

## **DELHI METRO RAIL CORPORATION LIMITED**

Design and Construction of Tunnel by Shied TBM, Tunnels, Stations and Ramp by Cut & Cover method between Motibagh and Lajpat Nagar Stations (both excluding) for underground works on Mukundpur – Yamuna Vihar corridor of Delhi MRTS Project of Phase-III.

**CONTRACT NO: CC-18** 

**TENDER DOCUMENTS** 

**VOLUME 1** 

NOTICE INVITING TENDER
INSTRUCTION TO TENDERERS
FORM OF TENDER

**DELHI METRO RAIL CORPORATION LTD.** 

5<sup>th</sup> Floor, A-Wing, Metro Bhawan, Fire Brigade Lane, Barakhamba Road, New Delhi –110 001 Contract CC:-18- Design and Construction of Tunnel by Shied TBM , Tunnels, Stations and Ramp by Cut & Cover method between Motibagh and Lajpat Nagar Stations (both excluding) for underground works on Mukundpur – Yamuna Vihar corridor of Delhi MRTS Project of Phase-III.

# CONTRACT NO: CC-18 TENDER DOCUMENTS

# **VOLUME 1**

**NOTICE INVITING TENDER** 

#### **CONTENTS**

CLAUSE **DESCRIPTION** PAGE NO. NOTICE INVITING TENDER 1.1 General 1.1.1 Name of Work 1.1.2 Key Details Qualification Criteria 1.1.3 **Tender Documents** 1.1.4 **INSTRUCTIONS TO THE TENDERER** A General Α1 General Description of the Work 11 A2 11 Source of Funds А3 Eligible Tenderers (Deleted) 11 Qualification of the Tenderer Α4 11 A5 One Tender per Tenderer 12 A6 Cost of Tendering 12 Α7 Site Visits 12 **B** Tender Documents Contents of Tender Documents В1 12 Content of Supporting Documents B2 13 B3 Clarification of Tender Documents 13 B4 Amendment of Tender Documents 14 C Preparation of Tenders C1 Language 14 C2 14 Documents Comprising the Tender C3 Form of Tender 17 C4 Outline Quality Plan 18 C5 Outline Safety, Health and Environment Plan 18 C6 Tenderer's Technical Proposals 18 C7 Designer 18 C8 Tender Programme and Proposed Design Submission Programme 19 C9 Manufacture, Installation and Construction Method Statement 19 C10 Payment Schedule 19 C11 Sub-Contracts 19 C12 Staffing Schedule and Related Details 19 C13 Contractor's Equipment 20

i

	C14	Proposals for Use and Reinstatement of Works Areas	20		
	C15	Pricing Document	20		
	C16	Currencies of Tender and Payment	21		
	C17	Tender Validity	21		
	C18	Tender Security	21		
	C19	Performance Guarantees	22		
	C20	Labour	22		
	C21	Other Contractors	22		
	C22	Insurance	22		
	C23	Tender Index	22		
	C24	Pre tender Meeting	22		
	C25	Format and Signing of Tender	23		
	C26	Tunnel Boring Machine	23		
D	Submission of Tenders				
	D1	Sealing and Marking of Tenders	23		
	D2	Late or Delayed Tenders	24		
	D3	Modification, Substitution and Withdrawal of Tenders	24		
Ε	Tender Opening and Evaluation				
	E1	Tender Opening	25		
	E2	Confidentiality of Tender Information and Copyright	25		
	E3	Clarification of Tenders	26		
	E4	Evaluation of Tenders	26		
	E5	Evaluation of Financial Proposals	27		
	E6	Indigenisation	29		
F	Award of Contract				
	F1	Award	29		
	F2	Employer's Right to accept any Tender and Reject any or all Tenders	29		
	F3	Notification of Award	29		
	F4	Signing of Agreement	29		
	F5	Performance Security	30		
An	nexure to	Instructions to Tenderers			
Annexure 1		Requirements for Tenderer's Technical Proposals	31		
Annexure 2		Requirements for Tender Programme	34		
Annexure 3		Resource proposed for the project personnel	33		
Annexure 4		Minimum organisation structure required	36		
An	nexure 5	Resources proposed for project plant & equipment	37		
Annexure 6		Form of Bank Guarantee for tender Security	38		
Annexure 7		Form of Performance Security (Guarantee) by Bank	40		

		FORM OF TENDER	
Form of Tende	43		
Appendix 1	_	Contract Conditions	46
Appendix 2	_	Completed Bill of Quantity / Pricing Document	48
		(To be included in Financial Package ONLY)	
Appendix 3	_	Outline Quality Plan	49
Appendix 4	_	Outline Safety, Health and Environment Plan	50
Appendix 5	_	Tenderer's Technical Proposals	51
Appendix 6	_	Structure of the Tenderer	52
Appendix 7	_	Staffing Schedules and Organisation Chart	54
Appendix 8	_	Schedule of Components Manufactured Offshore	55
Appendix 9	_	Tender Index	56
Appendix 10	_	Resources proposed for project plant & equipment	57
Appendix 11	_	Undertaking For Corrupt & Fraudulent Practice	58
Appendix 12	_	Copyright Undertaking	59
Appendix 13	_	Performa for Statement of Minor Deviation	60
Appendix 14	_	Tentative Project Implementation Programme	61
Appendix 15	_	Financial Data (Construction Work Done)	62
Appendix 16	_	Financial Data (Commitment For Ongoing Works)	63
Appendix 17	_	Work Experience	64
Appendix 17A	_	Summary of information provided in Annexure-9	65
Appendix 18	_	Financial Data (Financial Standing)	66

## **NOTICE INVITING TENDER (NIT)**

There has been a change in the work experience criteria as initially shown on the website. This document is the updated document.

### 1.1 GENERAL

## 1.1.1 Name of Work:

Delhi Metro Rail Corporation (DMRC) Ltd. invites Open Tenders from eligible applicants, who fulfil qualification criteria as stipulated in clause 1.1.3 of NIT, for the work, "Contract CC-18-Design and Construction of Tunnel by Shied TBM, Tunnels, Stations and Ramp by Cut & Cover method between Motibagh and Lajpat Nagar Stations (both excluding) for underground works on Mukundpur – Yamuna Vihar corridor of Delhi MRTS Project of Phase-III."

The brief scope of the work and site information is provided in ITT clause A1 & Employer Requirements (Volume –3)

## 1.1.2 Key details:

Approximate cost of work	INR 1315.00 Crores
Tender Security amount	INR 13.15 Crores
Completion period of the Work	42 months
Tender documents on sale	From 08.02.2012 to 17.02.2012 (between 09:00 Hrs to 17:30 Hrs) on working days
Cost of Tender documents	21000/- (Demand Draft in favour of "Delhi Metro Rail Corporation Ltd" payable at New Delhi.)
Last date of Seeking Clarification	29.02.2012
Pre-bid Meeting	02.03.2012 @ 1500 Hrs
Last date of issuing addendum	09.03.2012
Date & time of Submission of Tender	10.04.2012 upto 15:00 Hrs.
Date & time of opening of Tender	10.04.2012 @ 15:05 Hrs.
Authority and place for purchase of tender documents, seeking clarifications and submission of completed tender documents	Chief Engineer (Tender),  Delhi Metro Rail Corporation,  5 <sup>th</sup> floor, A-Wing, Metro Bhawan,  Fire Brigade Lane, Barakhamba Road,  New Delhi –110 001

## 1.1.3 QUALIFICATION CRITERIA:

## 1.1.3.1 Eligible Applicants:

i. The tenders for this contract will be considered only from those tenderers (proprietorship firms, partnerships firms, companies, corporations, consortia or joint ventures) who meet requisite eligibility criteria prescribed in the sub-clauses of clause 1.1.3 of NIT. In the case of a JV or Consortium, all members of the Group shall be

jointly and severally liable for the performance of whole contract.

- ii. (a) A non-Indian firm is permitted to tender only in a joint venture or consortium arrangement with any other Indian firm having minimum participation interest of 26% or their wholly owned Indian subsidiary registered in India under Companies Act-1956 with minimum 26% participation
  - (b) A tenderer shall submit only one bid in the same tendering process, either individually as a tenderer or as a partner of a JV. A tenderer who submits or participates in, more than one bid will cause all of the proposals in which the tenderer has participated to be disqualified. No tenderer can be a subcontractor while submitting a bid individually or as a partner of a JV in the same bidding process. A tenderer, if acting in the capacity of subcontractor in any bid, may participate in more than one bid, but only in that capacity.
- iii. Tenderers shall not have a conflict of interest. All Tenderers found to have a conflict of interest shall be disqualified. Tenderers shall be considered to have a conflict of interest with one or more parties in this bidding process, if:
  - (a) a tenderer has been engaged by the Employer to provide consulting services for the preparation related to procurement for on implementation of the project;
  - (b) a tenderer is any associates/affiliates (inclusive of parent firms) mentioned in subparagraph (a) above; or
  - (c) a tenderer lends, or temporarily seconds its personnel to firms or organisations which are engaged in consulting services for the preparation related to procurement for on implementation of the project, if the personnel would be involved in any capacity on the same project.
- iv. A firm, who has purchased the tender document in their name, can submit the tender either as individual firm or in joint venture/Consortium. However, the lead partner in case of JV shall be one who has experience of tunnelling by Tunnel Boring Machine (TBM).
- v. NON SUBSTANTIAL PARTNERS IN CASE OF JV/CONSORTIUM
  - a. Lead partner must have a minimum of 26% participation in the JV/Consortium.
  - b. Partners having less than 26% participation will be termed as non-substantial partner and will not be considered for evaluation which means that their financial soundness and work experience shall not be considered for evaluation of JV/Consortium.
  - c. In case of JV/Consortium, change in constitution or percentage participation shall not be permitted at any stage after their submission of application otherwise the applicant shall be treated as non-responsive.

## 1.1.3.2 Minimum Eligibility Criteria:

- **A. Work Experience:** The tenderers will be qualified only if they have completed work(s) during last Seven years ending **31.03.2012** *as* given below:
- (i) At least one single work of value INR 1052 Crores or more which shall include minimum of 3.0 km of Tunnel length by shield TBM (In case of twin tunnel each tunnel shall be counted as a separate Tunnel for calculation of length of tunnel) with finished internal dia of more than 5.0 mtr (including completed portion of ongoing works) along with or without underground station using cut & cover method in urban environment. In case this work does not include any underground station by cut & cover or the station included in the work is of less than 4500 sqm plan area in urban environment, the tenderer must have executed another work of minimum one underground station of plan area not less than 4500 sqm in urban environment. In case of JV/Consortium the work of tunnel & station may be by different partners also.

If the above criteria is being fulfilled by the foreign partner of JV and the work was done in the country of the foreign partner then in addition to this, the foreign partner must have done at least one work of similar nature equal to INR 657.5 Crores of tender value outside the country of the foreign partner.

OR

(ii) Two different works each of value INR 658 Crore or more. Both works together shall include minimum of 3.0 km of Tunnel length by shield TBM (In case of twin tunnel each tunnel shall be counted as a separate Tunnel for calculation of length of tunnel) with finished internal dia of more than 5.0 mtr (including completed portion of ongoing works) along with or without underground station using cut & cover method in urban environment. In case this work does not include any underground station by cut & cover or the station included in the work is of less than 4500 sqm plan area in urban environment, the tenderer must have executed another work of minimum one underground station of plan area not less than 4500 sqm in urban environment. In case of JV/Consortium the work of tunnel & station may be by different partners also.

If both the works are done by foreign partner of the JV, then either one work should have been outside the country of origin of the foreign partner or if both the works are in the country of the origin of the foreign partner, then in addition, at least a similar nature work of INR 526 Crores of the tender value should have been done outside the country of origin.

OR

(iii) Three different works each of value INR 526 Crore or more. All three works together shall include minimum of 3.0 km of Tunnel length by shield TBM (In case of twin tunnel each tunnel shall be counted as a separate Tunnel for calculation of length of tunnel) with finished internal dia of more than 5.0 mtr (including completed portion of ongoing works) along with or without underground station using cut & cover method in urban environment. In case this work does not include any underground station by cut & cover or the station included in the work is of less than 4500 sqm plan area in urban environment, the tenderer must have executed another work of minimum one underground station of plan area not less than 4500 sqm in urban environment. In case of JV/Consortium the work of tunnel & station may be by different partners also.

If all the 3 works or 2 of the 3 works are done by the foreign partner of the JV, then at least one of these works must have been done outside the country of origin of the foreign partner.

## Notes:

- The tenderer shall submit details of work executed by them in the Performa of Annexure-17 of FOT for the works to be considered for qualification of work experience criteria. Documentary proof such as completion certificates from client clearly indicating the nature/scope of work, actual completion cost and actual date of completion for such work should be submitted. The offers submitted without this documentary proof shall not be evaluated. In case the work is executed for private client, copy of work order, bill of quantities, bill wise details of payment received certified by C.A., T.D.S certificates for all payments received and copy of final/last bill paid by client shall be submitted.
- Value of successfully completed portion of any ongoing work up to 31.03.2012 will also be considered for qualification of work experience criteria.
- For completed works, value of work done shall be updated to 31.03.2012 price level assuming 5% inflation for Indian Rupees every year and 2% for foreign currency portions per year. The exchange rate of foreign currency shall be applicable 28 days before the submission date of tender.
- In case of joint venture / Consortium, full value of the work, if done by the same joint

venture shall be considered. However, if the work done by them in JV/consortium, value of work as per his percentage participation shall be considered.

- **B. Financial Standing:** The tenderers will be qualified only if have minimum financial capabilities as below:
- (i) **T1 Liquidity:** It is necessary that the firm can withstand Cash Flow that the contract will required until payment received from Employer. Liquidity therefore becomes an important consideration.

This can be seen from the balance sheets and/or from the banking reference. Net current assets and or documents including banking reference, should show that the applicant has access to or has available liquid assets, lines of credit and other financial means to meet cash flow of **Rs. 53.70 Crores** for this contract, net of applicant's commitments for other Contracts. Banking reference should contain in clear terms the amount that bank will be in a position to lend for this work to the applicant/member of the Joint Venture/Consortium. In case the Net Current Assets (as seen from the Balance Sheets) are negative, only the Banking references will be considered. Otherwise the aggregate of the Net Current Assets and submitted Banking references will be considered for working out the Liquidity.

The banking reference should be from a Scheduled Bank in India or (in case of foreign parties) from an international bank of repute acceptable to DMRC and it should not be more than 3 months old as on date of submission of bids.

<u>In Case of JV-</u> Requirement of liquidity is to be distributed between members as per their percentage participation and every member should satisfy the minimum requirement.

<u>Example</u>: Let member-1 has percentage participation=M and member-2 has percentage participation=N. If minimum liquidity required is 'W' then liquidity of member-1  $\geq$  <u>W M</u> and liquidity of member-2  $\geq$  <u>W N</u>. 100 100

(ii) **T2 - Profitability:** Profit before Tax should be Positive in at least 2(two) year, out of the last five audited financial years.

<u>In Case of JV-):-</u> The profitability of only lead member shall be evaluated.

(iii) **T3 - Net Worth:** Net Worth of tenderer during last audited financial year should be ≥ 75.00 Crores

<u>In Case of JV-</u> Net worth will be based on the percentage participation of each Member.

<u>Example</u>: Let Member-1 has percentage participation = M and Member-2 has =N. Let the Net worth of Member-1 is A and that of Member-2 is B, then the Net worth of JV will be

## =AM+BN 100

(iv) T4 - Annual Turnover: The average annual turnover from construction of last five financial years should be ≥ 300.00 Crores

The average annual turn over of JV will be based on percentage participation of each member.

<u>Example</u>: Let Member-1 has percentage participation = M and Member - N has =n. Let the average annual turn over of Member-1 is 'A' and that of Member-2 is 'B', then the average annual turn over of JV will be

=AM+BN 100

### Notes:

- Financial data for latest last five audited financial years has to be submitted by the tenderer in Annexure-18 of FOT along with audited balance sheets. The financial data in the prescribed format shall be certified by Chartered Accountant with his stamp and signature. In case audited balance sheet of the last financial year is not made available by the bidder, he has to submit an affidavit certifying that 'the balance sheet has actually not been audited so far'. In such a case the financial data of previous '4' audited financial years will be taken into consideration for evaluation. If audited balance sheet of any other year than the last year is not submitted, the tender will be considered as non-responsive.
- Where a work is undertaken by a group, only that portion of the contract which is undertaken by the concerned applicant/member should be indicated and the remaining done by the other members of the group be excluded. This is to be substantiated with documentary evidence.

## 1.1.3.3 Bid Capacity Criteria:

**Bid Capacity:** The tenderers will be qualified only if their available bid capacity is more than the approximate cost of work as per NIT. Available bid capacity will be calculated based on the following formula:

## Available Bid Capacity = 2\*A\*N - B

Where,

A = Maximum of the value of construction works executed in any one year during the last five financial years (updated to **31.03.2012** price level assuming 5% inflation for Indian Rupees every year and 2% for foreign currency portions per year).

N = No. of years prescribed for completion of the work

B = Value of existing commitments (as on 31.03.2012) for on-going construction works during period of 42 months w.e.f. 01.04.2012.

#### Notes:

 Financial data for latest last five financial years has to be submitted by the tenderer in Annexure-15 of FOT along with audited financial statements. The financial data in the prescribed format shall be certified by the Chartered Accountant with his stamp and signature in original.

- Value of existing commitments for on-going construction works during period of 42 months
  w.e.f. 01.04.2012 has to be submitted by the tenderer in Annexure-16 of FOT. These data
  shall be certified by the Chartered Accountant with his stamp and signature.
- In the case of a group, the above formula will be applied to each member to the extent of his proposed participation in the execution of the work. If the proposed % participation is not mentioned then equal participation will be assumed.
- 1.1.3.4 The tender submission of tenderers, who do not qualify the minimum eligibility criteria & bid capacity criteria stipulated in the clauses 1.1.3.2 to 1.1.3.3 above, shall not be considered for further evaluation and therefore rejected. The mere fact that the tenderer is qualified as mentioned in sub clause 1.1.3.2 to 1.1.3.3 shall not imply that his bid shall automatically be accepted. The same should contain all technical data as required for consideration of tender prescribed in the ITT.

#### 1.1.4 The Tender documents consist of:

### Volume 1

Notice Inviting Tender

Instructions to Tenderers (including Annexures )

Form of Tender (including Appendices)

#### Volume 2

General Conditions of Contracts for Design & Build Contracts Special Conditions of Contract (including Schedules)

#### Volume 3

Employer's Requirements - General

Employer's Requirements - Functional

Employer's Requirements - Design

Employer's Requirements - Construction

Employer's Requirements - Appendices

## Volume 4

Outline Design Specifications

## Volume 5

**Outline Construction Specifications** 

#### Volume 6

**Tender Drawings** 

#### Volume 7

Bill of Quantities

### Volume 8

Condition of Contract on Safety, Health & Environment (SHE) Ver 1.2

## Volume 9

Reference Document - Geotechnical Report

- 1.1.5 The contract shall be governed by the documents listed in para 1.1.4 above along with latest edition of CPWD Specification, IRS Specifications & MORTH Specifications. These may be purchased from the market.
- 1.1.6 The tenderers may obtain further information/ clarification, if any, in respect of these tender documents from the office of Chief Engineer (Tender), Delhi Metro Rail Corporation, 5<sup>th</sup> floor, Metro Bhawan, Fire Brigade Lane, Barakhamba Road, New Delhi –110 001.
- 1.1.7 All tenderers are hereby cautioned that tenders containing any material deviation or reservations

- as described in Clause. **E 4.0** of "Instructions to Tenderers" and/or minor deviation without quoting the cost of withdrawal shall be considered as non-responsive and is liable to be rejected.
- 1.1.8 Late tenders (received after date and time of submission of bid) shall not be accepted under any circumstances.
- 1.1.9 Tenders shall be valid for a period of 180 days from the date of submission of Tenders and shall be accompanied with a tender security of the requisite amount as per <u>Annexure-6 of FOT</u> in the form of a Bank Guarantee from Scheduled Commercial Bank in India.
- 1.1.10 DMRC reserves the right to accept or reject any or all proposals without assigning any reasons. No tenderer shall have any cause of action or claim against the DMRC for rejection of his proposal.

Chief Engineer (Tender)
Delhi Metro Rail Corporation