials, minimum cover for concrete, use of admixtures / chemicals, treatment to reinforcement / finished surfaces, etc., shall be as per relevant Codes, IS / IRS specifications and conditions of contract as specified.

2.2.9.3 All exposed concrete surfaces shall be finished smooth by the contractor at his own cost. Shuttering materials for RCC in superstructure shall be strictly of steel only to permit vigorous vibration and to ensure no deviation of finished dimensions by more than +5/-0mm(s) and wooden shutters are not permitted. For other works also, proper quality of shuttering materials which will permit vibrating and will not require additional finishing shall only be used. If there is any variation in the surface, alignment or lines in the products beyond permissible rejection limits indicated in these conditions, the DFCCIL reserves the right to reject the same and the contractor shall not have any claim in this regard and cost of DFCCIL materials involved will be recovered from the contractor including penalties, if any imposed.

2.2.10 Weigh batching, vibrating, curing & testing:

2.2.10.1. All concrete shall be machine batched, machine mixed and machine vibrated, by using appropriate vibrators. Weigh batching plant, mixers, vibrators, etc., of appropriate capacity, as specified/directed by the Engineer, shall be arranged by the contractor at his cost. In this case, Weigh batching plants shall have computerized control for weighing, loading, mixing and delivery.

2.2.10.2. Batching plants, transit mixers, concrete pumps, etc., shall be installed by the contractor necessarily at site. In case of failure of any of the above, standby arrangements for ensuing continuous concreting has to be provided by the contractor at his cost. For piling works concreting shall be done continuously as per the volumes designed without break and accordingly standby arrangements shall be ensured by the contractor.

2.2.10.3. Curing & vibrating shall be arranged by the contractor at all locations/heights at his own cost and no extra payment on this account will be admissible. Curing of concrete shall be done as per relevant IS Codes / Specifications. If curing is not done by the contractor properly, DFCCIL may get it done through any other means at the Contractor's cost without any notice to him and recover from his bills the same including penalty if any at the discretion of the Engineer. The concrete shall be kept wet constantly by ponding or covered with a layer of sacking canvas etc.

2.2.10.4. Test cubes shall be cast at regular intervals and tested to ascertain the strength of concrete. The contractor shall establish a cube testing facility along with operator at the site or nearby area to facilitate prompt testing of concrete. Test cube moulds as required as per IS Codes shall be made available by the contractor at his cost.

2.2.11 Design Mix Concrete:

- (a) **General:** Design Mix is mandatory for grades higher than M20. For concrete of compressive strength greater than M55, specialized literature should be consulted. Admixtures may be used while designing. Only design mix shall be used for all items of concrete. Prior to the start of construction, the contractor shall submit details of each trial mix of each grade of concrete to the Engineer for approval. When the proportions of the mix are approved, the contractor shall not vary any of the design parameters or the source of the materials without the approval of the Engineer. Wherever there is a significant change in materials used fresh trial mix shall be arranged by the contractor as required by the Engineer. The concrete shall be designed keeping in view the minimum cement content and maximum cement content. Minimum cement content depends upon the environmental exposure conditions but maximum Cement Content shall be limited to 500kg/m.³

- (b) **Mix Design and Proportioning:** Recommended guidelines for Concrete Mix Design are given in IS: 10262 which may be referred to for details. As mentioned therein in order that not more than the specified proportion of test results is likely to fall below the characteristic strength, the concrete mix has to be designed for a somewhat higher target average compressive strength. In terms of clause 9.2.2 of IS : 456, the Target Mean Strength of Concrete mix should be equal to the characteristic strength plus 1.65 times the Standard Deviation. Mix proportion shall be designed to ensure that the workability of fresh concrete is suitable for conditions of handling and placing, so that after compaction it surrounds all reinforcement and completely fill the form work. When concrete is hardened, it shall have the stipulated strength, durability and impermeability.

Determination of the proportions of by weight of cement, aggregate and water shall be based on design mix.

As a trial the manufacturer of concrete may prepare a preliminary mix according to provisions of SP: 23-1982. (Special Publications 23-1982 of Bureau of Indian Standards) Mix design shall be tried and the mix proportions checked on the basis of tests conducted at a recognized laboratory approved by the Engineer. All concrete proportions for various grades of concrete shall be designed separately and mix proportions established keeping in view the workability for various structural elements, methods of placing and compacting.

- (c) **Standard deviation:** Standard deviation calculations of test results based on tests conducted on the same mix design for particular grade designation shall be done in accordance with Clause 9.2.4 of IS 456. Table 8 of IS 456 gives the standard deviation that can be assumed for design of mix in the first instance. The final standard deviation figures may be determined based on test results for the particular grade of concrete when available.

Max size of Aggregate, Target Mean Strength			
Grade of Concrete	Max size of Aggregate (mm)	Characteristic Strength (f_{ck}) at 28 days (N/mm^2)	Target Mean Strength (f_{ck}) 28 days (N/mm^2)
M20	20	20	26.60
M25	20	25	31.60
M30	20	30	38.25
M35	20	35	43.25
M40	20	40	48.25
M45	20	45	53.25

- (d) **Approval of Design Mix:** The contractor shall submit details of each trial mix of each grade of concrete designed for various workability conditions to the Engineer for his comments and approval. Concrete of any particular design mix and grade shall be produced / manufactured for works only on obtaining written approval of the Engineer.

2.2.12 Requirements of Consistency:-The mix shall have the consistency which will allow proper placement and consolidation in the required position. Every attempt shall be made to obtain uniform consistency. The optimum consistency for various

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types of structures shall be as indicated in table below or as directed by the Engineer.

Slump Required for workability		
	Type	Slump (mm)
1	(a) Structures with exposed inclined surface requiring low slump concrete to allow proper compaction	25
	(b) Plain Cement Concrete	25
2	RCC structures with widely spaced reinforcements; e.g. solid columns, piers, abutments, footings, well steining	40-50
3	RCC structures with fair degree of congestion of reinforcement; e.g. pier and abutment caps, box culverts well curb, well cap, walls with thickness greater than 300mm	50-75
4	RCC and PSC structures with highly congested reinforcements e.g. deck slab girders, box girders, walls with thickness less than 300mm	75-125
5	Underwater concreting through tremie e.g. bottom plug, cast-in-situ piling	100-200



The minimum slump of concrete in case of bored cast in situ pile shall be 150 to 200 mm.

2.2.13 Durability

The durability of concrete depends on its resistance to deterioration & environment in which it is placed. The resistance of concrete to weathering, chemical attack, abrasion, frost and fire depends largely upon its quality and constituent materials. Susceptibility to corrosion of the steel is governed by the cover provided and the permeability of concrete. The cube crushing strength alone is not a reliable guide to the quality and durability of concrete; it must also have adequate cement content and a low water-cement ratio. The general environment to which the concrete will be exposed during its working life is classified into three levels of severity that is moderate, severe, and extreme as described below:

Environment	Exposure condition
MODERATE	Concrete surface protected against weather or aggressive conditions. Concrete surface sheltered from severe rain or freezing whilst wet. Concrete exposed to condensation. Concrete structure continuously under water. Concrete in contact with non aggressive soil /ground water.
SEVERE	Concrete surface exposed to severe rain, alternate wetting & drying or occasional freezing or severe condensation. Concrete exposed to aggressive subsoil / ground water or coastal environment.
EXTREME	Concrete surface exposed to sea water spray, corrosive fumes or severe freezing conditions whilst wet. Concrete structure surfaces exposed to abrasive action, surfaces of members in tidal zone. All other exposure conditions which are adverse to exposure conditions covered above.

Maximum water-cement ratio, grade of concrete and cementitious material content for various environment conditions for achieving durability are indicated below for guidance:

2.2.13.1 Maximum Water Cement Ratio:-

The limits for maximum water cement ratio for design mix shall be based on environmental conditions as defined in durability clause. The limits for maximum water cement ratio for different environmental conditions shall be as given in Table below:

Environment	Maximum Water-Cement Ratio		
	Plain Concrete (PCC)	Reinforced Concrete (RCC)	Pre stressed Concrete (PSC)
Moderate	0.50	0.45	0.40
Severe	0.45	0.40	0.40
Extreme	0.40	0.35	0.35



2.2.13.2 Grade of Concrete:-From durability consideration, depending upon the environment to which the structure is likely to be exposed during its service life, minimum grade of concrete shall be as given in table below:

Minimum Grade of Concrete

(A) For Bridges in Pre stressed Concrete and important Bridges.

Structural member	Moderate exposure	Severe Exposure	Extreme exposure
PCC member	M-25	M-30	M-35
RCC member	M-30	M-35	M-40
PSC member	M-35	M-40	M-45

(B) For Bridges other than mentioned above and sub-structure

Structural member	Moderate exposure	Severe Exposure	Extreme exposure
PCC Member	M-15	M-20	M-25
RCC member	M-20	M-25	M-30

2.2.13.3 Cementitious Material Content:-Maximum Cementitious Material Content shall be limited to 500kg/m³. Depending upon the environment to which the structure is likely to be exposed during its service life, minimum Cementitious Material Content in concrete shall be as given in table below:

Minimum Cementitious Material Content				
Environment	Minimum Cementitious Material Content in Kg/cum			
	Plain Concrete		Reinforced Concrete	
	(PCC)		(RCC)	
	Grade	Content	Grade	Content
Moderate	M25	240	M30	300
Severe	M30	250	M35	350
Extreme	M35	300	M40	400

2.2.13.4 Clear cover is the least distance from outer most surface of steel or binding wire or its end to the face of concrete. It is also an dimension used in design and indicated on the drawings. From durability consideration, minimum clear cover shall be as under.

Minimum Covers			
Type of structure	Extreme Environment	Severe Environment	Moderate Environment
Slab	50	35	25
Beam/Girder	60	50	35
Column	75	75	50
Piles	75	75	50

2.2.14 Permeability of concrete: Permeability requirements are as specified in IRSConcrete Bridge Code. Permeability test shall be mandatory for all RCC bridges under severe and extreme environment. Under moderate environment, permeability test shall be mandatory for all major bridges and for other bridges and structures.

2.2.15 Mixing of concrete:

2.2.15.1 Concrete shall be mixed either in a mini mobile batching plant or in a batching and mixing plant as per the specifications. Hand mixing shall not be permitted. The mixer or the plant shall be at an approved location considering the properties of the mixes and the transportation arrangements available with the Contractor. The mixer or the plant shall be approved by the Engineer.

2.2.15.2 Mixing shall be continued till materials are uniformly distributed and a uniform colour of the entire mass is obtained, and each individual particle of the coarse aggregate shows complete coating of mortar containing its proportionate amount of cement.

2.2.15.3 Mixers which have been out of use for more than 30 minutes shall be thoroughly cleaned before putting in a new batch. The first batch of concrete from the mixer shall contain only two thirds of the normal quantity of coarse aggregate. Mixing plant shall be thoroughly cleaned before changing from one type of mix to another.

2.2.16 Transporting, Placing and Compaction of Concrete:

2.2.16.1 The method of transporting and placing concrete shall be approved by the Engineer. Concrete shall be transported and placed as near as practicable to its final position, so that no contamination, segregation or loss of its constituent materials takes place. Concrete shall not be freely dropped into place from a height exceeding 1.5metre



- 2.2.16.2 When concrete is conveyed by chute, the plant shall be of such size and design as to ensure practically continuous flow. Slope of the chute shall be so adjusted that the concrete flows without the use of excessive quantity of water and without any segregation of its ingredients. The delivery end of the chute shall be as close as possible to the point of deposit. The chute shall be thoroughly flushed with water before and after each working period and the water used for this purpose shall be discharged outside the formwork.
- 2.2.16.3 All formwork and reinforcement contained in it shall be cleaned and made free from standing water, dust, immediately before placing of concrete.
- 2.2.16.4 No concrete shall be placed in any part of the structure until approval of the Engineer has been obtained.
- 2.2.16.5 If concreting is not started within 24 hours of the approval being given, it shall have to be obtained again from the Engineer. Concreting then shall proceed continuously over the area between the construction joints. Fresh concrete shall not be placed against concrete which has been in position for more than 30 minutes unless a proper construction joint is formed.
- 2.2.16.6 Except where otherwise agreed to by the Engineer, concrete shall be deposited in horizontal layers to a compacted depth of not more than 450 mm when internal vibrators are used and not exceeding 300 mm in all other cases.
- 2.2.17 Concrete when deposited shall have a temperature of not less than 5⁰ C and not more than 40°C. It shall be compacted in its final position within 30 minutes of its discharge from the mixer, unless carried in properly designed agitators, operating continuously. It may be necessary to add retarding admixtures to concrete if trials shows that the period indicated above are unacceptable. In all such matters, engineer's decision shall be final.
- 2.2.18 Concrete shall be thoroughly compacted by vibration or other means approved by Engineer, during placing and worked around the reinforcement, embedded fixtures and into corners of the formwork to produce a dense homogenous void-free mass having the required surface finish. When vibrators are used, vibration shall be done continuously during the placing of each batch of concrete until the expulsion of air has practically ceased and in a manner that does not promote segregation. Over vibration shall be avoided to minimize the risk of forming a weak surface layer. When external vibrators are used, the design of formwork and disposition of vibrator shall be such as to ensure efficient compaction and to avoid surface blemishes. Vibrators shall not be applied through reinforcement and where vibrators of immersion type are used, contact with reinforcement and all inserts like ducts etc., shall be avoided. The internal vibrators shall be inserted in an orderly manner and the distance between insertions should be about one and half times the radius of the area visibly affected by vibration. Additional vibrators in serviceable condition shall be kept at site so that they can be used in the event of breakdowns.

2.2.19 Mechanical vibrators used shall be of appropriate specifications, type and capacity and as directed by the Engineer.

2.2.20 Equipment and machinery for concreting:

2.2.20.1 For concrete works, the following equipments in numbers indicated are considered necessary for efficient and speedier concreting at each site. However, the actual numbers may be arranged as required by the Engineer, taking into account the site conditions.

Indicative List of Equipment and Machinery		
1.	Concrete Batching plant (10 to 20 cum/hr capacity)	1 No.
2.	Transit Mixers (4 to 7 cum capacity)	1 Nos.
3.	Concrete Vibrators (2 HP capacity)	2 Nos.
4.	Vibrators of Needles (60mm & 40mm)	2 Nos.
5.	Screed vibrator (for ROBs)	2 Nos.
6.	Form vibrator (500 watts capacity)	2 Nos.
7.	Generator (35 KV capacity)	1 No.
8.	Welding set (3 to 5 KV capacity)	1 No.
9.	Reinforcement Steel Cutting Machine	1 No.
10.	Reinforcement Steel Bending Machine	1 No.
11.	Concrete Pumps (10 to 20 HP capacity with 40m pipe length)	1 No.
12.	Crane/Hydra	1 No.
13.	Concrete Funnel Bucket	1 No.
14.	Air compressor (100 to 150 cum capacity)	1 No.
15.	Concrete Dumpers	2 Nos.
16.	Any other including power lifts etc., as required to suit site	Adequate No.

2.2.20.2 All the machinery are required to be arranged by the contractor at his own cost and the agreement rates for concreting include the same. No extra payment is admissible for any machinery arranged by the contractor. Machine shown in indicative any other machine require to complete the work has to be brought site rate is including of all.

2.2.21 TRANSPORTATION OF CONCRETE & PUMPING OF CONCRETE

2.2.21.1 General

Fresh concrete can be transported to the placement area by a variety of methods.

Common among them are:

- Mixer trucks
- Stationary truck bodies with or without agitators.
- Buckets hauled by trucks.
- Conveyor belts.
- Hose or pipe line by pumping.



Each type of transportation has specific advantages and limitations depending on the condition of use, mix, accessibility and location of placing.

2.2.21.2 Transportation by Mixer Trucks

2.2.21.2.1 These are essentially revolving drums mounted on truck chassis. Truck mixers used in the job shall be labelled permanently to indicate the manufacturer's specifications for mixing like:-

- Capacity of drum.
- Total number of drum revolutions for complete mixing.
- Mixing speed
- Maximum time limit before completion of discharge and after cement has entered the drum.
- Reduction in time period of discharge due to warm weather or other variables.

All above information shall only form guidelines for the manufacturer/producer of concrete.

2.2.21.2.2 Fulfilment of the stipulated number of revolutions or elapsed time shall not be the acceptable criterion. As long as the mixing water limit is not exceeded and the concrete has satisfactory plastic physical properties and is of satisfactory consistency and homogeneity for satisfactory placement and consolidation and is without initial set, the concrete shall be acceptable.

2.2.21.2.3 When the concrete is totally mixed in transporting trucks volume of concrete being transported shall not exceed 63% of the rated capacity of the drum. In case the concrete is totally mixed in the central batching plant, the transporting truck may be loaded up to 80% of the rated capacity of the drum. In this case the drum shall be rotated at charging speed during loading and reduced to agitating speed after loading is complete.

2.2.21.2.4 When transporting concrete by truck mixers, delivery time shall be restricted to 90 minutes or initial setting time whichever is less from the time cement has entered the mixer to completion of discharge.

2.2.21.3 Transporting by Agitating / Non-agitating Trucks.

2.2.21.3.1 Transporting ready mix concrete by this method shall consist of truck chassis mounted with open top bodies. The metal body shall be smooth and streamlined for easy discharge. Discharge may be from the rear when the body is mechanically tilted. Body of the truck shall have a provision of discharge gate. Mechanical vibrators shall be installed at the discharge gate for control of discharge flow.

2.2.21.3.2 Agitators, if mounted, also aid in the discharging of concrete from the truck in addition to keeping the concrete alive. Page 109

2.2.21.3.3 Water shall not be added to concrete in transport through this system.

2.2.21.3.4 Bodies of trucks shall be provided with protective covers during period of inclement weather.

2.2.21.3.5 Delivery period, when adopting this system of transporting concrete shall be restricted to 30 minutes from the moment all ingredients including cement and water enter in mixer to completion of discharge.

2.2.21.4 Transporting by Buckets

This method of transportation is very common for transportation of centrally mixed concrete. Buckets of suitable capacities may be filled with concrete which is totally mixed in central plant and hauled to the job site. Buckets then may be conveyed to the actual point of placement either with the help of crane/hoist or they may be carted.

As in the case of open truck transportation, extra water shall not be added to concrete transported in buckets. Concrete shall be protected from inclement weather by necessary covering arrangements. Also, maximum delivery period for this system of transportation from the time cement is introduced into the mixer to completion of discharge shall not exceed 30 minutes.

2.2.21.5 Cleaning

Before loading concrete in either truck mixer, open bodied trucks or buckets, the containers shall be thoroughly cleaned, washed and dried, so that there is no water or moisture in the container which may affect the designed water content of the concrete.

2.2.21.6 Other Methods of Transportation

Transportation of concrete either by belt conveyors or by pumping is envisaged in some works.

If, the producer/manufacturer/purchaser/contractor of ready mix concrete desires to use such methods of transportation, they may do so provided their scheme and complete specifications are submitted to the Engineer for his record and approval.

2.2.21.7 Objective: Method of transportation used shall ensure:-

- Efficient delivery of concrete
- No significant alteration of properties with regard to water cement ratio, slump, air content and homogeneity.
- All variables in transportation, considering type and accessibility of placement locations, distance, time interval etc., shall be carefully studied before arriving at the method used.

2.2.21.8 Pumpable Concrete (Extracted from Para 8.9 of Concrete Bridge Code, 1997)

General - Pumpable concrete is the concrete which is conveyed by pressure through either rigid pipe or flexible hose and discharged directly into the desired area. It is especially used where space for construction equipment is very limited.

Pumping Rate and Range – Depending on the equipment, pumping rate should be 10 to 70 cum. per hour. Effective pumping range is upto 300m horizontally and 90m vertically.

(i) Proportioning Pumpable Concrete

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- a) Basic Consideration - More emphasis on quality control is essential to the proportioning and use of a dependable pump mix. Concrete mixes for pumping must be plastic. Particular attention must be given to the mortar and to the amounts and sizes of coarse aggregates.
- b) The maximum size of angular coarse aggregate is limited to one-third of smallest inside diameter of the hose or pipe. Provisions should be made for elimination of oversized particles in the concrete by finish screening or by careful selection of aggregates.

(ii) Pumping Concrete

- a) Proper planning of concrete supply, pump locations, line layout, placing sequences and the entire pumping operation will result in saving of cost and time. The pump should be placed as near the placing area as practicable and the entire surrounding area must have adequate bearing strength. Lines from the pump to the placing area should be laid out with a minimum of bends. The pipe line shall be rigidly supported.
- b) While pumping downward 15m or more, it is desirable to provide an air release valve at the middle of the top bend to prevent vacuum or air build up. When pumping upward, it is desirable to have a valve near the pump to prevent reverse flow.

2.2.22 Construction Joints:-

2.2.22.1 Construction joints shall be avoided as far as possible and in no case the locations of such joints shall be changed or increased from those shown on the drawings, except with express approval of the Engineer. The joints shall be provided in a direction perpendicular to the member axis. Sequencing of concrete placement should be organized in such a way that cold joints are totally eliminated. The sequence of concreting shall be submitted for approval of Engineer prior to concreting of the structural element. Concreting shall be carried out continuously up to the construction joints, the position and arrangement of which shall be predetermined by the designer.

- 2.2.22.2 Construction joints should be positioned to minimize the effect of the discontinuity on the durability, structural integrity and appearance of the structure. Joints should be located away from regions of maximum stress caused by loading particularly where shear and bond stresses are high.
- 2.2.22.3 Laitance, both on the horizontal and vertical surfaces of the concrete, should be removed before fresh concrete is cast. The surface should be roughened to promote good adhesion. Various methods for removal can be used but they should not dislodge the coarse aggregate particles. Concrete may be brushed with a stiff brush soon after casting while the concrete is still fresh and while it has only slightly stiffened. If the concrete has partially hardened, it may be treated by wire brushing or with a high pressure water jet, followed by drying with an air jet, immediately before the new concrete is placed. Fully hardened concrete should be treated with mechanical hand tools or grit blasting, taking care not to split or crack aggregate particles.
- 2.2.22.4 Where there is likely to be a delay before placing the next concrete lift, protruding reinforcement should be protected. Before the next lift is placed, rust loose mortar, or other contamination should be removed from the bars and where conditions are particularly aggressive and there has been a substantial delay between lifts, the concrete should be cut back to expose the bars for a length of about 50 mm to ensure that contaminated concrete is removed.
- 2.2.22.5 In all cases, when construction joints are made, it should be ensured that the joint surface is not contaminated with release agents, dust, or curing membrane and that the reinforcement is fixed firmly in position at the correct cover.
- 2.2.22.6 When the formwork is fixed for the next lift, it should be inspected to ensure that no leakage can occur from the fresh concrete. It is a good practice to fix a 6 mm thick sponge which seals the gap completely. The practice of first placing a layer of mortar or grout is not recommended. The old surface should be soaked with water without leaving puddles, immediately before starting concreting; then the new concrete should be thoroughly compacted against it. When fresh concrete is cast against existing mature concrete or masonry the older surfaces should be thoroughly cleaned and soaked to prevent the absorption of water from the new concrete. Standing water should be removed shortly before the new concrete is placed and the new concrete should be thoroughly vibrated in the region of the joint.
- 2.2.23 **Finishing of concrete:** The finished surface of concrete after removal of formwork shall be such that no touching up is required. All fins/holes caused by form joints, supports, rods etc., shall be ground/filled up effectively using appropriate machinery shutters, formwork etc., used in construction shall be as specified in the conditions and the labour used shall be skilled to suit the quality requirements of the work. Any surface, finished poorly in the opinion of the Engineer shall require repair/remedial measures at the cost of the contractor and the Engineer's decision in this regard shall apply to any structure, which has deficiencies finishing including product parameters beyond the rejection limits, as specified in these conditions, are liable to be rejected and the decision of the Engineer shall be final in this regard.

2.2.24 **Coatings for concrete:** Normally finished concrete structures do not require any surface protective coatings in non aggressive environment (moderate) for all structures. For aggressive environment (severe and extreme conditions), Epoxy phenolic IPN coating or CECRI Integrated four coat system can be used in superstructure of bridges and coal tar epoxy coating for sub structure of bridges (in affected part only).

2.2.25 Shuttering, Formwork & False work:-

2.2.25.1 Shuttering, Formwork & False work shall be designed to meet the requirements of the permanent structure, taking into account the actual conditions of materials, environment and site conditions. Careful attention shall be paid to the detailing of connections and functions. All the materials used for shuttering, formwork & false work shall conform to the specified quality consistent with the intended purpose and actual site condition as applicable. All shuttering, form work, false work, etc., shall be got approved by the Engineer before it is put into use.

2.2.25.2 Forms shall not be struck until the concrete has reached strength at least twice the stress to which the concrete may be subjected at the time of removal of formwork or as approved by the Engineer. In normal circumstances and where Ordinary Portland Cement is used, forms may generally be removed after the expiry of the following periods:-

Stripping Time	
a) Walls, columns and vertical faces of all structural members	24 to 48 hours as may be decided by the Engineer
b) Slabs (props left under)	3 days
c) Beam soffits (props left under)	7 days
d) Removal of props under slabs 1) Spanning up to 4.5 m 2) Spanning over 4.5 m	7 days 14 days
e) Removal of props under beams 1) Spanning up to 6 m 2) Spanning over 6 m	14 days 21 days

Where the shape of the element is such that the formwork has re-entrant angles, the formwork shall be removed as soon as possible after the concrete has set, to avoid shrinkage crack occurring due to the restraint imposed.



2.2.26 Defective Concrete and Measurement of concrete:

2.2.26.1 Should any concrete be found honeycombed or in any way defective which may be, at the discretion of the Engineer suspected to affect the performance of the structure, shall be rejected outright. Contractor shall have no claim in this regard and the decision of the Engineer shall be final. The member, structurally independent, in which the concrete is found to be defective, shall be replaced by the contractor at his cost fully. The damages arising on account of such defective concreting shall also be recoverable from the dues of the contractor, including penalties if any. DFCCIL reserves the right to get the member replaced by any means at the cost of the contractor at any cost if the contractor delays reproduction.

2.2.26.2 However, some surface defects, not affecting the structural properties shall, on the instruction of the Engineer, be repaired as per the approved procedures. The complete cost of such repairs shall be borne by the contractor and no compensation shall be payable. Records of such repairs done shall be maintained by the contractor.



Tolerances for Finished Concrete Bridge Structure		
S No	Description of defects in any part or full member or the structure at the decision of the Engineer.	Permissible limits (unless otherwise specified in designs/drawings)
1	Shift from alignment	1) ± 25 mm in member.
2	Deviation from plumb in piers or variation from specified batter.	1 in 250 subjected to a maximum value of 0.5 times the least lateral dimension of pier.
3	Deviation from plumb in abutments or variation from specified batter.	1 in 125
4	Cross sectional dimensions of piers, abutments and girders	+20mm/-5mm
5	Thickness of deck slab of bridges	+ 6 mm / - 3 mm
6	Size and location of openings	± 12 mm
7	Plan dimensions of footings (formed excavation)	+ 50 mm / - 25 mm
8	Plan dimensions of footings (unformed excavation)	+ 75 mm / - 00 mm
9	Thickness of footings	- 5%, + No limit
10	Footing eccentricity	0.02 times the width of the footing in the direction of deviation, but not more than 50 mm
11	Reduced level of top of footing / pier / bed block	± 5 mm
12	Centre to centre distance of pier and abutments at pier top	± 30 mm
13	Centre to centre distance of bearings along span	± 5 mm
14	Centre to centre distance of pier bearings across span	± 5 mm

2.2.26.3 The tolerances for finished concrete bridge structures shall be governed by IRS Concrete Bridge Code and shall be followed; deviations beyond the permissible limits shown are liable to be rejected. These tolerances apply to other structures also appropriately.

2.2.27 Sampling and Strength Testing of Concrete:

2.2.27.1 General: Samples from fresh concrete shall be taken as per IS: 1199 (method of sampling and analysis of concrete). Concrete for making 3 test cubes shall be taken from a batch of concrete at point of delivery into construction according to procedure laid down in IS: 1199 and 150 mm cubes shall be made, cured and tested at the age of 28 days for compressive strength in accordance with IS:516. The 28 day test strength result for each cube shall form an item of sample.

Concrete shall conform to the surface finish and tolerance as prescribed in Unified specifications. Random sampling and lot by lot of acceptance / inspection shall be made for the 28 days cube strength of concrete.

Concrete under acceptance shall be notionally divided into lots for the purpose of sampling, before commencement of work. The delimitation of lots shall be determined by the following:

- (i) No individual lot shall be more than 30 cum in volume.
- (ii) At least one cube forming an item of the sample representing the lot shall be taken from concrete of the same grade and mix proportions cast on any day.
- (iii) Different grades of mixes of concrete shall be divided into separate lots.
- (iv) Concrete of a lot shall be used in the same identifiable component of the bridge.

2.2.27.2 Sampling .

2.2.27.2.1 Frequency of Sampling

Sampling procedure: A random sampling procedure shall be adopted to ensure that each concrete batches forming the lot under acceptance / inspection shall have a reasonable chance of being tested that is, sampling should be spread over the entire period of concreting and cover all mixing units.

Frequency: The minimum frequency of sampling of concrete of each grade shall be in accordance with table below. At least one sample shall be taken from each shift of work.

Minimum Frequency of Sample	
Quantity of concrete in work, (M³)	No. of samples
1-5	1
6-15	2
16-30	3
31-50	4
51 and above	4 plus one additional sample for each additional 50 M ³ or part thereof

2.2.27.2.2 Test Specimen: Three test specimens shall be made from each sample for testing at 28 days. Additional samples may be required for various purposes such as to determine the strength of concrete at 7 days or at the time of striking the formwork, or to determine the duration of curing, or to check the testing error. Additional samples may also be required for testing samples cured by accelerated methods as described in IS: 9013. The specimen shall be tested as described in IS: 516.



2.2.28 Test Results of Sample: The test results of the sample shall be the average of the strength of 3 specimens. The individual variation should not be more than ± 15 percent of average. If more, test results of the sample are invalid.

2.2.29 Acceptance Criteria of Concrete: Acceptance criteria shall be acceptance of concrete as per Clause No 16 of Annexure 4.2 of Indian Railway Unified Standard Specifications (Works & Materials), Volume I, 2010. Also refer criteria of concrete vide clause no 20.3.11.5 of Indian Railway Unified specifications. The 28 days compressive strength shall be the criterion for acceptance or rejection of the concrete.

The followings shall also be strictly followed.

- (i) Whenever a mix is redesigned due to a change in the quality of aggregate or cement or for any other reason, it shall be considered a new mix and initially subject to the acceptability criteria above.
- (ii) If the concrete produced at site does not satisfy the above strength requirements, the Engineer shall reserve the right to require the contractor to improve the methods of batching, the quality of the ingredients and redesign the mix with increased cement content, if necessary. The Contractor shall not be entitled to claim any extra cost for the extra cement used for the modifications stipulated by the Engineer for fulfilling the strength requirement specified.
- (iii) It is the complete responsibility of the contractor to redesign the concrete mixes by approved standard methods and to produce the reinforced concrete conforming to the specification and the strength requirements approved by the Engineer. It is expected that the Contractor will have competent staff to carry out this work.

2.2.30 Setting of field laboratory by the Contractor:

2.2.30.1 For all works, the Contractor shall set up a field laboratory of his own for testing of cement/water/concrete at work site, which should be open for use and inspection by the DFCCIL officials at any time and carry out the tests with his own equipments, gauges, machinery, consumables and operators, at his own cost. The laboratory shall be equipped with necessary equipment to carry out various tests such as property tests, sieve analysis, setting time of cement, compression tests on cubes, slump test, workability test etc., on aggregate, cement, water and concrete required for ensuring the required quality. For steel however, test reports of reputed institutes/laboratories are acceptable.

2.2.30.2 The cost of setting up the laboratory, equipping the same, maintaining conducting all tests on materials and cubes shall be borne by the contractor, within his quoted rates for works and no extra payment is eligible for the same.

2.2.30.3 All gauges, machines, equipments and other measuring and testing equipments of the laboratory shall be got checked / calibrated regularly and the necessary certificates furnished to the Engineer by the Contractor.

2.2.30.4 All the equipments, machinery etc., shall be kept in good working condition. Contractor shall also maintain the required qualified / experienced staff at the laboratory.

2.2.30.5 The following is the minimum laboratory facilities at the site which are to be provided and operated by the contractor at his cost.

- (i) Testing of fine and coarse aggregates as per IS:383 and IS:2386.
- (ii) Testing of cement concrete as per IS: 8142 and IS:516.
- (iii) Testing of water as per IS: 456 and IS: 3025.
- (iv) Certain non-routine testing such as (a) Testing of admixtures, (b) Chemical testing of fine and coarse aggregates (c) Permeability of concrete (permeability test on concrete shall be got done when the mix design is approved / changed of the reputed laboratories as approved by Engineer). The frequency and need for these tests shall be decided by the Engineer, based on stipulations contained in conditions of contract or on the basis of accepted Engineering practice (e.g. whenever source of admixture is changed, tests stipulated in the codes will have to be carried out afresh, etc).

2.2.30.6 As frequently as the Engineer may require, testing shall be carried out in field for:

- (a) Moisture content and absorption and density of sand and aggregate.
- (b) Silt content of sand.
- (c) Grading of sand and aggregates.
- (d) Slump test of concrete.
- (e) Concrete cube test.
- (f) Permeability test for concrete
- (g) Density of Plasticizer.
- (h) PH Value of water

2.2.31 Ladders for inspections: Steel ladders are to be provided at the abutments and all pier locations on both sides of girder bridges to enable inspecting officials to get down from the track level to the top of the piers / abutments.

2.2.32 Expansion joints: Expansion joints – strip seal elastomeric type expansion joint shall be for 80mm expansion gap in RCC deck slab as per drawings.

2.2.33 Seating of foundations:

As far as possible, open foundations should be located on the firm ground having stable strata. The strata shall be well compacted before levelling course and foundations are laid on the levelling.

In case foundations resting on rock, no foundation shall be laid on sloping rock. The rock shall be made level for the width of the foundation before levelling course is laid. Before seating on the rock, capacity of the rock shall be assessed properly and safe bearing capacity assessed in the designs is to be confirmed.

The seating of the rock shall be achieved by cutting into the rock at least by 0.50m depth to ensure removal of all weak layers and for obtaining adequate anchorage in case of open foundations. After level surface is made on the rock, a rich mix layer of 150mm thick shall be laid to even the bedding surface.

If the rock is encountered while piling, pile shall be anchored into rock to the depth as per codal provision.

2.2.34 Drainage outlets: 50mm galvanized GI pipes in case of deck slab in bridges will serve as drainage spouts.

2.3 GENERAL GUIDELINES AND SPECIFICATIONS FOR SUPPLY OF REINFORCEMENT AND STRUCTURAL STEEL

2.3.1 SUPPLY OF STEEL FOR VARIOUS WORKS:

Supply of steel to various specifications as required under various schedules in the contract are governed by the Technical specifications and Special Conditions specified hereunder.

All steel shall be supplied by the Contractor at the site of work and stacked, stored, protected and maintained by him at his cost till they are put into use. Any temporary structure required for storage of steel etc., has to be provided by the Contractor at his cost and should be removed after completion of the work. The DFCCIL will only provide suitable land for construction of the above temporary shed free of cost wherever available.

For supply and use of steel in various works, relevant IRS Codes Specifications, IS Specifications and Railways specifications will be applicable.

2.3.2 SPECIFICATIONS FOR STEEL:

2.3.2.1 The steel supplied by the contractor must satisfy any of the following material specifications as required for the work along with other concerned specifications.

- (i) The reinforcement steel shall be Thermo mechanical Treated bars of grade Fe 500 conforming / satisfying to IS 1786 (Up to date).
- (ii) The structural steel shall be conforming to IS 2062 (Up to date) as specified. It shall have Sub quality 'BR' & Grade E250 (Fe 410 W) as mentioned in the tender schedule and the requirements of IRS B1-2001 shall be fulfilled for all components for all spans. 12 mm thick & above plates are fully killed and fully normalized / controlled cooled as mentioned in the tender schedule. 'BR' sub quality indicate the requirement of impact test at room temperature and should conform to Charpy Impact Test at room temperature in accordance with relevant I.S. Code.
- (iii) Relevant other IS and IRS Specifications with regard to properties, testing and use of the above steel items also shall govern.

2.3.2.2 The contractor shall produce the manufacturers test certificate for each lot of supply satisfying the requirements of relevant IS specifications and at the specific frequency as laid down.

2.3.2.3 The Contractor shall arrange to carryout additional tests on physical properties of steel for every 50 metric tonne (t) of steel and for every change in lot / batch for reinforcement steel and structural steel at his cost. No extra payment will be made for conducting such tests and the agreemental rate is inclusive of above testing charges.

2.4.3 PROCUREMENT OF STEEL:

2.4.3.1 All Reinforcement steel (TMT bars) and Structural Steel shall be procured as per specification mentioned in BIS's documents – IS:1786 and IS:2062. Independent tests shall be conducted, wherever required, to ensure that the materials procured conform to the Specifications.

These steel shall be procured only from those firms, which are Established, Reliable, Indigenous & Primary Producers of Steel, having Integrated Steel Plants (ISP), using iron ore as the basic raw material and having in-house iron rolling facilities, followed by production of liquid steel and crude steel, as per Ministry of Steel's (Government of India) guidelines.

However, only certain isolated sections of structural steel, not being rolled by ISPs, can be procured from the authorized re-rollers of ISPs or authorized licensee of BIS having traceability system and who use billets produced by ISPs with the approval of Engineer.

2.4.3.2 The contractor shall have to submit the cash memo and challans along with the lot / batch of steel purchased in token of proof of purchase of steel from reputed dealers. Steel shall be approved by Engineer only after production of necessary certificates before use in works.

2.4.4 REINFORCEMENT AND STRUCTURAL STEEL:

2.4.4.1 Payment for supply of all types of steel shall be made for the quantity required / used as per the drawings issued from time to time. No payment will be admissible for quantity supplied in excess of the required quantity as per drawings. However, contractor will be permitted to take the excess quantity back by his own means, but no claim for payment for transportation so involved will be admissible. No payment will be made for more supply of steel at the site / excess used in Construction. No payment will be made for steel used in temporary or enabling works unless explicitly provided for in the Schedules. Steel for enabling/temporary works shall be arranged by the Contractor at his own cost.

2.4.5 STAGE PAYMENTS FOR STRUCTURAL STEEL:

2.4.5.1 No Advance Payment shall be made. However, stage payment for manufacturer of steel girders shall be made as per Bills of Quantities by the DFCCIL for steel physically brought to site by the contractor.

2.4.6 OTHERS:

2.4.6.1 Reinforcement steel and structural steel, shall be stored in such a way so as to avoid distortion and to prevent deterioration by corrosion. All steel used should be free from loose Mill scale, loose rust, paints and oil covering / coating etc.

2.4.6.2 Steel material, for which stage payment has been availed by the Contractor, shall be property of DFCCIL and will be issued to contractor by Engineer whenever required for the work. Contractor will be solely responsible for guarding against theft / misuse of the consignment due to any cause what so ever. The stage payment will

be made, only when the Engineer certifies that in his opinion that the materials are actually required in accordance with the contract. It is the responsibility of the agency to ensure that steel as per the requirement is brought to site as per approved drawings / requirements.

- 2.4.6.3 The contractor shall be bound to store the materials at site of work earmarked for the purpose by the Engineer and shall not remove from the site nor use for any other purposes than exclusively for execution of the work for which the materials are intended for. Safe guarding of the materials is the responsibility of the contractor even if the material is deemed to be owned by the DFCCIL and insurance etc., have been arranged by the contractor.
- 2.4.6.4 Contractor shall remove from site any steel materials rejected by the Engineer within reasonable time as specified by him.
- 2.4.6.5 Before the test pieces are selected, the Contractor shall furnish copies of the mill records of the reinforcement steel giving number of coils in each cast with sizes and identity marks to enable identification of the material with the bill produced.

2.5 GENERAL GUIDELINES AND SPECIFICATIONS FOR FABRICATION & ERECTION OF COMPOSITE GIRDER AND SPECIAL CONDITIONS

2.5.2 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 equipments 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 with regard to the feasibility of transporting the plate girders from the yard to the final site of placement etc.

ADDITIONAL TECHNICAL SPECIFICATION

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MILESTONES AND TIME SCHEDULE

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PART-IV

CHAPTER - I

MILESTONES AND TIME SCHEDULE

4.1.1 Time Schedule:

4.1.1.1 Time of start and completion:

The time allowed for execution of the works is 24 (Twenty four months) from the date of issue of letter of acceptance from DFCCIL.

The contractor shall be expected to mobilize to the site of works and commence execution of the works within 10 (days) from issue of Acceptance Letter by DFCCIL. The contractor shall be expected to complete the whole work ordered on the contractor within 24 (Twenty four months) from the date of issue of Acceptance Letter by DFCCIL.

If the contractor commits defaults in commencing execution of the works as afore stated, DFCCIL shall without prejudice to any other right to remedy, be at liberty to forfeit fully the Earnest Money Deposit and performance guarantee of the contractor.

4.1.1.2 Progress of works:

The contractor shall submit a programme of work in the form of a Bar Chart of all the activities in consistence with milestone target envisaged below. In case this bar chart requires to be modified, the Engineer and the contractor shall agree upon a time and progress chart. The chart shall be prepared in direct relation to the time stated as 24 months for the completion of the works as the milestone targets specified below of these special conditions. It shall indicate the forecast of the dates of commencement and completion of various activities of the work and may be amended as necessary by agreements between the Engineer and the contractor within the limitation of 24 months as overall completion period.

4.1.2 Achievement of milestone progress:

In order to ensure progress during the execution of the work the contractor will be expected to achieve the following milestone targets ahead of dates mentioned against each. Failure to achieve accomplished milestone targets within allocated timeframe, save for reason accepted as laid by the Engineer shall create and constitute the ground for failure on the part of contractor for maintaining progress of the work as per agreed programme.

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Milestone Targets	Time allocated within which to achieve completion in total 24 (Twenty four) months time.
a) Physical commencement of work	D+10 days
b) Mobilization of equipment	D +20 days
c) Full mobilization of plan, machinery, men and material	D + 30 days
d) Construction of retaining wall, road approaches roof etc on DFC side	02 nos. level crossing – D+120 days
	Next 4 nos. level crossing – D+300 days
	Next 4 nos. level crossing – D+480 days
	Next 05 nos. level crossing – D+660 days
e) Completion of work	D+24months



TENDER FORMS (INCLUDING SCHEDULE OF PRICES)

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PART- IV
CHAPTER II

TENDER FORMS

FORM No.	SUBJECT
Form No. 1	Offer Letter
Form No. 2	Tenderer's Credentials
Form No. 2A	Technical Eligibility Criteria Details
Form No. 2B	Financial Eligibility Criteria Details
Form No. 2C	Applicant's Party Information Form
Form No. 3	Summary of Prices
Form No. 4	Schedule of Prices and Total Prices
Form No. 5	Contract Agreement
Form No. 6	Performance Guarantee Bond
Form No. 7	Standing indemnity bond for on account payment.
Form No. 8	ECS / NEFT / RTGS
Form No. 9	Draft MOU for Joint Venture Participation
Form No.10	Draft Agreement for JV
Form No.11	Pro-forma of Participation from each partner of JV
Form No.12	Power of Attorney for authorized signatory of JV Partners
Form No.13	Power of Attorney to lead partner of JV
Form No. 14	Proforma for Time Extension
Form No. 15	Certificate of Fitness
Form No. 16	Proforma of 7 days Notice
Form No. 17	Proforma of 48 Hours Notice
Form No. 18	Proforma of Termination Notice
Form No. 19	Format of Bank Guarantee for Mobilisation Advance

FORM No. 1

OFFER LETTER

Tender No: **Tender No. MGS/EN/RUB/Approach/172/3/2016**

Name of work : Construction of DFC side approaches of RUB/LHS at LC no. 35C(556/26-28), 37C(562/12-14), 44C(576/11-13), 48C(585/5-7), 51C(590/23-25), 52C(594/17-19), 54C603/17-19), 57C(612/25-27), 58C/615/3-5), 64C630/9-11), 65C(633/7-9), 66C/637/5-7), 67C(638/7-9), 77C(659/13-15) AND 79C(662/7-9) IN *BETWEEN* SONNAGAR—MUGHALSARAI SECTION.

To,
The Chief Project Manager,
Swarna Complex, 2nd Floor,
Susuwahi, Varanasi – 221011

We, the undersigned, declare that:

- (a) We have examined and have no reservations to the Bidding Documents, including Addenda.;
- (b) We offer to execute the Works in conformity with the Bidding Documents;
- (c) Our bid shall be valid for a period of 90 days from the date fixed for the bid submission deadline in accordance with the Bidding Documents, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
- (d) We have not been blacklisted/banned in accordance with para.1.3.13 (ii)(v)(a) of Preamble and General Instructions to tenderers.
- (e) We are neither Bankrupt/Insolvent nor in the process of winding-up nor there is a case pending before any Court on deadline of submission of the Bid in accordance with para. 1.3.13 (ii) (v) (b) of Preamble and General Instructions to tenderers.
- (f) If our bid is accepted, we commit to obtain a Performance Guarantee in accordance with the Bidding Documents;
- (g) If our bid is accepted, we commit to deploy key equipment and key personnel consistent with the requirements of the work.
- (h) We understand that this bid, together with your written acceptance thereof included in your notification of award/Letter of Acceptance (LOA), shall constitute a binding contract between us, until a formal contract is prepared and executed; and
- (i) All information, statements and description in this bid are in all respect true, correct and complete to the best of our knowledge and belief and we have not made any tampering or changes in the bidding documents on which the bid is being submitted and if any tampering or changes/incorrect information are detected at any stage, we understand the bid will invite summarily rejection and forfeiture of bid security, the contract will be liable to be terminated along with forfeiture of performance security, even if LOA has been issued.
- (j) We understand that you are not bound to accept the lowest bid or any other bid that you may receive.



Name

In the capacity of

Signed

Duly authorized to sign the Bid for and on behalf of

Date



TENDERER'S CREDENTIALS

S. No	Description
1.	For technical experience/competence, give details of similar completed works during the last 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 constitution of your firm. Attach certified copies of legal documents in support thereof. Form-2C



TECHNICAL ELIGIBILITY CRITERIA DETAILS

**Details of the similar works completed (as per Para 1.3.13 (i) of
Preamble and General Instructions to Tenderers)**

Similar Contract No.		
Contract Identification		
Award date		
Completion date		
Role in Contract	Prime Contractor <input type="checkbox"/>	Member in JV <input type="checkbox"/>
Total Contract Amount (Rs.) *		
If member in a JV , specify participation in total Contract amount	<i>[insert a Total contract amount in Rs. percentage amount]</i>	
Employer's Name: Address: Telephone/fax number E-mail:		
Description of the similarity in accordance with Criteria 1.3.13(i)(A)		

* **Note: (i) Tenderer is advised to carefully go through the technical eligibility criteria mentioned in para 1.3.13 (i) (A)**

(ii) The bidder shall attach certified completion certificates issued by the client duly attested by Notary as per Eligibility Criteria of the tender documents.

**Signature of the
Tenderer with Seal**

FINANCIAL ELIGIBILITY CRITERIA DETAILS

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

Name of Bidder/JV Partner

Details of contractual payments (Construction only) received during the last three financial years and current financial year

Contractual payments received (Construction only)	
Year	Value of payment received in Rs. (Contract Receipts)
Current Year (2016-2017)	
2015 - 2016	
2014 - 2015	
2013 - 2014	
Total Contractual Payment	

Note: The details should be extracted from the audited balance sheet Certified by the Chartered Accountant or form 16-A issued by the Employer as per clause 1.3.13 of Preamble and General Instructions to Tenderers. The information in Form 2B may be submitted with due certification of CA.

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

**Signature of the
Tenderer with Seal**

Certified by CA

Name & registration No :

Address:

Place & Date:

Seal

APPLICANT'S PARTY INFORMATION FORM

Applicant name: <i>[insert full name]</i>
Applicant's Party name: <i>[insert full name of Applicant's Party]</i>
Applicant's Party country of registration: <i>[indicate country of registration]</i>
Applicant Party's year of constitution: <i>[indicate year of constitution]</i>
Applicant Party's legal address in country of constitution: <i>[insert street/ number/ town or city/ country]</i>
Applicant Party's authorized representative information Name: <i>[insert full name]</i> Address: <i>[insert street/ number/ town or city/ country]</i> Telephone/Fax numbers: <i>[insert telephone/fax numbers, including country and citycodes]</i> E-mail address: <i>[indicate e-mail address]</i>
1. Attached are copies of original documents of <input type="checkbox"/> Articles of Incorporation (or equivalent documents of constitution or association), and/or registration documents of the legal entity named above. <input type="checkbox"/> In case of a Government-owned enterprise or institution, documents establishing legal and financial autonomy, operation in accordance with commercial law, and absence of dependent status. 2. Included are the organizational chart, a list of Board of Directors, and the beneficial ownership.

**Signature of the
Tenderer with Seal**



SUMMARY OF PRICES

**(Summary of Prices has been separately attached in Financial
Packet "B")**

A handwritten signature in black ink, consisting of a stylized, cursive script.

FORM No. 4

**SCHEDULE -1
SCHEDULE OF PRICES & TOTAL PRICES**

**(Schedule of Prices & Total Prices have been separately
attached in Financial Packet "B").**

A handwritten signature in black ink, consisting of a stylized, cursive script.

SAMPLE

AGREEMENT

CONTRACT AGREEMENT

(To be executed on requisite value of stamp papers)

Agreement

This agreement made on day of (Month/Year) between DFCCIL, acting through Chief Project Manager, DFCCIL, Mughalsarai, Swarna Complex, 2nd Floor, Susuwahi, Post- Susuwahi, Varanasi – 221011 (hereafter called the “employer/engineer) of the one part and (Name/Address of the offerer) (herein after called the offerer) of the other part.

WHEREAS in reference to a call for Tender for **Construction of DFC side approaches of RUB/LHS at LC no. 35C(556/26-28), 37C(562/12-14), 44C(576/11-13), 48C(585/5-7), 51C(590/23-25), 52C(594/17-19), 54C603/17-19), 57C(612/25-27), 58C/615/3-5), 64C630/9-11), 65C(633/7-9), 66C/637/5-7), 67C(638/7-9), 77C(659/13-15) AND 79C(662/7-9) IN BETWEEN SONNAGAR—MUGHALSARAI SECTION** as per Tender paper at Annexure “A” here to, the Contractor has submitted a Tender hereto and whereas the said Tender of the contractor has been accepted for **Construction of DFC side approaches of RUB/LHS at LC no. 35C(556/26-28), 37C(562/12-14), 44C(576/11-13), 48C(585/5-7), 51C(590/23-25), 52C(594/17-19), 54C603/17-19), 57C(612/25-27), 58C/615/3-5), 64C630/9-11), 65C(633/7-9), 66C/637/5-7), 67C(638/7-9), 77C(659/13-15) AND 79C(662/7-9) IN BETWEEN SONNAGAR—MUGHALSARAI** as per copy of the Letter of Acceptance of Tender No-----dated -----complete with enclosure at the accepted rates and at an estimated contract value of Rs. _____ (Rupees only). Now the agreement with witnesseth to that in consideration of the premises and the payment to be made by the Employer to the Contractor provided for herein below the Contractor shall supply all equipments and materials and execute and perform all works for which the said Tender of the Contractor has been accepted, strictly according to the various provisions in Annexure ‘A’ and ‘B’ hereto and upon such supply, execution and performance to the satisfaction of the Purchaser, the Purchaser shall pay to the contractor at the several rates accepted as per the said Annexure ‘B’ and in terms of the provisions therein.

IN WITNESS WHEREOF the parties 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 Employer

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 Employer

SIGNED, SEALED AND DELIVERED

By the said _____ Name

By the said _____ Name

on behalf of the Contractor in the
presence of: _____
Witness _____
Name _____
Address _____

on behalf of the Employer in the
presence of: _____
Witness _____
Name _____
Address _____

Enclosures:-

1. Annexure 'A' - Tender Papers No.
2. Annexure 'B' - Letter of Acceptance of Tender No. _____ Dated _____
along with Summary of Prices



SAMPLE

Name of the Bank _____

Managing Director/ DFCCIL _____ Bank Guarantee Bond No. _____
 Acting through _____ (Designation Dated _____ and address of contract signing authority)

PERFORMANCE GUARANTEE BOND

In consideration of the Managing Director/ DFCCIL acting through _____ (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 Government an amount not exceeding Rs. _____ (Rs. _____ only) on demand by the Government.
2. We _____ (indicate the name of the bank, further agree that (and promise) to pay the amounts due and payable under this guarantee without any demur merely on a demand from the Government through the 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 Government by reason of any breach by the said contractor of any of the terms or conditions contained in the said agreement or by reason of the contractor failure to perform the said agreement. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs. _____ (Rs. _____ only).
- 3 (a) We, _____ (indicate the name of Bank) further undertake to pay to the Government any money so demanded notwithstanding any dispute or dispute raised by the contractor (s) in any suit or proceeding pending before any court or Tribunal relating to liability under this present being absolute and unequivocal.



- (b) The payment so made by us under this bond shall be valid discharge of our liability for payment there under and the contractor(s) shall have no claim against us for making such payment.
4. We, _____ (indicate the name of bank) to further agree that the guarantee herein _____ contained shall remain in full force and effect during the period that would be taken for the performance of the said agreement and that it shall continue to be enforceable till all the dues of the Government under or by virtue of the said agreement _____ have been fully paid and its claims satisfied or discharged by _____ (Designation & Address of contract signing authority) on behalf of the Government, certify that the terms and conditions of the said agreement have been fully and properly carried out by the said contractor (s) and accordingly discharges this guarantee.
5. (a) Notwithstanding 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 Government or until (date of validity/extended validity) whichever is earlier and no claim shall be valid under this guarantee unless notice in writing thereof is given by the Government within validity / extended period of validity of guarantee from the date aforesaid.
- (b) Provided always that we _____ (indicate the name of the Bank) unconditionally undertakes to renew this guarantee to extend the period of guarantee form year to year before the expiry of the period or the extended period of the guarantee, as the case may be on being called upon to do so by the Government. If the guarantee is not renewed or the period extended on demand, we _____ (indicate the name of the Bank) shall pay the Government the full amount _____ guarantee on demand and without demur.
6. We, _____ (indicate the name of Bank) further agree with the Government that the _____ Government shall have the fullest liberty without our consent and without effecting in any manner out _____ of obligations hereunder to vary any of the terms and conditions of the said contract from time to time or to postpone for any time or from time to time any to the powers exercisable by the Government against the said contractor (s) and to forbear or enforce any of the terms and conditions of the said agreement and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said contractor (s) or for any bearance act or omission on the part of the Government or any indulgence by the Government to the said contractor (s) or by any such matter or thing whatsoever which under the law relating to sureties for the said reservation would relive us from the liability.
7. This guarantee will not be discharged by any change in the constitution of the Bank or the Contractor (s).

Tender No. MGS/EN/RUB/Approach/172/3/2016

8. We, _____ (indicate the name of _____ the Bank) lastly undertake not to revoke this guarantee _____ except with the previous consent of the Government in writing.
9. This guarantee shall be valid upto _____ (Date of completion plus 60 days beyond that). Unless _____ extended on demand by Government. Notwithstanding anything to the contrary contained herein before, our liability under this guarantee is restricted to Rs. _____ (Rs. _____ only) unless a demand under this guarantee is made on us in writing on or before we, shall be discharged from our liabilities under this guarantee thereafter.

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

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

Witness:

1. _____

2. _____



**SAMPLE
STANDING INDEMNITY BOND FOR "ON ACCOUNT" PAYMENTS**

(On paper of requisite stamp value)

We, M/s _____ hereby undertake that we hold at our stores Depot/s at _____ for and on behalf of the Managing Director/ DFCCIL acting in the premises through the Chief Project Manager / DFCCIL/Mughalsarai or his successor (hereinafter referred to as "The Employer") all materials for which "On Account" payments have been made to us against the Contract for (_____) on the section _____ DFCCIL also referred to as Group/s _____ vide letter of Acceptance of Tender _____ dated _____ and material handed over to us by the employer for the purpose of execution of the said contract, until such time the materials are duly erected or otherwise handed over to him.

We shall be entirely responsible for the safe custody and protection of the said materials against all risk till they are duly delivered as erected equipment to the employer or as he may direct otherwise and shall indemnify the employer against any loss /damage or deterioration whatsoever in respect of the said material while in our possession and against disposal of surplus materials. The said materials shall at all times be open to inspection by any officer authorized by the Chief Project Manager/DFCCIL/Mughalsarai in charge of Dedicated Freight Corridor Corporation of India Limited (Whose address will be intimated in due course).

Should any loss, damage or deterioration of materials occur or surplus material disposed off and refund becomes due, the Employer shall be entitled to recover from us the 85% of supply portion of Part IV, Chapter – II (Form - 4) to the Contract (as applicable) and also compensation for such loss or damage if any long with the amount to be refunded without prejudice to any other remedies available to him by deduction from any sum due or any sum which at any time hereafter becomes due to us under the said or any other Contract.

Dated this day ___ day of _____ 2016

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,

PM (Finance)

DFCCIL, Mughalsarai

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.	
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**

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

and

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

and

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

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

WHEREAS:

Dedicated Freight Corridor Corporation of India Limited (DFCCIL) [hereinafter referred to as “Client”] has invited bids for ... “[Insert name of work].....”

NOW, THEREFORE, THE PARTIES AGREE AS FOLLOWS:

1. The following documents shall be deemed to form and be read and construed as an integral part of this MOU.
 - (i) Notice for Bid, and
 - (ii) Bidding document
 - (iii) Any Addendum/Corrigendum issued by Dedicated Freight Corridor Corporation of India Limited
 - (iv) The bid submitted on our behalf jointly by the Lead Partner.
2. The `Parties' have studied the documents and have agreed to participate in submitting a `bid' jointly.
3. M/sshall be the lead member of the JV for all intents and purpose and shall represent the Joint Venture in its dealing with the Client. For the purpose of submission of bid proposals, the parties agree to nominate as the leader duly authorized to sign and submit all documents and subsequent clarifications, if any, to the Client. However M/s shall not submit any such proposals, clarifications or commitments before securing the written clearance of the other partner which shall be expeditiously given by M/s.....to M/s.....
4. The `Parties' have resolved that the distribution of responsibilities and their proportionate share in the Joint Venture is as under:
 - (a) Lead Partner;**
 - (i)
 - (ii)



(iii)

(b) Joint Venture Partner

(i)

(ii)

(iii)

[Similar details to be given for each partner]

5. JOINT AND SEVERAL RESPONSIBILITY

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, manpowered the sources.



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.....

Witness

.....

1.....(Name & Address)

(Seal)

2..... (Name & Address)

Notes: (1) In case of existing joint venture, the certified copy of JV Agreement may be finished



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,
The Managing Director,
Dedicated Freight Corridor Corporation of India Limited
PragatiMaidan Metro Stn. Building Complex.,
New Delhi 110001.

Gentlemen,

Re: ...“*[Insert name of work]*.....”.

Ref: Your notice for Invitation for Bid No. _____
dated

1. We wish to confirm that our company/firm has formed a Joint Venture with(i)..... & ii)..... for the purposes associated with IFB referred to above.

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

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

OR

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

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

3. In the event of our JV being awarded the contract, we agree to be jointly with i) & ii) (names of other members of our JV) and severally liable to the Dedicated Freight Corridor Corporation of India Limited, its successors and assigns for all obligations, duties and responsibilities arising from or imposed by the contract subsequently entered into between Dedicated Freight Corridor Corporation of India Limited and our JV.



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

Yours faithfully,

(Signature)

(Name of Signatory).....

(Capacity of Signatory).....

Company Seal * Delete as applicable

Note : In case of existing joint venture, the certified copy of JV Agreement may be furnished.



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

POWER OF ATTORNEY*

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

Know all men by these presents, we ... do hereby constitute, appoint and authorise Mr/Ms. who is presently employed with us and holding the position of as our attorney, to do in our name and on our behalf, all such acts, deeds and things necessary in connection with or incidental to our bid for the work of ... Including signing and submission of all documents and providing information / responses to 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 2015.

(Signature of authorised Signatory)

Signature of Lead Partner

Signature of JV Partner(s)

.....
(Signature and Name in Block letters of Signatory)

Seal of Company

Witness

Witness 1:

Name:

Address:

Occupation:

Witness 2:

Name:

Address:

Occupation:

*Notes:

- i) To be executed by all the partners jointly, in case of a Joint Venture.



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

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

POWER OF ATTORNEY*

Whereas Dedicated Freight Corridor Corporation of India Limited has invited Bids for the work of **“Construction of DFC side approaches of RUB/LHS at LC no. 35C(556/26-28), 37C(562/12-14), 44C(576/11-13), 48C(585/5-7), 51C(590/23-25), 52C(594/17-19), 54C603/17-19), 57C(612/25-27), 58C/615/3-5), 64C630/9-11), 65C(633/7-9), 66C/637/5-7), 67C(638/7-9), 77C(659/13-15) AND 79C(662/7-9) IN BETWEEN SONNAGAR—MUGHALSARAI.**

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



Tender No. MGS/EN/RUB/Approach/172/3/2016

by our aforesaid attorney shall and shall always be deemed to have been done by us/
Joint Venture.

Dated this the Day of 2016

.....
(Signature)

.....
(Name in Block letters of Executants)
Seal of Company

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



PROFORMA FOR TIME EXTENSION

No. _____ Dated : _____

Sub : (i) _____ (name of work).

(ii) Acceptance letter no. _____

(iii) Understanding/Agreement no. _____

Ref: _____ (Quote specific application of
Contractor for extension to the date received) _____

Dear Sir,

1. The stipulated date for completion of the work mentioned above is _____ . From the progress made so far and the present rate of progress, it is unlikely that the work will be completed by the above date (or 'However, the work was not completed on this date').
2. Expecting that you may be able to complete the work, if some more time is given, the competent authority, although not bound to do so, hereby extends the time for completion from _____ to _____ .
3. Please note that an amount equal to the liquidated damages for delay in the completion of the work after the expiry of _____ (give here the stipulated date for completion with/without any penalty fixed earlier) will be recovered from you as mentioned in Clause, 17-B of the Standard General Conditions of Contract for the extended period, notwithstanding the grant of this extension. You may proceed with the work accordingly.
4. The above extension of the completion date will also be subject to the further condition that no increase in rates on any account will be payable to you.
5. Please intimate within a week of the receipt of this letter your acceptance of the extension of the conditions stated above.
6. Please note that in the event of your declining to accept the extension on the above said conditions or in the event of your failure after accepting or acting 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 Standard General Conditions of Contract.

Yours faithfully

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



CERTIFICATE OF FITNESS

1. (a) Serial Number _____
(b) Date _____
2. Name of person examined _____
I certify that I have personally examined (*name*) _____
3. Father's Name: son/daughter of _____ ,
residing at _____
4. Sex _____
5. Residence: _____
6. Date of birth, if available, and/or certified age _____
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 and that he/she is fit for employment in a factory or on a work requiring manual labour as an adult/child.
7. Physical fitness _____
8. Identification marks _____
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 of the cause of the physical disability should be clearly stated



PROFORMA OF 7 DAYS NOTICE
DFCCIL
(Without Prejudice)

To
M/s _____

Dear Sir,

Contract Agreement No. _____
In connection with _____

1. In spite of repeated instructions to you by the subordinate offices as well as by this office in various letters of even no. _____, dated _____; you have failed to start work/show adequate progress and/or submit detailed programme for completing the work.
2. Your attention is invited to this office/Chief Engineer's office letter no. _____, dated _____ in reference to your representation, dated _____.
3. As you have failed to abide by the instructions issued to commence the work/to show adequate progress of work you are hereby given 7 days' notice in accordance with Clause 62 of Standard General Conditions of Contract to commence works / to make good the progress, failing which further action as provided in Clause 62 of the Standard General Conditions of Contract viz. to terminate your Contract and complete the balance work without your participation will be taken.

Kindly acknowledge receipt.

Yours faithfully

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



PROFORMA OF 48 HRS. NOTICE
DFCCIL

(Without Prejudice)

To

M/s _____

Dear Sir,

Contract Agreement No. _____
In connection with _____

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

Kindly acknowledge receipt.

Yours faithfully

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



PROFORMA OF TERMINATION NOTICE
DFCCIL
(Without Prejudice)

No. _____ Dated _____

To
M/s _____

Dear Sir,

Contract Agreement No. _____
In connection with _____

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

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

Kindly acknowledge receipt.

Yours faithfully

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



**SAMPLE
FORMAT OF BANK GUARANTEE FOR MOBILISATION ADVANCE**

(Clause 1.5.20, Part - I, Chapter - V)

Bank guarantee made on this Between (hereinafter called "**the Bank**") of the One Part and Dedicated Freight Corridor Corporation of India Limited. (hereinafter called "**the Employer**") of the other Part.

WHEREAS Dedicated Freight Corridor Corporation of India Limited has awarded the Contract no..... for "....." (hereinafter called "**the Contractor**"), having its registered office at

AND WHEREAS vide Clause 1.5.20 of Part - I, Chapter V , Special Conditions of Contract, Mobilization Advance up to ___% (___ percent) of the original contract value of Rs..... is payable to the contractor against Bank Guarantees, the contractor hereby applies for Mobilization Advance of ___% (___ percent) amounting to Rs...../- (Rupees.....) of the Contract Price,

Now, we the undersigned, Bank of, being fully authorized to sign and to incur obligations for and on behalf of and in the name of Bank ofhereby declare that the said Bank will guarantee the Employer the full amount of Rs./- (Rupees.....) as stated above.

We, Bank of, do hereby unconditionally, irrevocably and without demur guarantee and undertake to pay the Employer immediately on demand any or all money payable by the contractor to the extent of Rs./- (Rupees.....) without any demur, reservation, context, recourse or protest and/or without any reference to the contractor. Any such demand made by the Employer on the Bank shall be conclusive and binding notwithstanding any difference between the Employer and the contractor on any dispute pending before any court, Tribunal, Arbitrator or any other authority. We agree that the guarantee herein contained shall be irrevocable and shall continue to be enforceable till the Employer discharges this guarantee.

This guarantee is valid till

At any time during the period in which this guarantee still valid of the contractor fails to fulfil its obligation under the Contract, it is understood that the Bank will extend this guarantee under the same condition for the required time on demand by the Employer at the cost of the contractor.

The Guarantee hereinbefore contained shall not be affected by any change in the constitution of the Bank or of the contractor.



Tender No. MGS/EN/RUB/Approach/172/3/2016

The neglect or forbearance of the Employer in enforcement of payment of any money, the payment whereof is intended to be hereby secured or the giving of time by the Employer for the payment hereof shall in no way relieve the Bank of their liability under this Deed.

The expressions "the Employer", "the Bank" and "the contractor" hereinbefore used shall include their respective successors and assigns.

Notwithstanding anything contained herein:

Our liability under this Bank Guarantee shall not exceed Rs...../-
(Rupees.....)

this bank Guarantee shall be valid up to.....

We are liable to pay the guaranteed amount or any part thereof under this Bank Guarantee only and only if you serve upon us a written claim or demand on or before(date of expiry of Guarantee).

In witness whereof we of the Bank have signed and sealed this Guarantee on theday of being herewith duly authorized.

For and on behalf of the Bank of

Signature of Authorized Bank Official

Name

Designation

Stamp/Seal of the bank

Signed, sealed and delivered for and on
Behalf of the bank by the above named

..... in the presence of

Witness 1

Signature

Name

Address

Witness 2

Signature

Name

Address

