“Contract ML-01(R): Topographical survey and utility identification works for the proposed Metrolite Corridor from Kirti Nagar to Bammoli village including Depot.”

**CONTRACT: ML-01(R)**

**TENDER DOCUMENTS**

**VOLUME -1**

**NOTICE INVITING TENDER**
**INSTRUCTIONS OF TENDERERS**
**FORM OF TENDER**

DELHI METRO RAIL CORPORATION LTD.
Metro Bhawan, Fire Brigade Lane,
Barakhamba Road,
New Delhi - 110001
CONTRACT:ML-01(R)
TENDER DOCUMENTS

VOLUME 1

NOTICE INVITING TENDER
NOTICE INVITING TENDER (NIT)

1.1 GENERAL

1.1.1 Name of Work:
Delhi Metro Rail Corporation (DMRC) Ltd. invites online open e-tenders from eligible tender applicants, who fulfill qualification criteria as stipulated in Clause 1.1.3 of NIT, for the work “Contract ML-01(R) : Topographical survey and utility identification works for the proposed Metrolite Corridor from Kirti Nagar to Bamnoli village including Depot.”

1.1.2 Key details:

<table>
<thead>
<tr>
<th>Approximate cost of work</th>
<th>Rs. 65,73,954/- (inclusive of all taxes/duties GST as applicable)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tender Security amount</td>
<td>Amount of Tender Security:- Rs.1,00,000/-</td>
</tr>
<tr>
<td></td>
<td>Payment of Tender Security is to be done only by RTGS,NEFT &amp; IMPS and no other mode of payment will be accepted as per clause C18.1.4 of ITT shall be accepted only up to 15:00 hrs on 15.06.2020</td>
</tr>
<tr>
<td>Completion period of the Work</td>
<td>9 months</td>
</tr>
<tr>
<td>Tender documents on sale</td>
<td>From 15.05.2020 to 15.06.2020(upto 15:00 Hrs) on e-tenderingwebsite <a href="https://eprocure.gov.in/eprocure/app">https://eprocure.gov.in/eprocure/app</a></td>
</tr>
<tr>
<td></td>
<td>Tender document can only be obtained online after registration of tenderer on the website <a href="https://eprocure.gov.in/eprocure/app">https://eprocure.gov.in/eprocure/app</a>.</td>
</tr>
<tr>
<td>Cost of Tender documents</td>
<td>Rs. 5,900/-i/c of GST (Non-Refundable)</td>
</tr>
<tr>
<td></td>
<td>Payment of Tender Cost/Tender fees is to be done only by RTGS,NEFT &amp; IMPS and no other mode of payment will be accepted. The bidder will be required to upload the scanned copies of transaction of payment of tender cost/tender fee at the time of bid submission. Details of bank as per clause C18.2 of ITT.</td>
</tr>
<tr>
<td>Pre-bid Meeting</td>
<td>21.05.2020 at 1200 Hrs at Office of ED/Civil/Projects-1, Delhi Metro Rail Corporation Ltd,</td>
</tr>
</tbody>
</table>
Opposite Inderlok Metro Station, Shehzada Bagh, Inderlok, New Delhi-110035

**Last Date of seeking Clarification**

22.05.2020(upto 1700 Hrs)(Queries shall be submitted online through e-tendering portal against the respective tender)

**Last date of issuing addendum, if any**

30.05.2020

**Date & time of Submission of Tender (online)**

Tender submission start date: 01.06.2020 (15:00 hrs)
Tender submission end date: 15.06.2020 (15:00 hrs)

**Date & time of opening of Tender (Technical bid)**

16.06.2020 at 15:00Hrs.

**Date & time of opening of Tender (Financial bid)**

Will be informed later on after the evaluation of technical Bids(Only to the bidders who will successfully qualify the Technical Evaluation)

**Authority for issuing tender documents and seeking clarifications.**

Executive Director/Civil/Projects-1, Delhi Metro Rail Corporation Ltd, Opposite Inderlok Metro Station, Shehzada Bagh, Inderlok, New Delhi-110035

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To facilitate payment of Tender Fee and Tender Security through RTGS, NEFT & IMPS, the details of bank account of DMRC is mentioned below:

<table>
<thead>
<tr>
<th>Name of Bank</th>
<th>Bank's Address</th>
<th>Account Name &amp; No.</th>
<th>Account Type</th>
<th>IFSC Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICICI Bank</td>
<td>9A, Phelps Building, Connaught Place, New Delhi-110001</td>
<td>DMRCLtd. Tender Cell A/C, 000705045337</td>
<td>Current</td>
<td>ICIC0000007</td>
</tr>
</tbody>
</table>

**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. Deleted

iii. 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 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.

iv. Deleted

v. (a) DMRC/any other metro organisation (100% owned by Govt.)/Ministry of Housing & Urban affairs/order of ministry of commerce, applicable for all ministries must not have banned business with the tenderer (including any member in case of JV/consortium) as on the date of tenderer submission. The tenderer should submit undertaking to this effect in Appendix-19 of form of tender.

v. (b) Also no contract of the value more than 10% of NIT cost of work, executed either individually or in JV/Consortium, should have been rescinded/terminated by DMRC/any other metro organisation (100% owned by Govt.) after award during last 03 years (from the last day of the previous months of tenderer submission) due to non-performance of the tenderer or any of JV/Consortium member. The tenderer should submit undertaking to this effect in Appendix-19 of Form of tender.

v. (c) The Overall performance of the tenderer (all members in case of JV/Consortium separately) shall be examined for all the ongoing civil engineering/Electrical awarded by DMRC/any other metro organisation (100% owned by Govt.) of value more than 40% of NIT cost of work and also for all completed Civil engineering/Electrical awarded by DMRC/any other metro organisation (100% owned by Govt.) within last one year (from the last day of previous month of tender submission), of value more than 40% of NIT cost of work executed either individually or in a JV/consortium. The tenderer shall provide list of all such works in the prescribed performa given in Appendix-19A of the form of Tender. The tenderer (all members in case of JV/Consortium separately) may either submit satisfactory performance certificate issued by the client/employer for the works or give an undertaking regarding satisfactory performance of work with respect to completion of work/execution of work (ongoing works) failing which their tender submission shall be considered non-responsive and non-compliant to the tender conditions. In case of non-submission of either satisfactory performance certificate from client/employer/or undertaking of satisfactory performance of any of the above work, the performance of such work shall be treated as unsatisfactory while evaluating the overall performance of the tenderer in terms of note (b) of Appendix-19A.

In case of performance certificate issued by the client, same should not be older than three month (from last day of previous month of tenderer submission for ongoing works.

V (d). Tenderer (Including any member in case of JV/consortium) for the works awarded by DMRC/any other metro organisation (100% owned by Govt.) must have been neither penalised with nor imposed with liquidated damages of 10% (or more) of the contract value due to delay or penalty of 10% (or more) of the contract value due to any other reason in any civil Engineering/Electrical of value more than 10% of NIT cost of work, during last three years. the tenderer should submit undertaking to this effect in Appendix-20 of Form of Tender.

V (e). If the tenderer or any of the constituent ‘substantial member(s)’ of JV/Consortium does not meet the criteria stated in the Appendix 19A or Appendix-20, the tenderer including the constituent ‘substantial
member(s)’ of JV/Consortium shall be considered ineligible for participation in tender process and they shall be considered ineligible applicants in terms Clause 1.1.3.1 of NIT.

V (f). If there is any misrepresentation of facts with regards to the undertaking submitted vide Appendix-19 or performance in any of the works reported in Appendix-19A or undertaking submitted vide Appendix-20, the same will be considered as “fraudulent practice” under clause 4.33.1 a (ii) of GCC and the tender submission of such tenderers will be rejected besides taking further action as per clause 4.33.1 (b), (c) & 13.2.1 of GCC.

vi) Tenderer must not have suffered bankruptcy/insolvency during the last 5 years. The tenderer should submit undertaking to this effect in Appendix-21 of Form of Tender.

1.1.3.2 Minimum Eligibility Criteria:

A. Work Experience: The tenderers will be qualified only if they have completed work(s) during last five years ending 30.04.2020 as given below:

(i) At least one “similar work”*of value of INR 52.59 lakhs or more.

OR

(ii) Two “similar works”*each of value of INR 32.87 lakhs or more.

OR

(iii) Three “similar works”*each of value of INR 26.30 lakhs or more.

*The Similar works for above for this contract shall be works “Execution of Topographical survey works/utility identifications works”.

Notes:

- The tenderer shall submit details of works executed by them in the Performa of Appendix-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 also be submitted.

- Value of successfully completed portion of any on-going work up to 30.04.2020 will also be considered for qualification of work experience criteria.

- For completed works, value of work done shall be updated to 30.04.2020 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 qualifying work(s) were done by them in JV/Consortium having different constituents, then the value of work as per their percentage participation in such JV/Consortium shall be considered.

• If the above work work(s) i.e. Framed Partition Work/ False Ceiling work & miscellaneous building Civil & Electrical works etc. for buildings comprise other works, then client’s certificate clearly indicating the amount of work done in respect of the “similar work” shall be furnished by the tenderer in support of work experience along with their tender submissions.

B. - Financial Standing: The tenderers will be qualified only if have minimum financial capabilities as below:

(i) T4 - Annual Turnover: The average annual turnover from construction/survey of last five financial years should be $\geq$ INR70 lakhs

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

Example: Let Member-1 has percentage participation = M and Member-2 has =N. Let the average annual turnover of Member-1 is ‘A’ and that of Member-2 is ‘B’, then the average annual turnover of JV will be $= \frac{AM+BN}{100}$

Notes:

• Financial data for latest last five audited financial years has to be submitted by the tenderer in Appendix-18 of FOT along with audited balance sheets. The financial data in the prescribed format shall be certified by Chartered Accountant with his stamp membership no 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 year other 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/survey works executed in any one year during the last five financial years (updated to 30.04.2020 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 30.04.2020) for on-going construction/survey works during period of 9 months w.e.f. 01.05.2020.

Notes:
- Financial data for latest last five financial years has to be submitted by the tenderer in Appendix-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 with membership number.
- Value of existing commitments for on-going construction/survey works during period of 9 months w.e.f 01.05.2020 has to be submitted by the tenderer in Appendix-16 of FOT. These data shall be certified by the Chartered Accountant with his stamp and signature in original with membership number.
- In 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.

Example for calculation of Bid capacity in case of JV/Group

Suppose there are “P” and “Q” members of the JV/Group with their participation in the JV/Group as 70% and 30% respectively and available bid capacity of these members as per above formula individually works out “X” and “Y” respectively, then Bid capacity of JV/Group shall be as under:

Bid Capacity of the JV/Group = 0.7X + 0.3Y

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.
1.2 Points to be noted

1.2.1 Works envisaged under this contract are required to be completed in all respects in the period of completion time mentioned above.

1.2.2 **Tender Documents consisting of following sections:**

**The Tender documents consist of:**

- **Volume-1:** Notice Inviting Tender (NIT)
  - Instructions to Tenderer (ITT) including Annexures
  - Form of Tender (FOT) including Appendices
- **Volume-2:** General Conditions of Contracts (GCC)
  - Special Conditions of Contract (SCC)
- **Volume-3:** Employer’s Requiremnts.
- **Volume-4:** Condition of Contract on Safety, Health & Environment (SHE)
  - Ver.-1.2
- **Volume-5:** Bill of Quantities (BOQ)

1.2.3 The contract shall be governed by DMRC’s General Condition of Contract (GCC) and the documents listed in para 1.2.2 above. Procurement of materials/execution of work etc. shall conform to technical specifications issued by DMRC.

1.2.4 All Tenderer are hereby cautioned that tenders containing any material deviation or reservations as described in Clause. E 4.0 of “Instructions to Tenderer” and/or minor deviation without quoting the cost of withdrawal shall be considered as non-responsive and is liable to be rejected.

1.2.5 DMRC reserves the right to accept or reject proposal without assigning any reasons. No tenderer shall have any cause of action or claim against the DMRC for rejection of his proposal.

1.2.6 The Tenderer may obtain further information/ clarification, if any, in respect of these tender documents from the authority defined in the Key details above.

1.2.7 The intending tenderer must be registered on e-tendering portal https://eproure.gov.in/eprocure/app. If not registered on the e-tendering portal shall be required to get registered beforehand. If needed they can be imparted training on ‘online tendering process’. After registration the tenderer will get user id and password. On login tenderer can participate in tendering process and can witness various activities of the process.

1.2.8 The authorized signatory of intending tenderer, as per Power of Attorney (POA), must have valid class-III digital signature. The tender document can only be downloaded or uploaded using Class-III digital signature of the authorized signatory. However, the tenderer shall upload their tender on https://eprocure.gov.in/eprocure/appusing class-II or class-III digital signature of the authorized signatory only.

1.2.9 Tender submissions shall be done online on https://eprocure.gov.in/eprocure/app after uploading the mandatory scanned documents towards cost of tender documents such as Demand Draft or Pay Order or Banker’s Cheque from a Scheduled commercial bank based in India and towards Tender Security such as Bank Guarantee or Demand Draft or Pay Order or Banker’s Cheque.
from a Scheduled commercial bank based in India and other documents as stated in the tender document.

1.2.10 Submission of Tenders shall be closed on e-tendering website of DMRC at the date & time of submission prescribed in NIT after which no tender shall be accepted. It shall be the responsibility of the bidder / tenderer to ensure that his tender is submitted online on e-tendering website https://eprocure.gov.in/eprocure/app before the deadline of submission. DMRC will not be responsible for non-receipt of tender documents due to any delay and/or loss etc.

1.2.11 Tenders shall be valid for a period of **180 days** (both days inclusive i.e. the date of submission of tender and the last date of period of validity of the tender) from the latest date of submission of Tenders and shall be accompanied with a tender security of the requisite amount as per clause C18 of ITT.

1.2.12 All the uploaded files in tender submission should be named properly and arrange systematically.

1.2.13 The bidders are advised to keep in touch with e-tendering portal https://eproure.gov.in/eprocure/app for updates.

1.2.14 The bidders may note that this tender is based on **two package system** and scrutiny of documents along with tender submission will be done before the opening of financial bid. If at any stage, any bidder found non-responsive with the criteria mentioned in this document, bidder will be disqualified and their bid will not be evaluated further.

1.2.15 Contact details of CVO/DMRC

   **Chief Vigilance Officer**
   Delhi Metro Rail Corporation Limited,
   Fire Brigade Lane, Barakhamba Road
   Connaught Place, New Delhi-110001
   **Tel:-** 011-23418406
   Email: cvodmrc@gmail.com

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**Executive Director/Civil/Project-1,**
Delhi Metro Rail Corporation Ltd,
Opposite Inderlok Metro Station,
Shehzada Bagh, Inderlok,
New Delhi-110035
Instructions for Online Bid Submission

The bidders are required to submit soft copies of their bids electronically on the CPP Portal, using valid Digital Signature Certificates. The instructions given below are meant to assist the bidders in registering on the CPP Portal, prepare their bids in accordance with the requirements and submitting their bids online on the CPP Portal.

More information useful for submitting online bids on the CPP Portal may be obtained at: https://eprocure.gov.in/eprocure/app.

REGISTRATION

1) Bidders are required to enroll on the e-Procurement module of the Central Public Procurement Portal (URL: https://eprocure.gov.in/eprocure/app) by clicking on the link “Online bidder Enrollment” on the CPP Portal which is free of charge.

2) As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.

3) Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication from the CPP Portal.

4) Upon enrolment, the bidders will be required to register their valid Digital Signature Certificate (Class II or Class III Certificates with signing key usage) issued by any Certifying Authority recognized by CCA India (e.g. Sify / nCode / eMudhra etc.), with their profile.

5) Only one valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSC’s to others which may lead to misuse.

6) Bidder then logs in to the site through the secured log-in by entering their user ID / password and the password of the DSC / e-Token.

SEARCHING FOR TENDER DOCUMENTS

1) There are various search options built in the CPP Portal, to facilitate bidders to search active tenders by several parameters. These parameters could include Tender ID, Organization Name, Location, Date, Value, etc. There is also an option of advanced search for tenders, wherein the bidders may combine a number of search parameters such as Organization Name, Form of Contract, Location, Date, Other keywords etc. to search for a tender published on the CPP Portal.

2) Once the bidders have selected the tenders they are interested in, they may download the required documents / tender schedules. These tenders can be moved to the respective ‘My Tenders’ folder. This would enable the CPP Portal to intimate the bidders through SMS / e-mail in case there is any corrigendum issued to the tender document.

3) The bidder should make a note of the unique Tender ID assigned to each tender, in case they want to obtain any clarification / help from the Helpdesk.

PREPARATION OF BIDS

1) Bidder should take into account any corrigendum published on the tender document before submitting their bids.
2) Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid. Please note the number of covers in which the bid documents have to be submitted, the number of documents - including the names and content of each of the document that need to be submitted. Any deviations from these may lead to rejection of the bid.

3) Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document / schedule and generally, they can be in PDF / XLS / RAR / DWF/JPG formats. Bid documents may be scanned with 100 dpi with black and white option which helps in reducing size of the scanned document.

4) To avoid the time and effort required in uploading the same set of standard documents which are required to be submitted as a part of every bid, a provision of uploading such standard documents (e.g. PAN card copy, annual reports, auditor certificates etc.) has been provided to the bidders. Bidders can use “My Space” or “Other Important Documents” area available to them to upload such documents. These documents may be directly submitted from the “My Space” area while submitting a bid, and need not be uploaded again and again. This will lead to a reduction in the time required for bid submission process.

**SUBMISSION OF BIDS**

1) Bidder should log into the site well in advance for bid submission so that they can upload the bid in time i.e. on or before the bid submission time. Bidder will be responsible for any delay due to other issues.

2) The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document.

3) Bidder has to select the payment option as “offline” to pay the tender fee / EMD as applicable and enter details of the instrument.

4) Bidder should prepare the EMD as per the instructions specified in the tender document. The original should be posted/couriered/given in person to the concerned official, latest by the last date of bid submission or as specified in the tender documents. The details of the DD/any other accepted instrument, physically sent, should tally with the details available in the scanned copy and the data entered during bid submission time. Otherwise the uploaded bid will be rejected.

5) Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. If the price bid has been given as a standard BoQ format with the tender document, then the same is to be downloaded and to be filled by all the bidders. Bidders are required to download the BoQ file, open it and complete the white coloured (unprotected) cells with their respective financial quotes and other details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it and submit it online, without changing the filename. If the BoQ file is found to be modified by the bidder, the bid will be rejected.

6) The server time (which is displayed on the bidders’ dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.

7) All the documents being submitted by the bidders would be encrypted using PKI encryption techniques to ensure the secrecy of the data. The data entered cannot be viewed by unauthorized persons until the time of bid opening. The confidentiality of the bids is maintained using the secured Socket Layer 128 bit encryption technology. Data storage encryption of
sensitive fields is done. Any bid document that is uploaded to the server is subjected to symmetric encryption using a system generated symmetric key. Further this key is subjected to asymmetric encryption using buyers/bid openers public keys. Overall, the uploaded tender documents become readable only after the tender opening by the authorized bid openers.

8) The uploaded tender documents become readable only after the tender opening by the authorized bid openers.

9) Upon the successful and timely submission of bids (i.e., after Clicking “Freeze Bid Submission” in the portal), the portal will give a successful bid submission message & a bid summary will be displayed with the bid no. and the date & time of submission of the bid with all other relevant details.

10) The bid summary has to be printed and kept as an acknowledgement of the submission of the bid. This acknowledgement may be used as an entry pass for any bid opening meetings.

ASSISTANCE TO BIDDERS

1) Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender or the relevant contact person indicated in the tender.

2) Any queries relating to the process of online bid submission or queries relating to CPP Portal in general may be directed to the 24x7 CPP Portal Helpdesk.

3) For any Technical queries related to Operation of the Central Public Procurement Portal Contact at:

   Mobile Numbers: +91-8826246593

   Tel: The 24 x 7 Toll Free Telephonic Help Desk Number 1800 3070 2232. Other Tel: 0120-4200462, 0120-4001002.

   E-Mail: cppp-doe@nic.in
SCOPE OF WORK

2.0 GENERAL

2.1 WORK CONTENTS

2.1.1 Name of Work: “Contract ML-01(R): Topographical survey and utility identification works for the proposed Metrolite Corridor from Kirti Nagar to Bamnoli village including Depot”.

The work mainly comprises of topographical Survey and Utility Identification Survey through GPR method of about 19.09 km length (approx) along Kirti Nagar to Bamnoli Village corridor of Delhi LRTS. Activities to be performed are as follows:

- Topographical survey with Total Station Instrument of Running Section and Station Areas.
- Triangulation survey of Section (including fixing of control points)
- Precise leveling of control points
- Profile leveling
- Final Location Survey
- Boundary Wall marking
- Tree identification with number.
- List of infringing/adjacent structures & utilities along with their identification number & owner details
- Identification/Tracking of Utilities through Ground penetration radar (GPR) method on roads, foothpath, pavements, etc.
- Identification of Utilities, their owing agency and their office addresses.
- Making utility trench to confirm the utilities and survey of utilities found and their mapping on drawings.
- Restoration works of the trench dug on roads, foothpath, pavements, etc.

Precautionary Measures

➢ Necessary safety measures to barricade the area while trenching of utilities.
➢ All precautions to be undertaken to protect the existing utilities while making of trench.
➢ All safety measures to be followed as per SHE Manual mentioned in Vol.4 of the tender document
3.1. **TENDER PRICES**

3.1.1 Unless explicitly stated otherwise in the tender documents, the contract shall be for whole work, Price Bill of Quantity submitted by the Tenderer for his technically acceptable proposal and payment shall be as per Period Bill of Quantities attached with letter of acceptance.

3.1.2 The tender price as mentioned in Clause C 2.5 of ITT shall include all the above listed items in the scope of the work.
SITE INFORMATION

4.1 WORK SITE

4.1.1 The project sites are located in the National Capital Territory of Delhi.

4.1.2 The alignment drawings are as mentioned in Vol.3 of the Tender Document

4.2.1 General Climatic Conditions

4.2.1 The recorded highest and lowest temperatures in the past 10 years are 47 degree Celsius and 2.4 degree Celsius respectively.

4.2.2 Summer season is from April to June and winter season is from November to March.

4.2.3 Mean average annual rainfall in the area over a five-year period is of the order of 735 mm, a good portion of which is concentrated during July to mid-September, when about 75% of the annual rainfall occurs. The heaviest rainfall recorded during 24-hour period is 191 mm.

4.3 Seismic Zone

Delhi falls in Seismic Zone IV. Earthquake of maximum magnitude VIII on Modified Mercalli scale has been experienced in the past, in the region.
MODE OF MEASUREMENT

5.1.1 General

5.1.1 The Contractor shall maintain full details of daily works done, labour employed and program thereof in a register which should be produced to DMRC’s representative for checking from time to time.

5.1.2 Running payments to the Contractor will be made on his submission of the bill and verification by the Engineer’s Representative not frequent than once a month.

5.1.3 All the payment shall be made as physically measured at site, after the field work is over.