

Engineering Construction Survey for Faridabad - Tuglakabad section & Allied Works of Dedicated Freight Corridor from KM 0 to KM 16 in Rewari-Dadri Section on Western Freight Corridor under Dy. CPM/ NOIDA

DFCCIL/DYCPM/TKD/3

**DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LTD
(A PSU UNDER MINISTRY OF RAILWAYS)**

NOIDA UNIT

TENDER DOCUMENT

**ENGINEERING CONSTRUCTION SURVEY FOR FARIDABAD – TUGLAKABAD SECTION &
ALLIED WORKS OF DEDICATED FREIGHT CORRIDOR FROM KM 0 TO KM 16 IN REWARI-
DADRI SECTION ON WESTERN FREIGHT CORRIDOR UNDER DY. CPM/ NOIDA**

DFCCIL/DYCPM/TKD/3

October, 2011

Dedicated Freight Corridor Corporation of India Ltd.,
1st Floor, A- 102, Sector- 4, NOIDA (GB Nagar)
Ph No – 0120-4309721

Dedicated Freight Corridor Corporation of India Ltd.,
1st Floor, A- 102, Sector- 4, NOIDA (GB Nagar)

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Section – 1(i)

DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LTD.

(A PSU under Ministry of Railways)

TENDER NOTICE

No DFCCIL/DY.CPM/TKD/3

Dt 03-10-2011

DY.CHIEF PROJECT MANAGER, DFCCIL, First floor, A-102, Sector-4, NOIDA for and on behalf of DFCCIL invites sealed open tenders for the following work:

SNo	Name of Work	Date & Time of Opening	Cost of Tender Form	Approx. Cost	Bid Security
1	Engineering Construction Survey for Faridabad-Tuglakabad section & Allied Works of Dedicated Freight Corridor from KM 0 to KM 16 in Rewari- Dadri section under DyCPM/NOIDA <u>Completion Period- 3Months</u>	04 November, 2011, 1530 Hrs in the office of Dy.CPM/NOIDA	Rs.3,000/-	Rs. 49,57,717/- (Rs Forty Nine lacs Fifty seven thousand Seven Hundred Seventeen only)	Rs. 99,154/- (Rs Ninty Nine thousand one hundred fifty four only)

Tender form can be purchased from the office of Dy.CPM/NOIDA at First floor, A-102, Sector-4, NOIDA at 1000 Hrs to 1700 Hrs upto **03-11-2011** and 1000 Hrs to 1200 Hrs on **04-11-2011** on payment (not refundable) in the form of Demand Draft/Bankers Cheque issued by any nationalized bank of India or any scheduled bank of India, in favour of DFCCIL, New Delhi, payable at New Delhi.

The tender document can be downloaded from the website www.dfccil.org.

DY.CPM/NOIDA

Section – 1(ii)

Dedicated Freight Corridor Corporation of India Ltd.,

1st Floor, A- 102, Sector- 4, NOIDA (GB Nagar)

To,

Dy.Chief Project Manager, DFCCIL

First floor, A-102, Sector- 4, NOIDA

Sub- Engineering Construction Survey for Faridabad- Tuglakabad section & Allied works of Dedicated Freight Corridor from KM 0 to KM 16 in Rewari-Dadri section under DyCPM/NOIDA

Ref: Tender Notice No. DFCCIL/DY.CPM/TKD/3 Dt 03-10-2011

1. I /We..... have read the various conditions of tender attached hereto and hereby agree to adhere by the said conditions. I also agree to keep this tender open for acceptance for a period of **120 days** from the date fixed for opening the same and if I/We default thereof, I/We will be liable for forfeiture of my/our "Bid Security(Earnest Money Deposit)". I/We offer to do the work as set out in the Tender Document. I/We also agree to tender by the General Conditions of the Contract and to carry out the work according to the specification and Special Conditions of contract as laid down by the DFCC Administration for the execution of present contract.
2. A sum of Rs. is being submitted as **Bid Security(Earnest Money Deposit)** in the form of DemandDraft/Bankers'ChequeNo.....dated.....is sued by.....(Name & Branch of Bank). The value of the Bid Security(Earnest Money) shall stand forfeited without prejudice to any other rights or remedies if:
 - i) I/We do not execute the contract agreement within 7 (seven) days of receipt of notice by the DFCC administration that such documents are ready:
 - ii) I /We do not submit a Performance Security in the form of Bank Guarantee equal to 5(Five)% of contract value as per the proforma prescribed by DFCC, within 15 days of issue of Letter of Acceptance.
 - iii) I/We do not commence the work within 10 days after receipt of letter to proceed.
3. Until a formal agreement is prepared and executed, acceptance of this tender shall constitute a binding contract between us subject to the modifications, as may be mutually agreed to, between us and indicated in the letter of acceptance or my/our offer for the work.

Signature of Tenderer/Contractor

Contractor's Address

Signature of Witness & Name & Address of Witness

Dedicated Freight Corridor Corporation of India Ltd.,
1st Floor, A- 102, Sector- 4, NOIDA (GB Nagar)

Section 1(iii)

Invitation for Bids (IFB)

Dear Sir,

1. The Dy Chief Project Manager/NOIDA for and on behalf of DFCCIL invites, bids in single stage one envelope systems from the tendering firms / JVs for undertaking the work of

ENGINEERING CONSTRUCTION SURVEY FOR FARIDABAD –
TUGLAKABAD SECTION & ALLIED WORKS OF DEDICATED FREIGHT
CORRIDOR FROM KM 0 TO KM 16 IN REWARI-DADRI SECTION ON
WESTERN FREIGHT CORRIDOR UNDER DY. CPM/ NOIDA

Scope of work for the subject tender includes:-

- i) Detailed Engineering construction Survey, preparation of GAD for ROB portion at any location(s) as directed by the Engineer In Charge.
- ii) Identification & preparation of Land acquisition plan up to 20A & 20E notification under The Railways (Amendment) Act, 2008 with latest amendments for ROB's.
- iii) Geotechnical Investigation for Major bridges , Minor bridges, formation, RUBs,ROBs
- iv) Site selection of major bridges, minor bridges and ROB's/RUBs
- v) Preparation of G.A.D for Minor & Major Bridges and ROB's/RUB's.
- vi) Preparation of Detailed Bill of quantities(BOQ) including rate analysis.

2. DETAILS OF BID DOCUMENT

- 2.1 **Bidding documents:** Cost of the bid document is Rs. 3000/- (Three Thousand only). Bidders should enclose a demand draft / bankers cheque issued by any nationalized bank or any scheduled bank of india, in favour of DFCCIL, payable at New Delhi amounting to Rs. 3000/- towards the cost of Bid document along with their offer, failing which their tender shall be liable to be rejected.

2.2 Bids must be accompanied by a Earnest Money deposit of Rs. 99,154/- (Rs. Ninty Nine thousand one hundred fifty four only) by a crossed Demand Draft/fixed deposit receipt/ Bankers cheque issued by any nationalized bank or any scheduled bank of India, in favour of DFCCIL, Payable at New Delhi. Bids received without earnest money shall be summarily rejected.

**2.3 Submission of bids:
Date and time for submission of offer:- up to 15.00 hrs on 04-11-2011**

Venue for submission of bids:- Office of DyCPM/NOIDA at 1st Floor, A-102, Star House, Sector- 4, NOIDA (GB Nagar) Ph No – 0120-4309721

2.4 Time for opening of offer: - 15.30 hrs on 04-11-2011

2.5 If the date of opening is declared as holiday then the tender shall be accepted upto 15.00 hrs of the next working day and the same will be opened at 15.30 hrs on the same day i.e, next working day.

2.6 **Address for Communication:** Interested Bidders may obtain further information from the address given below.

Dy.Chief Project Manager, DFCCIL, First Floor, A- 102, Sector-4, NOIDA (GB Nagar), Mobile No 09650390380 and email vsaxena@dfcc.co.in

3. GENERAL

3.1 Bid document is non-transferable. Bids received from bidders in whose name Bidding Document has been issued shall only be considered.

3.2 No extension in the Bid Due Date shall be considered on account of delay in receipt of Bid Document by post.

4. Validity of the Bid

4.1 The bidders shall keep their offer open for a minimum period of **120 days** from the date of opening of the bid, extendable further if required by mutual agreement from time to time. Any contravention of the above condition shall make the bidder liable for forfeiture of

his earnest money deposit. The bidders cannot withdraw their offer within the period of validity / extended validity.

5. TENDERING PROCEDURE.

5.1 Procedure for Submission of Bid

This is a single stage one packet system of tendering. The bid consists of one packet / envelope containing Technical Bid and Priced Bid from shortlisted agencies. Each page of Bid must be signed and sealed by the bidder or its authorized representative in whose name power of attorney is issued.

The tender should be clearly written such as:

- Tender No.
 - Name of work
 - Date & Time of opening of tender
 - Name & Address of tenderer
- a. A list of similar works completed in last three years i.e., Current year and the last three financial years i.e. 2011-12, 2010-11, 2009-10, 2008-09 as per proforma given in Annexure T-2 (Ref. para 6.1.8)
 - b. A List of Computers & Software in the format as in Annexure T-5
 - c. List of Key personnel in the format as in Annexure T-6 (Ref. para 6.1 (i) (vi))
 - d. Single rate should be quoted as percent above or below for all the items of schedule A and schedule B.

5.2 Tender opening

The tenders shall be opened on the date of opening as indicated in the office of DFCCIL. The tendered percentage rates shall then be read out.

6. Organization Setup of bidder:

6.1 The bidders must submit the list of work completed in the last three financial year giving description of work, organization for whom executed, approximate value of the contract at the time of award, date of award, date of scheduled completion of work, date of actual completion of the work and final value of the contract. This information should be given in the format placed at **Annexure-T-2**.

6.2 The time of completion for the instance work is three(03) months therefore, to accomplish the work within the currency of the agreement, work has to be taken up simultaneously. To materialize this requirement, the bidder should be equipped

with the following minimum plants and machinery and personnel.

- 6.2.1. The bidder should submit list of Plants & Machinery and List of Personnel / Organization available on hand and proposed to be engaged for the subject work.
- 6.2.2. The bidder should have necessary data processing license software preferably Autocad 3d Civil and Mx-Rail/Road for generation of L- Section and other alignment details. The said information should be given in format given at Annexure – T-5.
- 6.2.3. The bidder should have at least **three graduate Civil Engineers** who are having minimum 10 years experience in field work. Bio data for proposed key personnel to be deployed for this work shall be submitted along with the bid document. The said information should be given in the format given at Annexure - T - 6.

7. Disqualification: -

The bidder shall be disqualified if he is found to have shown poor performance in DFCCIL in ongoing or completed works during or prior to evaluation period.

8. ELIGIBILITY CRITERIA:-

This is an open tender and the tender shall be evaluated on the basis of past performance and price bid.

- a) The consulting entity should be in consultancy business of civil engineering business for last three years.
- b) The entity must have designed at least one Railway bridge and one ROB duly checked by Government department.

9. Time Schedule

The total time for completion of work shall be **three months** from date of issue of Letter of acceptance by DFCCIL. Time is the essence of the Contract.

10. Rate

- 10.1. The contractor / bidder must quote a flat single percentage above or below or at par of the total amount for each schedule of tender as given in the tender schedule. **This percentage shall be applicable on each item of the schedule in consideration, uniformly.**
- 10.2. Tenderers are required to give unconditional offers. **A conditional**

offer, having financial implication, is liable to be rejected.

11. Earnest Money is liable to be forfeited in case of the following:

- 11.1. On revocation of tender due to increase in rates by the firm after opening of tenders but before the validity of the tender.
- 11.2. On refusal to accept the work order after award of contract.
- 11.3. If the work is not commenced on the stipulated date of start of the work awarded to the contractor.

Thanking you,

Yours faithfully,

(V. Saxena)
DyCPM/NOIDA & Project Incharge
For and on behalf of DFCCIL

Dedicated Freight Corridor Corporation of India Ltd

Section 2

Instructions to Tenders / Bidders (ITB)

1.Site visit:-

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

2.Cost of Bidding:-

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

3.Language of Bid: -

The Bid, as well as all correspondence and documents relating to the bid exchanged by the Bidder and the Employer, shall be written in English.

4.Currencies of Bid and Payment: -

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

5.Period of Validity of Bids:- Bids shall be valid for a minimum period of 120 days from the date of opening of the tender. A bid valid for a shorter period shall be rejected by the employer as non responsive.

6.Format and Signing of Bid:- Bid document shall be signed by a person duly authorized to sign on behalf of the Bidder. Any interlineations, erasures, or overwriting shall be valid only if they are signed or initialed by the person signing the bid.

7.Deadline for Submission of Bids :- Bids must be received by the Employer at the address and no later than the date and time indicated in the Bid document.

8.Late Bids :- The Employer shall not consider any bid received after the deadline for submission of bids. Any bid received by the Employer after the deadline for submission of bids shall be declared

late and rejected.

9. Signing of Contract: - The successful bidder, whose tender has been accepted by the competent authority of DFCCIL, will be informed by the employer through a Letter of Acceptance. In response the successful bidder should sign the contract agreement (**Annexure II**) within Seven days from the date of issue of acceptance letter.

10. Corrupt Practices: - The Employer requires that bidders, suppliers, and contractors observe the highest standard of ethics during the execution of such contracts.

11. Security deposit: - The security deposit will be equal to **5%** of the value of the contract. The earnest money of the successful bidder will be converted into initial security deposit. Balance Security deposit, shall be deducted at the rate of **10%** from each of the running bill of the contractor till the realization of full amount of security deposit as per contract.

12. Performance Security:

- a. Within fifteen days of issue of Letter of Acceptance from the employer/ engineer the successful tenderer shall furnish to employer/ engineer a **performance guarantee in the form of irrevocable bank guarantee/FDR/TDR amounting to 5% of original contract value** from any scheduled or nationalized bank of India in the Performa attached at **Annexure-I**.
- b. Alternatively the firm can furnish the performance guarantee in the form of FDR from a scheduled or nationalized bank of India in favour of the employer i.e. DFCCIL.
- c. No payment under the contract will be made to the firm without receipt of performance guarantee from the firm.
- d. Failure of the successful tenderer to furnish the require performance guarantee shall be a ground for annulment of the contract and forfeiture of earnest money.
- e. In case of termination of contract on account of failure of the contractor, performance guarantee shall be encashed.
- f. In case the firm/ contractor fails to extend the validity of performance guarantee as desired by the employer then the employer may encash the performance guarantee of the firm/ contractor.
- g. Release of performance guarantee:-The performance guarantee shall be released to the firm only after the physical completion of the work based on the completion certificate issued by competent authority stating that contractor has completed the work in all respect satisfactorily.

13 Price variation clause is not applicable for this contract

Dedicated Freight Corridor Corporation of India Ltd.,
1st Floor, A- 102, Sector- 4, NOIDA (GB Nagar)

Section 3

Bid Data Sheet

This section consists of provisions that are specific to the bid and supplement the information or requirements included in Section 1 – Instructions to Bidders.

1.0	The Tender number of the Invitation for Bids is <u>DFCCIL/DYCPM/TKD/3:</u>
2.0	The Employer is: Dedicated Freight Corridor Corporation of India Limited, NOIDA
3.0	The name of the work is: Engineering Construction Survey for Faridabad – Tuglakabad section & Allied Works of Dedicated Freight Corridor from KM 0 to KM 16 in Rewari-Dadri Section on Western Freight Corridor under Dy. CPM/ NOIDA
4.0	<u>For clarification purposes only, the Employer’s address is</u> Dy.Chief Project Manager, DFCCIL, First Floor, A- 102, Sector- 4, NOIDA (GB Nagar), Mobile No 09650390380 and email noidaunit@gmail.com
5.0	The language of the bid is: English
6.0	The bid validity period shall be 120(One Hundred Twenty) days.
7.0	The Bidder should submit along with the bid, a bid security for Rs. 99,154/- (Rs. Ninty Nine thousand one hundred fifty four only)
8.0	The written confirmation of authorization to sign on behalf of the Bidder shall consist of: In case of Companies, a letter from the Company declaring the authorization given by the Board of Directors for signing the bid.
9.0	<u>For bid submission purposes only, the Employer’s address is:</u> Dy.Chief Project Manager, DFCCIL, First Floor, A- 102, Star House, Sector- 4, NOIDA (GB Nagar), UP PIN: 201301 Country : India Telfax. No. : 0120-4134554 Phone No : 0120-4309721 The deadline for bid submission is: Date: 04-11-2011 Time: 15:00 hrs.

10.0	The bid opening shall take place in the office of : Dy.Chief Project Manager, DFCCIL, First Floor, A- 102, Star House,Sector- 4, NOIDA (GB Nagar), UP PIN: 201301 Country : India Telfax. No. 0120-4134554 Phone No 0120-4309721 The deadline for bid opening is: Date: 04-11-2011 Time: 15:30 hrs.

Dedicated Freight Corridor Corporation of India Ltd.,
1st Floor, A- 102, Sector- 4, NOIDA (GB Nagar)

Section 4

GENERAL CONDITIONS OF CONTRACT

GENERAL CONDITIONS OF CONTRACT will form an integral part of the Bid and contract, which is enclosed along with the tender documents. In case of any deviation between conditions of contract and any other special condition & specifications of contract of this tender document, the special condition & specifications of contract of this tender document shall prevail. The tenders must give a certificate along with their offer that they have thoroughly read, understood and accepted the conditions/special conditions & specifications of contract as well as other conditions of tender etc.

1.DEFINITIONS

Unless excluded by or repugnant to the context:

- i. The expression employer /DFCCIL as used in the tender papers shall mean the Dedicated Fright corridor Corporation of India Ltd.
- ii. The expression Corporation as used in the tender paper means Dedicated Fright corridor Corporation of India Ltd.
- iii. The expression “Department” as used in the tender papers shall mean Dedicated Fright corridor Corporation of India Ltd.
- iv. “Drawing” shall be mean the drawings referred to in specifications and any modifications of such drawings approved in writing by engineers and such other drawings as may from time to time be furnished or approved in writing by the Engineer In Charge.
- v. Engineer/ “Engineer-in-charge” of the work shall mean the ‘Representative’ appointed by DFCCIL.
- vi. The “Site” shall mean the lands and / or other places in or through which the work is to be executed under the contract including any other lands or place used for the purpose of contract.
- vii. Part(s) thereof as the case may be and shall include all extra or additional, altered or substituted works as required for performance of the contract.
- viii. The “Contract” shall mean The agreement entered into between the DFCCIL and the contractor as recorded in the contract form signed by the parties include all attachment the notice of tender, the sealed quotation and the tender documents including the tender and acceptance thereof

together with the documents referred to therein, and the accepted conditions with annexure mentioned therein including any special conditions, specifications, designs, drawings, price schedule / bill of quantities and schedule of rates. All these documents taken together shall be deemed to form one contract and shall be complementary to one another. Contract is deed of contract together with its entire accompaniment and those later incorporated in it by internal consent.

- ix.** The “Contractor/ consultant” shall mean the individual or firm or company whether incorporated or not, undertaking the work and shall include legal representative of such an individual or persons comprising such firms or company as the case may be and permitted, assigns of such individual or firm or company.
- x.** The “Contract sum” / “Contract price” shall mean the sum for which the tender is accepted.
- xi.** The “Contract time” means period specified in the tender document for entire execution of contracted works from the date of notification of award including monsoon period.
- xii.** A “Day” shall mean a day of 24 hours from midnight to midnight irrespective of the number of hours worked in that day.
- xiii.** A “month” shall mean a calendar month.
- xiv.** A “week” shall mean seven consecutive days without regard to the number of hours worked in any day in that week.
- xv.** “Excepted Risks” are risks due to riots (otherwise than among contractor’s employees) and civil commotion (in so far as both these are un-insurable) was (whether declared or not), invasion, act of foreign enemies, hostilities, civil war, rebellion, revolution, insurrection, military or usurped power, any acts of God, such as earthquake, lightening and un-precedent floods over which the contractor has no control.
- xvi.** “Temporary works” shall mean all temporary works of every kind required in or about the execution completion or maintenance of the works.
- xvii.** “Urgent works” shall mean any measures, which in the opinion of the Engineer, become necessary during the progress of the works to obviate any risk or accident or failure or which become necessary for security of the work or the persons working, thereon.
- xviii.** Where the context so requires, word imparting the singular number only also include the plural number of vice-versa.

2.SECURITY DEPOSIT

The security deposit will be equal to **5%** of the value of the contract. The earnest money of the successful bidder will be converted into initial security deposit. Balance Security deposit, shall be deducted at the rate of **10%** from each of the running bill of the contractor till the realization of full amount of security deposit as per contract.

The security deposit shall be returned to the contractor without any interest when the contractor ceases to be under any obligations under the contract i.e. after completion of defect liability period i.e after 120 days of the satisfactory completion of the work.

3.SUPERVISION AND SUPERINTENDENCE

CONTRACTOR'S SUPERVISION The Contractor shall supervise & direct the works efficiently & with his best skill & attention. He shall be solely responsible for means, methods, techniques, procedures & sequences of construction. The Contractor shall co-ordinate all parts of the work and shall be responsible to see that the finished work complies fully with the contract documents, & such instructions & variation orders as the Engineer may issue during the progress of the works.

4.ENGINEERS AND ENGINEER'S REPRESENTATIVES

- a) The Employer shall appoint the Engineer who shall carry out the duties assigned to him in the Contract. The Engineer's staff shall include suitably qualified engineers and other professionals who are competent to carry out these duties.
- b) The Engineer shall carry out the duties specified or implied in the Contract. If the Engineer is required to obtain the Approval of the Employer before exercising a specified authority, as per the requirement in accordance with the contract. Any requisite approval shall be deemed to have been given by the Employer for any such authority exercised by the Engineer. The Engineer shall have no authority to amend the Contract nor to relieve the Contractor of any of its duties, responsibilities and obligations under the Contract.
- c) Engineer's Representative: Duties and Authority will in principle comprise the following :
 - i) Supervision of day to day work including quality and quantity.
 - ii) To hold site review meeting and review the Contractor's Programme of Work.
 - iii) Approving contractor's design of enabling works.
 - iv) To inspect the record of Contractor's personnel and equipment

- v) Certification, determination, instruction, opinion or evaluation of disputes
 - vi) Superintendence of work as directed by the Engineer from time to time till final Bill is paid, Defect Liability period is over.
 - vii) To instruct the Contractor to remove unsuitable personnel from site of work.
 - viii) To submit recommendations to the Employer with reference to proposals of additional work and/or variations after obtaining the details from the Contractor.
 - ix) To submit recommendations to the Employer with reference to request for extension of time received from the Contractor.
 - x) Certification of Contractor's Interim Payment and Final Payment applications.
- d) Any proposal, inspection, examination, testing, consent, approval or similar act by the Engineer (including absence of disapproval) shall not relieve the Contractor from any responsibility including responsibility for his errors, omissions and discrepancies.
 - e) The Engineer shall copy to the Employer all communications given or received by him in accordance with the Contract.
 - f) For the purpose of the instant bid engineers and engineer's representative shall be nominated by the DFCCIL officials.

5. EMPLOYER'S/ENGINEER'S INSPECTION OF WORK

- a) The Employer and the Engineer shall at all reasonable times have full access to all parts of the Site and be entitled to inspect, examine, measure and workmanship, and to check the progress of work.
- b) The Contractor shall give the Engineer full opportunity to carry out these activities including providing access, facilities, permissions and safety equipments. No such activity/inspection shall relieve the Contractor from any obligation or responsibility.

6. REPRESENTATION OF WORK

- a. Unless the Contractor's Representative is named in the Contract, the Contractor shall, within 14 days of Notice to Proceed, submit to the Engineer for consent the name and particulars of the person the Contractor proposes to appoint. The Contractor shall not revoke the appointment of the Contractor's Representative without the prior consent of the Engineer. The Contractor's Representative so nominated shall have full authority to act on behalf of the Contractor

The Contractor's Representative shall give his whole time to directing execution of the Works. The Contractor's Representative shall receive (on behalf of the Contractor) all notices, instructions, consents, approvals, certificates. Determinations and other communications under the Contract. Whenever the Contractor's Representative is to be absent from the Site, a suitable replacement person shall be appointed, with prior consent of Engineer.

- b. Failure on part of the Contractor to comply with these provisions shall constitute a breach.
- c. The Contractor's Representative may delegate any of his powers, functions and authorities to any competent person, and may at any time revoke any such delegation. Any such delegation or revocation shall be in writing and shall not take effect until the Engineer has given prior consent thereto. The Contractor's Representative and such persons shall be fluent in the language of day to day communication and the Contractor shall be bound by and fully liable for the acts or omissions of the Contractor's Representatives or any of his employees and/or delegates, agents or nominees.

7.USE OF EXPLOSIVES

Blasting is not permitted on this work unless under exceptionally unavoidable conditions but subject to Government's Policy /rules/acts on the subject matter and approval of engineer in charge.

8.PROTECTION

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

9.WORKMEN

The contractor shall at all times enforce strict discipline and good order among his employees and shall not employ on the works any unfit person or anyone not skilled and experienced in

the assigned task. The Contractor shall in respect of labour employed by him comply with or cause to be complied with the provisions of various labour law and rules and regulations as applicable to them in regard to all matters provided therein and shall indemnify the owner in respect of all claims that may be made against the owner for non-compliance thereof by the Contractor. In the event of the contractor committing a default or breach of any provisions of labour laws and rules and regulations, the Contractor shall without prejudice is liable to be prosecuted as per Indian Laws.

10.LAWS AND REGULATIONS :

Governing Law:The contract documents shall be governed by the laws and by-laws of India.

11.SAFETY PRECAUTIONS AND EMERGENCIES AND PROTECTION OF ENVIRONMENT

The contractor shall be solely responsible notwithstanding any stipulations by owner or Engineer for initiating, maintaining and supervising all safety precautions and programmes, in connection with the work and shall comply with all laws, ordinance, code rules, regulations and lawful orders of any public authority having jurisdiction for the safety of persons or property or to protect them from damages, injury or loss during the entire contract period including non-working hours.

12.INCOME TAX

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

13.SERVICE TAX

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

14.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 Govt taxes **except service tax**. The service tax will be paid extra if payable under law on submission of the documentary evidence. The DFCCIL authorities will not take any responsibility of refund of such taxes/fees. Any violation, in the legal provisions of taxes, duties, permits and fees, carried out by the Contractor and detected subsequently shall be the sole responsibility of the Contractor and his legal heirs.

15. 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 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.

16. DELAY AND EXTENSION OF CONTRACT PERIOD / LIQUIDATED DAMAGES

(i). The time allowed for execution and completion of the works or part of the works as specified in the contract, shall be essence of the contract.

(ii). As soon as it becomes apparent to the Firm/Contractor, that the work and / or portions thereof (required to be completed earlier), cannot be completed within the period(s) stipulated in the contract, or the extended periods granted, he shall forthwith inform the Engineer and advise him of the reasons for the delay, as also the extra time required to complete the work and / or portions of work, together with justification thereof. In all such cases, whether the delay is attributable to the Firm/Contractor or not, the Firm/Contractor shall be bound to apply for extension well within the period of completion / extended period of completion of the whole works and / or portions thereof.

(iii). Extension due to modifications:- If any modifications are ordered by the Engineer or site conditions actually encountered are such, that in the opinion of the Engineer the magnitude of the work has increased materially, then such extension of the stipulated date of completion may be granted, as shall appear to the Engineer to be reasonable.

- iv) **Delays not due to Employer:-**If the completion of the whole works (or part thereof which as per the contract is required to be completed earlier) , is likely to be delayed on account of:
- i. Any force majeure event referred to in Clause 20.0 or
 - ii. Any relevant order of court or
 - iii. Any other event or occurrence which, according to the Engineer is not due to the Firm/Contractor's failure or fault, and is beyond his control. The Engineer may grant such extensions of the completion period as in his opinion reasonable.
- v) **Delays due to Employer / Engineer.** In the event of any failure or delay by the Employer / Engineer in fulfilling his obligations under the contract, then such failure or delay, shall in no way affect or vitiate the contract or alter the character thereof; or entitle the Firm/Contractor to damages or compensation thereof but in any such case, the Engineer shall grant such extension or extensions of time to complete the work, as in his opinion is / are reasonable.
- vi) **Delays due to Firm/Contractor and Liquidated Damages:-**If the delay in the completion of the whole works or a part of the works, beyond stipulated completion period, is due to the Firm/Contractor's failure or fault, and the Engineer feels that the remaining works or the portion of works can be completed by the Firm/Contractor in a reasonable and acceptable short time, then, the Engineer may allow the Firm/Contractor extension or further extension of time, for completion, as he may decide, subject to the following: -
- (a).Without prejudice to any other right or remedy available to the Engineer, recover by way of liquidated damages and not as penalty, a sum equivalent to quarter of one percent (0.25%) of the contract value of the works, for each week or part thereof the Firm/Contractor is in default.
 - (b).The recovery on account of compensation for delay shall be limited to 5% of his contract value of the works, or the portion of the works, as the case may be.
 - (c).The recovery of such damages shall not relieve the Firm/Contractor from his obligation to complete the work or from any other obligation and liability under the contract. **Engineer's decision on compensation payable being final.**
 - (d).The decision of the Engineer as to the compensation, if any, payable by the Firm/Contractor under this clause shall be final and binding.
- vii) Time shall continue to be treated as the essence of contract in spite of extension of time. It is an agreed term of the contract that notwithstanding grant of extension of time under any of the

sub-clauses mentioned herein, time shall continue to be treated as the essence of contract on the part of the Firm/Contractor.

17.DETERMINATION OF CONTRACT DUE TO FIRM/ CONTRACTOR'S DEFAULT

(i).Conditions leading to determination of' contract

If the Firm/Contractor

- a. becomes bankrupt or insolvent, or,
- b. makes arrangements with or assignment in favour of his creditor, or agrees to carry out the contract under a committee of inspection of his creditors or
- c. being a company or corporation goes into liquidation by a resolution passed by the Board of Directors / General Body of the share-holders or as a result of court order (other than voluntary liquidation for the purpose of amalgamation or reconstruction) ; or
- d. has execution levied on his goods or property or the works, or
- e. assigns or sublets the contract or any part thereof otherwise than as provided for under conditions of' this contract, or
- f. abandons the contract, or
- g. persistently disregards instructions of the Engineer or contravenes any provisions of the contract, or
- h. fails to adhere to the agreed programme of work or fails to complete the works or parts of the works within the stipulated or extended period of completion, or is unlikely to complete the whole work or part thereof within time because of poor record of progress; or
- i. fails to take steps to employ competent and / or additional staff and labour, or
- j. promises, offers or gives any bribe, commission, gift or advantage, either himself or through his partners, agents or servants to any officer or employee of the Engineer or the Employer, or to any person on their behalf, in relation to obtaining or execution of this or any other contract with the Employer, or
- k. Suppresses or gives wrong information while submitting the tender.

In any such case the Engineer on behalf of the Employer may serve the Firm/Contractor with a notice in writing to that effect and if the Firm/Contractor does not, within 7 days after delivery to him of such notice, proceed to make good his default in so far as the same is capable of being made good, and carry on the work or comply with such instructions as aforesaid to the entire satisfaction of the

Engineer, the Employer shall be entitled after giving 48 hours notice in writing to terminate the contract, as a whole or in part or parts (as may be specified in such notice).

(ii).In such a case of termination, the Employer / Engineer may adopt the following course

Carry out the whole or part of the work from which the Firm/Contractor has been removed by engaging another Firm/Contractor or deployment of technical staff at site.

(iii).DETERMINATION OF CONTRACT ON EMPLOYER / ENGINEER'S ACCOUNT

(a).The Employer / Engineer shall be entitled to determinate the contract, at any time, should, in the Employer / Engineer's opinion, the cessation of works becomes necessary, owing to paucity of funds or due to court orders or from any other cause whatsoever. Notice in writing from the Employer / Engineer of such termination and reasons therefore, shall be conclusive evidence thereof.

(b).In case of determination of contract on Employer / Engineer's account as described above, the claims of the Firm/Contractor towards expenditure incurred by him in the expectation of completing the whole works, shall be admitted and considered for payment as deemed reasonable and such claims should be supported by the documents / vouchers etc., to the satisfaction of Employer / Engineer. The decision of the Employer / Engineer on the necessity and propriety of such expenditure shall be final and conclusive. However, the Firm/Contractor shall have no claim to any payment of compensation or otherwise, on account of any profit or advantage which he might have derived from the execution of the work in full but which he could not in consequence of determination of contract under this clause.

18.FOSSILS ETC

All fossils, coins, articles of value of antiquity and structures or other remains or things of geological or archaeological interest discovered on the site shall be deemed to be the property of the owner and the Contractor shall take reasonable precautions to prevent his workmen or any other person from removing or damaging any such article or thing and shall immediately upon discovery thereof and before removal acquaint the Engineer of such discovery and carry out at the expenses of the Engineer's order as to the disposal of the same.

19.LABOUR RULES

The contractor will have to produce to the satisfaction of the accepting authority a valid and current license issued in his favour under the provision of Contract Labour (Regulation and Abolition) Act 1970, before starting the work, otherwise the Contractor shall have to face the further consequences.

The contractor shall have to follow all rules and regulations pertaining to payment of Minimum Wages Act as notified by C.G. Government applicable for Project Sites. The contractor shall also be responsible for observance of labour regulations in respect of labour welfare PF & EI.

20.PERFORMANCE GUARANTEE

(i).Within Seven days of issue of letter of acceptance from the employer/ engineer the successful tenderer shall furnish to employer/ engineer a **performance guarantee in the form of irrevocable bank guarantee amounting to 5% of original contract value** from any scheduled or nationalized bank of India in the Performa attached at **Annexure-I**.

(ii).Alternatively the firm can furnish the performance guarantee in the form of FDR from a scheduled or nationalized bank of India in favour of the employer i.e. DFCCIL.

(iii).No payment under the contract will be made to the firm without receipt of performance guarantee from the firm.

(iv).Failure of the successful tenderer to furnish the require performance guarantee shall be a ground for annulment of the contract and forfeiture of earnest money.

(v).In case of termination of contract on account of failure of the contractor performance guarantee shall be encashed.

(vi).In case the firm/ contractor fails to extend the validity of performance guarantee as desired by the employer then the employer may encash the performance guarantee of the firm/ contractor.

(vii).Release of performance guarantee:-The performance guarantee shall be released to the firm only after the physical completion of the work based on the completion certificate issued by competent authority stating that contractor has completed the work in all respect satisfactorily.

21.FORCE MAJEURE

War, invasion, revolution, riots, sabotage, lockouts, strikes, work shut downs imposed by Government, acts of Legislative

or other Authorities, stoppage in supply of raw materials, fuel or electricity, breakdown of machinery, act of God, epidemics, fires, earthquakes, floods, explosives, accidents and navigation blockages, or any other acts or events whatsoever, which are beyond reasonable control of Contractor and which shall directly or indirectly prevent completion of the project within the time specified in the agreement, will be considered Force Majeure. Contractor shall be granted necessary extension of completion date to cover the delay caused by Force Majeure without any financial repercussions.

22.SETTLEMENT OF DISPUTES

(i).All disputes or differences of any kind whatsoever that may arise between the Employer / Engineer and the Consultant in connection with or arising out of the contract or subject matter thereof or the execution of works, whether during the progress of works or after their completion, whether before or after determination of contract shall be settled as under:

(ii).Mutual Settlement:-All such disputes or differences shall in the first place be referred by the Consultant to the Employer in writing for resolving the same through mutual discussions, negotiations, deliberation etc. associating representatives from both the sides and concerted efforts shall be made for reaching amicable settlement of disputes or differences.

(iii).Conciliation/Arbitration:-is a term of this contract that Conciliation / Arbitration of disputes to settle shall not be commenced unless an attempt has first been made by the parties to settle such disputes through mutual settlement.

(iv).If the Consultant is not satisfied with the settlement by the Employer on any matter in question, disputes or differences, the Consultant may refer to the Managing Director of the Employer in writing to settle such disputes or differences through Conciliation or Arbitration provided that the demand for Conciliation or Arbitration shall specify the matters, which are in question or subject of the disputes or differences as also the amount of claim, item wise. Only such dispute(s), or difference(s) in respect of which the demand has been made, together with counter claims of the Employer shall be referred to Conciliator or Arbitrator as the case may be and other matters shall not be included in the reference.

(v).Managing Director of the Employer may himself act as Sole Conciliator/Sole Arbitrator or may at his option appoint another person as Sole Conciliator or Sole Arbitrator, as the case may be. In case, Managing Director of the Employer decides to appoint a Sole Conciliator / Sole Arbitrator, then a panel of

atleast three names will be sent to the Consultant. Such persons may be working / retired employees of the Employer who had not been connected with the work. The Consultant shall suggest minimum two names out of this panel for appointment of Sole Conciliator / Sole Arbitrator. Managing Director of the Employer will appoint Sole Conciliator / Sole Arbitrator out of the names agreed by the Consultant.

(vi).In case, the Consultant opts for settlement of disputes through Conciliation at first stage and if the efforts to resolve all or any of the disputes thorough Conciliation fails, the Consultant may refer to the Managing Director of the Employer for settlement of such disputes or differences through Arbitration. The appointment of Sole Arbitrator shall be done by the Managing Director of the Employer as per the procedure described above. No disputes or differences shall be referred to Arbitration after expiry of 60 days from the date of notification of failure of Conciliation.

(vii).The Conciliation and / or Arbitration proceedings shall be governed by the provisions of the Indian Arbitration and Conciliation Act 1996 or any statutory modification or re-enactment thereof and the rules made there under and for the time being in force shall apply to the conciliation and arbitration proceedings under this clause.

- viii) The language of proceedings, documents or communications shall be in English and the award shall be made in English in writing.
- ix) The conciliation / arbitration proceedings shall be held at a place decided by Conciliator / Arbitrator.
- x) The fees and other charges of the Conciliator / Arbitrator shall be as per the scales fixed by the Employer and shall be shared equally between the Employer and the Consultant.
- xi) **Settlement through Court:-**It is a term of this contract that the Consultant shall not approach any Court of Law for settlement of such disputes or differences unless an attempt has first been made by the parties to settle such disputes or differences through clauses of 4.23.

23.Suspension of work

The Obligations of the Employer, the Engineer and the Consultant shall not be altered by reasons of conciliation / arbitration being conducted during the progress of works. Neither party shall be entitled to suspend the work on account of conciliation / arbitration and payments to the Consultant shall continue to be made in terms of the contract.

24. Award to be binding on all parties

The award of the Sole Arbitrator, unless challenged in court of law, shall be binding on all parties.

25. Exception

For settlement of disputes with central PSUs, the procedure as per existing orders of Permanent Machinery for Arbitration (PMA), Bureau of Public Enterprises, Govt. of India shall be followed.

26. Jurisdiction of Courts

Jurisdiction of courts for dispute resolution shall be New Delhi only.

SECTION 5

SPECIAL CONDITIONS OF CONTRACT AND SPECIFICATIONS

5.1.INTRODUCTION.

- i) ENGINEERING CONSTRUCTION SURVEY FOR FARIDABAD – TUGLAKABAD SECTION & ALLIED WORKS OF DEDICATED FREIGHT CORRIDOR FROM KM 0 TO KM 16 IN REWARI-DADRI SECTION ON WESTERN FREIGHT CORRIDOR UNDER DY. CPM/ NOIDA
- ii) Detailed Engineering construction Survey for Detour at any location(s) as directed by the Engineer In Charge.
- iii) Preparation of Land acquisition Proposals as per the requirement of land acquisition for special Railway Project under the provision of the Railways (Amendment) Act, 2008.(As per latest amendment for DFCC in 1894 LA Act) for ROB
- iv) Geotechnical Investigation for Major , Minor bridges, formation & RUB
- v) Site selection of major and minor bridges
- vi) Preparation of G.A.D for ROB, Minor & Major Bridges / RUB.
- vii) Preparation of Detailed schedule of quantities.

5.2. DETAIL SCOPE OF WORK :-

5.2.1 .DETAILED GEOTECHNICAL INVESTIGATION FOR BRIDGES AND ROB.

- 5.2.1.1. The works include sub-surface investigation for foundation of bridges to determine:
 - a) Sequence and extent of each soil and rock stratum in the region likely to be affected by the proposed work,
 - b) Nature of each stratum and engineering properties of soil and rock which may affect design and mode of construction of proposed structures and their foundations, and
 - c) Location of ground water and possible corrosive effects of soil and water on foundation materials.

5.2.1.2 Contractor shall carry out geotechnical investigation to a maximum depth of 50m, 150 mm / NX size vertical boreholes in soil and rock, laboratory testing of the sample collected from site from **the reputed laboratory** (either of the firm or as decided by the engineer in- charge) of soil, rock & water samples as required for submission of reports thereof.

5.2.1.3 The geotechnical investigation work includes:

- a. Drilling of 150mm dia bore holes in all kind of soil including laterite, gravel and cobble and NX size borehole in bouldery and rocky strata as specified in BOQ boreholes for Major Bridges
- b. Conducting Standard Penetration Test at every 3.0m interval starting from first sample at 1.5m depth or at the change of stratum as per **IS: 2131**.
- c. Collection of disturbed, undisturbed soil samples and water samples and carrying out various laboratory testing as per relevant IS codes in consultation with Engineer-in-charge of DFCCIL Ltd.
- d. Collection of rock core samples and carrying out various laboratory testing as per relevant IS codes in consultation with Engineer-in-charge of DFCCIL Ltd.
- e. Preparation of bore logs, location plan of boreholes, various test results curves and calculations on computer by using suitable Software.
- f. Investigation shall include data regarding removal of overburden by excavation, erosion or landslides, to give an idea of the amount of pre-consolidation the soils data has undergone. Similarly data regarding recent fill to be investigated to study the consolidation characteristic of the fill as well as original data.
- g. **Investigation for corrosive soils and water and effluent** - the investigation shall also cover this aspect. Water containing high percentage of sulphates and chloride can adversely affect property of concrete. Similarly presence of soil having corrosive action on metals due to either chemical or bacterial agency shall be investigated and brought out in the report. In such cases chemical analysis of the soil and water should be made to assess the necessity of special precaution. As per procedure laid down in IS 1892-1979.
- h. Industrial effluent coming into the stream of the river in the near vicinity of the bridge site and industrial waste dump near the bridge site shall be collected and chemically analysis in the laboratory for its adverse affects on metal or cement concrete. In such cases the precautions to be

followed during construction to protect the structure from such affect shall be brought out in the report submitted.

- i. Calculation of “f values (lacey’s silt factor)” shall be carried out an average weighted values for each bore hole locations shall be indicated in the reports.
- j. Submission of draft report in 3 copies and final reports in 5 copies including details of recommendation of suitable type of foundations with the Safe Bearing Capacity. Report shall elaborately discuss the findings of the investigation along with all field and laboratory observations / calculation. Report shall also include longitudinal profile of the soil / rock strata along the alignment up to 50 m depth combining the result of Geotechnical and Geophysical investigations and testing. Report shall be prepared in accordance with provisions contained in IS 1892-1979 and IS 4464-1967. Soft copy of the report shall be provided in CDs / DVDs.

5.2.1.4 SPECIAL TECHNICAL SPECIFICATIONS TO BE FOLLOWED ARE AS UNDER:-

- a. Drilling of boreholes is required to be carried out in accordance with specifications of relevant codes of Bureau of Indian Standard as given below:
- b. IS: 4078 Code of practice for indexing & storage of drill cores.
- c. IS: 2131 Method for standard penetration test
- d. IS: 1892 Code of practice for sub surface investigation for foundations
- e. IS: 6926 Diamond core drilling site investigation for river valley projects.
- f. IS: 5313 Guide for core drilling observation.
- g. IS: 4464 Code of practice for presentation of drilling information and core description in foundation investigation.
- h. IS: 5529 (Part – I & Part - II) Code of practice for in – situ permeability tests in overburden and rock respectively.
- i. And any other relevant codes & specifications as decided by DFCCIL Engineer in charge. However it is reiterated that the above list is only for guidance and the firm is responsible and shall furnish the list of specification that are followed in the above investigation.

5.2.1.5 Following test shall be carried out for the sample collected from site:-

- a. Contractor shall note that all laboratory tests shall be conducted in the reputed laboratory or the laboratory approved by Engineer In charge by using approved apparatus complying with the requirements and specifications of Indian standards. If the sample is tested

in their laboratory then adequacy of the laboratory must be certified by the engineer in charge.

- b. Conducting Standard Penetration Test at every 3.0m interval starting from first sample at 1.5m depth or at the change of stratum as per IS: 2131.
- c. Collection of disturbed, undisturbed soil samples and water samples and carrying out various laboratory testing as per relevant IS codes in consultation with Engineer-in-charge of DFCCIL Ltd.

5.2.1.6 Tests on Undisturbed and disturbed Samples

- a. Conducting Grain size analysis as per I.S 2720-(Pt.IV) both from SPT & UDS samples, plotting grain size distribution curves and calculating silt Factor.
- b. By sieve analysis for grain size larger than 75 micron
- c. By pipette method or Hydrometer method for grain size smaller than 75 micron.
- d. Determination of specific gravity of soil as per I.S 2720(Pt-III) both from SPT & UDS samples.
- e. Determination of liquid & plastic limits as per IS 2720 (Pt. V) both from SPT & UDS samples.
- f. Determination of natural moistures content as per IS-2720 (Pt. III) both from SPT and UDS samples.
- g. Determination of bulk unit weight as per IS-2720 (Pt. III) both from SPT and UDS samples.
- h. Determination of initial void ratio of soil samples.
- i. Determination of differential free swell index from UDS samples as per IS-2720 (Pt. 40)
- j. Conducting consolidation test in terms of IS-2720 (PT.XV) and finding coefficient of consolidation, coefficient of permeability, coefficient of volume compressibility and various compression ratio.
- k. Conducting Water Absorption Test on soil samples.
- l. Conducting Direct shear test on cohesionless soil samples for determination of shear strength in terms of IS 2720 Pt. XIII.
 - i. **Note.** The type of test to be conducted for the soil type should be got approved from Engineer in Charge in advance.
- m. Conducting Triaxial Test for all types of soils under appropriate conditions of drainage, consolidation and with/without measurement of pore pressure for the type of

soil under consideration for determination of shear strength parameters of specimen in terms of IS-2720 (Pt. X, XI, XII).

- i. **Note:** The type of test to be conducted for the soil type should be got approved from Engineer in Charge in advance.
- n. Determination of prosity of Rock samples as Per IS 13030
- o. Preparation of rock specimen as per I.S. specification for conducting compression tests.
- p. Determination of compressive strength of rock samples by point load strength method as Per IS: 8784 or unconfined compressive strength as per IS: 9143 (1 set will comprise of 10 No. of samples) as directed by Engineer-in-Charge.
- q. Conducting Petrographic examination of Rock samples as per IS: 2386 PT VII, VIII.

5.3 The lab test report should clearly indicate the following properties of soil and rock:-

i. For soil

- a. Engineering properties of soil/rock.
- b. The location and extent of rock layer and other weak features.
- c. Soft pockets if any under the hard founding strata.
- d. The geological features like type of rock, fault, fissures etc.
- e. Ground water table.
- f. Artesian condition, if any.
- g. The depth and existence of scour.
- h. The bearing capacity for foundation.
- i. Probable settlement and probable differential settlement of the foundation.

ii. For Rock

- a. Depth of rock strata and its variation over a site.
- b. Whether isolated boulder or massive rock formation.
- c. Extent and character of weathered zone.
- d. Joint frequency in the rock.

5.4 SITE SELECTION FOR MAJOR BRIDGES.

The contractor has to carry out the selection of technically most suitable site for the bridge as close to the existing alignment as possible and finalizing the length and no. of spans, type of sub structure as well as design of scour beds and guide bunds wherever required. This will necessitates leveling of the river profile 1 Km on up stream and 1 Km on down stream, traversing of

catchments area of the stream, collection of hydrological data and hydrological calculation for deciding water way of the bridges. The proposal for required spans must be supported with proper hydrological calculation.

5.5 SITE SELECTION FOR MINOR BRIDGES.

The contractor has to carry out the selection of technically most suitable site for the minor bridge as close to the existing alignment as possible and finalizing the length and no. of a spans, type of sub structure as well as design of scour beds and guide bunds wherever required. This will necessitates collection of hydrological data and hydrological calculation for deciding water way of the bridges. The proposal for required spans must be supported with proper hydrological calculation. The list of minor bridges on existing alignment for is attached as **Annexure IV** for guidance.

5.6 PREPARATION OF G.A.D FOR MINOR & MAJOR BRIDGES (SCHEDULE A).

Firm/Contractor shall prepare G.A.D for all proposed minor & major bridges based on L-section given by DFCCIL & detailed geotechnical investigation & hydraulic survey carried out by contractor/ Firm. Payment for this item will be made in stages as per the details given below

5.7 STAGES & SCHEDULE OF PAYMENT :

For item 3 of Schedule B -

- i. On submission of draft GAD to the satisfaction of DFCC for each ROB – 40% of the accepted rate for each ROB.
- ii. On submission of approved GAD to the satisfaction of DFCC for each ROB – 50% of the accepted rate for each ROB.
- iii. On final submission of GAD in requisite no of copies along with editable soft copies in AutoCAD format on CD/DVD.- 10% of the accepted rate.

For item 4 of Schedule B -

- i. On submission of initial design calculations, schedule of quantities and detailed tender document before final approval of GAD of State & Railway Authorities – 40% of the accepted rate for each ROB.

- ii. On receipt of final approval of the GAD from the concerned State authorities, Railway authorities and any other organization involved – 50% of the accepted rate for each ROB.
- iii On final submission of GAD in requisite no of copies along with editable soft copies in AutoCAD format on CD/DVD.- 10% of the accepted rate.

If the contractor fails to complete any of the above activities, the payment for non-performed activity shall be deducted as decided by DFCC.

5.8 PREPARATION OF DETAILED SCHEDULE OF QUANTITIES.

Contractor/ Firm shall prepare detailed schedule of quantities for formation Quantity of earthwork, blanket, walling, side drains etc.), minor & major bridges and RUB. The estimates shall be updated to include items as per the latest practice of railway and railway board's instructions. The rates adopted for BOQ and detailed estimate should be latest and realistic. To calculate the realistic rates contractor/ firm shall study the availability of material required for earthwork, blanketing etc considering the lead involved and submit rate analysis to DFCCIL.

5.9 ROAD OVER BRIDGES

5.9.1 PREPARATION OF LAND ACQUISITION PLANS FOR ROB

Preparation of land Acquisition plans for up to 50 mts. width on either side of the alignment and for actual length of the ROB and Preparation of land acquisition proposal in five copies as per Revenue Departments requirement of respective State including Collection of Property Cards/ 7/12 abstract / 8a Abstract including superimposition of revenue record on proposed alignment & calculation of area to be acquired, preparation of statement of area to be acquired along with Land owners detail etc. The item includes submission of proposal in required formats to respective revenue official for the publication of section 4 and 6 under Indian Land Acquisition Act, 1894 with latest amendments or any other relevant act amended subsequently to accelerate acquisition of land along with follow up for joint measurement order.

5.9.2 PREPARATION OF GAD FOR ROAD OVER BRIDGES :

- a. Contractor shall prepare G.A.D for all proposed Road over Bridges based on his preliminary design, results of Geotechnical investigation and Engineering survey carried out and data collected by contractor. The ROB proposed in the GAD should be such so as to cause least interference to train running on existing Railway system while executing the work of the bridge. GAD shall be prepared in detail and . It will include plan, longitudinal elevation, longitudinal and lateral cross Sections at suitable interval, proposed diversion road and temporary level crossing if required.
- b. The contractor shall prepare a detailed scheme along with relevant plans, elevations and cross- sections for modification / rebuilding of existing ROBs coming across the DFCC alignment (as listed in the annexure); submit it and get it approved from the concerned authorities.
- c. It will require contractor to select the most suitable location of the bridges, carry out preliminary design of the bridge (including type, approx. depth & approx. section of foundation, number of spans, approx. dimensions and location of piers/abutments, type and approx. dimensional details of superstructure etc.), workout the scheme of construction (including sequence and methodology of various stages of construction, assessment of approach to men, machinery and material, detailing of any other factor relevant in bridge construction except detailed structural design, prepare draft drawings in AUTOCAD, submit the drawings to DFCC for approval and carry out corrections/changes till final approval. Bridge loading standards to be followed as per **IRC 5 and IRC 6- 2000**. Preliminary design shall confirm to National Highway Authority of India/Indian Roads Congress standards for Ruling gradient, maximum permissible curvature etc. and schedule of dimension of DFCC and Indian railways and All the calculations carried out to arrive at the preliminary design shall be included in the report to be submitted. The drawings along with design calculations shall be submitted in soft and hard copy for approval. After approval, drawings and design report shall be submitted in five hard copies and two soft copies in CD/DVD. Once paid for all the drawings will be property of DFCC and only

DFCC will have all the rights to modify, alter copy or use these drawings in any other way.

- d. List of level crossings where the ROBs are proposed is given in **Annexure III**.

5.10 PREPARATION OF DETAILED SCHEDULE OF QUANTITIES:

The contractor shall prepare detailed schedule of items with their description, specification, quantity, unit of measurement, special conditions and rates (with detailed & documented rate analysis) for design and construction of ROBs. The schedule shall include items as per the sound engineering practices as adoptable to Indian Railway system and pertinent Road Authorities. The rates adopted for schedule of quantities and detailed estimate should be the latest and realistic. The Schedule shall be unambiguous and shall bring out details of quantity system to be followed including quoting applicable codes & manuals.

5.11 APPROVAL OF GAD FROM STATE GOVT. AUTHORITIES & RAILWAY AUTHORITIES

After preliminary approval of GAD by DFCC, the contractor shall arrange for its approval from the concerned State Govt. Authorities/NH authorities and concerned Railway Authorities at all levels, by deputing experienced and qualified personnel, at their own cost of manpower, transportation, travelling expenses etc. Approval from State Govt authorities would also mean approval for closure of LC once the ROB is constructed.

If any addition/deletion/alteration / modification are suggested by these authorities the same shall have to be carried out without any extra cost payable to the contractor, till final approval is given by all concerned authorities.

5.12 PROVISION OF FACILITY FOR SITE INSPECTION TO DFCCIL OFFICIALS

The contractor/Firm should facilitate and extend all support for the inspection of work by the officials of the DFCCIL.

5.13 TIME SCHEDULE

Time allowed for the work is **three months** including Monsoon and mobilisation of Man Power and Machineries etc. at site, which shall be reckoned from the day of the issue of Letter of Acceptance by

DFCCIL. Tenderers must satisfy themselves that they would be able to complete the work within stipulated period. The work for all the important bridges has to be taken up simultaneously to achieve the work within the time period prescribed.

5.14 QUANTITY VARIATION

Rates quoted in the schedule of items shall be valid for a variation of the quantity up to maximum of (+-) 25% for each item. In case of variation in quantities beyond + 25%, the rates for the additional quantities beyond +25% variation shall be negotiated/decided on mutually acceptable terms, provided the rate so arrived does not exceed the originally accepted rate as per agreement.

5.15 ADDITIONAL WORK

Engineer or representative of DFCCIL shall have the power to make any alternation, deletion, addition or substitution in the original scope and specification of work and no claim whatsoever on account of the above shall be entertained except for the payment for the actual work done on agreemental rates for original items of the contract and negotiated and approved rates for new item.

5.16 PAYMENT SCHEDULE

Payments will be made as per the quantum of work done and certification thereon by the engineer nominated by the DFCCIL, as per the accepted rates, terms and condition.

5.17 ON ACCOUNT PAYMENT

5.17.2 The contractor shall be entitled to be paid from time to time normally once in a calendar month, by way of "On account" bills, only for such Works, as, in the opinion of the Engineer, the Contractor has executed in terms of the Contract.

5.17.3 The Contractor shall submit the on-account bills, by the date stipulated by the Engineer, supported with measurements, jointly acknowledged and accepted in the measurement books.

5.17.4 After preliminary scrutiny and certification by the Engineer payment of 70% of the certified amount shall be made as far as possible by the Employer within 2 days but not later than 7 days. The amount certified shall account for all deductions, including statutory deductions, recoveries for advances and any amounts due from the Contractor. The balance 30% shall be paid within 28 days from the date of the preliminary certification of the bill by the Engineer.

Such payments made by the Employer, shall not constitute any acceptance of the measurements or bill of quantities by the Employer and the Employer shall have the right to alter, modify, reduce or diminish the

quantities or classification entered in the Measurement Books or Bills. The Employer shall have right to recover any amount paid in the earlier bill from any subsequent bill and should the amount to be recovered be more than the amount of the subsequent bill, the Contractor shall on demand from the Engineer or Employer immediately refund the extra amount to the Employer within 7 days, failing which he shall have to pay interest @ 10% per annum with monthly interest till the said extra amount is paid back by him. In addition to above, if contractor claims more on-account payment than due, second time, the facility of making 80% on –account payment shall be withdrawn.

DEDICATED FREIGHT CORRIDOR CORPORATION OF INDIA LTD.

SECTION- 6

SCHEDULE OF ITEMS RATES & QUANTITIES

Name of work	Engineering Construction Survey for Faridabad- Tuglakabad section of Dedicated Freight Corridor from KM 0 to KM 16 in Rewari- Dadri section under DyCPM/NOIDA
Tender No	DFCCIL/DY.CPM/TKD/3 of 03-10-2011
Tendered Cost	Rs 49,57,717/- (Rs Forty Nine lacs Fifty seven thousand Seven Hundred Seventeen only)
Bid Security/ Earnest Money	Rs 99,154/- (Rs Ninty Nine thousand one hundred fifty four only)
Completion Period	3(three) months
Date & Time of opening	1530 hrs on 04-11-2011
Place of opening	Office of DyCPM, DFCCIL, A-102, Sector- 4, NOIDA (GB Nagar)

SNo	Items	Unit	Qty.	Rate	Amount
	Schedule A				
1	Shifting of tools and plants from one bridge location to another bridge location.	Nos.	40	745.7883	29831.53
2	Exploratory drilling of 150mm diameter boreholes down to maximum 30m depth for major bridges, 12m depth for minor bridges/alignment , in all types of soil including conducting standard penetration test at specified depth, collection of disturbed, undisturbed samples from boreholes at major bridges, minor bridges, flyovers, ROB,RUB, Station building and along the proposed alignment for the formation. Total RM of boreholes.	M	1200	1176.357	1411628
3	Exploratory drilling of 150mm diameter boreholes down to maximum 30m depth for major bridges, 12m depth for minor bridges/alignment , drilling of Nx size boreholes (65mm diameter) in all type of rock (boulders, weathered and fresh rock) including conducting standard penetration test at specified depth, collection of disturbed, undisturbed samples from boreholes at major bridges, minor bridges, flyovers, ROB,RUB, Station building and along the proposed alignment for the formation. Total RM of boreholes.	M	100	1630	163000
4	Conducting laboratory tests on samples as specified in scope of work and submission of report.	M	1300	829.3166	1078112
5	To carry out the selection of technically most suitable site for the major bridge as close to the proposed alignment as possible and finalizing the length of spans, type of sub	Nos.	4	5071.36	20285.44

	structure as well as design of scour beds and guide bunds wherever required. This will necessitates levelling of the river profile 1 Km on upstream and 1 Km on downstream, traversing of catchments area of the stream, collection of hydrological data and hydrological calculation for deciding water way of the bridges. The proposal for span must be supported with proper hydrological calculation				
6	To Carry out the selection of technically most suitable site for the minor bridge as close to the proposed alignment as possible and finalizing the length of spans, type of sub structure as well as design of scour beds and guide bunds wherever required. This will necessitates levelling of the river profile of .5 Km on upstream and .5 Km on down stream, traversing of catchments area of the stream, collection of hydrological data and hydrological calculation for deciding water way of the bridges. The proposal for span must be supported with proper hydrological calculation.	No.	25	2535.68	63392.01
7	Preparation of G.A.D for all proposed minor & major bridges based on L-section given by DFCCIL & detailed technical investigation & hydraulic survey carried out by contractor/Firm.	No	29	5404.479	156729.9
8	Preparation of detailed schedule of quantities for formation work and the supply ballast for double line construction including crossing station and junction station. The location of junction station and crossing station will be given by DFCCIL. The BOQ should consists of Quantity of earth work, blanket material, ballast, length of retaining walls, length of side drains) ,detailed quantities of various items of minor & major bridges and RUB and estimation thereof. The estimates shall be updated to include items as per the latest practice of railway and railway board's instructions. The rates adopted for schedule of quantities and detailed estimate should be latest and realistic. To calculate the realistic rates contractor/ firm shall study the availability of material required for earthwork, blanketing etc considering the lead involved and submit rate analysis to DFCCIL.	Km	18.31	5404.479	98956.01
	Schedule-B				
1	Detailed survey for 5kms on TKD-FBD line for elevated structure from agra canal towards Tkd, Showing all details of nearby structures upto 100mtrs from center line of track and identifying all utilities above ground level, collecting all plans of water pipes line, telephones line, electric cables, sewerage line, other drainage pipes from concerned departments including railway signal/telecom plans. Preparation of General arrangement drawing for the elevated structure from agra canal to ICD TKD with a suitable span arrangement with due consideration of site constraints and supported by preliminary design calculations, indicating type of foundation, type of super structures, span arrangements	KM	3.5	396667	1388335

	and facilitating for approval from concerned government department. The span arrangement should comply with requisite sound provisions and cater for sound barriers wherever required, provision of overhead electrification and trolley refuges.				
2	Survey using Total station for the site of ROB/Railway Flyover, showing all important features, within railway boundary, and 500mt. on either side of the railway boundary for approaches, and submission of drawing of existing survey in 3 copies including transportation, survey equipments, preparation of drawing of existing survey, all labour, technical staff etc. all 3 copies of survey work shall be submitted for record.	Each	2	19378.67	38757.34
3	Preparation of GAD within railway boundary as per railways norms, based on site survey, for 2- Lane/4 Lane/6 Lane bridge, and submission of original tracing to DFCC for approval from railway. The rate also includes, making corrections/ modifications suggested by DFCC/railways and approval of combined GAD (GAD of ROB within Railway Boundary and GAD for approaches) from concerned Railway Authorities and State/NH Authorities.	Each	2	33912.67	67825.35
4	Preparation of GAD for approaches, as per specification of MOSRTH for approaches, based on site survey, for 2- Lane/4 Lane/6 Lane bridge, and submission of original tracing to DFCC for approval from State authorities. The rate also includes, making corrections / modification suggested by DFCC/State authorities and approval of combined GAD (GAD of ROB within Railway Boundary and GAD for approaches) from concerned Railway Authorities and State/NH Authorities.	Each	2	33912.67	67825.35
5	Preparation of estimates, for railway as well as approach portion, after approval of GAD from concern department. 3 copies of estimates (measurement as well as abstract sheets) shall be submitted to department for further submission to concern authority.	Each	11	33912.67	373039.4
			Total		49,57,717

**The rate will be(in figures).....
(in words)%(percentage) above/ below/ at par the
estimated cost.(to be filled by the Bidder/Tenderer)**

NOTES:

- 1) Bidders should quote %age above/below/at par both in words and figures.
- 2) In case of cutting/overwriting, the rates in words shall be taken as final.
- 3) Contractor has to quote a single flat percentage in the blank space above.
- 4) All cuttings and over-writings should be signed by the bidders
- 5) Any drawings required to be seen by the bidder can be seen in the office of DyCPM/ DFCCIL at A- 102, Sector- 4, NOIDA (GB Nagar).
- 6) The payment shall be done as per the above schedule based on actual quantum of work done as certified by engineer in charge.
- 7) The bidder quoting the rates for individual items will be disqualified.

Signature of tenderer

BIDDER'S GENERAL INFORMATION

1-1 Bidder Name: _____

1-2 Number of Years in Operation: _____

1-3 Registered Address: _____

1-4 Operation Address if different from above: _____

1-5 Telephone Number _____

(Country Code) (Area Code) (Telephone Number)

1-6 E-mail address & Web Site _____

1-7 Telefax Number _____

(Country Code) (Area Code) (Telephone Number)

1-8 ISO Certification, if any {If yes, please furnish details}

1-9 PF / EPF Registration No.:

1-10 Service Tax No.:

1-11 Pan No.:

1-12 Bank A/C No with Bank code for electronic clearance of the payment.:

(Seal & Signature of bidder)

PERFORMANCE BANK GUARANTEE (UNCONDITIONAL)

To

DFCCIL

Name & Address of Project.

[Acting through _____ (Project Incharge) & Address of the Project]

WHEREAS _____ [name and address of Consultant] (hereinafter called “the Consultant”) has undertaken, in pursuance of Contract No. _____ dated _____ to execute _____ [name of contract and brief description of works} (hereinafter called “the contract”).

AND WHEREAS it has been stipulated by you in the said Contract that the Consultant shall furnish you with a Bank Guarantee by a scheduled bank for the sum specified therein as security for compliance with his obligations in accordance with the Contract;

AND WHEREAS we have agreed to give the Consultant such a Bank Guarantee; NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you, on behalf of the Consultant, upto a total of _____ [amount of Guarantee], _____ [amount in words], such sum being payable in the types and proportions of currencies in which the Contract Price is payable, and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of _____ [amount of Guarantee] as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the Consultant before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the Contract or of the Works to be performed there under or of any of the Contract documents which may be made between you and the Consultant shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.

This guarantee shall be valid upto _____ (a date 28 days after the date of completion of the work).

SIGNATURE AND SEAL OF THE GUARANTOR

Name of Bank: _____

Address: _____

Date: _____