

Maharashtra Metro Rail Corporation Limited

(A Joint Venture of Govt. of India & Govt. of Maharashtra)
(Nagpur Metro Rail Project)



REQUEST FOR PROPOSALS

Name of Work: Providing & Fixing of Retro Reflectorized, Star Flex & Vinyl Informatory sign board at 9 Metro Stations Stations namely Airport, Ujwal Nagar, Congress Nagar Metro Stations of Reach 1, Dharampeth College Metro Stations of Reach 3, Zero Mile, Kasturchand Park of Reach 2 and Agrasen Square, Telephone Exchange, Vaishnao Devi Square Metro Stations of Reach 4 for Nagpur Metro Rail Project.

Tender No: - N1-Misc-32/2021

December -2020

Managing Director
"Metro Bhawan", VIP Road, Near Dikshabhoomi,
NAGPUR, MAHARASHTRA-440010 (INDIA)
Ph. 0712-2554217

Website: <http://www.mahametro.org>

E-mail : md.nmrcl.tenders@gmail.com

Maha-Metro,e-tendering portal <https://mahametrorail.etenders.in>

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E- Tender No: N1-Misc-32/2021

NOTICE INVITING TENDER (NIT)

	<p style="text-align: center;"><u>E-TENDER NOTICE</u> MAHARASHTRA METRO RAIL CORPORATION LTD (A joint venture of Govt. of India & Govt. of Maharashtra) "Metro Bhawan", VIP Road, Near Dikshabhoomi, Nagpur-440010 E-mail: md.MAHAMETRO.tenders@gmail.com WebSite: www.metrorailnagpur.com Telefax: 0712-2554217</p>
Tender Notice No. N1-Misc-32/2021 Dated: 12.01.2021	
<p>Name of Work: - Providing & Fixing of Retro Reflectorized, Star Flex & Vinyl Informatory sign board at 9 Metro Stations namely Airport, Ujwal Nagar, Congress Nagar Metro Stations of Reach 1, Dharampeth College Metro Stations of Reach 3, Zero Mile, Kasturchand Park of Reach 2 and Agrasen Square, Telephone Exchange, Vaishnao Devi Square Metro Stations of Reach 4 for Nagpur Metro Rail Project.</p>	
<p><u>KEY DETAILS: -</u></p>	
Completion Period	01 Year.
Documents on sale	Documents can be downloaded from 16.00 hrs. On 14.01.2021 to 16.00 Hrs. On 28.01.2021 from MAHA-Metro's E-Tender Portal.
Cost of documents	INR 11,800/- (Eleven Thousand Eight Hundred only) - non-refundable (inclusive applicable taxes) payable through e-payment by Credit Card/ Debit Card/Net Banking, as per procedure given in e-tender portal.
Last date of submission of queries or by letter	Up till 10.30 Hrs on 14.01.2021 in hard & soft Copy. (Queries received after this date shall not be taken into consideration) e-mail ID: md.mahametro.tenders@gmail.com Address for submission of queries through letter: ED(Procurement), Metro Bhawan, 1 st Floor, Procurement Department, VIP Road, Near Dikshabhoomi, Nagpur-440010
Tender Security	The tender security (EMD) amount shall be Rs. 1,10,000/ (One Lakhs Ten Thousand Only) payable by RTGS/NEFT/Credit Card/Debit Card/Net Banking Online as per procedure in E-tender Portal.
Date & Time of submission of Tender	Online submission up till 16.00 Hrs. on 28.01.2021 on Maha-Metro's e-tender portal.
Date & Time of Opening of Technical bid	On 28.01.2021 at 16.30 Hours at "Metro Bhawan", VIP Road, Near Dikshabhoomi, Nagpur 440010
Sale of document, e-payment procedure, submission and other details are available on MAHA-METRO (Nagpur) E- tender portal under section in e- tenders. https://mahametrorail.etenders.in	

To view this tender notice, interested Agencies may visit the Maha-Metro website “www.mahametro.org”.

**Executive Director (Procurement),
Maharashtra Metro Rail Corporation Limited
(Nagpur Metro Rail Project)**

Section I – Instructions to Bidders

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Section I – Instructions to Bidders

A. General

1. SCOPE OF BIDS:

- 1.1 The Employer, as specified in the BDS, issues this Bidding Document for the construction of the Works as specified in Section V, Employer's Requirements. The name, identification and number of lots (contracts) of this NIT are specified in the BDS.
- 1.2 Unless otherwise stated, throughout this Bidding document definitions and interpretations shall be as prescribed in the Section VI and Section VII, General & Particular Conditions of Contract.
- 1.3 Throughout this Bidding Document:
 - (a) the term "in writing" means communicated in written form (example by mail, email, fax) and delivered against receipt;
 - (b) except where the context requires otherwise, words indicating the singular also include the plural and words indicating the plural also include the singular; and
 - (c) "day" means calendar day.

2. SOURCE OF FUND:

- 2.1. The Borrower or Recipient (hereinafter called "MAHA METRO") indicated in the BDS has applied for or received financing (hereinafter called "funds") from the AFD/KFW towards the cost of the project named in the BDS. The Borrower intends to apply a portion of the funds to eligible payments under the contract(s) for which this Bidding Document is issued.
- 2.2. Deleted

3. FRAUD AND CORRUPTION:

- 3.1. The MAHA METRO's Anticorruption Policy requires bidders, suppliers, subcontractors and contractors under MAHA METRO-financed contracts observe the highest standard of ethics during the procurement and execution of such contracts. In pursuance of this policy, MAHA METRO
 - (a) defines, for the purposes of this provision, the terms set forth below as follows:

- i. “Corrupt practice” means the offering, giving, receiving, or soliciting, directly or indirectly, anything of value to influence improperly the actions of another party;
 - ii. “fraudulent practice” means any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation;
 - iii. “Coercive practice” means impairing or harming or threatening to harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;
 - iv. “collusive practice” means an arrangement between two or more parties designed to achieve an improper purpose, including, influencing improperly the actions of another party;
- (b) will reject a proposal for award if it determines that the bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract;
- (c) will sanction a firm or an individual, at any time ,in accordance with the Anti-Corruption Policy and integrity Principles and guidelines(both as amended from time to time),including declaring in-eligible, either indefinitely or a stated period of time, to participate in MAHA METRO financed or MAHA METRO administered activities or to benefit from an MAHA METRO-finance or MAHA METRO-administered contract ,financially or otherwise, if it at any time determines that the firm or individual has, directly or through an agent, engaged in corrupt fraudulent, collusive or coercive or other prohibited practices.
- (d) Will have the right to require that a provision be included in Bidding Documents and in contracts financed by MAHA METRO, requiring bidders, suppliers and contractors and consultants to permit the MAHA METRO to inspect their accounts and records and other documents relating to the Bid Submission and Contract Performance and to have them audited by auditors appointed by MAHA METRO.
- (e) Will cancel the portion of the financing allotted to contract if it determines at any time that representatives of the contractor or of a beneficiary or MAHA METRO financing engaged in corrupt, fraudulent, collusive or coercive or other prohibited practice during the procurement or the execution of the contract, without the borrower having taken timely and appropriate actions satisfactory to MAHA METRO to remedy the situation

3.2. Furthermore, Bidders shall be aware of the provisions of GCC 22.2 and 56.2 (h).

4. ELIGIBLE BIDDERS

4.1. A Bidder may be a natural person, private entity, government-owned entity—subject to ITB 4.5.

4.2. A Bidder shall have the Indian nationality. A Bidder shall be deemed to have the nationality of a country if the Bidder is a citizen or is constituted, or incorporated, and operates in conformity with the provisions of the laws of that country. This criterion shall also apply to the determination of the nationality of proposed subcontractors or suppliers for any part of the Contract including related services.

4.3. MAHA METRO considers a conflict of interest to be a situation in which a party has interests that could improperly influence that party's performance of official duties or responsibilities, contractual obligations, or compliance with applicable laws and regulations, and that such conflict of interest. may contribute to or constitute a prohibited practice under MAHA METRO's Anticorruption Policy. In pursuance of MAHA METRO's Anticorruption Policy's requirement that bidders, suppliers, subcontractors and contractors under MAHA METRO-financed contracts, observe the highest standard of ethics, MAHA METRO will take appropriate actions, which include not financing of the contract, if it determines that a conflict of interest has flawed the integrity of any procurement process. Consequently, all Bidders found to have a conflict of interest shall be disqualified. A Bidder may be considered to be in a conflict of interest with one or more parties in this bidding process if, including but not limited to:

- a. they have controlling shareholders in common; or
- b. they receive or have received any direct or indirect subsidy from any of them;
or
- c. they have the same legal representative for purposes of this bid; or
- d. they have a relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the Bid of another Bidder, or influence the decisions of the Employer regarding this bidding process; or
- e. A Bidder participates in more than one bid in this bidding process. Participation by a Bidder in more than one Bid will result in the disqualification of all Bids in which the party is involved. However, this

does not limit the inclusion of the same subcontractor in more than one bid; not otherwise participating as a Bidder.

- f. A Bidder or any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the contract that is the subject of the Bid; or
- g. A Bidder or any of its affiliates has been hired (or is proposed to be hired) by the Employer as Engineer for the contract.

4.4. A firm that is under a declaration of ineligibility by the MAHA METRO in accordance with ITB 3, at the date of the deadline for bid submission or thereafter, shall be disqualified. A bid from a sanctioned or cross debarred firm by any government agencies of Employers country will be rejected. It is the duty of the Contractor/Bidder to notify Employer if the Contractor/Bidder is being debarred by any agencies as mentioned above. The contractor bid will be summarily terminated even after contract has been awarded if it is found to in case of any such information comes to the notice of Employer in such an event the contractor will be liable for all losses and liabilities of Employers as well as of contractors firm.

4.5. Government-owned enterprises in the Employer's country shall be eligible only if they can establish that they are legally and financially autonomous and operate under commercial law, and that they are not a dependent agency of the Employer.

4.6. Bidders shall provide such evidence of their continued eligibility satisfactory to the Employer, as the Employer shall reasonably request.

4.7. In case a prequalification process has been conducted prior to the bidding process, this bidding is open only for prequalified bidders.

5. ELIGIBLE MATERIALS, EQUIPMENT AND SERVICES

5.1. The materials, equipment and services to be supplied under the Contract shall have their origin in eligible source countries as defined in ITB 4.2 above and all expenditures under the Contract will be limited to such materials, equipment, and services. At the Employer's request, Bidders may be required to provide evidence of the origin of materials, equipment and services.

5.2. For purposes of ITB 5.1 above, "origin" means the place where the materials and equipment are mined, grown, produced or manufactured, and from which

the services are provided. Materials and equipment are produced when, through manufacturing, processing, or substantial or major assembling of components, a commercially recognized product results that differs substantially in its basic characteristics or in purpose or utility from its components.

B. CONTENTS OF BIDDING DOCUMENTS

6. SECTIONS OF BIDDING DOCUMENT

6.1. The Bidding Document consist of Parts I, II, and III, which include all the Sections indicated below, and should be read in conjunction with any Addenda issued in accordance with ITB 8.

PART I Bidding Procedures

Section I - Instructions to Bidders (ITB)

Section II - Bid Data Sheet (BDS)

Section III - Evaluation and Qualification Criteria (EQC)

Section IV - Bidding Forms (BDF)

PART II Section V – Employer’s Requirements

PART III Conditions of Contract and Contract Forms

Section VI - General Conditions (GCC)

Section VII- Particular Conditions (PCC)

Section VIII - Contract Forms (COF)

PART IV Section IX- Financial Bid

6.2. The Invitation for Bids issued by the Employer is not part of the Bidding Document.

6.3. The Employer is not responsible for the completeness of the Bidding Document and their Addenda, if they were not obtained directly from the source stated by the Employer in the Invitation for Bids.

6.4. The Bidder is expected to examine all instructions, forms, terms, and specifications in the Bidding Document. Failure to furnish all information or documentation required by the Bidding Document may result in the rejection of the bid.

7. CLARIFICATION OF BIDDING DOCUMENT, SITE VISIT, PRE-BID MEETING:

7.1. A prospective Bidder requiring any clarification of the Bidding Document shall contact the Employer in writing at the Employer’s address indicated in the BDS or raise his inquiries during the pre-bid meeting if provided for in accordance with ITB 7.4. The Employer will respond in writing to any request

for clarification, provided that such request is received prior to the deadline for submission of bids, within a period given in the BDS. The Employer shall forward copies of its response to all Bidders who have acquired the Bidding Document, including a description of the inquiry but without identifying its source. Should the Employer deem it necessary to amend the Bidding Document as a result of a request for clarification, it shall do so following the procedure under ITB 8 and ITB 22.2.

- 7.2. The Bidder is encouraged to visit and examine the Site of Works and its surroundings and obtain for itself on its own risk and responsibility all information that may be necessary for preparing the bid and entering into a contract for construction of the Works. The costs of visiting the Site shall be at the Bidder's own expense.
- 7.3. The Bidder and any of its personnel or agents will be granted permission by the Employer to enter upon its premises and lands for the purpose of such visit, but only upon the express condition that the Bidder, its personnel, and agents will release and indemnify the Employer and its personnel and agents from and against all liability in respect thereof, and will be responsible for death or personal injury, loss of or damage to property, and any other loss, damage, costs, and expenses incurred as a result of the inspection.
- 7.4. The Bidder's designated representative is invited to attend a pre-bid meeting, if provided for in the BDS. The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.
- 7.5. The Bidder is requested, as far as possible, to submit any questions in writing, to reach the Employer not later than three days before the meeting.
- 7.6. Minutes of the pre-bid meeting, including the text of the questions raised, without identifying the source, and the responses given, together with any responses prepared after the meeting, will be transmitted promptly to all Bidders who have acquired the Bidding Document in accordance with ITB 6.3. Any modification to the Bidding Document that may become necessary as a result of the pre-bid meeting shall be made by the Employer exclusively through the issue of an addendum pursuant to ITB 8 and not through the minutes of the pre-bid meeting.
- 7.7. Non attendance at the pre-bid meeting will not be a cause for disqualification of a Bidder.

7.8 A Sufficiency of the Bid: The bidder shall be deemed to have satisfied himself before bidding as to the correctness and sufficiency of his tender for the Scope of Work.

8. AMENDMENT OF BIDDING DOCUMENT

8.1. At any time prior to the deadline for submission of bids, the Employer may amend the Bidding Document by issuing addenda.

8.2. Any addendum issued shall be part of the Bidding Document and shall be communicated in writing to all who have obtained the Bidding Document.

8.3. To give prospective Bidders reasonable time in which to take an addendum into account in preparing their bids, the Employer may, at its discretion, extend the deadline for the submission of bids, pursuant to ITB 22.2.

C. PREPARATION OF BIDS

9. COST OF BIDDING

9.1. The Bidder shall bear all costs associated with the preparation and submission of its Bid, and the Employer shall in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

10. LANGUAGE OF BID

10.1. 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. Supporting documents and printed literature that are part of the Bid may be in another language provided they are accompanied by an accurate translation of the relevant passages in English, in which case, for purposes of interpretation of the Bid, such translation shall govern.

11. DOCUMENTS COMPRISING THE BID

11.1. The Bid shall comprise two package, one called the Technical Bid containing the documents listed in ITB 11.2 and other the Price Bid containing the documents listed in ITB 11.3, both the packages to be submitted online in the e-tender portal of Maha-Metro <https://mahametrorail.etenders.in>.

11.2. The Technical Bid shall comprise the following:

- I. Letter of Technical Bid;
- II. Bid Security, in accordance with ITB 19;
- III. written confirmation authorizing the signatory of the Bid to commit the Bidder, in accordance with ITB 20.2;
- IV. documentary evidence in accordance with ITB 17 establishing the Bidder's qualifications to perform the contract;
- V. Technical Proposal in accordance with ITB 16;
- VI. Any other document required in the BDS.

11.3 The Price Bid shall comprise the following.

- (a) Letter of Price Bid;
- (b) completed Price Schedules, in accordance with ITB 12 and 14, or as stipulated in the BDS;
- (c) Any other document required in the BDS.

12. LETTERS OF BID AND SCHEDULES

12.1. The Letters of Technical bid and Price bid, and all documents listed under Clause 11, i.e. Schedules, including the Bill of Quantities etc., shall be prepared using the relevant forms furnished in Section IV (Bidding Forms) if so provided. The forms must be completed without any alterations to the text, and no substitutes shall be accepted. All blank spaces shall be filled in with the information requested.

13. ALTERNATIVE BIDS:

No Alternative bids shall be considered. Bidders submitting unsolicited alternative proposals shall be summarily rejected.

14. BID PRICES AND DISCOUNTS

14.1. The prices and discounts quoted by the Bidder in the Letter of Price Bid and in the Bill of Quantities shall conform to the requirements specified below.

14.2. The Bidder shall submit a bid for whole of the works described in ITB 1.1 by filling in prices for all items of Works, as identified in Section IV (Bidding forms). In case of admeasurements contracts, the bidder shall fill in rates and prices for all items of the Works described in the Bill of Quantities.

Items against which no rate or price is entered by the Bidder will not be paid for by the Employer when executed and shall be deemed covered by the rates for other items and prices in the Bill of Quantities.

- 14.3. The price to be quoted in the Letter of Price Bid, in accordance with ITB 12.1 shall be the total price of the Bid, excluding any discounts offered.
 - 14.4. The Bidder shall quote Unconditional discounts, if any, and the methodology for their application in the Letter of Price Bid, in accordance with ITB 14.1.
 - 14.5. If so indicated in ITB 1.1, bids are invited for individual contracts or for any combination of contracts (packages), Bidders wishing to offer any price reduction for the award of more than one Contract shall specify in their bid the price reductions applicable to each package, or alternatively, to individual Contracts within the package. Price reductions or discounts shall be submitted in accordance with ITB 14.4, provided the bids for all contracts are submitted and opened at the same time.
 - 14.6. Unless otherwise provided in the BDS and the Conditions of Contract, the prices quoted by the Bidder shall be fixed. If the prices quoted by the Bidder are subject to adjustment during the performance of the Contract in accordance with the provisions of the Conditions of Contract, the Bidder shall furnish the indices and weightings for the price adjustment formulae in the Schedule of Adjustment Data in Section IV (Bidding Forms) and the Employer may require the Bidder to justify its proposed indices and weightings.
 - 14.7. All duties, taxes, GST and other levies payable by the Contractor under the Contract, or for any other cause, as of the date 28 days prior to the deadline for submission of bids, shall be included in the rates and prices and the total Bid Price submitted by the Bidder.
 - 14.8. Taxes, charges, Cess etc. including (but not limited to) Work Contract Tax (WCT), Seignorage/ Royalty / Labour Cess and any other charges as may be applicable from time to time at the prevailing rates shall be deducted from all payments made to the Contractor. Contractor shall provide E-Way Bills, Form "38", or any other forms and comply with all the formalities that may be required by the Central/State Government for procurement of Owner supplied material.
- 15. Currencies of Bid and Payment:** The currency (ies) of the bid and payment shall be as specified in the BDS.

16. Documents Comprising the Technical Proposal: The Bidder shall furnish, as a part of the Technical bid, a Technical Proposal including a statement of work methods, equipment, personnel, schedule and any other information as stipulated in Section IV (Bidding Forms), in sufficient detail to demonstrate the adequacy of the Bidders' proposal to meet the work requirements and the completion time.

17. Documents Establishing the Qualifications of the Bidder

- 17.1. To establish its qualifications to perform the Contract in accordance with Section III (Evaluation and Qualification Criteria) the Bidder shall provide the information requested in the corresponding information sheets included in Section IV (Bidding Forms).
- 17.2. Domestic Bidders, individually applying for eligibility for domestic preference shall supply all information required to satisfy the criteria for eligibility as described in ITB 35.

18. PERIOD OF VALIDITY OF BIDS

- 18.1. Bids shall remain valid for the period specified in the BDS after the bid submission deadline date prescribed by the Employer. A bid valid for a shorter period shall be rejected by the Employer as non-responsive.
- 18.2. In exceptional circumstances, prior to the expiration of the bid validity period, the Employer may request Bidders to extend the period of validity of their Bids. The request and the responses shall be made in writing. If a bid security is requested in accordance with ITB 19, it shall also be extended for a corresponding period. A Bidder may refuse the request without forfeiting its bid security. A Bidder granting the request shall not be required or permitted to modify its Bid.

19. BID SECURITY

- 19.1. Unless otherwise specified in the BDS, the Bidder shall furnish as part of its bid, in original form, either Bid Securing Declaration or a Bid Security as specified in the BDS. In case of Bid Security, the amount shall be as specified in the BDS.
- 19.2. A Bid Securing Declaration shall use the form included in Section IV (Bidding Forms).
- 19.3. If a bid security is specified pursuant to ITB 19.1, the bid security shall be, at the Bidder's option, in any of the following forms:
 - (a) an unconditional Bank Guarantee;

- (b) TDR/ FDR
- (c) Demand Draft

In the case of a Bank Guarantee, the Bid Security shall be submitted either using the Bid Security Form included in Section IV (Bidding Forms). The form must include the complete name of the Bidder. The Bid Security shall be valid for twenty-eight days (28) beyond the original validity period of the bid, or beyond any period of extension if requested under ITB 18.2.

- 19.4. Any Bid not accompanied by to substantially compliant Bid Security, if required in accordance with ITB 19.3, or Bid Securing declaration in accordance with ITB 19.2, if required in accordance with ITB 19.1 shall be rejected by the Employer as non- responsive.
- 19.5. If a Bid Security is specified pursuant to ITB 19.1, the Bid Security of unsuccessful Bidders shall be returned as promptly as possible upon the successful Bidder's furnishing of the Performance Security pursuant to ITB 43.1.
- 19.6. If a Bid Security is specified pursuant to ITB 19.1, the Bid Security of the successful Bidder shall be returned as promptly as possible once the successful Bidder has signed the Contract and furnished the required Performance Security.
- 19.7. The Bid Security may be forfeited or the Bid Securing Declaration executed:
 - (a) if a Bidder withdraws its bid during the period of bid validity specified by the Bidder on the Letter of Bid, except as provided in ITB 18.2 or
 - (b) if the successful Bidder fails to:
 - i. sign the Contract in accordance with ITB 42;
 - ii. furnish a Performance Security in accordance with ITB 43.1.
 - iii. accept the correction of its Bid price pursuant to ITB 33.2

20. FORMAT AND SIGNING OF BID

- 20.1. The Bidder shall prepare only one copy original of the documents comprising the bid as described in ITB 11 and the same shall be submitted on the etender portal of Maha-Metro
- 20.2. The Bid shall be typed or written in indelible ink and shall be signed by a person duly authorized to sign on behalf of the Bidder. This authorization shall consist of a written confirmation as specified in the BDS and shall be attached to the bid. The name and position held by each person signing the authorization must be typed or printed below the signature.

20.3. Any amendments such as interlineations, erasures, or overwriting shall be valid only if they are signed or initialed by the person signing the Bid.

D. SUBMISSION AND OPENING OF BIDS

21. SUBMISSION OF BID:

Tenders should be submitted online in the e-tender portal <https://mahametrorail.etenders.in> before the last date and time stipulated for submission of the Bid.

The Employer may, at his discretion, extend this date for the submission of tender in which case all rights and obligations of the Employer and the Bidder previously subject to the original date shall thereafter be subject to the new deadline as extended. (If such nominated date for submission of tender is subsequently declared as a Public Holiday by the Employer, the next official working day shall be deemed as the date for submission of tender).

22. OPENING OF BID:

The Online Submitted Bid shall be opened in presence of Bidders, or their authorized representatives, on the stipulated date and time as per this Bid Document. At the time of opening, the Bidders name shall be read-out in presence of those present.

E. EVALUATION AND COMPARISON OF BIDS

23. CONFIDENTIALITY

23.1. Information relating to the examination, evaluation, comparison, and post qualification of bids and recommendation of contract award, shall not be disclosed to Bidders or any other persons not officially concerned with such process until information on Contract award is communicated to all Bidders.

23.2. Any attempt by a Bidder to influence the Employer in the evaluation of the bids or Contract award decisions may result in the rejection of its Bid.

23.3. From the time of bid opening to the time of Contract award, if any Bidder wishes to contact the Employer on any matter related to the bidding process, it may do so in writing.

24. CLARIFICATION OF BIDS

- 24.1. To assist in the examination, evaluation, and comparison of the Technical and Price bids, and qualification of the Bidders, the Employer may at its discretion ask any Bidder for a clarification of its bid. Any clarification submitted by a Bidder that is not in response to a request by the Employer shall not be considered. The Employer's request for clarification and the response shall be in writing. No change in substance of the Technical bid or prices in the price bid shall be sought, offered, or permitted, except to confirm the correction of arithmetic errors discovered by the Employer in the evaluation of the bids, in accordance with ITB 33.
- 24.2. If a Bidder does not provide clarifications of its bid by the date and time set in the Employer's request for clarification, its bid may be rejected.

25. DEVIATIONS, RESERVATIONS, AND OMISSIONS

- a. During the evaluation of bids, the following definitions apply:
- b. "Deviation" is a departure from the requirements specified in the Bidding Document;
- c. "Reservation" is the setting of limiting conditions or withholding from complete acceptance of the requirements specified in the Bidding Document; and
- d. "Omission" is the failure to submit part or all of the information or documentation required in the Bidding Document.

26. PRELIMINARY EXAMINATION OF TECHNICAL BIDS

- 26.1 The Employer shall examine the Technical Bid to confirm that all documents and technical documentation requested in ITB Sub-Clause 11.2 have been provided, and to determine the completeness of each document submitted.
- 26.2. The Employer shall confirm that the following documents and information have been provided in the Technical Bid.
 - i. Letter of Technical Bid
 - ii. Written confirmation of authorization to commit the Bidder
 - iii. Bid Security, if applicable and
 - iv. Technical Proposal in accordance with ITB 16

27. RESPONSIVENESS OF TECHNICAL BID

- 27.1. The Employer's determination of a bid's responsiveness will be based on the

contents of the bid itself, as defined in ITB11.

- 27.2. A substantially responsive Technical bid is one that meets the requirements of the Bidding Document without material deviation, reservation, or omission. A material deviation, reservation, or omission is one that,
- i. if accepted, would:
 1. Affect in any substantial way the scope, quality, or performance of the Works specified in the Contract; or
 2. Limit in any substantial way, inconsistent with the Bidding Document, the Employer's rights or the Bidder's obligations under the proposed Contract; or
 - ii. if rectified, would unfairly affect the competitive position of other Bidders presenting substantially responsive bids.
- 27.3. The Employer shall examine the technical aspects of the bid submitted in accordance with ITB 16, Technical Proposal, in particular, to confirm that all requirements of Section VI (Works Requirements) have been met without any material deviation, reservation or omission.
- 27.4. If a bid is not substantially responsive to the requirements of the Bidding Document, it shall be rejected by the Employer and may not subsequently be made responsive by correction of the material deviation, reservation, or omission.

28. NONCONFORMITIES, ERRORS, AND OMISSIONS

- 28.1. Provided that a bid is substantially responsive, the Employer may waive any nonconformity in the bid that does not constitute a material deviation, reservation or omission.
- 28.2. Provided that a Technical bid is substantially responsive, the Employer may request that the Bidder submit the necessary information or documentation, within a reasonable period of time, to rectify nonmaterial nonconformities in the Technical bid related to documentation requirements. Requesting information or documentation on such nonconformities shall not be related to any aspect of the price of the bid. Failure of the Bidder to comply with the request may result in the rejection of its bid.
- 28.3. Provided that a Technical bid is substantially responsive, the Employer shall rectify quantifiable nonmaterial nonconformities related to the Bid Price. To this effect, the Bid Price may be adjusted, for comparison purposes only, to reflect the price of a missing or non-conforming item or component. The adjustment shall be made using the methods indicated in Section III (Evaluation and Qualification Criteria).

29. QUALIFICATION OF THE BIDDER

- 29.1 The Employer shall determine to its satisfaction during the evaluation of Technical Bids whether Bidders meet the qualifying criteria specified in Section III (Evaluation and Qualification Criteria).
- 29.2 The determination shall be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder, pursuant to ITB 17.1.
- 29.3. An affirmative determination shall be a prerequisite for the opening and evaluation of a Bidder's Price Bid. A negative determination shall result into the disqualification of the Bid, in which event the Employer shall return the unopened Price Bid to the Bidder.

30- A.SUBCONTRACTORS

- 30-A.1 Unless otherwise stated in the BDS, the Employer does not intend to execute any specific elements of the Works Design and Build by sub-contractors selected in advance by the Employer (so-called "Nominated Subcontractors").
- 30-A.2 The Bidder shall not propose to subcontract the whole of the contract. The Bidder may propose subcontractors for certain specialized parts of the contract. Bidders planning to use such specialized subcontractors shall specify, in the Letter of Bid, the parts of the contract proposed to be subcontracted along with details of the proposed subcontractors including their qualification and experience
- 30-A.3 Subcontractors proposed by the Bidder shall be fully qualified for their parts of the contract. The subcontractor's qualifications shall not be used by the Bidder to qualify for the contract unless the Bidder designates them as Specialized Subcontractors, in which case, the qualifications of the Specialized Subcontractor proposed by the Bidder may be added to the qualifications of the Bidder for the purpose of the evaluation, if specified in BDS.
- 30-A.4 Bidders may propose subcontracting up to the percentage of total value of contracts or the volume of works as specified in the BDS. Sub-contractors proposed by the Bidder shall be fully qualified for their parts of the Works.

31. CORRECTION OF ARITHMETICAL ERRORS

31.1. During the evaluation of Price Bids, the Employer shall correct arithmetical errors on the following basis:

- (a) if there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected, unless in the opinion of the Employer there is an obvious misplacement of the decimal point in the unit price, in which case the total price as quoted shall govern and the unit price shall be corrected;
- (b) if there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected; and
- (c) if there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to (a) and (b) above.
- (d) If there is a discrepancy in the ORIGINAL and COPY, the figures given in ORIGINAL shall prevail.

31.2. If the Bidder that submitted the lowest evaluated bid does not accept the correction of errors, its Bid shall be disqualified and its bid security may be forfeited.

32. CONVERSION TO SINGLE CURRENCY

32.1. For evaluation and comparison purposes, the currency(ies) of the bid shall be converted into a single currency as specified in the BDS.

33. MARGIN OF PREFERENCE

33.1. Unless otherwise specified in the BDS, a margin of preference shall not apply.

34. PRELIMINARY EXAMINATION OF PRICE BIDS- Deleted

35. EVALUATION OF BIDS

35.1. The Employer shall use the criteria and methodologies listed in this Clause. No other evaluation criteria or methodologies shall be permitted.

35.2. To evaluate bid price, the Employer shall consider the following:

- a. The evaluation committee shall evaluate the Stage-I Qualification Criteria such as preliminary qualifications, financial eligibility and Technical eligibility. The bidder who satisfies these requirements will be made eligible for further evaluation of full technical proposals (Stage-II) on the basis of their responsiveness to the Terms of Reference, applying the evaluation criteria, sub-criteria, and point system specified in BDS. Each responsive Proposal will be given a technical score (St). A Proposal shall be rejected at this stage if it does not respond to important aspects of the RFP.
 - b. The bid price, excluding Provisional Sums and the provision, if any, for contingencies in the Summary Bill of Quantities for admeasurements contracts, or Schedule of Prices for lump sum contracts, but including Day work items, where priced competitively;
 - c. price adjustment for correction of arithmetic errors in accordance with ITB 35.1;
 - d. price adjustment due to discounts offered in accordance with ITB 14.4;
 - e. converting the amount resulting from applying (a) to (c) above, if relevant, to a single currency in accordance with ITB 36;
 - f. adjustment for nonconformities in accordance with ITB 33.3;
 - g. The price bid will then be given a financial score as specified in detail in Section III (Evaluation and Qualification Criteria);
 - h. application of all the evaluation factors indicated in Section III (Evaluation and Qualification Criteria);
 - i. Any other additional evaluation factors specified in the BDS and Section III, Evaluation and Qualification Criteria.
- 35.3. The estimated effect of the price adjustment provisions of the Conditions of Contract, applied over the period of execution of the Contract, shall not be taken into account in bid evaluation.
- 35.4. If this Bidding Document allows Bidders to quote separate prices for different contracts, and to award multiple contracts to a single Bidder, the methodology to determine the lowest evaluated price of the contract combinations, including any discounts offered in the Letter of Bid, is specified in Section III (Evaluation and Qualification Criteria).
- 35.5. If the Bid for an admeasurements contract, which results in the lowest Evaluated Bid Price is seriously unbalanced, front loaded or substantially below updated estimates in the opinion of the Employer, the Employer may require the Bidder to produce detailed price analyses for any or all items in the Bill of Quantities, to demonstrate the internal consistency of those prices with the construction methods and schedule proposed. After evaluation of the price analyses, taking into consideration the schedule of estimated Contract payments, the Employer may require that the amount of the

Performance Security be increased at the expense of the Bidder to a level sufficient to protect the Employer against financial loss in the event of default of the successful Bidder under the Contract.

36. COMPARISON OF BIDS

36.1. The Employer shall compare all substantially responsive bids to determine the lowest evaluated bid in accordance with ITB 37.2.

37. EMPLOYER'S RIGHT TO ACCEPT ANY BID, AND TO REJECT ANY OR ALL BIDS

37.1. The Employer reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at any time prior to contract award, without thereby incurring any liability to Bidders. In case of annulment, all bids submitted and specifically, bid securities, shall be promptly returned to the Bidders.

F. AWARD OF CONTRACT

38. AWARD CRITERIA

38.1. The Employer shall award the Contract to the Bidder whose bid is declared the Most Advantageous Bid by the Tender Evaluation Committee which is substantially responsive to the Bidding Document, provided further that the Bidder is determined to be qualified to perform the Contract satisfactorily.

39. NOTIFICATION OF AWARD

39.1 Prior to the expiration of the period of bid validity, the Employer shall notify the successful Bidder, in writing, that its bid has been accepted. The Notification letter (hereinafter and in the conditions of contract and contract forms called "The Letter of Acceptance"), shall specify the sum that the Employer will pay the contractor in consideration of the execution and completion of the works. (Hereinafter and in the conditions of contract and contract forms called "The Contract Price").

39.2 Until a formal contract is prepared and executed, the notification of award shall constitute a binding Contract.

39.3. At the same time, the Employer shall put up in the public domain information about the results of the bidding process which will include the following information (i) name of the winning Bidder, and the Price it

offered, as well as the duration and summary scope of the contract awarded. After publication of the award, unsuccessful bidders may request in writing to the Employer a debriefing seeking explanations on the grounds on which their bids were not selected. The Employer shall respond in writing to any unsuccessful Bidder who, after publication of contract award, requests a debriefing after the evaluation process is complete.

40 SIGNING OF CONTRACT

- 40.1. Promptly after notification, the Employer shall send the successful Bidder the Contract Agreement.
- 40.2. Within fifteen (15) days of receipt of the Contract Agreement, the successful Bidder shall sign, date, and return it to the Employer.

41 PERFORMANCE SECURITY

- 41.1. Within fifteen (15) days of the receipt of notification of Letter of award from the Employer, the successful Bidder shall furnish the Performance Security in accordance with the Conditions of Contract, subject to ITB 39.5, using for that purpose the Performance Security Form included in Section VIII (Contract Forms), or another form acceptable to the Employer. If the institution issuing the Performance Security is located outside the country of the Employer, it shall have a correspondent financial institution located in the country of the Employer to make it enforceable.
- 41.2. Failure of the successful Bidder to submit the above-mentioned Performance Security or to sign the Contract Agreement shall constitute sufficient grounds for the annulment of the award and forfeiture of the Bid Security. In that event the Employer may award the Contract to the next lowest evaluated Bidder whose offer is substantially responsive and is determined by the Employer to be qualified to perform the Contract satisfactorily.
- 41.3. The above provision shall apply for furnishing of a domestic preference security if so required.

Section II – Bid Data Sheet

This section consists of provisions that are specific to each procurement and supplement the information or requirements included in Section I – Instruction to Bidders.

A. GENERAL

ITB 1.1	The number of the Invitation for Bids (IFB) is N1-Misc-32/2021
ITB 1.1	The Employer is EXECUTIVE DIRECTOR (PROCUREMENT), Maha-Metro,
ITB 1.1	Providing & Fixing of Retro Reflectorized, Star Flex & Vinyl Informatory sign board at 9 Metro Stations namely Airport, Ujwal Nagar, Congress Nagar Metro Stations of Reach 1, Dharampeth College Metro Stations of Reach 3, Zero Mile, Kasturchand Park of Reach 2 and Agrasen Square, Telephone Exchange, Vaishnao Devi Square Metro Stations of Reach 4 for Nagpur Metro Rail Project.
ITB 2.1	The Borrower is MAHAMETRO
ITB 4.1	The Bidder should be a company as per ITB 4 and currently registered with any of the government departments in the state of Maharashtra and the registration certificate shall be submitted alongwith the bid. Note: - Joint Venture/Consortium is not permitted.

B. CONTENT OF BIDDING DOCUMENT

ITB 7.1	For Clarification Purpose only, Employer Address is Office of the Executive Director (Proc.), Maharashtra Metro Rail Corporation, “Metro Bhawan”, VIP Road, Near Dikshabhoomi, NAGPUR, MAHARASHTRA-440010 (INDIA) Ph. 0712-2554217 Request for clarification should be received by Employer not later than Seven days before the closing date of the bid.
ITB 7.4	No Pre-bid meeting will be held. However, the bidder can send his queries till 10:30 Hrs on 21.01.2021 on md.nmrcl.tenders@gmail.com .

C. PREPARATION OF BIDS

ITB 11.2(g)	Bidder shall submit with its Technical Bid the following additional documents: Safety Plan for execution of works. (Not applicable to this tender)
ITB 11.3(d)	Bidder shall submit with its Price Bid the following additional documents: Rate Analysis of all items. (Not applicable to this tender)
ITB 14	The bidder shall be deemed to have been satisfied himself as to the correctness and sufficiency of the bid and the rates and prices stated in Bill of Quantities, all of which shall, except in so far as it is otherwise provided in the contract, cover all his obligations under the contract and all matters and things necessary for the proper execution and completion of works and remedying of any defect there in.
ITB 14.6	The Prices quoted by the bidder shall not be subjected to any price adjustment.
ITB 15	The Prices shall be quoted by the bidder and shall be paid in: Indian Rupees

ITB 18.1	The bid validity period shall be 120 days after the bid submission deadline date.
ITB 19.1	The bidder shall furnish a Bid Security or EMD for an amount of INR 1,10,000/-
ITB 19.3	The tender security (EMD) amount shall be payable by RTGS/NEFT/Credit Card/Debit Card/Net Banking Online as per procedure in E-tender Portal.
ITB 20.2	The written confirmation of authorization to sign on behalf of the Bidder Shall consist of a) Power of Attorney from authorized person to issue from the company. b) All the pages of the bid shall be signed or initiated by a person signing the bid along with the seal.

D. SUBMISSION AND OPENING OF BIDS

ITB 24	Bidder shall download the Complete Bid Document along with all Corrigendum/Addendum/Clarification etc. by logging in with E-Tender Portal and submit it before due date.
ITB 24-iv	For the online purchase and submission of bid document purpose only https://mahametrorail.etenders.in
ITB 24-vi	The opening of Technical Bid and Financial Bid shall take place at Office of the Executive Director (Proc.), Maharashtra Metro Rail Corporation Ltd. (Maha-Metro), "Metro Bhawan", VIP Road, Near Dikshabhoomi, NAGPUR, MAHARASHTRA-440010 (INDIA) Ph.0712-2554217. The Technical Bid opening will be on 09/02/2021 Time 16.30 respectively hours or as may be decided by Maha-Metro. The Financial Bid will be opened after the evaluation of technical bid and the intimation of opening will be informed accordingly to the responsive bidders.

E. EVALUATION AND COMPARISON OF BIDS

ITB 38 A-4	Subcontracting is not allowed
ITB 40	The Currency that shall be used for bid evaluation and comparison purpose to convert all bid prices expressed in various currencies into a single currency: Indian Rupees.
ITB 41	A margin of preference shall not apply
ITB 43.2 h	Additional requirements shall apply – These are detailed in the evaluation criteria in Section III, Evaluation and Qualification Criteria.
ITB 45.1	Performance Security 3% (Three percent) shall be for an amount of for which the Contract is signed from a Nationalized bank / Scheduled bank in India and shall be valid for period of 28 days beyond the DLP. (Defect Liability Period)

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1. EVALUATION

In addition to the criteria listed in Section I ITBS the following criteria shall also apply:

1.1 ADEQUACY OF TECHNICAL PROPOSAL

Evaluation of the Bidder's Technical Proposal will include an assessment of the Bidder's technical capacity to mobilize key equipment and personnel for the contract consistent with its proposal regarding work methods, scheduling, and material sourcing in sufficient detail and fully in accordance with the requirements stipulated in Section V (Employer's Requirements).

1.2 MULTIPLE CONTRACTS- Not Applicable

1.3 COMPLETION TIME- The assigned time period is 01 year from the date of issuance of LOA/ work order. However due to unforeseen reason as certified by Project Manager or Engineer-in-Charge extension may be granted suitably.

1.4 ALTERNATIVE TECHNICAL SOLUTIONS- Not Applicable

1.5 MARGIN OF PREFERENCE (Applicable for ICB only): - Not Applicable

1.6 QUANTIFIABLE NONCONFORMITIES, ERRORS AND OMISSIONS

The evaluated cost of quantifiable nonconformities, errors and/or omissions is determined as follows:

"Pursuant to Clause 28 & 31 of Section I: Instructions to Bidders, the cost of all quantifiable non-conformities, errors, or omissions in a Bidder's Bid Proposal shall be evaluated. The Employer shall make its assessment of the cost of any quantifiable nonmaterial nonconformities, errors, or omissions for the purpose of ensuring fair comparison of Bids, and for this purpose, the Employer shall base its assessment on the highest price quoted for the same item(s) or component(s) by the other responsive Bidders."

2.QUALIFICATION

It is the legal entity or entities comprising the Bidder, and not the Bidder's parent companies, subsidiaries, or affiliates, that must satisfy the qualification criteria described below.

2.1 ELIGIBILITY

Criteria	Compliance Requirement				Documents
	Single Entity	Joint Venture (Not Applicable)			
Requirement		All Partner Combined	Each Partner	One Partner	Submission Requirement

2.1.1 Nationality

Nationality in accordance with ITB Sub clause 4.2.	must meet requirement				Forms ELI – 1 with attachments
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2.1.2 Conflict of Interest

No conflicts of interest in accordance with ITB Sub clause 4.3.	must meet requirement				Letter of Bid
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2.1.3 Maha Metro Eligibility

Not having been declared ineligible by MAHA METRO, as described in ITB Sub clause 4.4.	must meet requirement				Letter of Bid
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2.1.4 Government-Owned Enterprise

Bidder required to meet conditions of ITB Sub clause 4.5.	must meet requirement				Forms ELI – 1 with attachments
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2.2-PENDING LITIGATION, ARBITRATION & HISTORY OF NON PERFORMANCE OF CONTRACT**2.2.1 PENDING LITIGATION AND ARBITRATION**

Bidder's financial	must meet				Forms LIT – 1
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position and prospective long term profitability sound according to criteria established in 3.1 and assuming that all pending litigation will be resolved against the Bidder	requirement by itself or as member to past or existing JV				
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2.2.2 HISTORY OF NON PERFORMING CONTRACT

Non Performance of Contract did not occur as a result of Contractor default since 1 st January 2015	must meet requirement				Forms LIT – 1
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2.3 FINANCIAL SITUATION

2.3.1 HISTORICAL FINANCIAL PERFORMANCE

The audited balance sheets, income statement and Cash flow statement for the last 5 (Five) years shall be submitted and must demonstrate the current soundness of the Bidder's financial position and indicate its prospective long term profitability	must meet requirement				Forms FIN – 1 With attachment
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2.3.2 AVERAGE ANNUAL CONSTRUCTION TURNOVER

Average Annual financial turnover during the last 5 years, ending 31st March of the previous financial year in Civil Engineering construction work should be at least INR 2.20 Crores (Two Crore Twenty Lakhs), calculated as total certified payments received for contracts in progress and or completed within the last five years.	must meet requirement				Forms FIN – 2 With attachment
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The turnover of the previous years' value shall be updated to 2019-20 price level by giving weightage of 5% per year as follows:

S. No	Financial Year	Weightage
(i)	2019-20	1.00
(ii)	2018-19	1.05
(iii)	2017-18	1.10
(iv)	2016-17	1.15
(v)	2015-16	1.20

2.3.3. FINANCIAL RESOURCES

The Bidder shall demonstrate that it has access to or has available liquid assets,	must meet requirement				Forms FIN – 3 and FIN- 4 With attachment
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unencumbered real assets, lines of credit and other financial means (independent of any contractual advance payment) sufficient to meet the construction cash flow requirements estimated as INR 0.18 Crores (Eighteen Lakhs Only) for the subject contract net of the Bidder's other commitments.					
The Bidder shall also demonstrate to the satisfaction of Employer, that it has adequate sources of finance to meet the cash flow requirements on works currently in progress and for future contract commitments	must meet requirement				Forms FIN – 3 and FIN-4 With attachment

2.4 SIGNAGES WORK EXPERIENCE

2.4.1. CONTRACTS OF SIMILAR SIZE AND NATURE

Contractor shall have completed at least one contract of similar type of proposed work which includes an exclusive retro reflective signage package only (Signages work	must meet requirement`				Forms FIN – 1 With attachment
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part of road work will not be considered) in Single order of value equivalent to at least Rs. 0.88 Cr. of the estimated cost in last five years. OR Two orders each of not less than Rs. 0.55 Cr. of the estimated cost in last five years. OR Three orders each of not less than Rs. 0.44 Cr. of estimated cost in last five years.					
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2.4.2 AVAILABLE BID CAPACITY:

Bidders who meet the minimum qualification criteria will be qualified only if their available bid capacity for construction work is equal to or more than the total bid value of the work. The available bid capacity will be calculated as under:

$$\text{Assessed Available bid capacity} = (2 * A * N - B)$$

Where,

A = Maximum value of civil engineering works executed in any one year during the last 5(five) years (updated to the price level of the financial year 2019-20 at the rate of 5% per year), taking into account the completed as well as works in progress).

N = Number of years prescribed for Signages works for which bids are invited (period upto 6 months to be taken as half-year and more than 6 months as one year).

B = Value, at the current price level, of existing commitments on on-going works to be completed during the period of Signages works for which bids are invited (to be listed as per the format of Affidavit enclosed in section IV)

Note: the statements in Section IV showing the value of existing commitments of on-going works as well as the stipulated period of completion remaining for each of the works listed should be countersigned by the Engineer in charge, not below the rank of an Executive Engineer or equivalent.

Even though the bidders may meet the above qualifying criteria, they are subject to be disqualified if they have: -

- made misleading or false representations in the forms, statements, affidavits, and attachments submitted in proof of the qualification requirement;
- record of poor performance such as abandoning the works, not properly completion or financial failures etc.
- consistent history of litigation or arbitration awards against the bidder.

Participated in the previous bidding (if this is a re-bidding) for the same work and had quoted unreasonably high bid price and could not furnish any rational justification for the same to the employer.

2.4.3 PERSONNEL CAPABILITIES

The Bidder must demonstrate that it has the personnel for the key positions that meet the following requirements:

No.	Position	Total Work Experience [years]	Experience In Similar Works [years]
1	Project Manager – 1 no.	B.E./ Diploma in Civil Engineering with 5 years' experience in relevant field	B.E./ Diploma in Civil Engineering with 2 years' experience in relevant field
2	Site supervisors-2 no.	Diploma in Civil Engineer with 2 years' experience in relevant field;	Diploma in Civil Engineer with 1 year experience in relevant field

Note: *The bidder shall furnish separate list of key personnel*

The Bidder shall provide details of the proposed personnel and their experience records in the relevant Information Forms PER- 1 and PER- 2.

2.4.4 EQUIPMENT CAPABILITIES

The Bidder should be a Road Sign Board Manufacturer. An authorized convertor certificate from the Retro Reflective sheeting manufacturer shall be submitted along with the tender stating that the Bidder is an authorized convertor of retro reflective sheeting. Certificate obtained from the OEM is mandatory for eligibility. The bidder's facility will be assessed for the technical qualification.

The Bidder must demonstrate that it has equipment capabilities as per given below:

Sr. No.	Name of Equipment/Machinery	Owned/Leased
1	Graphtech Plotter Cutting Machine	Owned or Leased
2	Roller Applicator	Owned or Leased
3	Fabrication unit	Owned or Leased
4	Green Guard (Eco-friendly) Digital Printing Machine with Traffic Addition Software with UL 2801-2012 certificate (Certificate & Software License Copy to be produced)	Owned or Leased

3 BID EVALUATION PROCESS

The method of evaluation of the Most Advantageous Bid will be based on the “Least Cost Bid” and the following steps as given below will be followed.

The Employer shall constitute a Tender Evaluation Committee to evaluate the responses of the bidders. The Tender Evaluation Committee shall evaluate the responses to the RFP and all supporting documents/documentary evidence. Inability to submit requisite supporting documents/documentary evidence by bidders may lead to rejection of their bids.

The decision of the Tender Evaluation Committee in the evaluation of bids shall be final. No correspondence will be entertained outside the process of evaluation with the Committee. The Tender Evaluation Committee may ask for meetings or presentation with the Bidders to seek clarifications or conformations on their bids.

The tender Evaluation Committee reserves the right to reject any or all bids. Each of the responses shall be evaluated as per the criteria and requirements specified in this RFP. The steps for evaluation are as follows-

3.1 Stage 1: Pre-Qualification (document sufficiency)

The Technical Evaluation Committee shall validate the following documents as per Bid Document. Each of the Pre-Qualification condition mentioned in this Bid Document is MANDATORY. In case, the Bidder does not meet any one of the conditions, the bidder shall be disqualified.

3.1.1. Payment of bid document cost by electronics transfer as per instructions in e-tender tool kit of the portal

3.1.2. Unconditional BG/ FDR/ TDR/ Demand Draft in respect of Bid Security from any Nationalized/Scheduled Bank drawn in favor of Executive Director (Procurement), Maha Metro, Nagpur.

3.1.3. Permanent Account No (PAN) of the Bidder/Firm/Company/ Society.

3.1.4. Self-attested copy of Sales/ Service Tax/ GST registration and Sales/ Service Tax/ GST returns filed in last three years.

3.1.5. Self-attested copy of certificate that the up-to date Income Tax Returns filed.

3.1.6. Self-attested documentary evidence of (a) the Proof of Residence of the Bidder (in case of Proprietor/Partnership Firm (b) Proof of Registered Office of the Company and Residential Address of the Director/Authorized Representative (in case of Bidder being a Company) (c) Proof of Registered office of the Society and Residence of President/Secretary (in case Bidder being a Society) as

well as, Proof of the Address of the Office of the Bidder Firm/Company/Society.

- 3.1.7. Self-attested copy of bank statement indicating name of the Bank and Account No. of the Bidder Firm/Company/Society.
- 3.1.8. The bidders should submit copy of valid Certificate of Registration attested by Company Secretary/ Authorized Signatory
- 3.1.9. Bidding forms ELI- 1, 2 and LIT-1 establishing the eligibility of the bidder to bid the contract along with relevant certificates.
- 3.1.10. Bidding forms EXP 1, 2 establishing the experience of similar works done by the bidder along with completion certificate from the client agency certifying the successful completion of the similar work done by the bidder.
- 3.1.11. Bidding forms FIN- 1, 2 establishing the financial capacity of the bidder. The turnover/network/financial status of the bidder shall be ascertained from the following documents which the bidder is required to submit along with the tender document for the preceding five financial years FY 2015-2016,2016-17, 2017-18, 2018-19 & 2019-20 duly certified by a Chartered Accountant
 - Audited Financial Statement of the Firm/Company/ Society**
 - Audited Balance sheet of the Firm / Company /Society**
 - Audited copies of profit and loss statements**
 - Audited copies of Cash flow statements**
 - Affidavit on List of Existing Commitment & Ongoing works**
- 3.1.12. The scanned copy of latest license from Labour Commissioner to employ contract labour under Contract Labour Act may be submitted.
- 3.1.13. The bidder has to submit a Letter of Bid as per format given.
- 3.1.14. Technical bids along with the compliance sheet of technical specifications and with necessary documents should be filled in all respects and each paper should be signed by the authorized representative and submitted.
- 3.1.15. The bidder should submit a Pre-qualification warranty of 10 years for Type XI sheeting and 7 years for Type IV sheeting for eligibility. Test reports complying with IRC – 67:2012 including 3 years outdoor weathering report from Indian test laboratory and ASTM 4956-09 to be produced along with the PQ warranty. ISO Certificate of the original sheeting manufacturer to be submitted along with the bid.

3.2 Stage II Technical Evaluation

The Technical Evaluation Committee will review the technical bids of the bidders who have cleared the document sufficiency stage, to determine whether the technical bids are substantially responsive. Bids that are not substantially responsive are liable to be disqualified by the Authority.

3.3 Stage III Financial Evaluation

All bidders who have been technically qualified will be notified to participate in Financial Bid opening process. The Financial bids of all such bidders shall then be opened online on the notified date and time and reviewed to determine whether the commercial bids are substantially responsive. Bids that are not substantially responsive are liable to be disqualified at Authority's discretion.

Financial bids that are not as per the format provided shall be liable for rejection.

The Lowest price bid received will be declared as Most Advantageous Bid and the bidder will be awarded the Letter of Acceptance.

Bid Security of all other bidders shall be returned after Performance Security is submitted by successful bidder.

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Letter of Bid

(The bidder must accomplish the Letter of Bid on its letterhead clearly showing the bidder’s complete name and address.)

Date:

.....

ICB No.:

.....

Invitation for Bid No.:

.....

To:

.....
.....

We, the undersigned, declare that:

- (a) We have examined and have no reservations to the Bidding Documents, including Addenda issued in accordance with Instructions to Bidders (ITB) 8.
- (b) We offer to execute in conformity with the Bidding Documents the following Works: . . .
.....
.....
- (c) The total price of our Bid, excluding any discounts offered in item (d) below is:
[amount of local currency in words], [amount in figures]

The total bid price from the Summary of Bill of Quantities should be entered by the Bidder inside this box.

Absence of the total bid price in the Letter of Bid may result in the rejection of the bid.

- (d) The discounts offered and the methodology for their application are as follows:
[insert discounts]
- (e) Our Bid shall be valid for a period of [insert bid validity period as specified in ITB 18.1 of the BDS] days from the date fixed for the bid submission deadline in accordance with the Bidding Documents, and it shall remain binding upon us and may be accepted at any time before the expiration of that period.
- (f) If our Bid is accepted, we commit to obtain a performance security in accordance with the Bidding Documents.
- (g) Our firm, including any Subcontractors or Suppliers for any part of the Contract, have nationalities from eligible countries in accordance with ITB 4.2.
- (h) We, including any Subcontractor or Supplier for any part of the contract, do not have any conflict of interest in accordance with ITB 4.3.
- (i) We are not participating, as a Bidder in more than one Bid in this bidding process in accordance with ITB 4.3(e), other than alternative offers submitted in accordance with ITB 13.
- (j) Our firm, its affiliates or subsidiaries, including any Subcontractors or Suppliers for any part of the contract, has not been declared ineligible by ADB, under the Employer’s country laws or official regulations, or by an act of compliance with a decision of the United Nations Security Council.
- (k) [We are not a government-owned enterprise] / [We are a government-owned enterprise but meet the requirements of ITB 4.5].1
- (l) We have paid, or will pay the following commissions, gratuities, or fees with respect to the bidding process or execution of the Contract.

Name of Recipient	Address	Reason	Amount
-------------------	---------	--------	--------

(m) We understand that this Bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal contract is prepared and executed.

(n) We understand that you are not bound to accept the lowest evaluated Bid or any other Bid that you may receive.

(o) We agree to permit Maha Metro or its representative to inspect our accounts and records and other documents relating to the Bid submission and to have them audited by auditors appointed by Maha Metro.

(p) If our Bid is accepted, we commit to mobilizing key equipment and personnel in accordance with the requirements set forth in Section VI (Employer’s Requirements) and our technical proposal, or as otherwise agreed with the Employer.

Name: [insert complete name of person signing the bid]

In the capacity of [insert legal capacity of person signing the bid]

Signed: [insert signature of person whose name and capacity are shown above]

Duly authorized to sign the Bid for and on behalf of [insert complete name of the bidder]

Date: [insert date of signing]

Bid Security

Bank Guarantee (Not Applicable)

[Bank's name, and address of issuing branch or office]

Beneficiary: Maharashtra Metro Rail Corporation Ltd (Maha-Metro), hereinafter called “the Employer” acting through Executive Director (Procurement), Maharashtra Metro Rail Corporation Ltd, “Metro House”, 28/2,C K Naidu Marg, Anand Nagar, Civil Lines, Nagpur. Maharashtra, Pin Code–440001, Telephone: (0712)2554217.

Date:

Bid Security No.:

We have been informed that [name of the bidder] (hereinafter called “the Bidder”) has submitted to you its bid dated (hereinafter called “the Bid”) for the execution of [name of contract] under Invitation for Bids No. (“the IFB”).

Furthermore, we understand that, according to your conditions, bids must be supported by a bid guarantee. At the request of the Bidder, we [name of bank] hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of [amount in words] (. [amount in figures]) upon receipt by us of your first demand in writing accompanied by a written statement stating that the Bidder is in breach of its obligation(s) under the bid conditions, because the Bidder

- (a) has withdrawn its Bid during the period of bid validity specified by the Bidder in the Letter of Bid; or
- (b) does not accept the correction of errors in accordance with the Instruction to Bidders (hereinafter “the ITB”);or
- (c) having been notified of the acceptance of its Bid by the Employer during the period of bid validity, (i) fails or refuses to execute the Contract Agreement, or (ii) fails or refuses to furnish the performance security, in accordance with the ITB, or (iii) fails or refuses to furnish a domestic preference security, if required.

This guarantee will expire

- (a) if the Bidder is the successful Bidder, upon our receipt of copies of the Contract Agreement signed by the Bidder and the Performance Security issued to you upon the instruction of the Bidder; or
- (b) if the Bidder is not the successful Bidder, upon the earlier of (i) our receipt of a copy of your notification to the Bidder of the name of the successful Bidder, or (ii) 28 days after the expiration of the Bidder’s bid.

Consequently, any demand for payment under this guarantee must be received by us at the office on or before that date. This guarantee is subject to the Uniform Rules for Demand Guarantees, ICC Publication No. 458.2

..... Authorized signature(s) and bank’s seal (where appropriate)

Bid-Securing Declaration (Not Applicable)

Date: [insert date (as day, month and year)]

Bid No.: [insert number of bidding process]

Alternative No.: [insert identification number if this is a bid for an alternative]

To,

Maharashtra Metro Rail Corporation Ltd (Maha-Metro), hereinafter called “the Employer” acting through Executive Director (Procurement), Maharashtra Metro Rail Corporation Ltd, “Metro House”, 28/2,CK Naidu Marg, Anand Nagar, Civil Lines, Nagpur. Maharashtra, Pin Code–440001, Telephone: (0712)2554217

We, the undersigned, declare that:

We understand that, according to your conditions, Bids must be supported by a Bid-Securing Declaration. We accept that we will automatically be suspended from being eligible for bidding in any contract with the Borrower for the period of time of [insert number of years as indicated in ITB 19.2 of the BDS] starting on the date that we receive a notification from the Employer, if we are in breach of our obligation(s) under the bid conditions, because we

- (a) have withdrawn our Bid during the period of bid validity specified in the Letter of Bid; or
- (b) do not accept the correction of errors in accordance with the Instructions to Bidders (hereinafter “the ITB”); or
- (c) having been notified of the acceptance of our Bid by the Employer during the period of bid validity, (i) fail or refuse to execute the Contract, if required; or (ii) fail or refuse to furnish the Performance Security, in accordance with the ITB; or (iii) fail or refuse to furnish a domestic preference security, if required.

We understand that this Bid-Securing Declaration shall expire if we are not the successful Bidder, upon the earlier of (i) our receipt of your notification to us of the name of the successful Bidder; or (ii) 28 days after the expiration of our Bid.

Signed: [insert signature of person whose name and capacity are shown]

In the capacity of [insert legal capacity of person signing the Bid-Securing Declaration]

Name: [insert complete name of person signing the Bid-Securing Declaration]

Duly authorized to sign the bid for and on behalf of [insert complete name of the bidder]

Dated on _____ day of _____, _____ [insert date of signing]

Corporate Seal [where appropriate]

ANNEXURE – I

Proforma for Submission of Past Contractual Performance

(Affidavit on non-judicial stamp paper of ` 100/- duly attested by Notary/ Magistrate)

This is to certify that We, M/s _____, in submission of this offer confirms that:

- i) We have not made any misleading or false representation in the forms, statements and attachments in proof of the qualification requirements.
- ii) We do not have records of poor performance such as abandoning the work, not properly completing the contract, inordinate delay in completion, litigation history or financial failures.
- iii) Business has never been banned with us by the central / State Government Department/ Public Sector Undertaking or Enterprise of Central / State Government or any Urban Local Body.
- iv) We have submitted all the supporting documents and furnished all the relevant details as per prescribed format.
- v) The information and documents submitted with the tender by us are correct and we are fully responsible for the correctness of the information and documents submitted by us.
- vi) We understand that in case any statement/information/document furnished by us is found to be incorrect or false, our EMD in full will be forfeited.

**SEAL, SIGNATURE AND
NAME OF THE**

**BIDDER SIGNING THE
DOCUMENT**

Bidder's Declaration on Affidavit

Date:

Bid No.:
.....

Invitation for Bid No.:
.....

To,
Executive Director (Procurement),
Maha Metro, Nagpur

We, the undersigned, declare that:

1. We have seen the Section V: Employer's Requirement and we have studied and understood all the Clauses of this Section. We accordingly offer to design, execute and complete the said Works and remedy any defects therein, fit for purpose in conformity with the relevant Clauses of this Section.
2. We further undertake to accept that these form a part of our bid and we agree to sign these at the time when the contract agreement is executed.

Dated this _____ day of _____ 20____.

Signed and Sealed by : _____

In the Capacity of : _____

Name and Address of Bidder : _____

TECHNICAL PROPOSAL

Personnel

Form PER – 1: Proposed Personnel

Bidders should provide the names of suitably qualified personnel to meet the specified requirements for each of the positions listed in Section III (Evaluation and Qualification Criteria). The data on their experience should be supplied using the Form below for each candidate.

1	Title of position
	Name
2	Title of position*
	Name
3	Title of position*
	Name
4	Title of position*
	Name
5	Title of position*
	Name

***As listed in section III(Evaluation and Qualification criteria)**

Form PER – 2: Resume of Proposed Personnel

The Bidder shall provide all the information requested below. Fields with asterisk (*) shall be used for evaluation.

Position*		
Personnel information	Name	Date of birth
	Professional qualifications	
Present employment	Name of employer	
	Address of employer	
	Telephone	Contact (manager / personnel officer)
	Fax	E-mail
	Job title	Years with present employer

Summarize professional experience in reverse chronological order. Indicate particular technical and managerial experience relevant to the project.

From*	To*	Company, Project, Position and Relevant Technical and Management Experience*

Form EQU: Equipment

The Bidder shall provide adequate information and details to demonstrate clearly that it has the capability to meet the equipment requirements indicated in Section V (Employer's Requirements), using the Forms below. A separate Form shall be prepared for each item of equipment listed, or for alternative equipment proposed by the Bidder.

Item of Equipment				
Equipment information	Name of Manufacturer		Power Rating	
	Model		Year of Manufacture	
Current Status	Current Location			
	Details of Current Commitments			
Source	Indicate source of Equipment			
	Owned	Rented	Leased	Specially Manufactured

Omit the following information for equipment owned by the Bidder.

Owner	Name of Owner		
	Address of Owner		
	Telephone		Contact Name & Title
	Fax		Telex
Agreement	Details of rental/lease/manufacture agreements specific to the project		

Form ELI – 1: Bidder’s Information Sheet

Bidder’s Information	
Bidder’s legal name	
In case of a Joint Venture, legal name of each partner	Not Applicable
Bidder’s country of constitution	
Bidder’s year of constitution	
Bidder’s legal address in country of constitution	
Bidder’s authorized representative (name, address, telephone number(s), fax number(s), e-mail address)	
<p>Attached are copies of the following documents.</p> <ol style="list-style-type: none"> 1. In case of a single entity, articles of incorporation or constitution of the legal entity named above in accordance with ITB 4.1 and ITB 4.2. 2. Authorization to represent the firm or Joint Venture named above, in accordance with ITB 20.2. 3. In case of a government-owned enterprise, any additional documents not covered under 1 above required to comply with ITB 4.5. 	

Form LIT – 1: Historic Non Performance of Contract & Pending Litigation and Arbitration

Each Bidder must fill out this form if so required under Criterion 2.2 of Section III (Evaluation and Qualification Criteria) to describe any pending litigation or arbitration formally commenced against it.

Historic Non Performance of Contract			
Year	Non performed portion of Contract	Contract Identification	Total Contract Amount (INR)
Pending Litigation and Arbitration			
Choose one of the following: 1) No pending litigation and arbitration. 2) Below is a description of all pending litigation and arbitration involving the Bidder			
Year	Matter of Dispute	Value of Pending Claim in INR	Value of Pending Claim as percentage of net worth

Form FIN – 1: Historical Financial Performance

Each Bidder must fill out this form.

Financial Data for Previous Five Years				
Year 1:	Year 2:	Year 3:	Year 4:	Year 5:

Information from Balance Sheet

Total Assets (TA)			
Total Liabilities (TL)			
Net Worth = TA – TL			
Current Assets (CA)			
Current Liabilities (CL)			
Working Capital = CA – CL			

Most Recent Working Capital		To be obtained for most recent year and carried forward to FIN – 3
-----------------------------	--	--

Information from Income Statement

Total Revenues			
Profits Before Taxes			
Profits After Taxes			

Attached are copies of financial statements (balance sheets including all related notes and income statements) for the last five (5) years, as indicated above, complying with the following conditions:

1. Unless otherwise required by Section III of the bidding documents, all such document reflect the financial situation of the legal entity or entities comprising the Bidder and not the Bidder’s parent companies, subsidiaries, or affiliates.
2. Historical financial statement must be audited by a Certified accountant.
3. Historical financial statement must be completed including all notes to financial statement.
4. Historical financial statement must correspond to accounting periods already completed and audited for partial periods shall be requested or accepted).

Form FIN – 2: Average Annual Turnover

Each Bidder must fill out this form.

The information supplied should be the Annual Turnover of the Bidder in terms of the amounts billed to clients for each year for work in progress or completed, converted to US dollars at the rate of exchange at the end of the period reported.

Annual Turnover data for last Five years (Signages Work Only)	
Year	Amount in INR
Average Annual Signages Work Turnover	

- 1.The employer should insert the period described in Criterion 2.3.2 of Section III (Evaluation and Qualification Criteria).
- 2.To determine the average annual Signages Work turnover, the employer shall divide the sum of each year’s annual turnover by the number of years, for which such information was requested.

Form FIN – 3: Availability of Financial Resources

Bidders must demonstrate sufficient financial resources, usually comprising of Working Capital supplemented by credit line statements or overdraft facilities and others to meet the Bidder's financial requirements for

- (a) its current contract commitments, and
- (b) the subject contract.

No.	Source of Financing	Amount (INR)
1	Working Capital (to be taken from FIN – 1)	
2	Credit Line	
3	Other Financial Resources	
Total Available Financial Resource		

Note :- To be substantiated by a letter from the bank issuing the line of credit

Form FIN – 4: Financial Requirements for Current Contract Commitments

Bidders should provide information on their current commitments on all contracts that have been awarded, or for which a letter of intent or acceptance has been received, or for contracts approaching completion, but for which an unqualified, full completion certificate has yet to be issued.

No.	Name of Contract	Employer's Contact	Contract Completion Date	Outstanding Contract Value (X)	Remaining Contract Period in months (Y)	Monthly Financial Resource Requirement (X/Y)
Total Monthly Financial Requirements for Current Contract Commitments						

- 1.Remaining outstanding contract values to be calculated from 28 days prior to the bid submission deadline.
- 2.Remaining contract period to be calculated from 28 days prior to bid submission deadline.

Form EXP – 1: Contracts of Similar Size and Nature

Fill out one (1) form per contract.

Contracts of Similar Size and Nature		
Contract No. of	Contract Identification	
Award Date	Completion Date	
Total Contract Amount		
If partner in a Joint Venture or subcontractor, specify participation of total contract amount	Percent of Total	Amount
Employer's name Address Telephone number Fax number E-mail		
Description of the Similarity in Accordance with Criterion 2.4.1 of Section III (Evaluation and Qualification Criteria)		
Providing and fixing Retroreflective Signage		
Providing and fixing Vinyl Sign Board		
Providing and fixing Star Flex Board		

Note:- Signages work of road work will not be considered

Section – V Employer’s Requirement

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5.1 GENERAL

The Scope of work is to providing and fixing of Retro Reflectorized, Star Flex & Vinyl Informatory sign board at 9 Metro Stations at Nagpur to improve the Metro Stations in the city of Nagpur for smooth traffic circulation and thereby reducing the congestion and conflicts as per the approved designs and drawings conforming to the standard work specifications of IRC and MORTH standard specifications would prevail in the order mentioned in this section. The Bidder is required to read this bid document in conjunction with the specifications mentioned in the documents above and quote accordingly.

The works would be quoted for all lead and lift unless otherwise specified particularly in the document. The Metro Stations to be improved under the scope of work are Airport, Ujwal Nagar, Congress Nagar Metro Stations of Reach 1, Dharampeth College Metro Stations of Reach 3, Zero Mile, Kasturchand Park of Reach 2 and Agrasen Square, Telephone Exchange, Vaishnao Devi Square Metro Stations of Reach 4 for Nagpur Metro Rail Project.

5.2 DETAIL SCOPE OF WORK

The Detailed Scope of work for Providing and fixing Signages includes-

- 5.2.1 Preparatory Activities- Identification of location for fixing of Signages.
The Employer will provide necessary support in terms of coordination for deciding location of signages.
- 5.2.2 Prepare and submit Quality Assurance & Quality Control plan detailing out the process that will be followed to ensure execution of quality work in accordance with relevant Indian codes so as to satisfy the purpose of the project. The plan should include but not limited to details of quality checks that will be taken up by the contractor at various stages of construction, methodology and type of checks, responsibility of the quality checks being done, place of check, including check lists that will be used, documentation that will be maintained and reports to be given to the Project Manager or Engineer-in-charge.

The QA& QC plan should be submitted to the Project Manager for approval who will suggest modifications to the plan if any or approve the plan.
- 5.2.3 The Project Manager or Engineer-in-charge will provide the contractor with Good for Construction drawings for each Metro Station
- 5.2.4 The contractor with the help of approved drawings given above, provide and fix the signages by construction and completion of the following-
 - a. Liaison with the all concerned parties including Employers Representative and any other team as specified in PCC constituted by the Employer.

- b. Site clearance, demolition of existing structures/ walls/ footpaths etc. , earthworks in all types of soil and rock, hill cutting to the required profile, erection of temporary works where required and setting out of the profile and alignment of the new junction.
- a. Utility shifting, shifting of any existing structures and all ancillary works deemed necessary for the carrying out of temporary & permanent construction works.
- b. All other works and services ancillary or related to the full completion of the Works and in accordance with the Employer 's requirements.
- c. Provide all safety measures during progress of work at site as per relevant IS Codes.

5.2.5 The Contractor shall co-ordinate and interfaces his works with that of all other contractors, subcontractors, utility service agencies, statutory authorities, etc. and achieve the completion of the Works to the satisfaction of the Engineer-in-charge.

5.2.6 The Contractor shall make good all works including road surfaces, drains, concrete slabs, gratings, kerbs, pavements, turffing, railing, etc. affected or damaged during the course of construction, to the satisfaction of the Engineer-in-charge. The costs of making good all these defects shall be borne solely by the Contractor and deemed to be included in the rates quoted by Contractor.

5.2.7 All works specified shall include the provision of all labour, tools, equipment, material traffic control, transport and everything else necessary for the satisfactory completion of the Work by the Contractor to the satisfaction of the Engineer-in-charge.

5.2.8 Description of the Works involved in this Contract is given for the guidance of the Contractor. The Contractor shall be solely and fully responsible for investigating and ensuring the actual extent and nature of the Works comprised in this Contract prior to submission of his Tender.

5.2.9 Construction, management and quality of the Works shall comply with the Drawings, Specifications and Employers requirement.

5.2.10 Site for work comprises of various roads in busy market area. During daytime continuous movement of Pedestrians, two/three wheelers, light traffic exist on most of the roads. Contractor shall satisfy himself for

working conditions during daytime & option for execution of work in late hours.

5.2.11 The Contractor(s) is/are to provide everything of every sort and kind which may be necessary and requisite for the due and proper execution of the several works included in the contract according to the true intent and meaning of the drawings and specifications taken together, whether the same may or may not be particularly described in the specification or shown on the drawings, provided that the same are reasonably and obviously to be inferred there from and in case of any discrepancies between the drawings and the specification the specification shall be followed.

5.2.12 All demarcation of roads shall be carried out by the contractor. The contractor shall cooperate for all such demarcation works and the safety and security of all demarcation pegs, once erected, shall be the sole responsibility of the contractor. The contractor shall ensure that no erected demarcation peg is disturbed from its erected location. If however, a demarcated peg is found to be dislocated from its erected location, the entire responsibility of such dislocation shall be a responsibility of the contractor, who shall immediately rectify such a dislocated peg and get the same verified by the EIC. Any deviation in works due to a dislocation of a demarcation peg shall be immediately rectified by the contractor at his own cost.

5.2.13 The Contractor (s) is/are to set out the whole of the works in conjunction with officers to be deputed by the MAHA METRO and during the progress of the works to amend on the requisition of MAHA METRO any error which may arise therein and provide all the necessary labour and the materials for doing so. The contractor(s) is/are to provide all plant, labour and materials which may be necessary and requisite for the works. All materials and workmanship are to be the best of their respective kinds and as per the approved make. The contractor(s) is/are to leave the work in all respect clean and perfect at the completion thereof.

5.2.14 Enough care has been taken in preparation of Estimate and Items, but in case Bidder feels/thinks that any item is not complete, items then Bidder can work out the rate for complete item, by adding any missing components of that item and he should quote the rate for complete item. If Bidder quotes

the rate for incomplete item as in the opinion of Bidder, then he will not be paid extra for that missing component to execute complete items

5.2.15 The particulars of the items/ works given in Tender documents are provisional and they are liable to change and must be considered only as advance information's, to give an idea about work/ item to assist the Bidder to quote the rates.

5.2.16 The consultant of MAHAMETRO has given enough provisions and taken precaution in design of all development works which are mentioned in Tender. But it shall be responsibility of the Bidder to get it checked before commencing the work, at site, the contractor must satisfy himself with the correctness/accuracy of the designs. However, no additional payment shall be made in this regard. It shall be considered, that the rates Tendered by the contractor has duly taken, in this account.

5.2.17 If while executing the works, the contractor finds that the designs are in not conformity to the accepted codal provision and sound engineering practice, then the contractor may move change proposal/ variation in accordance with GCC sub clause 37.

5.3 REPORTING REQUIREMENTS

The contractor shall within 10 days upon commencement of the assignment, shall prepare and submit to the Employer the overall Project execution plan showing details and sequence of Providing and fixing of signages that will be taken up, including the resource deployment schedule and expected billing per month for the project duration. This will be submitted along with the QA & QC plan in accordance with clause 5.2.2 of this section for approval of the Project Manager or Engineer-in-Charge.

The Contractor will submit Weekly progress report duly indicating in the report Planned Vs Achieved physical and financial progress Catch up plan (if any and required) QA & QC tests done and their reports, Issues needing attention of the Employer, Key activities planned for the next 15 days, Key Photographs showing the progress of the work. Any other relevant matter

5.4 EXECUTION AND SEQUENCING OF WORKS

The sequence of providing and fixing of signages will be subject to approval of the Project Manager or engineer-in-Charge and the project execution plan submitted vide clause 5.3 of this section.

If the contractor so wishes to execute the work during the night hours it will have to take prior permission of the Project Manager or Engineer-in-Charge and the requisite authorities before working during the night.

5.5 STANDARD SPECIFICATIONS

1. The Engineer-in-charge is at liberty select any of the brands indicated below. The contractor obtains prior approval from Engineer-in-charge or Project Manager before placing order for any specific material may approved order any the 'Makes' or 'Brands' listed below.
2. All materials should confirm to relevant standard and codes of BIS and shall have ISI mark.
3. In case of items for which approved make / vendor is not given below the Contractor shall with the prior approval of the Engineer-in-charge. In charge procure the same of the first quality and satisfy the Engineer-in-charge before use in the works.
4. In case of Contradiction between the approved makes/vendor specified below and mentioned in the Specifications /Bill of quantities. The decision of the Engineer-In-Charge shall be final and binding on the Contractor.

A. Color specifications:

- 1.1 Sign shall be provided with retro-reflective sheeting and/or overlay films as shown on the detailed drawing. The reverse side of all signs shall be painted grey.
- 1.2 The colour of the material shall be located within the area defined by the chromaticity coordinates in **Table 1.1** and comply with the luminance factor given in **Table 1.2** when measured as per ASTM D:4956-09. Chromaticity is the objective specification of the quality of a colour regardless of its luminance, that is, as determined by its hue and colourfulness (or saturation/chroma, or intensity)

Table 1.1 Chromaticity Coordinates (Daytime)^A

Colour	1		2		3		4	
	X	Y	X	Y	X	Y	X	Y
White	0.303	0.300	0.368	0.366	0.340	0.393	0.274	0.329
Yellow	0.498	0.412	0.557	0.442	0.479	0.520	0.438	0.472
Green ^B	0.026	0.399	0.166	0.364	0.286	0.446	0.207	0.771
Red	0.648	0.351	0.735	0.265	0.629	0.281	0.565	0.346
Blue ^B	0.140	0.035	0.244	0.210	0.190	0.255	0.065	0.216
Orange	0.558	0.352	0.636	0.364	0.570	0.429	0.506	0.404
Brown	0.430	0.340	0.610	0.390	0.550	0.450	0.430	0.390
Fluorescent Yellow- Green	0.387	0.610	0.369	0.546	0.428	0.496	0.460	0.540
Fluorescent Yellow	0.479	0.520	0.446	0.483	0.512	0.421	0.557	0.442
Fluorescent Orange	0.583	0.416	0.535	0.400	0.595	0.351	0.645	0.355

- a) The four pairs of chromaticity coordinates determine the acceptable colour in terms of the CIE 1931 Standard Colorimetric System measured with CIE Standard Illuminant D65.
- b) The saturation limit of green and blue may extend to the border of the CIE chromaticity locus for spectral colours.

Table 1.2 Daytime Luminance Factor (Y %)

Colour	Non-Metallic Portion		Metallic Portion	
	Min	Max	Min	Max
White	27	--	15	--
Yellow	15	45	12	30
Green	3.0	12	2.5	11
Red	2.5	15	2.5	11
Blue	1.0	10	1.0	10
Orange	10	30	7.0	25
Brown	1.0	9.0	1.0	9.0
Fluorescent Yellow- Green	60	--	--	--
Fluorescent Yellow	40	--	--	--
Fluorescent Orange	20	--	--	--

The colour shall be durable and uniform in acceptable hue when viewed in day light or under normal headlights at night.

1.2 Colour pattern for direction information signs is given in **Table 1.3**

Road Type	Background	Arrows/Border/Letter
Expressway	Blue	White
National Highway (NH)	Green	White
State highway (SH)	Green	White
Major District Road (MDR)	Green	White
Village Road (ODR & VR)	White	Black
Urban/City Road	Blue	White

B. Visibility of Signs

In order to make signs more visible and legible at night, in particular cautionary/warning signs and regulatory signs other than those regulatory parking and stopping in lighted streets of built-up areas shall be lighted or provided with reflective material including luminous paints or reflective devices and sheetings. Care should, however, be taken that this does not result in road users becoming dazzled.

C. Size of Letters

Letter size should be chosen with due regard to the speed, classification and location of the road, so that the sign is of adequate size for legibility but without

being too large or obtrusive. The size of the letter, in terms of x-height, to be chosen as per the design speed is given in **IRC: 67-2012 Table 11.1**

D. Material for Signs

The various materials and fabrication of road signs shall conform to the following requirements:

- 1 **Concrete:** Concrete shall be of M25 grade.
- 2 **Reinforcement Steel:** Reinforcing steel shall conform to the requirements of IS 1786 unless otherwise specified.
- 3 **Bolts, Nuts and Washers:** High strength bolts shall conform to IS 1367 whereas precision bolts, nuts, etc. shall to IS 1364.
- 4 **Plates and Supports:** plates and supports sections for the signposts shall conform to IS 226 and IS 2062 or any other stated IS specification.
- 5 **Aluminium Composite Material/Panel (ACM/ACP)**
 - a) ACM/ACP sheets used for sign boards is a sandwiched construction with a thermoplastic core of 'Low Density Polyethylene' (LDPE) between two thick skins/sheets of aluminium with overall thickness of 4mm and 3 mm, and aluminium skin thickness of 0.4-0.5 mm and 0.25-0.3 mm respectively on both sides.
 - b) The retro reflective sheeting must be applied on the top surface with aluminium surface with recommended surface preparation from sheeting manufacture.
 - c) The mechanical properties of 4mm and 3 mm ACM/ACP and that of its aluminum skin shall conform to the requirement given in following table:

Table: Specifications for ACM/ACP

Sr. No.	Description	Standard Test	Specification for	Specification for
			4 mm	3 mm
			Acceptable Value	Acceptable Value
A	Mechanical Properties of ACM			
1	Peel off strength with retro reflective sheeting. (Drum Peel Test)	ASTM D903	Min. 4 N/mm	Min. 4 N/mm
2	Tensile Strength	ASTM E638	Min. 40 N/mm	Min. 30 N/mm
3	0.2% Proof Stress	ASTM E638	Min. 34 N/mm	Min. 34 N/mm
4	Elongation	ASTM E638	Min. 6%	Min. 5%
5	Flexural Strength	ASTM C393	Min. 130 N/mm	Min. 120 N/mm

6	Shear Strength	ASTM D732	Min. 18 N/mm	Min. 18 N/mm
B	Properties of Aluminium Skin			
1	Tensile Strength	ASTM E8	Min. 150 N/mm	Min. 130 N/mm
2	Modulus of elasticity	ASTM E8	Min. 70,000 N/mm	Min. 70,000 N/mm
3	Elongation	ASTM E8	A ₅₀ Min. 2%	A ₅₀ Min. 2%
4	0.2% Proof Stress	ASTM E8	Min. 110 N/mm	Min. 110 N/mm

E Plate Thickness

- 1 Shoulder mounted ground signs with a maximum side dimension not exceeding 600mm shall not be less than 1.5 mm thick with aluminium and 3 mm thick with aluminium composite material.
- 2 All other signs shall be at least 2 mm thick with aluminium and 4 mm thick with aluminium composite material.
- 3 All overhead signs made with aluminium composite material shall be minimum 4 mm thick to withstand wind and other loads without deformation.

F Retro Reflective Sheeting

- 1 The retro reflective sheeting used on the signs shall consist of white or coloured sheeting having a smooth outer surface which has the property of retro reflection over its entire surface.
- 2 It shall be weather resistance and exhibit colour fastness.
- 3 It shall be new and unused and show no evidence of cracking, scaling and pitting, blistering, edge lifting or curling and shall have negligible shrinkage or expansion.
- 4 Following are the classes of retro reflective sheeting shall be used:

Class B Sheeting:-

High Intensity and High Intensity Prismatic grade sheeting as per ASTM D 4956-09 Type IV.

The retro reflective surface after cleaning with soap and water and in dry condition shall have the minimum coefficient of retro reflection (determined in accordance with ASTM D 4956-09) as indicated in **IRC: 67-2012 Table 6.6.**

Class C Sheeting :-

All Micro Prismatic grade sheets as per ASTM D 4956-09 Type XI.

The retro reflective surface after cleaning with soap and water and in dry condition shall have the minimum coefficient of retro reflection (determined in accordance with ASTM D 4956-09) as indicated in **IRC: 67-2012 Table 6.9.**

5 Adhesives

- The sheeting shall have a pressure-sensitive adhesive of the aggressive-tack type requiring no heat, solvent or other preparation for adhesion to a smooth clean surface, in a manner recommended by the sheeting manufacturer.
- The adhesive shall be protected by an easily removable liner (removable by peeling without soaking in water or other solvent) and shall be suitable for the type of material of the base plate used for the sign.
- The shall form a durable bond to smooth, corrosion and weather resistance surface of the base plate such that it shall not be possible to remove the sheeting from the sign base in one piece by use of sharp instrument.

6 Fabrication

- Surface to be reflectorized shall be effectively prepared to receive the retro-reflective sheeting.
- The aluminium sheeting shall be de-greased either by acid or hot alkaline etching and all scale/dust removed to obtain a smooth surface before the application of retro-reflective sheeting.
- If the surface is rough, approved surface primer may be used.
- After cleaning, metal shall not be handled, except by suitable device or clean canvas gloves, between all cleaning and preparation operation and application of reflective sheeting/primer.
- There shall be no opportunity for metal to come in contact with grease, oil or other contaminants prior to the application of retro-reflective sheeting.
- Complete sheets of the material shall be used on the signs except where it is unavoidable.
- At splices, sheeting with pressure-sensitive adhesives shall be overlapped not less than 5 mm.
- Where screen printing with transparent colours is proposed, only butt joint shall be used.
- The material shall cover the sign surface evenly and shall be free from twists, cracks and folds.
- Cut-out to produce legends and borders shall be bonded with the sheeting in the manner specified by the manufacturer.

7 Messages/Borders

- The messages (legends, letters, numerals, etc.) and borders shall either be screen-printed or of cut out from durable transparent overlay or cut-out from the same type of reflective sheeting for the cautionary and mandatory sign boards.
- Screen printing shall be processed and finished with materials and in a manner specified by the sheeting manufacturer.
- For the informatory and other sign boards, the messages (legends, letter, numerals etc.) and border shall be cut-out from durable transparent overlay film or cut-out from the same reflective sheeting only.
- Cut-out shall be from durable transparent overlay materials as specified by the sheeting manufacturer and shall be bonded with the sheeting in the manner specified by the manufacturer.
- Wherever transparent overlay film is used for making any type of sign, the coloured portion of sign shall have coefficient of reflectivity not less than the reflectivity of type and colour of sheeting normally used, as given in **IRC: 67-2012 Table 6.6 and Table 6.9**.
- Creating coloured areas by means of screen-printing with ink shall not be allowed.

8 Warranty and Durability

- (a) A lot certificate in original from the manufacturer of retro-reflective sheeting stating that the material lot quantity being supplied under purchase order conforms to the standard specified for retro-reflective sheeting and is the part of original warranty.
- (b) Warranty should be given in original and should have legal jurisdiction in India. Warranties given by power of attorney holders will not be acceptable. The retro-reflective sheet shall be weather resistant and following, cleaning, shall show no appreciable discoloration, cracking, blistering or dimensional changes.
- (c) Department should check the Supplied, and Installed Retro-Reflective Signboards using a Reflectometer on a random basis at the completion of the project, end of 1st year, 3rd year, 5th year, 7th Year for Type IV & Type XI Sheeting and at end of 10th year for type XI grade sheeting Retained Reflectivity. Ra values of Type IV & Type XI Retro Reflective sheeting as per table 6.6 & 6.9 respectively of IRC 67 2012 Specifications for observation angles of 0.2, 0.5 and 1 (degrees) mandatorily, when tested at completion of project. The values should meet the 80% of the Ra values mentioned in the IRC table.
- (d) A sample of each BOQ item should be submitted along with bid documents which will be tested using a retro-reflectometer for measuring the reflectivity values.

G Post and Mounting for Signs

- 1 The traffic signs shall be mounted on support posts, which may be of GI pipes conforming to IS 1239, Rectangular Hollow Section conforming to IS 4923 or Square Hollow Section conforming to IS 3589.
- 2 All components of signs and supports, other than the reflective portion of GI posts shall be thoroughly descaled, cleaned primed and painted with two coats of epoxy paint. Any part of Mild Steel (MS) post below ground shall be painted with three coats of red lead paint.
- 3 The signs shall be fixed to the posts by welding in the case of steel posts and by bolts and washers of suitable size in the case of reinforced concrete or GI posts. After the nuts have been tightened, the tails of the bolts shall be furred over with a hammer to prevent removal.
- 4 For overhead signs, the support system should be properly designed based on sound engineer principles, to safely sustain the dead load, live load and wind load on the completed sign system. For this purpose, the overhead signs shall be designed to withstand a wind loading of 150 kg/m² transverse to the face of the sign. In addition to the dead load of the structure, walkway loading of 250 kg concentrated live load shall also be considered for the design of the overhead sign structure.

H Face fixed Signs

- 1 The quoted rates of contractor for the Face fixed. signages shall be for face mounting the signs at all heights and to any medium, RCC Beams/Slabs or Brick Wall etc. with or without cladding. Nothing extra whatsoever shall be admissible on this account.
- 2 Nothing extra whatsoever shall be admissible for any variations of the required face fixing arrangements from site to site of work.
- 3 Variation will be admissible only in case of being asked to fabricate and fix a new fixing bracket in place of the bracket fabricated as per the Good for Construction drawings included in Tender Documents. Variation of amount in this case will be mutually decided and approval of the Employer will be obtained before fabricating such brackets.

I Vinyl Films

1 Block out vinyl films

- Cast films should to provide complete light blocking characteristics with less than 0.001% light transmission.
- A luster/matt finish colour matching to Pantone 2768C and 382C on the outside and uniformly white on the adhesive side
- A cast vinyl face film of thickness between 100 to 130 micron, with clear acrylic based permanent pressure sensitive adhesive.

- The film shall provide strong adhesion to a wide variety of substrates with perfect dimensional stability and perform well as second surface media.
- The films should have self extinguishable property.
- Should have a performance guarantee against colour fading, peeling, cracking

2 Translucent Vinyl film

- Translucent Graphic Film to allow light transmission
- Cast vinyl film of thickness (0.05 mm) with clear pressure sensitive adhesive.
- A cast vinyl film with a clear, permanent, pressure-sensitive adhesive and a translucent synthetic liner that does not split if wet.
- 4.2.4 The films should have self extinguishable property.
- Should have a performance guarantee against color fading, peeling, cracking.
- Should be able to withstand temperatures in the range -45° to +77°C

3 Protective over-laminate

Shall be a luster/semi-matt cast films resistant to chemicals and abrasion while cleaning

All other following listed below products, will have to be used with a maximum life specified within the range manufactured by supplier and all warranties for the above products shall apply.

Pantone Ref	Application Requirements
3435c	Blockout
3272c	Blockout
306c	Blockout/Translucent
Burnt Orange	Blockout/Translucent

- 4 Diffuser films**
- 5 Frosted vinyls**
- 6 Printable vinyls**
- 7 Opaque vinyls**
- 8 Printable floor application**
- 9 Floor laminate**
- 10 Photoluminescent (Avery Glow in Dark –VF, product code AVFG302N)**

J Workmanship for Vinyl pasting (Plotter cut Vinyl sheet graphics/text)

- 1 Vinyl shall be pasted on acrylic sheet and on ACM after removing the masking film.
- 2 Proper preparation of application surface is essential to obtain high quality and long lasting markings.
- 3 Application:
 - 5.3.1 Clean the substrate as per recommendation of vinyl manufacturer.
 - 5.3.2 Remove entire liner from adhesive side of film.
 - 5.3.3 Align the film and press one edge to surface with finger.
 - 5.3.4 With a squeeze, apply remaining film using overlapping strokes. Hold the film away from surface to avoid pre adhesion.
- 4 The plotted vinyl sheet should be applied to the substrates with the use of approved application tape to insure correct placement and accuracy. Vinyl application should be done in a dust free environment.
- 5 Remove pre-mask:

Remove application film from the face of the film by pulling tape back upon itself at a 180-degree angle. Application film should be removed after 24 hours of application.
- 6 Re-squeeze all edges to prevent edge lifting. This must be done after application of film removal. Use firm even pressure. If not thoroughly re squeezed after pre mask removal, the adhesion at edges of film loosened by pre mask removal may start peeling off due to dirt or moisture and subsequently lift or be susceptible to damage from pressure washing.
- 7 For all the sign faces - the film should be wrapped around the edge of acrylic with up to a min distance of 25mm on all sides.
- 8 Remove entrapped air:

All film pasting on the surface including the over laminate should be free from air bubbles. Inspect the film in flat areas for bubbles. To eliminate the bubbles, puncture the film at one end of the bubble with a pin and press the entrapped air with the thumb or squeeze or moving towards the puncture.
- 9 Self matching and complementing films should be used for all situations Involving layers of films laminated in a single sign.
- 10 The graphics for the Blockout Vinyl sheet should be plotted in accordance with specified artwork accurately on a computerized plotter cutter. The edges of the plotter cut vinyl sheet should be clean and smooth. Vinyl sheet should be plotted in a dust free environment.
- 11 The final applied graphics shall be free from any kinds of wrinkles, air bubbles and placement/orientation problems.
- 12 **Contractors are expected to provide the standard warranty and the invoices from the vinyl manufacturers covering all the vinyl used.**

K Color specifications for Vinyl Film:

Pantone Codes of 3435c, 3272c, 306c and Burnt Orange.

All the Signage and Graphics for Nagpur Metro shall use the following colors

Vinyl Films: Vinyl films have been developed with manufacturers for the specific PANTONE shades, with the desired specification for a minimum performance requirement. The Engineer-In-Charge shall use these films for all the signage execution after approval. All material and execution of vinyl films shall confirm to the detailed technical specifications and notes for quality of workmanship given in this document. The Engineer-In-charge shall approve any other color used in vinyl films prior to its use.

L Printing

- The graphics and text of the signage system shall be printed with inkjet printers.
- Ink type: solvent ink, designed for 2 years outdoor application.
- Provide a hard lamination film to resist scuffing, scratching.
- Ink color: cyan, magenta, yellow, black.
- Same colours of the signages shall be uniform as specified and shall not vary from sign to sign. Printer has to get approval on all printed colours in graphics matching to specified PANTONE colours and submit 3 copies of each swatch 100mm X 100mm.
- Facility of printing directly onto a variety of specially treated vinyls and other materials.

- Machine to accommodate media widths of up to 62 inches and offers resolution of 300dpi.

- Graphics and text shall be without any ink bleeding and smudging
- The printer agrees to produce and maintain high quality standards

5.5.1 The bidder is required to sign the declaration as given in Section IV (Bidding forms) and submit along with the bid.

5.5.2 In addition to above declaration relevant national and international standard specifications are to be referred and taken into consideration for the bid.

5.6 DRAWINGS

The Project Manager or Engineer-in-Charge will provide Good for construction drawings for execution of work within 10 days from commencement of the assignment.

5.7 SUPPLEMENTARY INFORMATION

- 5.7.1 **Co-operation:** The Contractor shall establish full co-ordination with the officials of Employer/MAHA METRO, extend co-operation to complete work
- 5.7.2 **Records procedures and reports:** A work order book shall be maintained by the contractor at site/workshop for taking instructions from employer or his representative. The Contractor shall maintain records pertaining to the quality of installation / erection work and inspection, testing, compliance with all technical requirements in respect of all this works as described before. The Contractor shall submit such records to the Employer after the completion of any particular work before submitting the bill.
- 5.7.3 **Personnel:** -The contractor shall depute sufficient staff to carry out execution of the project in time. Contractor shall undertake to comply with applicable legislation and the code of labour law on matters of health, hygiene and safety, and shall assume responsibility for works required in the event of any change in applicable regulations. The contractor shall provide all necessary superintendence during the execution of works and during maintenance. The Contractor's staff shall include adequate and competent persons with proven suitable, previous experience on similar contracts to supervise the works and sufficient skilled, semi-skilled and unskilled labour to ensure completion of works in time. The Contractor shall not remove any representative or skilled labour from the site without prior approval of the Employer's Representative for the proper fulfilling of the contractor's obligations under the contract. The contractor or a competent and authorized agent or representative approved in writing by Employer on the basis of qualification and experience to be furnished by the contractor, which approval may at any time be withdrawn, is to be constantly on the works and shall give his whole time to the superintendence of the work.
- The contractor will be responsible for arranging of any work permits required for his staff/ labour whom it wishes to deploy from other states/ country.

- 5.7.4 **Public Authorities:** - The Contractor shall comply with all rules & regulations, bye laws and directives given from time to time by any local or public authority in connection with this work and shall himself pay fees or charges which shall be levied on him without any extra cost.
- 5.7.5 **Safety:** -The Contractor will be responsible for safety of the material supplied and kept in joint custody of the employer and the contractor till completion of contract. The Contractor shall at his own expense arrange for the safety of his labour / supervisor staff employed by him directly or indirectly for performing the work, as per statutory requirement. The Contractor shall report any accident or unusual occurrence with the work at site that take place to employer immediately with the action, which he might have taken.
- 5.7.6 **Acquaintance with Site and Work Conditions:** - The Bidder shall study the site and general conditions in respect of approaches, labourers, climate and the data included in the tender documents and get it verified with actual inspections of the site, before submitting the tender. In case of doubt about any item or data included in the tender, the same shall be got clarified in pre-bid meeting. Once the tender is accepted, it shall be concluded that the Contractor has verified and made himself conversant with all the details required for completing the work as stipulated conditions and specifications.

5.8 BILL OF QUANTITIES

The bill of quantities is given in the Section-IX. The bidder is to quote for each item separately as mentioned in Notice Inviting Tender.

5.9 Payment Conditions

- 5.9.1 In accordance with the provisions of GCC Clauses 39, 40, 41, 42, 44, 45 and 46 the Employer shall pay the Contractor subject to provisions of Clause 5.9.5 of this section, no later than 15 days after the receipt of Project Manager or Engineer-in-Charge statement.
- 5.9.2 The payments for the work will be made as per the actual work done based on the payment certificate prepared by the Project Manager or Engineer-in-Charge as per GCC clause 39 and IS:1200 relevant parts.

- 5.9.3 The amounts to be paid to the Operator in accordance with Clause 5.9.2 of this Terms and Procedures of Payment Section shall include all costs and expenses of the contractor in completing the implementation of Multi Modal Integration in all aspects as per the Employers Requirement.
- 5.9.4 The amounts paid to the Operator in accordance with Clause 5.9.2 of this Terms and Procedures of Payment Section shall be repaid to the Contractor as part of the payments set out in Clause 5.8.2 of this section by reducing those payments by an amount equal to the advance payment times the same percentage of the Contract Amount that the Project Manager determines in accordance with Clause 5.9.2 of this Terms and Procedures of Payment Section.
- 5.9.5 The Employer shall deduct from each payment to the Contractor pursuant to Clause 5.9.2 this Term and Procedures of Payment Section, Retention in the amount of 10 per cent of each payment to the Contractor.
- 5.9.6 The Retention amount may be released to the Contractor subject to the Operator furnishing an irrevocable Bank Guarantee from the nationalized Bank equivalent to the Retention amount or as specified in the GCC clause 45.

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A. GENERAL

1. Definitions

1.1. Boldface type is used to identify defined terms.

- (a) The **Accepted Contract Amount** means the amount accepted in the Letter of Acceptance for the execution and completion of the Works and the remedying of any defects.
- (b) The **Activity Schedule** is a schedule of the activities comprising the construction, installation, testing, and commissioning of the Works in a lump sum contract. It includes a lump sum price for each activity, which is used for valuations and for assessing the effects of Variations and Compensation Events.
- (c) The **Adjudicator** is the person appointed jointly by the Employer and the Contractor to resolve disputes in the first instance, as provided for in GCC 23.1 hereunder.
- (d) **Bill of Quantities** means the priced and completed Bill of Quantities forming part of the Bid.
- (e) **Compensation Events** are those defined in GCC 41.1 hereunder.
- (f) **The Completion Date** is the date of completion of the Works as certified by the Project Manager, in accordance with GCC 52.1.
- (g) **The Contract** is the Contract between the Employer and the Contractor to execute, complete, and maintain the Works. It consists of the documents listed in GCC 2.3 below.
- (h) **The Contractor** is the party whose Bid to carry out the Works has been accepted by the Employer.
- (i) **The Contractor's Bid** is the completed bidding document submitted by the Contractor to the Employer.
- (j) **The Contract Price** is the Accepted Contract Amount stated in the Letter of Acceptance and thereafter as adjusted in accordance with the Contract.
- (k) **Days** are calendar days; months are calendar months.

- (l) **Days work** are varied work inputs subject to payment on a time basis for the Contractor's employees and Equipment, in addition to payments for associated Materials and Plant.
- (m) **A Defect** is any part of the Works not completed in accordance with the Contract.
- (n) **The Defects Liability Certificate** is the certificate issued by Project Manager upon correction of defects by the Contractor.
- (o) **The Defects Liability Period** is the period calculated from the Completion Date where the Contractor remains responsible for remedying defects.
- (p) **Drawings** include calculations and other information provided or approved by the Project Manager for the execution of the Contract.
- (q) **The Employer** is the party who employs the Contractor to carry out the Works, as specified in the PCC.
- (r) **Equipment** is the Contractor's machinery and vehicles brought temporarily to the Site to construct the Works.
- (s) **Force Majeure** means an exceptional event or circumstance: which is beyond a Party's control; which such Party could not reasonably have provided against before entering into the Contract; which, having arisen, such Party could not reasonably have avoided or overcome; and, which is not substantially attributable to the other Party.
- (t) **The Initial Contract Price** is the Contract Price listed in the Employer's Letter of Acceptance.
- (u) **The Intended Completion Date** is the date on which it is intended That the Contractor shall complete the Works. The Intended Completion Date is specified in the PCC. The Intended Completion Date may be revised only by the Project Manager by issuing an extension of time or an acceleration order.

- (v) **Letter of Acceptance** means the formal acceptance by the Employer of the Bid and denotes the formation of the Contract at the date of acceptance.
- (w) **Materials** are all supplies, including consumables, used by the Contractor for incorporation in the Works.
- (x) **“Party”** means the Employer or the Contractor, as the context requires.
- (y) **PCC** means Particular Conditions of Contract
- (z) **Plant** is any integral part of the Works that shall have a mechanical, electrical, chemical, or biological function.
- (aa) **The Project Manager or Engineer-in-Charge** is the person named in the PCC (or any other competent person appointed by the Employer and notified to the Contractor, to act in replacement of the Project Manager) who is responsible for supervising the execution of the Works and administering the Contract.
- (bb) **Retention Money** means the aggregate of all monies retained by the Employer pursuant to GCC 45.1.
- (cc) **The Site** is the area defined as such in the PCC.
- (dd) **Site Investigation Reports** are those that were included in the bidding documents and are factual and interpretative reports about the surface and subsurface conditions at the Site.
- (ee) **Specification** means the Specification of the Works included in the Contract and any modification or addition made or approved by the Project Manager or Engineer-in-Charge.
- (ff) **The Start Date** is given in the PCC. It is the latest date when the Contractor shall commence execution of the Works. It does not necessarily coincide with any of the Site Possession Dates.
- (gg) **A Subcontractor** is a person or corporate body who has a Contract with the Contractor to carry out a part of the work in the Contract, which includes work on the Site.

- (hh) **Temporary Works** are works designed, constructed, installed, and removed by the Contractor that are needed for construction or installation of the Works.
- (ii) **A Variation** is an instruction given by the Project Manager which varies the Works.
- (jj) **The Works** are what the Contract requires the Contractor to construct, install, and turn over to the Employer, as defined in the PCC.
- (kk) **The Certificate of Completion** is the Certificate issued by the Project Manager to the Contractor, on successful completion of all the works specified in the Works Requirement (Section V) and is “fit for purpose”.

2. Interpretation

- 2.1. In interpreting these GCC, singular also means plural, male also means female or neuter, and the other way around. Headings have no significance. Words have their normal meaning under the language of the Contract unless specifically defined. The Project Manager or Engineer-in-Charge shall provide instructions clarifying queries about these GCC.
- 2.2. If sectional completion is specified in the PCC, references in the GCC to the Works, the Completion Date, and the Intended Completion Date apply to any Section of the Works

(other than references to the Completion Date and Intended Completion Date for the whole of the Works).
- 2.3. The documents forming the Contract shall be interpreted in the following order of priority:
 - a) Agreement,
 - b) Letter of Acceptance,
 - c) Particular Conditions of Contract,
 - d) General Conditions of Contract,
 - e) Specifications,
 - f) Drawings,

- g) Bill of Quantities (or Schedules of Prices for lump sum contracts), and
- h) Contractor's Bid,
- i) any other document listed in the PCC as forming part of the Contract.

2.4. In the contract except where the context requires

- (a) provisions including the word "agree", "agreed" or "agreement" require the agreement to be recorded in writing;
- (b) "written" or "in writing" means hand-written, type-written, printed or electronically made, and resulting in a permanent record.

3. Language and Law

3.1. The language of the Contract shall be English and the law governing the Contract are stated in the PCC.

4. Project Manager's Decisions

4.1. Except where otherwise specifically stated, the Project Manager shall decide contractual matters between the Employer and the Contractor in the role representing the Employer.

4.2. The Project Manager shall have no authority to amend the Contract and has no authority to relieve either party of any duties, obligations or responsibilities under the contract.

5. Delegation

5.1. The Project Manager may delegate any of his duties and responsibilities to other people except to the Adjudicator, after notifying the Contractor, and may cancel any delegation after notifying the Contractor as per GCC clause

6. Communications

6.1. Wherever these Conditions provide for the giving or issuing of a Notice or other communication including approvals, certificates, consents, determinations, instructions and requests, discharges such Notice or communication shall be:

- (a) in writing and delivered by hand (against receipt), sent by mail or courier, or transmitted by using any of the agreed systems of electronic transmission as stated in the PCC; and
- (b) delivered, sent or transmitted to the address for the recipient's communications as stated in the PCC.

7. Subcontracting

- 7.1. The Contractor may subcontract with the approval of the Project Manager, but may not assign the Contract without the approval of the Employer in writing. Subcontracting shall not alter the Contractor's obligations.
- 7.2. The contractor shall be responsible for the acts or defaults of any subcontractor, his agents or employees, as if they were the acts or defaults of the contractor.

8. Other Contractors

- 8.1. The Contractor shall cooperate and share the Site with other contractors, public authorities, utilities, and the Employer between the dates given in the Schedule of Other Contractors, as referred to in the PCC. The Contractor shall also provide facilities and services for them as described in the Schedule. The Employer may modify the Schedule of other Contractors, and shall notify the Contractor of any such modification.

9. Personnel and Equipment

- 9.1. The Contractor shall employ the key personnel and use the equipment identified in its Bid to carry out the Works, or other personnel and equipment approved by the Project Manager. The Project Manager shall approve any proposed replacement of key personnel and equipment only if their relevant qualifications or characteristics are substantially equal to or better than those proposed in the Bid.
- 9.2. If the Project Manager asks the Contractor to remove a person who is a member of the Contractor's staff or work force, stating the reasons, the Contractor shall ensure that the person leaves the Site within seven days and has no further connection with the work in the Contract.

10. Employer's and Contractor's Risks

10.1. The Employer carries the risks which this Contract states are Employer's risks, and the Contractor carries the risks which this Contract states are Contractor's risks as per GCC clause 11 and 12.

11. Employer's Risks

11.1. Deleted

12. Contractor's Risks

12.1. The Contractor risk, from the Starting Date until the Defects Liability Certificate has been issued, the risks of personal injury, death, and loss of or damage to property (including, without limitation, the Works, Plant, Materials, and Equipment) which are not Employer's risks are Contractor's risks.

13. Insurance

13.1 The Contractor shall provide, in the joint names of the Employer and the Contractor, insurance cover from the Start Date to the end of the Defects Liability Period, in the amounts and deductibles stated in the PCC for the following events which are due to the Contractor's risks:

- (a) loss of or damage to the Works, Plant, and Materials;
- (b) loss of or damage to Equipment;
- (c) loss of or damage to property (except the Works, Plant, Materials, and Equipment) in connection with the Contract; and
- (d) personal injury or death.

13.1.1. Insurance of work and contractor's equipment: The Contractor shall, without limiting his or the Employer's obligations and responsibilities under Clause GCC 11, insure:

- (a) the Works, together with materials and Plant for incorporation therein to the full replacement cost
- (b) additional sum as required by the employer, detailed out in the PCC.
- (c) the Contractor's Equipment and other things brought onto the Site by the Contractor, for a sum sufficient to provide for their replacement at the Site.

13.1.2. **Scope of cover:** The insurance in paragraphs (a) and (b) of Sub-Clause 13.1.1 shall be in the joint names of the Contractor and the Employer and shall cover:

(a) the Employer and the Contractor against all loss or damage from whatsoever cause arising, other than as provided Sub-Clause 13.1.4, from the first working day after the commencement date until the date of issue of the relevant Taking-Over Certificate in respect of the Works or any Section or part thereof as the case may be, and

(b) The Contractor for his liability;

- i. during the Defects Liability Period for loss or damage arising from a cause occurring prior to the commencement of the Defects Liability Period, and
- ii. for loss or damage occasioned by the Contractor in the course of any operations carried out by him for the purpose of complying with his obligations under Clause GCC 33.

13.1.3. **Responsibility for Amount Not Recovered:** Any amounts not insured or not recovered from the insurers shall be borne by the Employer or the Contractor in accordance with their responsibilities Clause GCC 11 & 12.

13.1.4. **Exclusions:** There shall be no obligation for the insurance in Sub-Clause 13.1.1 to include loss or damage caused by

- (c) war, hostilities, invasion, and act of foreign enemies.
- (d) Rebellion, revolution, insurrection or military or usurped power, or civil war.

13.1.5. **Third Party Insurance:** The Contractor shall, without limiting his or the Employer's obligations and responsibilities under Clause GCC 63, insure, in the joint names of the Contractor and the Employer, against liabilities for death of or injury to any person (other than as provided in sub-clause 13.1.6 and 13.1.7) or loss or damage to any property (other than the Works) arising out of the performance of the Contract, other than the exception defined in paragraphs (a), (b) and (c) of clause GCC 63.3

Such insurance shall be for a certain minimum percentage of the contract amount as specified in the PCC.

The insurance policy shall include a cross liability clause such that the insurance shall apply to the Contractor and to the Employer as separate insured.

13.1.6. **Insurance for Employers Staff:** The Contractor shall also, without limiting his or the employer's obligations insure in the Joint names of the contractor and the Employer, the Employer's staff to extent of 5 numbers and their staff engaged on the works at the site against liabilities for death or injury. The amount for the insurance cover for each of the employer's staff so engaged shall be limited to a minimum of Rs. 3,00,000/- per person or as per the laws governing in state whichever is more. The insurance shall continue until the taking over certificate for the whole of the works is issued. Notwithstanding the amount mentioned above, insurance obtained should satisfy the prevailing rules in this regard.

13.1.7. **Accident or Injury to Workmen:** The Employer or its representatives shall not be liable for or in respect of any damages or compensation payable to any workman or other person in the employment of the Contractor or any subcontractor, other than death or injury resulting from any act or default of the Employer, his agents or servants. The Contractor shall indemnify and keep indemnified the Employer against all such damages and compensation, other than those for which the Employer is liable as aforesaid, and against all claims, proceedings, damages, costs, charges, and expenses whatsoever in respect thereof or in relation thereto.

The Contractor shall insure against such liability and shall continue such insurance during the whole time that any person is employed by him on the Works. Provided that, in respect of any persons employed by any Subcontractor, the Contractor's obligations to insure as aforesaid under the Sub-Clause shall be satisfied if the Subcontractor shall have insured against the liability in respect of such persons in such manner that the Employer is indemnified under the policy, but the Contractor

shall require such Subcontractor to produce to the Employer, when required, such policy of insurance and the receipt for the payment of the current premium.

13.1.8. **Personal Accident Insurance:** In addition to any other insurance required to be taken out by statutory requirements (e.g. Workmen's Compensation Act 1923), the Contractor shall take out a Personal Accident Insurance in favour of each workman employed by him on the Works. Provided that, in respect of any persons employed by any Sub-Contractor, the Contractor's obligations to insure as aforesaid under this Sub-Clause shall be satisfied if the Sub-Contractor shall have taken out Personal Accident Insurance in respect of his workmen employed on the works and the Contractor shall require such Sub-Contractor to produce to the Employer, when required, such policy of Personal Accident Insurance and the receipt for the payment of the current premium.

13.1.9. **Evidence and Terms of Insurances:** The Contractor shall provide evidence to the Employer as soon as practicable after the respective insurance have been taken out but in any case prior to the start of work at the Site that the insurances required under the Contract have been effected and shall, within 84 days of the Commencement Date, provide the insurance policies to the Employer. When providing such evidence and such policies to the Employer, the Contractor shall notify the Project Manager of so doing. Such insurance policies shall be consistent with the general terms agreed prior to the issue of the Letter of Acceptance. The Contractor shall effect all insurances for which he is responsible with insurers and in terms approved by the Employer.

13.1.10. **Adequacy of Insurance:** The Contractor shall notify the insurers of changes in the nature, extent or programme for the

execution of the Works and ensure the adequacy of the insurances at all times in accordance with the terms of the Contract and shall, when required, produce to the Employer the insurance policies in force and the receipts for payment of the current premium.

13.1.11. Remedy on Contractor's failure to Insure: If the Contractor fails to effect and to keep in force any of the insurances required under the Contract, or fails to provide the policies to the Employer within the period required by Clause 13.1.9, then and in any such case the Employer may effect and keep in force any such insurances and pay any premium as may be necessary for that purpose and from time to time and deduct premium amount so paid from any monies due or to become due to the Contractor, or recover the same as a debt due from the Contractor.

- 13.2 Policies and certificates for insurance shall be delivered by the Contractor to the Project Manager for the Project Manager's approval before the Start Date. All such insurance shall provide for compensation to be payable in the types and proportions of currencies required to rectify the loss or damage incurred.
- 13.3 If the Contractor does not provide any of the policies and certificates required, the Employer may affect the insurance which the Contractor should have provided and recover the premiums the Employer has paid from payments otherwise due to the Contractor or, if no payment is due, the payment of the premiums shall be a debt due.
- 13.4 Alterations to the terms of insurance shall not be made without the approval of the Project Manager.
- 13.5 Both parties shall comply with any conditions of the insurance policies.

14. Site Investigation Reports

- 14.1. The Contractor, in preparing the Bid, shall rely on any Site Investigation Reports referred to in the PCC, supplemented by any information available to the Bidder.

15. Contractor to Construct the Works

- 15.1. The Contractor shall construct and install the Works in accordance with the Specifications and Drawings as specified in Section VI.
- 15.2. The Contractor shall be deemed to:
 - (a) have satisfied himself as to the correctness and sufficiency of the Accepted Contract Amount; and
 - (b) have based the Accepted Contract Amount on the data, interpretations, necessary information, inspections, examinations and satisfaction as to all relevant matters.

The Accepted Contract Amount covers all the Contractor's obligations under the Contract and all things necessary for the proper design, execution and completion of the Works, the remedying of any defects and the provision of the Operation Service.

16. The Works to Be Completed by the Intended Completion Date

- 16.1. The Contractor may commence execution of the Works on the Start Date and shall carry out the Works in accordance with the Program submitted by the Contractor, as updated with the approval of the Project Manager, and complete them by the Intended Completion Date.

17. Designs by Contractor and Approval by the Project Manager

The Contractor shall responsible for design of signages as per instruction of In-charge and should be approved by Project Manager.

18. Safety

- 18.1. The Contractor shall be responsible for the safety of all activities on the Site.

19. Discoveries

- 19.1. Anything of historical or other interest or of significant value unexpectedly discovered on the Site shall be the property of the Employer. The Contractor shall notify the Project Manager of such discoveries and carry out the Project Manager's instructions for dealing with them.

All old curiosities, relic coins, minerals etc., found in the excavation or pulling down shall be the property of the Government. Should any ancient masonry or other old work of interest be opened up, or any

religious edifice or relic be involved in removal or destruction, in the execution of a work, a clear report on the matter should be sent to Government through the Employer and orders obtained before the demolition or removal of such works or relics. Similarly, regarding old curiosities etc., obtained during excavation, the Project Manager should consult the District Collector through appropriate channel regarding disposal of the same.

20. Possession of the Site

20.1 The Employer shall give possession of all parts of the Site to the Contractor. If possession of a part is not given by the date stated in the PCC, the Employer shall be deemed to have delayed the start of the relevant activities, and this shall be a Compensation Event. The final authority on this matter shall lie with the MAHAMETRO and decision in this matter taken by MAHAMETRO will be binding on all parties to this contract.

21. Access to the Site

21.1. The Contractor shall allow the Project Manager and any person authorized by the Project Manager access to the Site and to any place where work in connection with the Contract is being carried out or is intended to be carried out.

22. Instructions, Inspections and Audits

22.1. The Contractor shall carry out all instructions of the Project Manager which comply with the applicable laws where the Site is located.

22.2. The Contractor shall permit the MAHAMETRO to inspect the Contractor's accounts, records and other documents relating to the submission of bids and contract performance and to have them audited by auditors appointed by the MAHAMETRO. The Contractor shall maintain all documents and records related to the Contract for a period of three (3) years after completion of the Works. The Contractor shall provide any documents necessary for the investigation of allegations of fraud, collusion, coercion, or corruption and require its employees or

agents with knowledge of the Contract to respond to questions from the MAHAMETRO.

23. Appointment of the Adjudicator

- 23.1. The Adjudicator shall be appointed jointly by the Employer and the Contractor, at the time of the Employer's issuance of the Letter of Acceptance. If, in the Letter of Acceptance, the Employer does not agree on the appointment of the Adjudicator, the Employer will request the Appointing Authority designated in the PCC, to appoint the Adjudicator within 14 days of receipt of such request.
- 23.2. Should the Adjudicator resign or die, or should the Employer and the Contractor agree that the Adjudicator is not functioning in accordance with the provisions of the Contract; a new Adjudicator shall be jointly appointed by the Employer and the Contractor. In case of disagreement between the Employer and the Contractor, within 15 days, the Adjudicator shall be designated by the Appointing Authority at the request of either party, within 7 days of receipt of such request.

24. Procedure for Disputes Resolution by Arbitration

- 24.1. If the Contractor considers himself to be entitled to any extension of the Time for Completion and/or any additional payment, under any Clause of these Conditions or otherwise in connection with the Contract, the Contractor shall submit a notice to the Project Manager, describing the event or circumstance giving rise to the claim. The notice shall be given as soon as practicable, and not later than 28 days after the Contractor became aware, or should have become aware, of the event or circumstance and within 42 days the contractor shall send to the Project Manager full detailed claim.
- 24.2. If the Contractor fails to give notice of a claim within such period of 28 days,
the Time for Completion shall not be extended, the Contractor shall not be entitled to additional payment, and the Employer shall be discharged from all

liability in connection with the claim. The Contractor shall submit any other notices which are required by the Contract, and supporting particulars for the claim, all as relevant to such event or circumstance.

- 24.3. Within 15 days after receiving a claim the Project Manager shall respond with approval, or with disapproval with comments.
- 24.4. In the event that the Contractor does not agree on any matter relating to a claim, it may refer the matter to the Adjudicator pursuant to GCC 23 hereof.
- 24.5. Any disputes between the Employer and the Contractor arising out of or in connection with the Contract not settled amicably and in respect of Project Manager's / Adjudicators decision, arbitration shall be settled in accordance with the Arbitration and Conciliation Act 1996 with relevant amendments.
- 24.6. The seat and place of the arbitration shall be Nagpur, Maharashtra. Arbitration shall be held by a three-member Arbitration team. For the Panel, the Employer and the Contractor will suggest an Arbitrator each within 14 days of receipt of Arbitration Notice. The two Arbitrators will then mutually decide upon the Third Arbitrator who will act as Presiding Arbitrator.

B. TIME CONTROL

25. Program

- 25.1. The Contractor shall submit for approval a Program for the Works within 14 days from the date of the Letter of Acceptance. Within this, the Contractor shall submit to the Project Manager for approval a Program showing the general methods, arrangements, order, and timing for all the activities in the Works. In the case of a lump sum contract, the activities in the Program shall be consistent with those in the Activity Schedule.
- 25.2. An update of the Program shall be a program showing the actual progress achieved on each activity and the effect of the progress achieved on the timing of the remaining work, including any changes to the sequence of the activities.

- 25.3. The Contractor shall submit to the Project Manager for approval an updated Program at intervals no longer than the period of 15 days. If the Contractor does not submit an updated Program within this period, the Project Manager may withhold the amount stated in the PCC from the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue Program has been submitted. In the case of a lump sum contract, the Contractor shall provide an updated Activity Schedule within 7 days of being instructed to by the Project Manager.
- 25.4. The Project Manager's approval of the Program shall not alter the Contractor's obligations. The Contractor may revise the Program and submit it to the Project Manager again at any time. A revised Program shall show the effect of Variations and Compensation Events.

26. Extension of the Intended Completion Date

- 26.1. The Project Manager or Engineer-in-Charge shall extend the Intended Completion Date if a Compensation Event occurs or a Variation is issued which makes it impossible for Completion to be achieved by the Intended Completion Date without the Contractor taking steps to accelerate the remaining work, which would cause the Contractor to incur additional cost.
- 26.2. The Project Manager or Engineer-in-Charge shall decide whether and by how much to extend the Intended Completion Date within 21 days of the Contractor asking the Project Manager for a decision upon the effect of a Compensation Event or Variation and submitting full supporting information. If the Contractor has failed to give early warning of a delay or has failed to cooperate in dealing with a delay, the delay by this failure shall not be considered in assessing the new Intended Completion Date.

27. Acceleration

Deleted.

28. Delays Ordered by the Project Manager

- 28.1. The Project Manager may instruct the Contractor to delay the start or progress of any activity within the Works.

29. Management Meetings

- 29.1. The Project Manager or on the request of the Contractor may convene a management meeting and the Project Manager may require the Contractor to attend the management meeting. The business of a management meeting shall be to review the plans for remaining work and to deal with matters raised in accordance with the early warning procedure.
- 29.2. The Project Manager shall record the business of management meetings and provide copies of the record to those attending the meeting and to the Employer. The responsibility of the parties for actions to be taken shall be decided by the Project Manager either at the management meeting or after the management meeting and stated in writing to all who attended the meeting.

30. Early Warning

- 30.1. The Contractor shall warn the Project Manager at the earliest opportunity of specific likely future events or circumstances that may adversely affect the quality of the work, increase the Contract Price, or delay the execution of the Works. The Project Manager may require the Contractor to provide an estimate of the expected effect of the future event or circumstance on the Contract Price and Completion Date. The estimate shall be provided by the Contractor as soon as reasonably possible.
- 30.2. The Contractor shall cooperate with the Project Manager in making and considering proposals for how the effect of such an event or circumstance can be avoided or reduced by anyone involved in the work and in carrying out any resulting instruction of the Project Manager.

C. QUALITY CONTROL

31. Identifying Defects

- 31.1. The Project Manager and PMC appointed by MAHAMETRO shall check the Contractor's work and notify the Contractor of any Defects that are found. Such checking shall not affect the Contractor's responsibilities. The Project Manager may instruct the Contractor to search for a Defect and to uncover and test any work that the Project Manager considers may have a Defect.
- 31.2. The contractor shall ensure that the raw materials, goods & related services procured/deployed under this contract/project should comply with the technical specifications and other provisions of Contract.

The contractor shall be supply and use and will be held responsible for raw materials, goods & related services under this contract/project shall conform to the standards mentioned in the SOR and when no applicable standard is mentioned, the standard shall be equivalent or superior to the official standards whose application is appropriate to the superior quality in reference to as mentioned in description in BOQ.

- 31.3. If the contractor finds any defects/ errors in the Good for Construction designs/ drawings submitted by the Project Manager, the Contractor shall promptly notify the same to the Project Manager and shall take corrective actions as specified in the PCC.

32. Tests

- 32.1. If the Project Manager or Engineer-in-Charge instructs the Contractor to carry out a test not specified in the Specification to check whether any work has a Defect and the test shows that it does, the Contractor shall pay for the test and any samples. If there is no Defect, the test shall be a Compensation Event.

33. Correction of Defects

- 33.1. The Project Manager or Engineer-in-Charge shall give notice to the Contractor of any Defects before the end of the Defects Liability Period, which begins at Completion, and is defined in the PCC. The Defects Liability Period shall be extended for as long as Defects remain to be corrected.

- 33.2. Every time notice of a Defect is given, the Contractor shall correct the notified Defect within the length of time specified by the Project Manager's notice.

34. Uncorrected Defects

- 34.1. If the Contractor has not corrected a Defect within the time specified in the Project Manager's notice, the Project Manager shall assess the cost of having the Defect corrected, and the Contractor shall pay this amount.

D. Cost Control

35. Contract Price

- 35.1. In the case of an admeasurements contract, the Bill of Quantities shall contain priced items for the Works to be performed by the Contractor. The Bill of Quantities is used to calculate the Contract Price. The Contractor will be paid for the quantity of the work accomplished at the rate in the Bill of Quantities for each item.
- 35.2. In the case of a lump sum contract, the Activity Schedule shall contain the priced activities for the Works to be performed by the Contractor. The Activity Schedule is used to monitor and control the performance of activities on which basis the Contractor will be paid. If payment for Materials on Site shall be made separately, the Contractor shall show delivery of Materials to the Site separately on the Activity Schedule.

36. Changes in the Contract Price

- 36.1. In the case of an admeasurements contract:
- (a) If the final quantity of the work done differs from the quantity in the Bill of Quantities for the particular item by more than 25 percent, provided the change exceeds 1 percent of the Initial Contract Price, the Project Manager shall adjust the rate to allow for the change.
 - (b) The Project Manager shall not adjust rates from changes in quantities if thereby the Initial Contract Price is exceeded by more than 15 percent, except with the prior approval of the Employer.

- (c) If requested by the Project Manager, the Contractor shall provide the Project Manager with a detailed cost breakdown of any rate in the Bill of Quantities.
- 36.2. In the case of a lump sum contract, the Activity Schedule shall be amended by the Contractor to accommodate changes of Program or method of working made at the Contractor's own discretion. Prices in the Activity Schedule shall not be altered when the Contractor makes such changes to the Activity Schedule.

37. Variations

- 37.1. All Variations shall be included in updated Programs, produced by the Contractor.
- 37.2. The Contractor shall provide the Project Manager with a quotation for carrying out the Variation when requested to do so by the Project Manager. The Project Manager shall assess the quotation, which shall be given within seven (7) days of the request or within any longer period stated by the Project Manager and before the Variation is ordered.
- 37.3. If the Contractor's quotation is unreasonable, the Project Manager may order the Variation and make a change to the Contract Price, which shall be based on the Project Manager's own forecast of the effects of the Variation on the Contractor's costs.
- 37.4. If the Project Manager decides that the urgency of varying the work would prevent a quotation being given and considered without delaying the work, no quotation shall be given and the Variation shall be treated as a Compensation Event.
- 37.5. The Contractor shall not be entitled to additional payment for costs that could have been avoided by giving early warning.
- 37.6. In the case of an admeasurements contract, if the work in the variation corresponds with an item description in the Bill of Quantities and if, in the opinion of the Engineer, the quantity of work to be executed is an extra item and the rates in the bill of quantities shall be used for calculate the value of variation. If the cost per unit of quantity changes, or if the nature or timing of the work in the variation does not correspond with item in the BOQ, the procedure explained in the above Para i.e., 36.1 (i), the data rate based on schedule of rate of the year of

execution or market rate (when Schedule of Rate is not available) shall be followed for arriving the rate for the new item.

38. Cash Flow Forecasts

38.1. When the Program, or, in the case of a lump sum contract, the Activity Schedule, is updated, the Contractor shall provide the Project Manager with an updated cash flow forecast. The cash flow forecast shall include different currencies, as defined in the Contract, converted as necessary using the Contract exchange rates.

39. Payment Certificates

39.1. The Contractor shall submit to the Project Manager monthly statements of the estimated value of the work executed less the cumulative amount certified previously in the format approved by the Project Manager.

39.2. The Project Manager shall check the Contractor's monthly statement and certify the amount to be paid to the Contractor, subject to statutory deductions and any other deductions coming from Clause 48. The Project Manager shall within 28 days after receiving a statement and supporting documents from the Contractor, issue to the employer, an Interim Payment Certificate.

39.3. The value of work executed shall be determined by the Project Manager.

39.4. The value of work executed shall comprise:

(a) In the case of an admeasurements contract, the value of the quantities of work in the Bill of Quantities that have been completed; or

(b) In the case of a lump sum contract, the value of work executed shall comprise the value of completed activities in the Activity Schedule.

39.5. The value of work executed shall include the valuation of Variations and Compensation Events.

39.6. The Project Manager may exclude any item certified in a previous certificate or reduce the proportion of any item previously certified in any certificate in the light of later information.

40. Compensation Events

40.1. The following shall be Compensation Events:

(a) The Employer does not give access to a part of the Site by the Site Possession Date pursuant to GCC 20.1.

(b) The Employer modifies the Schedule of Other Contractors in a way that affects the work of the Contractor under the Contract.

- (c) The Project Manager orders a delay or does not issue Drawings, Specifications required for execution of the Works on time.
- (d) The Project Manager instructs the Contractor to uncover or to carry out additional tests upon work, which is then found to have no Defects.
- (e) Ground conditions are substantially more adverse than could reasonably have been assumed before issuance of the Letter of Acceptance from the information issued to bidders (including the Site Investigation Reports), from information available publicly and from a visual inspection of the Site.
- (f) The Project Manager gives an instruction for dealing with an unforeseen condition, caused by the Employer, or additional work required for safety or other reasons.
- (g) Other contractors, public authorities, utilities, or the Employer does not work within the dates and other constraints stated in the Contract, and they cause delay or extra cost to the Contractor.
- (h) The advance payment is delayed.
- (i) The effects on the Contractor of any of the Employer's Risks.
- (j) The Project Manager unreasonably delays issuing a Certificate of Completion.

40.2. If a Compensation Event would cause additional cost or would prevent the work being completed before the Intended Completion Date, the Contract Price shall be increased and/or the Intended Completion Date shall be extended. The Project Manager shall decide whether and by how much the Contract Price shall be increased and whether and by how much the Intended Completion Date shall be extended.

40.3. As soon as information demonstrating the effect of each Compensation Event upon the Contractor's forecast cost has been provided by the Contractor, it shall be assessed by the Project Manager, and the Contract Price shall be adjusted accordingly. If the Contractor's forecast is deemed unreasonable, the Project Manager shall adjust the Contract Price based on the Project Manager's own forecast. The Project Manager shall assume that the Contractor shall react competently and promptly to the event.

40.4. The Contractor shall not be entitled to compensation to the extent that the Employer's interests are adversely affected by the Contractor's not

having given early warning or not having cooperated with the Project Manager.

41. Payments

- 41.1. Payments shall be adjusted for deductions for advance payments & its interests and retention. The Employer shall pay the Contractor the amounts certified by the Project Manager according to each certificate.
- 41.2. If an amount certified is increased in a later certificate or as a result of an award by the Adjudicator or an Arbitrator same shall be paid to contractor.
- 41.3. Unless otherwise stated, all payments and deductions shall be paid or charged in the proportions of currencies comprising the Contract Price.
- 41.4. Items of the Works for which no rate or price has been entered in shall not be paid for by the Employer and shall be deemed covered by other rates and prices in the Contract.

42. Tax

- 42.1. The rates quoted by the Contractor shall be deemed to be inclusive of all the taxes, levies, etc. including GST including their variations as notified by the concerned authority from time to time, and also of all the new taxes and levies that may be imposed that the Contractor will have to pay for the performance of this Contract. The Employer on behalf of the Employer will perform such duties in regard to the deduction of such taxes at source as per applicable law.
- 42.2. The Contractor shall comply with the proper bye-laws and legal orders of the local body or public authority under the jurisdiction of which the work is executed and pay all fees and charges for which he may be liable. Nothing extra shall be payable on this account.

The rates quoted by the Contractor shall be deemed to be inclusive of all the prevailing taxes/octroi that the Contractor has to pay for performance of this contract. The Employer shall perform such duties in regard to the deduction of such taxes as per statutory deduction requirements at the source of payment as per applicable rules.

- 42.3. (i) Exemptions: The bidder shall refer such notifications/circulars/orders of the Government of India issued from

time to time and shall quote his rates accordingly considering the exemptions available. The Employer will give the necessary certificates to the selected bidders to claim the exemption on specific requests made by the Contractor. Any conditional bids in this regard will not be accepted. The quoted rates should be based on the exemptions available and it will be responsibility of the Contractor to avail the exemptions, as per the contents of the notifications/circulars/orders, the Employers responsibility being limited to the issue of necessary certificates and will not take any responsibility of any kind in this regard.

(ii) It may also be noted that if the Government of India announces any exemptions on any statutory levies in future also during the tenure of the Contract, all the benefits accruing in view of such further exemptions of any kind on the taxes, shall be passed on to the Employer.

43. Currencies

43.1. Where payments are made in currencies other than Indian Rupees (INR), the exchange rates used for calculating the amounts to be paid shall be the exchange rates stated in the Contractor's Bid.

44. Price Adjustment

44.1. Prices shall be adjusted for fluctuations in the cost of inputs only if provided for in the PCC. If so provided, the amounts certified in each payment certificate, before deducting for Advance Payment, shall be adjusted by applying the respective price adjustment factor to the payment amounts due in each currency. The following conditions shall apply:

(a) No price increase will be allowed beyond the original completion date unless covered by an extension of time awarded by the Employer under the terms of the Contract. No price increase will be allowed for periods of delay for which the Contractor is responsible. The Employer will, however, be entitled to any price decrease occurring during such periods of delay.

(b) Deleted.

(c) No price adjustment shall be payable on the portion of the Contract price paid to the Contractor as an advance payment.

Base, Current and Provisional Indices: the base cost and indices or prices shall be those prevailing on the day 28 days prior to the latest date for submission of Bid. Current indices or prices shall be those prevailing on the quarter for which a particular interim Payment Certificate is related. If at any time the current indices are not available, no provisional escalation will be payable on the basis of indices of the previous quarter in absence of non-publication of indices for concerned quarter by the RBI. Escalation amount will be payable to the Contractor when the current indices become available.

Adjustable amount: The adjustable amount of each Interim Payment Certificate shall be the difference between (i) the amount which, in the opinion of the Employer's Representative, shall be due to the contractor including the amount at base rates and prices of the schedule works carried out but excluding provisional sums and the value of materials on the site, and (ii) the amount as calculated in (i) above and included in the last preceding interim payment certificate issued by the Employer's Representative. The adjustable amount shall exclude payments to nominated sub-contractors and any other amounts based upon actual cost or current prices.

Adjusted Amount: The adjusted amount of each payment certificate shall be determined by applying the price adjustment factor to the adjustable amount, and shall become payable to the contractor subject to any deductions there from for retention money, liquidated damages and any other monies due to the Employer from the Contractor including the recovery of advance mobilization, loan if any.

If the Contractor fails to complete the Works within the Time for Completion, adjustments of prices thereafter shall be made using either each index or price applicable on the date 49 days prior to the expiry of the Time for Completion, or the current index or price, whichever is more favorable to the Employer, provided that, if an extension of time is granted in accordance with the relevant Sub-Clause the above provision shall apply to the extended time for completion.

- 44.2. If the value of the index is changed after it has been used in a calculation, the calculation shall be corrected and an adjustment made in the next payment certificate. The index value shall be deemed to take account of all changes in cost due to fluctuations in costs.

45. Retention (Deleted)

46. Liquidated Damages

- 46.1. The Contractor shall pay liquidated damages to the Employer as compensation for delay at the rate per day stated in the PCC for each day that the Completion Date is later than the Intended Completion Date. The total amount of liquidated damages shall not exceed the amount defined in the PCC. The Employer may deduct liquidated damages from payments due to the Contractor. Payment of liquidated damages shall not affect the Contractor's liabilities.
- 46.2. If the Intended Completion Date is extended after liquidated damages have been paid, the Project Manager shall correct any overpayment of liquidated damages by the Contractor by adjusting the next payment certificate. The Contractor shall be paid interest on the overpayment, calculated from the date of payment to the date of repayment, at the rates specified in GCC 40.1.

47. Bonus

Deleted.

48. Advance Payment

- 48.1. The Employer shall make advance payment of five percent of tender value with the approval of the competent authority, if requested by the contractor in writing within 15 days of the order to commence the work as stated in the PCC by the date stated in the PCC, against provision by the Contractor of an unconditional bank guarantee bond in a form and by a bank acceptable to the Employer in amounts and currencies equal to 110% to the advance payment amount. The bank guarantee shall remain effective until the advance payment has been repaid, but the amount of the bank guarantee shall be progressively reduced by the amounts repaid by the Contractor. The amount of mobilization advance,

if paid to the contractor, shall be recovered from each monthly bill / running account bill payable to the contractor for the work done after 20% payment has been made so that the entire amount is recovered before completion of 60% of the Contract value. In case of any difficulty in recovering the advance, it shall be recovered from the bank guarantee given by the Contractor. The Contractor may, at his option, can repay the advance earlier by increasing the percentage rate of deductions from invoice raised.

- 48.2. The Contractor is to use the advance payment only to pay for Equipment, Plant, Materials, and mobilization expenses required specifically for execution of the Contract. The Contractor shall demonstrate that advance payment has been used in this way by supplying copies of invoices or other documents to the Project Manager.

49. Securities

- 49.1. The Performance Security shall be provided to the Employer no later than the date specified in the Letter of Acceptance and shall be issued in an amount specified in the PCC, by a bank acceptable to the Employer, and denominated in the types and proportions of the currencies in which the Contract Price is payable. The Performance Security shall be valid until a date 28 days from the date of issue of the Certificate of Completion in the case of a bank guarantee.

50. Day works

- 50.1. If applicable, the Day works rates in the Contractor's Bid shall be used for small additional amounts of work only when the Project Manager has given written instructions in advance for additional work to be paid for in that way.
- 50.2. All work to be paid for as Day works shall be recorded by the Contractor on forms approved by the Project Manager. Each completed form shall be verified and signed by the Project Manager within two days of the work being done.
- 50.3. The Contractor shall be paid for Day works subject to obtaining signed Day works forms.

51. Cost of Repairs

51.1. Loss or damage to the Works or Materials to be incorporated in the Works between the Start Date and the end of the Defects Correction periods shall be remedied by the Contractor at the Contractor's cost if the loss or damage arises from the Contractor's acts or omissions.

E. Finishing the Contract

52. Completion

52.1. The Contractor shall request the Project Manager to issue a certificate of Completion of the Works, and the Project Manager shall do so upon deciding that the work is completed.

53. Taking Over

53.1. The Employer shall take over the Site and the Works within seven days of the Project Manager's issuing a certificate of Completion.

54. Final Account

54.1. The Contractor shall supply the Project Manager with a detailed account of the total amount that the Contractor considers payable under the Contract before the end of the Defects Liability Period. The Project Manager shall issue a Defects Liability Certificate and certify any final payment that is due to the Contractor within 28 days of receiving the Contractor's account if it is correct and complete. If it is not, the Project Manager shall issue within 28 days a schedule that states the scope of the corrections or additions that are necessary. If the Final Account is still unsatisfactory after it has been resubmitted, the Project Manager shall decide on the amount payable to the Contractor and issue a payment certificate.

55. Operating and Maintenance Manuals

55.1. If "as built" Drawings and/or operating and maintenance manuals are required, the Contractor shall supply them within 14 days after completion of the component/ milestone.

55.2. If the Contractor does not supply the Drawings and/or manuals by the dates stated in GCC 55.1, or they do not receive the Project Manager's approval, the Project Manager shall withhold 5% of the next interim payment due to the Contractor.

56. Termination

- 56.1. The Employer or the Contractor may terminate the Contract if the other party causes a fundamental breach of the Contract.
- 56.2. Fundamental breaches of Contract shall include, but shall not be limited to, the following:
- (a) the Contractor stops work for 15 days when no stoppage of work is shown on the current Program and the stoppage has not been authorized by the Project Manager;
 - (b) the Project Manager instructs the Contractor to delay the progress of the Works, and the instruction is not withdrawn within 8 days;
 - (c) the Employer or the Contractor is made bankrupt or goes into liquidation other than for a reconstruction or amalgamation;
 - (d) a payment certified by the Project Manager is not paid by the Employer to the Contractor within 84 days of the date of the Project Manager's certificate; at least 15 days before the expiry of 84 days' time period, the contractor should address a letter informing the same and requesting for early release of payment.
 - (e) the Project Manager gives Notice that failure to correct a particular Defect is a fundamental breach of Contract and the Contractor fails to correct it within a reasonable period of time determined by the Project Manager;
 - (f) the Contractor does not maintain a Security, which is required; and
 - (g) the Contractor has delayed the completion of the Works by the number of days for which the maximum amount of liquidated damages can be paid, as defined in the PCC.
 - (h) if the Contractor, in the judgment of the Employer has engaged in corrupt or fraudulent practices in competing for or in executing the Contract, pursuant to GCC 57.1.
- 56.3. When either party to the Contract gives notice of a breach of Contract to the Project Manager for a cause other than those listed under GCC 56.2 above, the Project Manager shall decide whether the breach is fundamental or not.
- 56.4. Notwithstanding the above, the Employer may terminate the Contract for convenience.
- 56.5. If the Contract is terminated, the Contractor shall stop work immediately, make the Site safe and secure, and leave the Site as soon as reasonably possible.

57. Fraud and Corruption

57.1. MAHAMETRO requires Contractors, Subcontractors, manufacturers & Suppliers, observe the highest standard of ethics during the procurement and execution of contract(s). In pursuit of this policy, the MAHAMETRO:

- (a) defines, for the purposes of this provision, the terms set forth below as follows:
 - (i) “corrupt practice” means the offering, giving, receiving, or soliciting, directly or indirectly, anything of value to influence improperly the actions of another party;
 - (ii) “fraudulent practice” means any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation;
 - (iii) “coercive practice” means impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;
 - (iv) “collusive practice” means an arrangement between two or more parties designed to achieve an improper purpose, including influencing improperly the actions of another party.
- (b) will cancel the allocated contract if MAHAMETRO determines at any time that representatives of the Contractor or sub-contractors if permitted under this contract are found to be engaged in corrupt, fraudulent, collusive or coercive practices during the procurement or the execution of that contract, without the Contractor having taken timely and appropriate action satisfactory to the MAHAMETRO

and or competent authority to remedy the situation the said contract would be terminated; and
- (c) will sanction a firm or individual, including declaring them ineligible, either indefinitely or for a stated period of time, to be awarded a MAHAMETRO financed contract if it at any time determines that they have, directly or through an agent, engaged in corrupt, fraudulent, collusive or coercive practices in

competing for, or in executing, a MAHAMETRO-financed contract.

58.Payment upon Termination

58.1. If the Contract is terminated because of a fundamental breach of Contract by the Contractor, the Project Manager shall issue a certificate for the value of the work done and Materials ordered less advance payments received up to the date of the issue of the certificate and less the percentage to apply to the value of the work not completed, as indicated in the PCC. Additional Liquidated Damages shall not apply. If the total amount due to the Employer exceeds any payment due to the Contractor, the difference shall be a debt payable to the Employer.

The Contractor shall comply with all applicable national and local environmental laws and regulations.

The Contractor shall (a) establish an operational system for managing environmental impacts, (b) carry out all the monitoring and mitigating measures as set forth in Project's Environmental Management Plan (EMP), attached here to as Appendix 1 (the actual costs for the implementation of such measures shall be reimbursed by the Employer from provision sums). The contractor shall submit to the Employer quarterly report on the carrying out of such measures.

The Contractor Shall :(a) comply with all applicable labor laws, and (b) provide equal pay for men and women for work of equal value or type. The Contractor shall not employ child labor, as defined in national legislation for construction and maintenance activities.

The Contractor shall give priority to the employment of local people, who meet the job and efficiency requirements, for the Contract works.

The Contractor shall not employ for the contract works (a) any person that has relationship with any of the officials of the Contractor (i.e., spouses or first blood relations), and (b) any person who retired, within the last two years, as a gazette officer from any department of the government of Maharashtra.

58.2. If the Contract is terminated for the Employer's convenience or because of a fundamental breach of Contract by the Employer, the Project Manager shall issue a certificate for the value of the work done, Materials ordered, the reasonable cost of removal of Equipment, repatriation of the Contractor's personnel employed solely on the

Works, and the Contractor's costs of protecting and securing the Works, and less advance payments received up to the date of the certificate.

59. Property

59.1. All Materials on the Site, Plant, Equipment, Temporary Works, and Works shall be deemed to be the property of the Employer if the Contract is terminated because of the Contractor's default.

60. Release from Performance

60.1. If the Contract is frustrated by the outbreak of war or by any other event entirely outside the control of either the Employer or the Contractor, the Project Manager shall certify that the Contract has been frustrated. The Contractor shall make the Site safe and stop work as quickly as possible after receiving this certificate and shall be paid for all work carried out before receiving it and for any work carried out afterwards to which a commitment was made.

61. Suspension of Loan or Credit

Deleted

62. Eligibility

62.1. The Contractor shall have the Indian nationality. The Contractor shall be deemed to have the nationality of a country if the Contractor is a citizen or is constituted, or incorporated, and operates in conformity with the provisions of the laws of that country. This criterion shall also apply to the determination of the nationality of proposed subcontractors or suppliers for any part of the Contract including related services.

62.2. The materials, equipment and services to be supplied under the Contract shall have their origin in India and all expenditures under the Contract will be limited to such materials, equipment, and services. At the Employer's request, the Contractor may be required to provide evidence of the origin of materials, equipment and services..

62.3. For purposes of GCC 62.2, "origin" means the place where the materials and equipment are mined, grown, produced or manufactured, and from which the services are provided. Materials and equipment are produced when, through manufacturing, processing, or substantial or major

assembling of components, a commercially recognized product results that differs substantially in its basic characteristics or in purpose or utility from its components.

63. Indemnities

- 63.1. Each party shall be liable for and indemnify the other Party against losses, expenses and claims for loss or damage to physical property, personal injury, and death caused by his own acts or omissions, subject to the exception defined in Clause 63.3.
- 63.2. Notwithstanding Clause 63.1 above, the Contractor shall be solely responsible for and shall indemnify and hold harmless the Employer from and against all claims, liabilities and costs of action in respect of injury to or both of any person in the employment of the Contractor or any of his Subcontractors subject to exceptions defined in clause 63.3.
- 63.3. The “exceptions” referred to in Clause 63.2 are:
 - a. the permanent use or occupation of land by the Works, or any part thereof,
 - b. the right of the Employer to execute the Works, or any part thereof, on, over, under, in or through any land
 - c. damage to property which is the unavoidable result of the execution and completion of the Works, or the remedying of any defects therein, in accordance with the Contract, and
 - d. death or injury to persons or loss of or damage to property resulting from any act or neglect of the Employer, or his agents, servants or other contractors, not being employed by the Contractor, or in respect of any claims, proceedings, damages, costs, charges and expenses in respect thereof or in relation thereto or, whether the injury or damage was contributed to by the Contractor, his servants or agents, such part of the said injury or damage as may be just and equitable having regard to the extent of the responsibility of the Employer, his servants or agents or other contractors for the injury or damage.

64. Royalties

- 64.1. Except otherwise stated, the Contractor shall pay all tonnage and other royalty charges and other payments or compensation, if any for getting stone, sand, gravel, clay or other materials required for the works.

65. Third Party Inspection and Testing

- 65.1 The representative of the concerned independent consultant appointed by the Employer will undertake independent third party inspections and testing for supply and installation pipes sewerage and all works and any civil structure or material or work as may be applicable and as desired by the Project Manager. The Contractor shall be wholly responsible to make his own arrangements with the approved third party inspection agencies for carrying out the required tests. The Contractor shall be responsible to obtain permission for and provide all facilities to such agency for carrying out such inspections or testing as may be required. The Third Party Inspection charges of the agency only will be paid by the employer and all the other costs for such independent inspection and testing shall be borne by the contractor.
- 65.2 A mutually agreed quality assurance plan with minimum requirements as per Indian Standards will be developed which provides for inspection and certification by the third party inspection agency at specified times.
- 65.3 No material shall be delivered to the site without formal inspection or testing unless otherwise waived in writing by the Project Manager with a certificate issued by the contractor, which is endorsed by the Engineer that the item confirms to the requirement of contract in all respects.
- 65.4 The Employer or his authorized representative may make inspections at any of the manufacturing or shipping points at any time in addition to the schedule provided in this specification at the cost of Employer. However, during such inspection, if it is found that any of the items are not being supplied, manufactured or transported in accordance with the specifications, the contractor shall bear all expenses including fees incurred by the employer in respect of such inspection.
- 65.5 The contractor shall perform or make arrangements for all tests when requested by the Employer.
- 65.6 The Contractor shall agree with the Project Manager on the time and place for the inspection of any materials or plant. The Project Manager shall give the contractor not less than 24 hours' notice of his intention to carry out

inspection or to attend the tests. If the Project Manager or his duly authorized representative does not attend on the date agreed, the Contractor may, unless otherwise instructed by the Project Manager, proceed with the test reports.

- 65.7 If at the time and place agreed in accordance with as mentioned in the clause 65.4 and 65.6, the materials or Plant if, as a result of the inspection or testing referred to in this Clause, the Project Manger determines that the materials or plant are defective or otherwise not in accordance with the contract, he may reject the materials or plant and shall notify the contractor there of immediately. The notice shall state the Project Manager's observations with reasons. The Contractor shall then promptly make good the defect or replace the same. If the Project Manager so requests, the tests of such material or plant shall be made or repeated under the same terms and conditions. All costs incurred by the Project Manager or the Third Party inspection agency for the inspection of the tests shall be determined by the Project Manager and shall be recoverable from the contractor and may be deducted from any money's due that the Contractor and the Project Manager shall notify the Contractor accordingly.
- 65.8 Any inspection carried out by the Project Manager shall not relieve the contractor of his obligations under the contract.

66. Licenses for Explosives

The Contractor should take necessary licenses under the current explosive rules to enable him to manufacture and process the quantity of gunpowder / explosive and perform the blasting as necessary according to prevailing rules.

67. Incomplete or unattended defective works or delays

The Employer has the right to get the uncompleted works done by other competent contractors at the risk and cost of the contractor in the following circumstances:

- a) If the contract is terminated for the reasons attributable to the contractor
- b) If the Contractor has delayed the work as per the schedule with no justifiable reasons.
- c) If the Contractor fails to correct any defects in the work within the period stated in the defects notice sent by the Project Manager to the Contractor.
- d) If the Contractor does not meet any of its obligations within the time frame of the contract specified in Section VI, GCC or Section VII, PCC

68. Contractor's General Responsibilities

- 68.1 The Contractor shall, with due care and diligence, execute and complete the Works and remedy any defects therein accordance with the provisions of the Contract. The Contractor shall provide all superintendence, labour, materials, Plant, Contractor's Equipment and all other things, whether of a temporary or permanent nature, execution, completion and remedying of any defects, so far as the necessity for providing the same is specified in or is reasonably to be inferred from the Contract.
- 68.2 The Contractor shall promptly notify the Employer, of any error, omission, fault or other defect in the design of or Specification for the Works which he discovers when reviewing the Contract or executing the Works.
- 68.3 The Contractor shall take full responsibility for the adequacy, stability and safety of all Site operations and methods of construction. Provided that the Contractor shall not be responsible (except as stated hereunder or as may be otherwise agreed) for the design or specification of Permanent Works, not prepared by the Contractor. Where the Contract expressly provides that part of the Permanent Works shall be designed by the Contractor, he shall be fully responsible for that part of such Works, notwithstanding any approval by the Employer.
- 68.4 The Contractor shall provide all necessary superintendence during the execution of the Works and as long as thereafter as the Project Manager may consider necessary for the proper fulfilling of the Contractor's obligations under the Contract. The Contractor, or a competent and authorized representative approved of by the Project Manager, which approval may at any time be withdrawn, shall give his whole time to the superintendence of the Works. Such authorized representative shall receive, on behalf of the Contractor, instructions from the Engineer. If the approval of the representative is withdrawn by the Project Manager, the Contractor shall, as soon as is practicable, having regard to the requirement of replacing him as hereinafter mentioned, after receiving notice of such withdrawal, remove the representative from the Works and shall not thereafter employ him again on the Works in any capacity and shall replace him by another representative approved by the Project Manager.
- 68.5 The Contractor shall be responsible for:

- a. the accurate setting-out of the Works in relation to original points, lines and levels of reference given by the Engineer in writing,
- b. the correctness, subject as above mentioned, of the position, levels, dimensions and alignment of all parts of the Works, and
- c. The provision of all necessary instruments, appliances and labour in connection with the foregoing responsibilities.
- d. Security of the site

If, any time during the execution of the Works, any error appears in the position, levels, dimensions or alignment of any part of the Works, the Contractor, on being required so to do by the Project Manager, shall, at his own cost, rectify such error to the satisfaction of the Project Manager, unless such error is based on incorrect data supplied in writing by the Project Manager, in which case the Project Manager shall determine an addition to the Contract Price as per the relevant provisions of the contract and shall notify the Contractor accordingly.

The checking of any setting-out or of any line by the Project Manager shall not in any way relieve the Contractor of his responsibility for the accuracy thereof and the Contractor shall carefully protect and preserve all bench-marks, sight-rails, pegs and other things used in setting-out the Works.

69. Water for works and workforce

- 69.1 The contractor at his own expenses should provide water from municipal mains or other sources for the use of work and workmen.

70. Project Manager and Project Manager's representative

- 70.1 The Project Manager is the representative of the Employer and the contractor is bound to take all his instructions as that of the employer. The Project Manager shall represent the employer in all dealings with the Contractor concerning the work, including administering contract, certifying payments due to the contractor, issuing and valuing variations, awarding extension of times and valuing compensation events as per the powers delegated to him by the employer and after taking necessary approvals.
- 70.2 The Project Manager's representative who would be appointed to assist the Project Manager would be notified to the Contractor. The Employer /

Project Manager may employ any other additional representative for managing this contract.

- 70.3 The Project Manager may from time to time delegate any of his duties and authorities, to his representative, and he may at any time revoke such delegation. Any such delegation or revocation shall be in writing and shall not take effect until copy thereof has been delivered to the Employer and the Contractor.
- 70.4 Any approval, check, certificate, consent, examination, inspection, instruction, Notice, proposal, request, test or similar act by the Project Managers representative, in accordance with the delegation, shall have the same effect as though the act had been an act of the Project Manager. However:
- a. any failure to disapprove any work, Plant, Materials or any part of the constructed work shall not constitute approval, and shall therefore not prejudice the right of the Employer's Representative to reject the work, Plant, Materials or any part of the Operation Service; and
 - b. if the Contractor questions any determination or instruction of an assistant, the Contractor may refer the matter to the Project Manager, who shall promptly confirm, reverse or vary the determination or instruction.
- 70.5 The Project Manger's representative may appoint any number of persons to assist the Project Manager's representative in carrying out his duties. He shall notify to the Contractor the names, duties and scope of authority of such persons.

71. Alterations, Additions and Omissions

- 71.1 The Project Manager shall make any variation of the form, quality or quantity of the Works or any part thereof that may, in his opinion, be necessary and for that purpose, or if for any reason it shall, in his opinion appropriate he shall have the authority to instruct the Contractor to do and the Contractor shall do any of the following:
- (a) increase or decrease the quantity of any work included in the Contract,
 - (b) omit any such work
 - (c) change the character or quality or kind of any such work,

- (d) change the levels, lines, position and dimensions of any part of the Works,
- (e) execute additional work of any kind necessary for the completion of the Works, or
- (f) change any specified sequence or timing of construction of any part of the Works.

No such variation shall in any way vitiate or invalidate the Contract, but the effect, if any, of all such variations shall be valued in accordance with relevant provisions of the Contract. Provided that where the issue of an instruction to vary the Works is necessitated by some default of or breach of contract by the Contractor or for which he is responsible, any additional cost attributable to such default shall be borne by the Contractor.

72. Site Order Book

- 72.1 A site order book is to be maintained at site by the contractor for issue of necessary instructions during the site visits. It is binding on the contractor to enforce such instructions and if the compliance of such instructions would have financial implications, the contractor need to inform the Project Manager on the financial implications on executing the instruction, obtain his permission, and sanction before executing such works. No additional payment would be made on the basis of the instructions of the site order alone. The site in charge of the Employer and the Contractor should sign both while issuing the order and after compliance. The site order book needs to be serially numbered. The site order should be maintained by the contractor throughout the work and submitted to the Project Manager before the payment of the final bill.

73. Measurement Book

- 73.1 All measurements should be recorded directly in the Measurement Book as per the instructions printed in the Measurement Book.

74. Safety, Security and Protection of the Environment

- 74.1 Accidents – Hoarding – Lighting – Observations – Watchmen:

The contractor shall be responsible for the safety of the labour employed by him and he shall be liable for payment of necessary compensation in the case of accidents as per workers compensation act.

- a) When excavations have been made or obstacles have been put in public through-fares or in places where there is likelihood of accidents, the contractor shall comply with any requirement of law on the subject and shall provide suitable Hoarding- Lighting, watchmen when and where necessary or required by the Project Manager or by any duly constituted authority, for protection of works and safety and convenience of the public or others. In case of excavations on roads, a traffic diversion plan should be made and got approved by the concerned authorities.
- b) It shall be the contractor's sole responsibility to protect the public and its employees against the accident from any cause and he shall indemnify the Government against any claims for damages for injury to person or property, resulting from any such accidents and he shall, where the provisions of the Workmen's Compensation Act apply, take steps to properly insure against any claims thereafter.
- c) On the occurrence of an accident which results in the death of any of the workmen employed by the contractor or which is so serious as to be likely to result in the death of any such workmen, the contractor shall within 24 hours of the happening of such accidents, intimate the employer in writing, the fact of such accident. The contractor shall indemnify Government against all loss or damage sustained by the Government resulting directly or indirectly from his failure to give intimation in the manner aforesaid including the penalties or fines if any payable by the Government as a consequence of Government's failure to give notice under the Workmen's Compensation Act or otherwise confirm to said Act in regard to such accident.
- d) In the event of an accident in respect of which compensation may become payable under the workmen's Compensation Act VIII of 1923 whether by the Contractor or by the Government as principal it shall be lawful for the Project Manger to retain out of moneys due and payable to the contractor such sum or sums of money as may, the opinion of the Project Manager shall be final in regard or all matters arising under this clause.

74.2 Noise, Disturbance and Pollution:

Works shall be carried out without unreasonable noise and disturbance. The Contractor shall indemnify the Employer from and against any liability for damages on account of noise or other disturbances created while executing the Works and from against all claims, demands, proceedings, damages, costs, charges and expenses whatsoever in regard or in relation to such liability. Necessary permissions as may be required from Pollution Control Board or any other regulatory authority shall have to be obtained by the Contractor for erecting and operating any plant or machinery and for other operations required for the execution of the Works in the Contract.

74.3 Site Sanitation:

The contractor should provide and erect prior to commencement of the work sufficient latrines for the use of workmen, both males and females and should keep the same disinfected and clean all times during the progress of the work and remove the same and restore to original ground on completion of the works.

74.4 HIV/AIDS awareness and prevention program:

It is obligatory as a part of the Contractor to carryout HIV / AIDS awareness and prevention program, and dissemination of information on worksites on risks of sexually transmitted diseases and HIV/AIDS as a part of health and safety measures for those employed under the Contract.

74.5 The Contractor shall comply with all applicable environmental laws and regulations and the Contractor shall

- (a) establish an operational system for managing environmental impacts,
- (b) carry out all of the monitoring and mitigation measures set forth in the Initial Environmental Assessment (IEE) or Environmental Impact Assessment (EIA) and Environment Management Plan (EMP) attached hereto as Appendix 1
- (c) allocate the budget required to ensure that such measures are carried out, and the actual costs for the implementation of such measures shall be reimbursed by the Employer to the Contractor from Provisional Sum. The

Contractor shall submit to the Employer quarterly reports of the carrying out of such measures.

75. Labour

- 75.1 The contractor shall, unless otherwise provided in the Contract, make his own arrangements for the engagement of all staff and labour, local or other, and for their payment, housing, feeding and transport.
- 75.2 It is mandatory to the contractor to register all the labours he is engaging at site with the concerned authorities.
- 75.3 The Contractor shall, if required by the Project Manager, deliver to the Project Manager a return in detail, in such form and at such intervals as the Project Manager may prescribe, showing the staff and the numbers of the several classes of labour from time to time employed by the Contractor on the Site and such other information as the Project Manager may require
- 75.4 Except otherwise stated in the contract, the Contractor shall provide and maintain all necessary accommodation and welfare facilities for the contractor's personnel. Further the Contractor shall at all times during the contract period take all reasonable precautions to maintain the health and safety of the contractor's personnel.
- 75.5 The Contractor shall at all times take all reasonable precautions to prevent any unlawful, riotous or disorderly conduct by or amongst the Contractor's Personnel, and to preserve peace and protection of persons and property on and near the Site.
- 75.6 The Contractor may bring in to India any foreign personnel who are necessary for the execution of the Works to the extent allowed by the applicable Laws. The Contractor shall ensure that these personnel are provided with the required residence visas and work permits. The Contractor shall be responsible for the return of these personnel to the place where they were recruited or to their domicile. In the event of the death in India of any of these personnel or members of their families, the Contractor shall similarly be responsible for making the appropriate arrangements for their return or burial.
- 75.7 The Contractor shall keep complete and accurate records of the employment of labour at the Site. The records shall include the names, ages, genders, hours worked and wages paid to all workers

76. Compliance with Labour Regulations

76.1 During continuance of the contract, the Contractor and his sub-contractors shall abide at all times by all existing labour enactments and rules made there under, regulations, notifications and bye laws of the State or Central government or local authority and any other labour law (including rules), regulations, bye laws that may be passed or notification that may be issued under any labour law in future either by the State or the Central Government or the local authority. Salient features of some of the major labour law that are applicable to construction industry are given below. The contractor shall keep the Employer indemnified in case any action is taken against the Employer by the competent authority on account of contravention of any of the provisions of any Act or Rules made there under, regulations or notifications including amendments. If the Employer is caused to pay or reimburse, such amounts as may be necessary to cause or observe, or for non-observance of the provisions stipulated in the notifications/ bye laws/ Acts/ Rules/ Regulations including amendments, if any, on the part of the Contractor, the Engineer/Employer shall have the right to deduct any money due to the Contractor including his amount of performance security. The Employer/Engineer shall also have right to recover from the Contractor any sum required or estimated to be required for making good the loss or damage suffered by the Employer.

76.2 The employees of the Contractor and the Sub Contractor in no case shall be treated as the Employees of the Employer at any point of time.

76.3 Salient features of some major labor laws applicable to establishments engaged in building and other construction work:

- a) Workmen Compensation Act 1923: The Act provides for compensation in case of injury by accident arising out of and during the course of employment.
- b) Payment of Gratuity Act 1972: Gratuity is payable to an employee under the Act on satisfaction of certain conditions on separation if an employee has completed 5 years' service or more or on death the rate of 15 days wages for every completed year of service The Act is applicable to all establishments employing 10 or more employees.

- c) Employees P.F and Miscellaneous Provision Act 1952: The Act Provides for monthly contributions by the employer plus workers @ 10% or 8.33%. The benefits payable under the Act are:
Pension or family pension on retirement or death, as the case maybe Deposit linked insurance on the death in harness of the worker.
Payment of P.F accumulation on retirement/death etc.
- d) Maternity Benefit Act 1951: The Act provides for leave and some other benefits to women employees in case of confinement or miscarriage etc.
- e) Contract labour (Regulation and Abolition) Act 1970: The Act provides for certain welfare measures to be provided by the Contractor to contract labour and in case the Contractor fails to provide, the same are required to be provided, by the Principal Employer by Law. the Principal Employer is required to take Certificate of Registration and the Contractor is required to take license from the designated officer. The Act is applicable to the establishments or Contractor of Principal Employer if they employ 20 or more contract labour.
- f) Minimum Wages Act 1948: The Employer is supposed to pay not less than the Minimum Wages fixed by appropriate Government as per provisions of the Act if the employment is a scheduled employment as per the act.
- g) Payment of Wages Act 1936: It lays down as to by what date the wages are to be paid, when it will be paid and what deductions can be made from the wages of the workers.
- h) Equal Remuneration Act 1979: The Act provides for payment of equal wages for work of equal nature to male and Female workers and for not making discrimination against Female Employees in the matters of transfers, training and promotions etc.
- i) Payment of Bonus Act 1965: The Act is applicable to all establishments employing 20 or more employees. The Act provides for payments of annual bonus subject to a minimum of 8.33% of wages and maximum of 20% of wages to employees drawing Rs.3500/ per month or less. The bonus to be paid to employees getting Rs.2500/- per month or above upto Rs.3500/- per month shall

be worked out by taking wages as Rs.2500/- per month only. The Act does not apply to certain establishments. The newly set-up establishments are exempted for five years in certain circumstances. Some of the State Governments have reduced the employment size from 20 to 10 for the purpose of applicability of this Act.

- j) Industrial Disputes Act 1947: The Act lays down the machinery and procedure for resolution of Industrial disputes, in what situations a strike or lock – out becomes illegal and what are the requirements for laying off or retrenching the employees or closing down the establishment.
- k) Industrial Employment (Standing Orders) Act 1946: It is applicable to all establishments employing 100 or more workmen (employment size reduced by some of the States and Central Government to 50) The Act provided for laying down rules governing the conditions of employment by the Employer on matters provided in the Act and get the same certified by the designated Authority.
- l) Trade Unions Act 1926: The Act lays down the procedure for registration of trade unions of workmen and employers. The Trade Unions registered under the Act have been given certain immunities from civil and criminal liabilities.
- m) Child Labour (Prohibition and Regulation) Act 1986: The Act prohibits employment of children below 14 years of age in certain occupations and processes and provides for regulation of employment of children in all other occupations and processes. Employment of Child Labour is prohibited in Building and Construction Industry.
- n) Inter-State Migrant Workmen's (Regulation of Employment and Conditions of Service) Act 1979: The Act is applicable to an establishment which employs 5 or more inter-state migrant workmen through an intermediary (who has recruited workmen in one state for employment in the establishment situated in another state). The Inter-State migrant workmen, in an establishment to which this Act becomes applicable, are required to be provided certain facilities

such as housing, medical aid, traveling expenses from home upto establishment and back, etc.

- o) The Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act 1996 and the Cess Act of 1996: All the Establishments who carry on any building or other construction work and employs 10 or more workers are covered under this Act. All such establishments are required to pay cess at the rate not exceeding 2% of the cost of construction as may be modified by the Government. The Employer of the establishment is required to provide safety measures at the Building or construction work and other welfare measures, such as Canteens, First Aid facilities, Ambulance, housing accommodations for workers near the work place etc. The employer to whom the Act applies has to obtain a registration certificate from the Registering Officer appointed by the Government.
- p) Factories Act 1948: The Act lays down the procedure for approval at plans before setting up a factory, health and safety provisions, welfare provisions, working hours, annual earned leave and rendering information regarding accidents or dangerous occurrences to designated authorities. It is applicable to premises employing 10 persons or more with aide of power or 20 or more persons without the aid of power engaged in manufacturing process.

76.4 Notwithstanding what is given in the above the acts as amended latest shall apply from time to time

77. Fair Wage Clause

77.1 The following should be followed in respect of payment of wages to the labour.

- a) The contractor shall pay not less than fair wages to labourers engaged by him on the work.
“ Fair Wages” means wage whether for time or piece work notified at the time of inviting Bids for the work and where such wages have not been so notified the wage prescribed by the Central PWD for the District in which the work is done”.

- b) The contractors shall notwithstanding the provisions of any contract to the contrary cause to be paid a fair wage to labourers indirectly engaged on the work including any labour engaged by his subcontractor in connection with the said work as if he labourers had been immediately employed by him.
- c) In respect of all labour directly or indirectly employed in the works for the performance of the Contractor's part of this agreement, the contractor shall comply with or cause to be complied with (the Central P W D Contractor's labour) regulations made by Government in regard to payment of wages, wage period deduction from wages, recovery of wages not paid and deductions unauthorized made, maintenance of wages register, other terms of employment, inspection and submission of periodical returns and all wages cards, publication of scale of wages and returns and all other matters of a like nature.
- d) The Deputy Programme Director or Subdivision Officer concerned shall have the right to deduct from the moneys due to the contractor and any sum required or estimated to be required for making good the loss suffered by a worker or workers by reasons of non-fulfilment of the conditions of the contract for the benefit of works, non-payment of wages or deductions made from his or their wages which are not justified by their terms of contract or non-observance of the regulations.
- e) Vis – a Vis the Central Government the Contractor shall be primary liable for all payment to be made under the observance of the regulations aforesaid without prejudice to his right to claim from this subcontractors.
- f) The regulation aforesaid shall be deemed to be a part of this contract and breach there shall, be a breach of this contract.

78. Recovery of compensation paid to workmen

In every case in which by virtue of the provisions in GCC, of the workmen's compensation act 1923, Employer is obliged to pay compensation to a workman employed by the contractor, in execution of the works Employer will recover from the contractor, the amount of compensation so paid ; and without prejudice to the right of the Employer under GCC , of the said act Employer shall be at liberty to recover such amount or any part thereof by deducting it from the security deposit

or any sum due to the Employer to the contract whether under this contract or otherwise. Employer shall not be bound to contest any claim made against it under GCC of the said act except on the written request of the contractor and upon his giving to Employer full security for all costs for which Employer become liable in consequence of contesting such claim.

79. Ensuring Maharashtra Labour Protection Act 1996

In every case in which by virtue of the provisions of Maharashtra Labour Protection Act Employer shall be at liberty or to recover such amount or any part thereof by deducting it from the Security Deposit or any sum due by Employer to the contractor under this contract or otherwise.

1. The contractor must employ local people whose nationality is not in doubt for execution of works in Maharashtra.
2. The labourers employed by the contractor should be of Indian origin only.
3. The Contractor shall obtain a valid certificate of Registration under Maharashtra Labour Protection Act 1996 and the rules made there under and contractor should abide by all provisions of the act and Rules aforesaid as may be required from time to time regarding wages and other working conditions.
4. No labour below the age of 14 years shall be employed on the work and the contractor shall pay not less than fair wages to labourer engaged by him on the work.
5. The contractor shall comply with the provisions of the payment of wages act 1936 Minimum Wages Act 1948 Employees Labour (Regulation and Abolition) Act 1970 or the modifications thereof or any other laws relating thereto and the rules made there under from time to time by the state Government.

F. General Conditions of Contract:

80. General

- 1 ACM/ACP supplier shall provide technical assistance to the selected converters using their material. The training/ assistance to include advice on the use of appropriate equipment and hardware for ACM/ACP fabrication and installation. The training/ assistance to include training to the selected ACM/ACP converters' personnel in India/ Abroad, for correct methodology to be adopted for ACM/ACP fabrication and installation.

- 2 Engineer-in-Charge may ask for training schedule/ report from the converter and/ or manufacturer under (inter-alia) following conditions:
 - Inability to produce designs as per specifications despite efforts on the part of the converter.
 - If the workmanship of signage elements is found to be unacceptable/ poor.
 - No further application of paint by means of any method shall be permitted after first painting of ACM/ACP at the manufacturer's factory. No repair/ touch-up of factory finished paint coated surface shall be permitted at any time. Engineer-in-Charge may reject such sign elements at no cost to NMRL.

81. Drawings:

- 1 The Engineer will supply to the Contractor profile drawings showing sizes of all structural members and typical connection details.
- 2 Should there be any discrepancy in the drawings the Contractor is to refer the matter to the Engineer. The Contractor shall further provide a drawing showing the accurate setting out to line and level of all the anchor bolts intended for the work in sufficient time for their inclusion in the work so as to maintain the building program.
- 3 The Contractor is to prepare all the necessary fabrication shop drawings and these shall be submitted to the Engineer in duplicate and be approved by him before fabrication is commenced. All such drawings shall show the dimensions of all parts, method of construction, welding and bolting. A further set of all approved fabrication drawings shall be supplied by the Contractor for use of the Engineer as required.
- 4 Approval by the Engineer of drawings or any other particulars submitted by the Contractor shall not relieve the Contractor of full responsibility for any discrepancies, errors or omissions therein. The Contractor shall at his own expense supply such additional copies of his working drawings as are required for the use of the interested parties.

82. Workmanship and Fabrication:

- 1 For all the works, workmanship shall be of first class quality, throughout, in conformity with IS:800 (latest), and true to line, level and dimension as shown in the drawings or instructed by the Engineer.
- 2 All parts assembled for bolting shall be in close contact over the whole surface and all bearing stiffeners shall bear tightly at top and bottom without being drawn or caulked. The component parts shall be so assembled that they are neither twisted nor otherwise damaged as specified cambers if any shall be provided. Drilling done during assembling shall not distort the metal or enlarge

- holes. The butting surfaces at all joints shall be so cut and milled so as to butt in close contact throughout the finished joints.
- 3 Cutting shall be done automatically. Hand flame cutting will not be permitted.
 - 4 The edges and ends of all cut/sheared flange plates, web plates of plate girders, and all cover plates, and the ends of all angles, tees, channels and other sections forming the flanges of plate girders, shall be planed/ground.
 - 5 Holes for bolts shall be drilled to conform to clause 10 of IS:7215 (1974).
Punching of holes will not be permitted. All drilling shall be free from burrs.
No holes shall be made by gas cutting process.
 - 6 All welding for the works shall be carried out by first class welders and shall be in accordance with IS:816, IS:819, IS:1024, IS:1261, IS:1323 and IS:9595. The Engineer may at his discretion order periodic tests of the welder and/or of the welds produced by them. All such tests, shall be carried out by the Contractor at his cost. Safety requirements should conform to IS:7205, IS: 7273 and IS: 7269 as applicable and should conform to safety, economy and rapidity.
 - 7 As much work as possible shall be welded in shops. The pieces shall be manipulated to ensure down hand welding for all shop joints as far as possible. All parts to be welded shall be arranged so as to fit properly on assembly. After assembly and before the general welding is to commence the parts are to be tack welded with small fillet or butt welds as the case may be. The tack welding must be strong enough to hold the parts together but small enough to be covered by the general welding. The welding procedure shall be so arranged that the distortion and shrinkage stresses are reduce to a minimum.
 - 8 All joints required in structure to facilitate transport or erection shall be shown on the drawings or as specified by the Engineer. Should the Contractor need to provide joints in locations other than those specified by the Engineer he shall submit his proposals and obtain the prior sanction of the Engineer for such joints. The lengths of structural shall be the maximum normally available in the market jointing of shorter length in order to make up lengths required shall not be permitted.
 - 9 Each piece of steel work shall be marked distinctly before delivery, indicating the position and direction in which it is to be fixed. Three copies of a complete marking plan are to be supplied to the Engineer before erection commences.
 - 10 In the case of welded fabrication any distortion remaining in the member after welding operations are completed shall be rectified by and/or at the expense of the Contractor to the approval of the Engineer.

- 11 All members of trusses and lattice girders shall be straight throughout their length, unless shown otherwise on the drawings, and shall be accurately set to the lines shown on the drawings. Sheared edges of gussets or other members to be straightened and dressed where necessary.
- 12 Templates and jigs used throughout the work shall be all steel. In cases where actual materials have been used as templates for drilling similar pieces, the Engineer shall decide whether they are fit to be used as parts of the finished structure.
- 13 Apart from the requirements of welding specified under the above sub clauses, sections above, the Contractor shall ensure the following requirements in the welded joints.
 - Strength-quality with parent metal.
 - Absence of defects.
 - Corrosion resistance of the weld shall not be less than that of parent material in an aggressive environment.
- 14 No gasket or other flexible material shall be placed between the holes. The holes in parts to be joined shall be sufficiently well aligned to permit bolts to be freely placed in position. Driving of bolts is not permitted. The nuts shall be placed so that the identification marks are clearly visible after tightening. Nuts and bolts shall always be tightened in a staggered pattern and, where there are more than four bolts in any one joint, they shall be tightened from the centre of the joint outwards.

83. Erection & Site Work:

- 1 The Contractor shall be responsible for checking the alignment and level of foundation and correctness of foundation bolt centers, well in advance of starting erection work, and shall be responsible for any consequences for non-compliance thereof. Discrepancies if any shall immediately be brought to the notice of the Engineer for his advice. The structure should be divided into erectable modules as per the total scheme. This should be pre-assembled in a suitable yard/platform and its matching with members of the adjacent module checked by trial assembly before erection. Immediately prior to erection any rust in the paint area shall be removed by power wire brushing to a standard equivalent to SA3.
- 2 During erection the rough handling of fabricated materials such as bending, straining or pounding with sledges shall be avoided. Any damage to the structure during transportation or erection shall be immediately rectified by the

Contractor at his own cost. The straightening of bend edges of plates, angles and other sections shall be done by methods which will not cause fracture. Following the completion of the straightening, the surface of the member shall carefully be inspected for damage and got approved by the Engineer before further use.

- 3 The Contractor shall be responsible for accurately positioning, leveling and plumbing of all steelwork and placing of every part of the structure in accordance with the approved drawings and to the satisfaction of the Engineer. All stanchion base, beam and girder bearings etc. shall be securely supported on suitable steel packs. All reference and datum points shall be fixed near the work site for facilitating the erection work.
- 4 All equipment used by the Contractor shall be sufficient for the purpose and for the erection of the steel work, in the time specified in the contract. Any lifting or erecting machinery shall be to the approval of the Engineer and shall be removed from the site if he considers such appliances dangerous or unsuitable for their functions. The approval of the Engineer shall not relieve the Contractor of the responsibilities for the loads to which the erection equipment shall be called upon to carry. Adequate arrangement shall be made to resist wind loads and lateral forces arising at the time of erection.
- 5 The Contractor is entirely responsible for the stability of the structure during erection and shall arrange that sufficient tack bolts, braces or guy ropes are used to ensure that work will remain rigid until final bolting, riveting or welding is completed. The Contractor shall supply and fix, without extra charge, any temporary bracing which may be necessary.
- 6 All steelwork shall be erected in the exact position as shown on the drawings. All vertical members shall be truly vertical throughout and all horizontal members truly horizontal, fabrication being such that all parts can be accurately assembled and erected. No permanent bolting, welding or grouting shall be done until proper alignment has been obtained and checked by the Engineer.
- 7 At stanchion splices and at other positions where concrete cover to the steel is liable to be restricted, bolts will be placed with their heads on the outside of the members.
- 8 All field assembly bolting and welding shall be executed in accordance with the requirements for shop fabrication excepting such as manifestly apply to shop conditions only. Where steel has been delivered painted the paint shall be removed before field welding for a distance of at least 50mm on either side of the joints. The number of washers on permanent bolts shall not be more than two for the nut and one for the bolt head.

84. Inspection:

The contractor shall inform the Engineer of the progress in fabrication and as to when individual pieces are ready for inspection. All gauge templates necessary to satisfy the Engineer shall be supplied by the contractor. The Engineer may at his discretion check the results obtained at the contractor's works by independent tests and should the material so tested be found unsatisfactory, the cost of such tests shall be borne by the contractor. During Inspection, the component/member shall not have any load or external restraint.

85. Force Majeure**85.1 Definition of Force Majeure**

In this Clause, "Force Majeure" means an exceptional event or circumstance:

- (a) which is beyond a Party's control,
- (b) which such Party could not reasonably have provided against before entering into the Contract,
- (c) which, having arisen, such Party could not reasonably have avoided or overcome, and
- (d) which is not substantially attributable to the other Party.

Force Majeure may include, but is not limited to, exceptional events or circumstances of the kind listed below, so long as conditions (a) to (d) above are satisfied:

- (i) war, hostilities (whether war be declared or not), invasion, act of foreign enemies,
- (ii) rebellion, terrorism, sabotage by persons other than the Contractor's Personnel, revolution, insurrection, military or usurped power, or civil war,
- (iii) riot, commotion, disorder, strike or lockout by persons other than the Contractor's Personnel,
- (iv) munitions of war, explosive materials, ionising radiation or contamination by radio-activity, except as may be attributable to the Contractor's use of such munitions, explosives, radiation or radio-activity, and
- (v) natural catastrophes such as earthquake, hurricane, typhoon or volcanic activity.

- 85.2 Notice of Force Majeure** If a Party is or will be prevented from performing its substantial obligations under the Contract by Force Majeure, then it shall give notice to the other Party of the event or circumstances constituting the Force Majeure and shall specify the obligations, the performance of which is or will be prevented. The notice shall be given within 14 days after the Party became aware, or should have become aware, of the relevant event or circumstance constituting Force Majeure.
- The Party shall, having given notice, be excused performance of its obligations for so long as such Force Majeure prevents it from performing them.
- Notwithstanding any other provision of this Clause, Force Majeure shall not apply to obligations of either Party to make payments to the other Party under the Contract.
- 85.3 Duty to Minimise Delay** Each Party shall at all times use all reasonable endeavours to minimise any delay in the performance of the Contract as a result of Force Majeure.
- A Party shall give notice to the other Party when it ceases to be affected by the Force Majeure.
- 85.4 Consequences of Force Majeure** If the Contractor is prevented from performing his substantial obligations under the Contract by Force Majeure of which notice has been given under Sub-Clause 85.2 [Notice of Force Majeure], and suffers delay and/or incurs Cost by reason of such Force Majeure, the Contractor shall be entitled subject to:
- (a) an extension of time for any such delay, if completion is or will be delayed, and
 - (b) if the event or circumstance is of the kind described in sub-paragraphs (i) to (iv) of Sub-Clause 85.1 [Definition of Force Majeure] and, in sub-paragraphs (ii) to (iv), occurs in the Country, payment of any such Cost, including the costs of rectifying or replacing the Works and/or Goods damaged or destroyed by Force Majeure, to the extent they are not indemnified through the insurance policy.
- 85.5 Force Majeure Affecting Subcontractor** If any Subcontractor is entitled under any contract or agreement relating to the Works to relief from force majeure on terms additional to or broader than those specified in this Clause, such additional or broader force majeure events or circumstances shall not excuse the Contractor's non-performance or entitle him to relief under this Clause.
- 85.6 Optional Termination, Payment and Release** If the execution of substantially all the Works in progress is prevented for a continuous period of 84 days by reason of Force Majeure of which notice has been given under Sub-Clause 85.2 [Notice of Force Majeure], or for multiple periods which total

more than 140 days due to the same notified Force Majeure, then either Party may give to the other Party a notice of termination of the Contract. In this event, the termination shall take effect 7 days after the notice is given, and the Contractor shall proceed in accordance with Clause 56.

Upon such termination, the Engineer shall determine the value of the work done and issue a Payment Certificate which shall include:

- (a) the amounts payable for any work carried out for which a price is stated in the Contract;
- (b) the Cost of Plant and Materials ordered for the Works which have been delivered to the Contractor, or of which the Contractor is liable to accept delivery: this Plant and Materials shall become the property of (and be at the risk of) the Employer when paid for by the Employer, and the Contractor shall place the same at the Employer's disposal;
- (c) other Cost or liabilities which in the circumstances were reasonably and necessarily incurred by the Contractor in the expectation of completing the Works;
- (d) the Cost of removal of Temporary Works and Contractor's Equipment from the Site and the return of these items to the Contractor's works in his country (or to any other destination at no greater cost); and
- (e) the Cost of repatriation of the Contractor's staff and labour employed wholly in connection with the Works at the date of termination.

85.7 Release from Performance

Notwithstanding any other provision of this Clause, if any event or circumstance outside the control of the Parties (including, but not limited to, Force Majeure) arises which makes it impossible or unlawful for either or both Parties to fulfil its or their contractual obligations or which, under the law governing the Contract, entitles the Parties to be released from further performance of the Contract, then upon notice by either Party to the other Party of such event or circumstance:

- (a) the Parties shall be discharged from further performance, without prejudice to the rights of either Party in respect of any previous breach of the Contract, and
- (b) the sum payable by the Employer to the Contractor shall be the same as would have been payable under Sub-Clause 85.6 [Optional Termination, Payment and Release] if the Contract had been terminated under Sub-Clause 85.6.

Section VII - Particular Conditions of Contract

The following Particular Conditions of Contract shall supplement the GCC.

Whenever there is a conflict, the provisions herein shall prevail over those in the GCC.

A. GENERAL

GCC 1.1 (q)	Maharashtra Metro Rail Corporation Ltd (Maha-Metro) through Executive Director (Procurement), Maharashtra Metro Rail Corporation Ltd, "Metro Bhawan", VIP Road, Near Dikshabhoomi, Nagpur 440010
GCC 1.1 (u)	The Intended Completion Date for the whole of the Works shall be 01 Year.
GCCs 1.1 (aa) & 4.1	The Project Manager or Engineer-in-Charge is JGM(MMI), MAHAMETRO, Nagpur or as appointed by Employer.
GCC 1.1 (cc)	Airport, Ujwal Nagar, Congress Nagar Metro Stations of Reach 1, Dharampeth College Metro Stations of Reach 3, Zero Mile, Kasturchand Park of Reach 2 and Agrasen Square, Telephone Exchange, Vaishnao Devi Square Metro Stations of Reach 4 for Nagpur Metro Rail Project.
GCC 1.1 (ff)	The Start Date shall be date of issue of LOA.
GCC 1.1 (jj)	The work consist of Providing & Fixing of Retro Reflectorized, Star Flex & Vinyl Informatory sign board at 9 Metro Stations for Nagpur Metro Rail Project.
GCC 2.3	Any other written agreement reached between the Employer and contractor further to the award of contract shall be in line with the original bidding document only, there will be no contradiction with respect to the clauses, terms and conditions of the original conditions of the contract.
GCC 3.1	The law that applies to the Contract is the law of Union of India and State of Maharashtra. Where there is a conflict between the two , The laws of Union of India shall prevail.
GCC 6.1	Agreed methods of electronic transmission are as given in the address of communications given below Executive Director (Procurement), Maharashtra Metro Rail Corporation Ltd, "Metro Bhawan", VIP Road, Near Dikshabhoomi, Nagpur 440010 Telephone: (0712)2554217 Email: md.nmrc.tenders@gmail.com
GCC 8.1	Schedule of other contractors: All working Contractors at Station.
GCC 13.1.1 (b)	Insurance for an additional sum of 15 per cent of replacement cost, to cover any additional costs of and incidental to the rectification of loss or damage including professional fees and cost of demolishing and removing any part of the work and of removing debris of whatsoever nature "it being understood that such insurance shall provide

	for compensation to be payable to rectify the loss or damage incurred”
GCC 13.1.5	Third Party Insurance: Insurance shall be for at least 1 % (one percent of the contract amount) subject to a minimum of Rs.1,00,000/- (One lac) per occurrence with number of occurrences unlimited
GCC 15.1	All Good for Construction drawings for execution of work will be given by the Project Manager/ Employer as per the work plan submitted by the Contractor.
GCC 17.1	If during the execution of the works, the contractor finds that the design issued by the Project Manager are in not conformity to the accepted codal provision and sound engineering practice and puts to risk the stability of the works being built, then the contractor may move change proposal/ variation in accordance with GCC sub clause 37
GCC 20.1	The Site Possession Date(s) shall be: the site shall be handed over to the contractor within 7 days from the date of issue of instruction of work commencement.
GCC 23.1	Appointing Authority for the Adjudicator: MD, Maha-Metro
GCC 24	Arbitrators will be selected from the Panel of Arbitrators of Maha-Metro.

B. TIME CONTROL

GCC 25.3	The amount to be withheld for late submission of an updated Program is an amount equal to 5 % of the next interim payments
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C. QUALITY CONTROL

GCC 31.3	The Contractor shall notify the defects/ errors in the design/ drawings within 15 days of issue by the Project Manager
GCC 33.1	The Defects Liability Period is: 1 (one) year from the date of issue of Certificate of Completion.

D. COST CONTROL

GCC 44.1	<p>Price Adjustment Clause is Not Applicable for the first 12 months. However, after 12 months, the price adjustment is applicable only if the delay is not on Contractor's account. The price adjustment shall be payable/recoverable to the Contractor, in accordance with the Contract, subject to adjustment during extended period of the Contract to reflect changes in the cost of labor and material components, in accordance with the following formula:</p> $P_1 = P_0 \times \left(a + b \frac{L_1}{L_0} + c \frac{M_1}{M_0} \right) - P_0$ <p>Where, P1 = adjustment amount payable to the Contractor P0 = Contract price (base price) a = percentage of fixed element in Contract price (a=25 %) b = percentage of labor component in Contract price (as given table below) c = percentage of material and equipment component in Contract price (as given in table below) L0, L1 = labor indices applicable i.e. Consumer Price Index for Industrial workers provided by Labour Bureau of Government of India applicable for Nagpur region on the base month and the month for adjustment, respectively. M0, M1= For material and equipment, index will be Wholesale Price Index of All Commodities published by RBI on the base month and the month for adjustment, respectively. Base month is last month of original completion period. Month for adjustment is month for which work is carried out for the extended period. Table showing percentage of material and labour component for General Civil Works Labor (b = 22.5%) and Materials (c = 52.5%)</p>
GCC 45 (Deleted)	
GCC 46.1	<p>In the event that the contractor fails to comply with the Intended Time of completion for the whole of the Works, or, if applicable, any section within the relevant time, then the Contractor shall pay liquidated damage to the Employer at the rate of 0.1% (zero point one percent) per day. The maximum amount of liquidated damages for the whole of the works is 10% (ten percent) of the final contract price. Whether the asset is put to use or not the Liquidated Damages will be levied for any delay in completion of works as a part of commitment on the part of the contractor.</p>
GCC 48.1	<p>The Advance Payment is not applicable to this Contract.</p>

GCC 48.3	<p>(Not applicable to this contract)</p> <p>The advance payment shall be recovered at a rate of minimum of 10 % (ten percent) of the amount of advance payment from bill succeeding after 20% payment has been made until the full advance paid has been recovered. However the Project Manager has the liberty to recover more than 10 % amount if he feels the pattern of submission of bills of the contractor warrants deduction of more amount for recovery of advance amount. If the advance amount is not recovered fully before the original time period of completion, interest will be charged @ (SBI PLR+3) % for the outstanding amount.</p> <p>Should there be any delay in progress and completion of work, as a result of which it is not possible to recover the advance and interest thereon, before the original date of completion stipulated in the contract, then the interest to be charged from the Contractor on the remaining portion of advance beyond the completion date specified in the contract, shall be (SBI PLR+3)%.</p> <p>The interest will be calculated from the first day of the month in which an advance is paid to the Contractor and it will be calculated up to the last day of the month in which the recovery is made. Interest for the month would be calculated on the month principal outstanding on the first day on the month.</p>
GCC 49.1	The Performance Security in the form unconditional and irrevocable bank guarantee issued by a Nationalized Bank/Scheduled Bank located in India for an amount of 3 % of the Contract price. The performance security shall be valid up to 28 days beyond completion of defect liability period.
GCC 49.2 (Added clause)	On termination of contract due to Contractor's default the performance security shall be forfeited by encashing the bank guarantee/FDR/TDR/Cash retention or Performance security in any other form (as the case may be) and the balance work shall be got done independently without risk and cost of the failed Contractor. The failed Contractor shall be debarred from participating in the tender for executing the balance work.

E. FINISHING OF CONTRACT

GCC 56(b)	The contractor has to approach the Project Manager at least 28 days prior to the expiry of time period to get the revised instructions.
GCC 56.2 (g)	The maximum number of days is: 100 days.
GCC 58.1	The first para of GCC 58.1 i.e. "If the Contract is terminated because of a fundamental breach of Contract by the Contractor, the Project Manager shall issue a certificate for the value of the work done and Materials ordered less advance payments received up to the date of the issue of the certificate and less the percentage to apply to the value of the work not

	<p>completed, as indicated in the PCC. Additional Liquidated Damages shall not apply. If the total amount due to the Employer exceeds any payment due to the Contractor, the difference shall be a debt payable to the Employer.”, is replaced as follows:</p> <p>If the Contract is terminated because of a fundamental breach of Contract by the Contractor, the performance security shall be forfeited and the failed Contractor shall be debarred from participating in the tender for executing the balance work. Additional Liquidated Damages shall not apply. In such case, the balance work shall be got done independently without risk and cost of the failed Contractor. The Project Manager shall issue a certificate for the value of the work done and Materials ordered less advance payments received up to the date of the issue of the certificate. If the total amount due to the Employer exceeds any payment due to the Contractor, the difference shall be a debt payable to the Employer.</p> <p>In other case, if the contractor fails to adhere to the agreed programme of work by margin of 10% of the stipulated period or 21 days, whichever is earlier, 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, the Employer at its sole discretion may only part/limit the scope/ de-scope part of the work of the contract also by taking out some part of the total scope of work and may complete or arrange for any other entity through the process of open/limited/single tender or by calling quotations. In such case, the addition financial implications @ 20% of value of descoped work shall be debited/ recovered from the any monies due to contractor and/or performance security.</p>
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Section VIII - Contract Forms

This Section contains forms which, once completed, will form part of the Contract. The forms for Performance Security and Advance Payment Security, when required, shall only be completed by the successful Bidder after contract award.

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Notification of Award

---- on letterhead paper of the employer ----

Letter of Acceptance

..... [date]

To: [Name and address of the contractor]

Subject: [Notification of Award Contract No.]

This is to notify you that your Bid dated [date] for execution of the [name of the contract and identification number, as given in the Bid Data Sheet] for the Accepted Contract Amount of the equivalent of [amount in words and figures and name of currency], as corrected and modified in accordance with the Instructions to Bidders, is hereby accepted by our Agency.

You are requested to furnish the Performance Security within 28 days in accordance with the Conditions of Contract, using for that purpose the Performance Security Form included in Section IX (Contract Forms) of the Bidding Document.

Authorized Signature:

Name and Title of Signatory:

Name of Agency:

Attachment: Contract Agreement

Contract Agreement

THIS AGREEMENT made the[day of],, between [name of the employer] (hereinafter “the Employer”), of the one part, and [name of the contractor] (hereinafter “the Contractor”), of the other part:

WHEREAS the *Employer* desires that the Works known as [name of the contract] should be executed by the Contractor, and has accepted a Bid by the Contractor for the execution and completion of these Works and the remedying of any defects therein.

The Employer and the Contractor agree as follows:

1. In this Agreement, words and expressions shall have the same meanings as are respectively assigned to them in the Contract documents referred to.

2. The following documents shall be deemed to form and be read and construed as part of this Agreement. This Agreement shall prevail over all other Contract documents.

- (a) the Contract Agreement,
- (b) the Letter of Acceptance,
- (c) the Letter of Bid,
- (d) the Variation Nos. [insert variation numbers if any]
- (e) the Particular Conditions of Contract – Part A,
- (f) the Particular Conditions of Contract – Part B,
- (g) the List of Eligible Countries that was specified in Section V of the Bidding Document,
- (h) the General Conditions of Contract,
- (i) the Specifications,
- (j) the Drawings,
- (k) the completed Schedules including Bill of Quantities, and
- (l) any other documents shall be added here.¹

3. In consideration of the payments to be made by the Employer to the Contractor as indicated in this Agreement,

the Contractor hereby covenants with the Employer to execute the Works and to remedy defects therein in conformity in all respects with the provisions of the Contract.

4. The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying of defects therein, the Contract Price or such other

sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with the laws of Union of India on the day, month, and year indicated above.

Signed by
for and on behalf of the Employer
in the presence of

Witness :
Name,
Signature,
Address,
Date, , ,

Signed by
for and on behalf the Contractor
in the presence of

Witness
Name,
Signature
Address
Date

Performance Security

[Bank’s name, and address of issuing branch or office]

Beneficiary: Maharashtra Metro Rail Corporation Ltd (Maha-Metro), hereinafter called “the Employer” acting through Executive Director (Procurement), Maharashtra Metro Rail Corporation Ltd, “Metro Bhawan”, VIP Road, Near Dikshabhoomi, Nagpur. Maharashtra, Pin Code–440010.

Date:

Performance	Guarantee	No.:
.....		

We have been informed that [name of the contractor] (hereinafter called “the Contractor”) has entered into Contract No. [reference number of the contract] dated with you, for the execution of [name of contract and brief description of works] (hereinafter called “the Contract”).

Furthermore, we understand that, according to the conditions of the Contract, a performance guarantee is required. At the request of the Contractor, we [name of the bank] hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of [name of the currency and amount in words]. (. [amount in figures]) such sum being payable in the types and proportions of currencies in which the Contract Price is payable, upon receipt by us of your first demand in writing accompanied by a written statement stating that the Contractor is in breach of its obligation(s) under the Contract, without your needing to prove or to show grounds for your demand or the sum specified therein.

This guarantee shall expire, no later than the Day of,,3 and any demand for payment under it must be received by us at this office on or before that date.

This guarantee is subject to the Uniform Rules for Demand Guarantees, ICC Publication No. 458 (or ICC Publication No. 758 as applicable), except that subparagraph (ii) of Sub-article 20(a) is hereby excluded.

.....
Signature(s) and seal of bank (where appropriate)

Advance Payment Security

[Bank’s name, and address of issuing branch or office]

Beneficiary: Maharashtra Metro Rail Corporation Ltd (Maha-Metro), hereinafter called “the Employer” acting through Executive Director (Procurement), Maharashtra Metro Rail Corporation Ltd, “Metro Bhawan”, VIP Road, Near Dikshabhoomi, Nagpur. Maharashtra, Pin Code–440010.

Date:

Advance Payment Guarantee No.:

We have been informed that [name of the contractor] (hereinafter called “the Contractor”) has entered into Contract No. [reference number of the contract] dated with you, for the execution of [name of contract and brief description of works] (hereinafter called “the Contract”).

Furthermore, we understand that, according to the Conditions of the Contract, an advance payment in the sum [name of the currency and amount in words]2. (. [amount in figures]) is to be made against an advance payment guarantee.

At the request of the Contractor, we [name of the bank] hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of [name of the currency and amount in words]. (. [amount in figures].) upon receipt by us of your first demand in writing accompanied by a written statement stating that the

Contractor is in breach of its obligation under the Contract because the Contractor used the advance payment for purposes other than the costs of mobilization in respect of the Works.

It is a condition for any claim and payment under this guarantee to be made that the advance payment referred to above must have been received by the Contractor on its account number [contractor’s account number] at [name and address of the bank]

The maximum amount of this guarantee shall be progressively reduced by the amount of the advance payment repaid by the Contractor as indicated in copies of interim statements or payment certificates, which shall be presented to us. This guarantee shall expire, at the latest, upon our receipt of a copy of the interim payment

certificate, indicating that ninety percent (90%) of the Contract Price has been certified for payment, or on the . . . day of . . . , , whichever is earlier. Consequently, any demand for payment under this guarantee must be received by us at this office on or before that date.

This guarantee is subject to the Uniform Rules for Demand Guarantees, ICC Publication No. 458 (or ICC Publication No. 758 as applicable).

.....
Signature(s) and seal of bank (where appropriate)

Section IX – Financial Bid

BILL OF QUANTITIES

PREAMBLE

1. The Bill of quantities consists of 10 items as mentioned in below BOQ.
2. The Bill of Quantities shall be read in conjunction with Instructions to tenderers, General and Special Conditions of Contract, Notice Inviting Tender, Technical Specifications and Conceptual/ Layout Drawings.
3. The rates and prices to be tendered in the Unit Priced Bill of Quantities are for completed and finished items of work and complete in all respects.
4. If the tenderer fails to quote rates against any item, the tender will be treated as incomplete and non-responsive and shall be rejected. The condition also applies for the Rate only item.
5. All the unit rates will be filled in figures in the financial bid template.
6. All columns in the Bill of Quantities shall be filled in against the respective item. The person authorized to sign on behalf of the Tenderer shall sign in full with company seal and date at the bottom of this pages.
7. The work executed against the BOQ items would be paid on measurement basis.
8. The payment under the Payment Schedule will cover all works specified in the tender drawing and / or provided in the scope of work. The Schedule of Payment will not get modified due to alterations of any type so far as the modifications/alterations are within the scope of work and/or provided for in the tender drawings.
9. The unit rate quoted for each item should be inclusive of all applicable taxes including GST, duties, octroi, royalty, labour cess etc.

Signature of the Authorized Signatory with
Company Seal

The abstract bill of quantities is mentioned hereunder.

Sr. No.	Item Description	Unit	Total Qty.	Rate	Total Amount
1	Providing and fixing of retro- reflectorized informatory sign board rectangular/Square/round in shape made out of 3.0 mm thick aluminium composite panel (ACP) sheet bonded with white retro reflective sheeting of Class B (Type IV High intensity micro-prismatic grade sheeting-HIP) having pressure sensitive adhesive retroreflective specified back ground, border and back side retroreflective symbols, letters, numerals, arrow as per IRC:67-2012 Table No 8.3, & designs & drawings provided. fixing firmly on surface shown by Engineer in charge with necessary fitting arrangement. etc. complete.				
	0.60 X 0.90 m	Nos.	288.00		
	0.60 X 0.60 m	Nos.	162.00		
	0.60 X 1.20 m	Nos.	36.00		
	0.60 X 0.80 m	Nos.	36.00		
	0.60 X 0.45 m	Nos.	90.00		
	1.00 X 0.90 m	Nos.	45.00		
	1.80 X 1.20 m	Nos.	126.00		
	1.20 X 0.90 m	Nos.	18.00		
	1.20 X 1.50 m	Nos.	360.00		
2	Supplying M.S. Angle iron frame for informatory sign boards of size 35 mm x 35 mm x 3 mm welded and making necessary holes required for fixing and painted with one coat of epoxy primer and two coats epoxy finish paint etc. complete. Spec. No. : As per IRC-67, and M.O.R.T. and H. Circular No. RW/NH-33023/31/88 D.O.III Dated 2-5-1994	Rmt	874.80		
3	Supply of Ms Pipe Dia 75 mm Post For Board (3.5 Mt.) long including Material Cost - Ms Pipe Of Dia 75 mm Long 3.5 mt with one coat of primer and two coats of synthetic enamel paint and Labour Charges For Cutting, Fabricating of Post	Nos.	198.00		
4	Supplying M.S. Angle iron post of size 65 X 65 X 6 mm duly painted with one coat of red oxide paint and two coats of synthetic enamel finish paint having black and white bands of 25 cm width including 2 nos of G.I. bolt and nut of size 10 mm dia. And 20 mm long	Rmt	1		

Sr. No.	Item Description	Unit	Total Qty.	Rate	Total Amount
	including transportation etc. complete. Spec. No. : As per IRC-67, and M.O.R.T. and H. Circular No. RW/NH-33023/31/88 D.O.III Dated 2-5-1994				
5	Fixing of signage in concrete foundation of M15 grade cement concrete including cost of excavation In ground 30 X 30 X 45 cm.	Nos.	198.00		
6	Providing and erecting Overhead signs made out of 4 mm aluminium Composite Material sheet bonded with white retro reflective sheeting of Class C (Type IV High intensity micro-prismatic grad sheeting HIP) having pressure sensitive/heat activated adhesive retro reflective specified background, border and back side retro reflective symbols, letters, numerals, arrow as per IRC:67-2012, with designed back support frame of mild steel angle with vertical and lateral clearance given in clause 801 and 802, duly painted on back side with two coats of grey stove enamel paint and installed as per clause 802.6 over a designed support system of structural steel work trestles and trusses of sections and type as per structural design requirements and approved plans including painting with one coat of epoxy primer and two coats of epoxy finish paint. The nut bolts of board with angle iron post/supporting structure after fixing at site has to be electrically welded. Class B (Type IV High intensity micro-prismatic grade sheeting-HIP) sheeting shall have 7 years written warranty from the manufacturer and authorised distributor/convertor issued for field performance including the screen printed areas and cut-out sheeting and cut-out durable transparent over lay film and this warranty certificate in original should be submitted to the Engineer in charge by the contractor/supplier. This item does not include the cost of structural steel work required for support system.	Sqm.	56.70		
7	Providing and fixing of informatory sign board rectangular/Square/round in shape made out of Star flex banner. fixing firmly on location decided by Engineer in charge with necessary fitting arrangement. etc. complete.				
	1.5 x 1.8 m	Nos.	90.00		
	1.8 x 1.8 m	Nos.	45.00		
	1.8 x 2.0 m	Nos.	45.00		

Sr. No.	Item Description	Unit	Total Qty.	Rate	Total Amount
8	Providing and fixing of informatory sign board rectangular/Square/round in shape made out of Vinyl with 5mm Thick Foam Sheet. fixing firmly on location decided by Engineer in charge with necessary fitting arrangement.. etc. complete.				
	3.0 x 0.6	Nos.	90.00		
	1.2 x 1.8	Nos.	45.00		
	1.2 x 1.2	Nos.	45.00		
9	Providing and fixing of retro- reflectorized informatory sign board rectangular/Square/round in shape with white retro reflective sheeting of Class B (Type IV High intensity micro-prismatic grade sheeting-HIP) having pressure sensitive adhesive retroreflective specified back ground, border and back side retroreflective symbols, letters, numerals, arrow as per IRC:67-2012 Table No 8.3, & designs & drawings provided. fixing firmly on surface shown by Engineer in charge with necessary fitting arrangement. etc. complete.	Sqm.	38.88		
10	Providing and fixing of informatory sign board rectangular/Square/round in shape made out of Vinyl Sheet . fixing firmly on location decided by Engineer in charge with necessary fitting arrangement. etc. complete.	Sqm.	1		
Total in Figures					
Total Amount in words:					

Note: - 1. The Item no 4 & 10 are Rate only item. The quantity mentioned against these items are tentative.

2. The offer quoted above shall be inclusive of applicable GST.