

# **NOIDA METRO RAIL CORPORATION (NMRC) LIMITED**

## **REQUEST FOR PROPOSAL (RFP)**

*For Restoration contract for Civil, Electrical, Telecom works of NMRC  
Head Office.*

**E tender No. NMRC/CET/Resto/159R1/183/2022**

**March 2022**

**Issued by:**

**Noida Metro Rail Corporation (NMRC) Limited  
Block-III, 3<sup>rd</sup> Floor,  
Ganga Shopping Complex, Sector-29, Noida -201301,  
District Gautam Budh Nagar, Uttar Pradesh, India**

## **Disclaimer**

This Request for Proposal (RFP) Document (or “E-Tender” or “E-Bid”) for “Restoration contract for Civil, Electrical, Telecom works of NMRC Head Office” contains brief information about the scope of work and selection process for the Bidder (“the Contractor” or “the Tenderer”). The purpose of the Document is to provide the Bidders with information to assist the formulation of their Bidding Documents.

While all efforts have been made to ensure the accuracy of information contained in this RFP Document, this Document does not purport to contain all the information required by the Bidders. The Bidders should conduct their own independent assessment, investigations and analysis and should check the reliability, accuracy and completeness of the information at their end and obtain independent advice from relevant sources as required before submission of their Bid/s. Noida Metro Rail Corporation Ltd. (“NMRC” or “the Corporation” or “the Employer”) or any of its employees or advisors shall incur no liability under any law, statute, rules or regulations as to the accuracy or completeness of the RFP Document.

NMRC reserves the right to change any or all conditions/information set in this RFP Document by way of revision, deletion, updating or annulment through issuance of appropriate addendum as NMRC may deem fit without assigning any reason thereof.

NMRC reserves the right to accept or reject any or all Bids without giving any reasons thereof. NMRC will not entertain or be liable for any claim for costs and expenses in relation to the preparation of the Bid/s to be submitted in terms of this RFP Document.

## **Glossary**

- a) **“Addendum / Amendment”** means any written amendment / addendum /corrigendum to this RFP, from time to time issued by NMRC to the prospective bidders
- b) **“Agreement”** means the Contract Agreement to be executed between NMRC and the Selected Bidder
- c) **“Applicable Laws”** means all the laws including local, state, national or other laws, brought into force and effect by Govt. of India, State Governments, local bodies, statutory agencies and any other, and rules / regulations / notifications issued by them from time to time. It also include judgments, decrees, injunctions, writs and orders of any court or judicial authority as may be in force and effected from time to time
- d) **“Bidder”** or **“Tenderer”** means any entity which is a sole proprietorship firm, a partnership firm or a company, in title and assigns which is submitting its bid pursuant to RFP Documents
- e) **“Bid Due Date”** means Bid Submission end date and time given in the E-tender
- f) **“Earnest Money Deposit (EMD)”** means the refundable amount to be submitted by the Bidder along with RFP documents to NMRC
- g) **“NMRC”** means Noida Metro Rail Corporation Limited (or “Corporation” or “Employer”)
- h) **“Party”** means Contractor or Corporation (together they are called **“Parties”**)
- i) **“Performance Bank Guarantee/ Security Deposit”** means interest free amount to be deposited by the Contractor with NMRC as per terms and conditions of Contract Agreement as a security against the performance of the Contract agreement
- j) **“Permits”** shall mean and include all applicable statutory, environmental or regulatory Contracts, authorization, permits, consents, approvals, registrations and franchises from concerned authorities
- k) **“Re. or Rs. or INR”** means Indian Rupee
- l) **“Revenue Operations Date (ROD)”** means the date of operation of Metro
- m) **“Selected Bidder”** means the bidder who has been selected by NMRC, pursuant to the bidding process for award of Contract

The words and expressions beginning with capital letters and defined in this document shall, unless repugnant to the context, have the meaning ascribed thereto hereinabove.

## Data Sheet

|    |                                                                              |                                                                                                                                                                                                                                                                                                                                           |
|----|------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1  | Name of the Bid                                                              | RFP for Restoration contract for Civil, Electrical, Telecom works of NMRC Head Office                                                                                                                                                                                                                                                     |
| 2  | Approximate Cost of Work                                                     | INR 1.30 Crore (including GST)                                                                                                                                                                                                                                                                                                            |
| 3  | Time-period of contract                                                      | Four (4) Months                                                                                                                                                                                                                                                                                                                           |
| 4  | Method of selection                                                          | Cost Based Selection (Lowest –L1)                                                                                                                                                                                                                                                                                                         |
| 5  | Bid Processing Fee                                                           | INR 5900 (including GST) (Rupees Five Thousand nine Hundred only) through RTGS/NEFT only payable in favour of Noida Metro Rail Corporation Limited                                                                                                                                                                                        |
| 6  | Ernest Money Deposit (EMD)                                                   | INR 2.61 Lakh /- (Rupees Two Lakh Sixty one Thousand only)                                                                                                                                                                                                                                                                                |
| 7  | Financial Bid to be submitted together with Technical Bid                    | Yes                                                                                                                                                                                                                                                                                                                                       |
| 8  | Name of the Corporation's official for addressing queries and clarifications | GM (Technical)<br>Noida Metro Rail Corporation,<br>Block-III, 3rd Floor, Ganga Shopping Complex,<br>Sector-29, Noida 201301<br>Email: <a href="mailto:nmrcnoida@gmail.com">nmrcnoida@gmail.com</a><br>Website: <a href="http://www.nmrcnoida.com">www.nmrcnoida.com</a> , <a href="http://etender.up.nic.in">http://etender.up.nic.in</a> |
| 9  | Bid Validity Period                                                          | 180 days                                                                                                                                                                                                                                                                                                                                  |
| 10 | Bid Language                                                                 | English                                                                                                                                                                                                                                                                                                                                   |
| 11 | Bid Currency                                                                 | INR                                                                                                                                                                                                                                                                                                                                       |
| 12 | <b>Schedule of Bidding Process</b>                                           |                                                                                                                                                                                                                                                                                                                                           |
|    | Head                                                                         | Key Dates                                                                                                                                                                                                                                                                                                                                 |
|    | Uploading of Bid                                                             | 11/03/2022                                                                                                                                                                                                                                                                                                                                |
|    | Pre-bid Meeting                                                              | 16/03/2022, 1430 hrs (IST)                                                                                                                                                                                                                                                                                                                |
|    | Last date of query Submission                                                | 21/03/2022, 1730 hrs (IST)                                                                                                                                                                                                                                                                                                                |
|    | Last date of issuing amendment, if any                                       | 25/03/2022, 1800 hrs (IST)                                                                                                                                                                                                                                                                                                                |
|    | Last Date of Bid Submission                                                  | 31/03/2022, 1500 hrs (IST)                                                                                                                                                                                                                                                                                                                |
|    | Date of Technical Bid Opening                                                | 31/03/2022, 1530 hrs (IST)                                                                                                                                                                                                                                                                                                                |
| 13 | JV/Consortium to be allowed                                                  | NO                                                                                                                                                                                                                                                                                                                                        |
| 14 | Account details                                                              | <b>For Bid Processing Fee &amp; EMD</b><br>State Bank of India (04077) – Sector 18, Noida<br>Gautam Budh Nagar, Uttar Pradesh -201301<br>IFSC Code: SBIN0004077<br><b>A/c No. 37707840592</b><br><b>Noida Metro Rail Corporation Ltd.</b>                                                                                                 |

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## **1. Section 1: General Information**

### **1.1. Background**

- a. Noida and Greater Noida are being developed as the satellite towns to New Delhi and more and more people from Delhi and other areas are shifting to these towns in search of fresh air, greenery and better infrastructure. There is a need of providing an efficient, reliable and comfortable transportation system for the population intending to settle in these towns and also the public coming to these areas for education, service and business.
- b. Noida Metro Rail Corporation is a Special Purpose Vehicle (SPV) formed by Noida and Greater Noida Authorities for planning and executing urban transport projects in Noida, Greater Noida regions. The Corporation desires to provide a world-class Public Transportation System with state-of-the-art technology. As such, the overarching criterion for setting up of the Corporation is to help create an efficient, safe, reliable, economical and affordable public transport system.
- c. An elevated metro line between Noida and Greater Noida is already under operation since January 2019.
- d. NMRC invites E-Bids for selection of Contractor for Restoration contract for Civil, Electrical, and Telecom works of NMRC Head Office at 3<sup>rd</sup> floor Ganga Shopping Complex, Sec-29, Noida.
- e. In this regard, the Corporation now invites the interested Bidder/s to submit their proposals as per provisions of this RFP Document.
- f. NMRC will shortlist the Bidders on the basis of evaluation criteria mentioned in this RFP Document. On the basis of the minimum evaluation criteria, qualified Bidders will be shortlisted and Financial proposal of only qualified Bidders will be opened.

### **1.2. About NMRC HQ Locations**

Appendix 1: NMRC Head Office Head Office location.

### **1.3. Communication**

All communications should be addressed to -

GM (Technical)  
Noida Metro Rail Corporation (NMRC) Limited  
Block-III, 3rd Floor, Ganga Shopping Complex, Sector-29,  
Noida -201301  
District Gautam Budh Nagar, Uttar Pradesh  
Email: nmrchnoida@gmail.com

## **2. Section 2: Terms of Reference**

### **2.1. Objective**

The objective of the contract is construction, completion, testing, commissioning and maintenance upto 1 year of the permanent works (Restoration works) by the Contractor (including without limitation, the maintenance and removal of the Temporary Works) and the rectification of defects appearing in Permanent Works in the manner and to the standards and within the time stipulated by the Contract. In full recognition of this objective, and with full acceptance of the obligations, liabilities and risks which may be involved, the Contractor shall undertake the execution of the Works.

### **2.2. General**

2.2.1. The Restoration of the Permanent Works shall be done in accordance with Employer's Requirements and the other requirements of the Contract.

2.2.2. The Restoration Works shall be executed to the highest standards available using proven up-to-date good Engineering practices. The Specification shall in any case not specify standards which, in the Engineer's opinion, are less than or inferior to those described in the Technical Specifications contained in the Tender Documents.

### **2.3. Scope of Works**

The contractor will execute the work and shall prepare the GFC (Good for Construction) drawings/Method statements/Progress charts for the approval of the NMRC as per scope of works.

2.3.1. The above mentioned work shall be carried out with contractors own material & labour as per the specification & drawing approved by NMRC.

2.3.2. The Brief scope of work is mentioned in DSR/BOQ and as per site requirement.

The work under this contract shall consist of, but not limited to, all materials, labour, equipment's, tools, plants and necessary machinery as required to completely execute any or/ and following works within NMRC premises/ scope:

- a. Design the restoration works and submit the detailed design drawings/ documents, good for construction drawings w.r.t. scope of works. The item rates in BOQ are inclusive of Design works.
- b. Restoration activities that arises due to fire incident shall constitute of following (based on Sub-Work order which shall be part of main contract):
  - Providing & fixing of gypsum wall partition.
  - Providing & fixing of wall cladding.
  - Providing & placing of floor tile.
  - Providing & fixing of Door & window.
  - Providing & fixing of roof ceiling as per drawing.
  - Sanitary items in toilet may be required to be replaced or toilet may be required to be renovated as per direction of engineer in charge.
  - Providing & fixing Glass & glass partition.
  - Wall plastering & wall & Ceiling painting at rooms etc.
  - Bulk work/capital work may arise for any particular work based on input/requirement of Civil department of NMRC.
  - Emphasis to be given to use Fire Retardant Material for interior works.
  - Water proofing works.



- Plumbing works.
  - Levels and Dimensions survey.
  - Electrical works
  - IT & Telecom works
  - Fire fighting system works
- c. Works related to upkeep and construction of drainage systems, rain water systems, etc.
- d. Upkeep and routine maintenance related works of office buildings' outer faces i.e. painting, repairing etc.
- e. Any work required for enhancing office utilities / facilities i.e. construction of toilet blocks, etc.
- f. Any other new work.
- g. Other miscellaneous items as per instructions of engineer in charge.

It is to be noted:

- a. Preliminary design and Good for construction to be submitted for approval of NMRC within 2 weeks of issuing of NOA/LOA.
- b. The contractor shall plan & execute the work in such a way that the work proceeds smoothly to the satisfaction of engineer.
- c. The Contractor shall attend regular coordination meetings convened by the employer/engineer for interface and adhere to the decisions taken in the meeting.
- d. Access will be provided to the staff of the contractor appointed by employer for carrying out their works and bringing materials and Equipments at site. However, the security of materials and Equipments brought at the site will be the responsibility of the Contractor.
- e. The Contractor shall take all necessary precautions to ensure safety of the staff, adjoining structures, materials & equipments and the work in progress as per the directions of engineer-in-charge.
- f. Smooth interfacing of Civil, E&M, Telecom works.

2.3.3. In case of discrepancy among Standard codes of Practice, Technical Specifications and provision in sub-clause in this NIT, the order of precedence will be as below:

- a. Provision in NIT/BOQ
- b. CPWD Specifications
- c. Technical Specifications
- d. Standard Code of Practice

In case of discrepancy among Standard Codes of Practice, the order of precedence will be IRS, IRC, IS, BS, DIN.

2.3.4. Specifications - CPWD Specifications / IS code are applicable.

## **2.4. Tenure**

The tenure for services shall be for a period of 04 (Four) Months.

## **2.5. Interface Work**

In addition the Contractor shall be required to accommodate requirements of miscellaneous works as per interfacing requirements. The Contractor shall carry out necessary coordination with, E&M & telecom

engineers and various systems pertaining to telecommunication, electrical etc. for keeping provisions pertaining to cut outs, shafts, raceways, concealed conduits, other conduits, fixtures, inserts clearances etc. all complete for the scope of work. The contractor shall coordinate with telecom & Electrical engineer for access of restoration work so as to achieve the target dates.

## **2.6. Structures**

The restoration of temporary structures will have to be planned in such a manner that they do not obstruct or interfere with existing structure and other utilities. Where work is required to be carried out at locations adjacent to functional government offices etc. suitable safety and protection arrangements will have to be ensured for which nothing extra will be payable. It should be ensured that no damage is caused to any such element and Engineer/ Employer shall be indemnified against such damage at no extra cost.

## **2.7. Reference to the Standard Codes of Practice**

All Standards, Technical Specifications and Codes of practice referred to shall be latest editions including all applicable official amendments and revisions. The Contractor shall make available at site all relevant Indian Standard Codes of practice and IRSC & TRC Codes as applicable.

Wherever Indian Standards do not cover some particular aspects of maintenance, relevant British, German Standards will be referred to. The Contractor shall make available at site such standard codes of practice.

## **2.8. Dimensions**

2.8.1. As regards errors, omissions and discrepancies in Specifications and Drawings, relevant clause of Special Conditions of Contract will apply.

2.8.2. The Contract shall utilise the SI system of units. Codes and Standards in imperial units shall not be used unless the Engineer has given his consent.

2.8.3. Conversion between metric units and imperial units shall be in accordance with the relevant Indian Standards.

2.8.4. The levels, measurements and other information concerning the existing site as shown on the conceptual/ layout drawings are believed to be correct, but the Contractor should verify them for himself and also examine the nature of the ground as no claim or allowance whatsoever will be entertained on account of any errors or omissions in the levels or strata turning out different from what is shown on the drawings.

## **2.9. Space for Temporary Office and Storage**

2.9.1. A suitable area/space of land shall be provided on temporary basis by NMRC on as is where basis for execution of work, subject to availability

2.9.2. This space shall be made good for such offsite activities as needed by the contractor at no extra cost to NMRC. The space shall be cleared from debris all structures made by the contractor including, RCC footings and rafts etc. before handing over back to the Employer and final bill shall be released to the contractor after all structures from the maintenance depot are removed.

## **2.10. Standards**

2.10.1. Equipment, materials and systems shall be designed, manufactured and tested in accordance with the latest issue of International and/or National codes and standards.

- 2.10.2. Reference to standards or to materials and equipment of a particular manufacturer shall be regarded as followed by the words "or equivalent". The Contractor may propose alternative standard materials, or equipment that shall be equal to or better than those specified. If the Contractor for any reason proposes alternatives to or deviations from the specified standards, or desires to use materials or equipment not covered by the specified standards, the Contractor shall apply for the consent of the Engineer. The Contractor shall state the exact nature of the change, the reason for making the change and relevant specifications of the materials and equipment in the English language. The decision of the Engineer in the matter of quality will be final.
- 2.10.3. The Contractor shall establish and maintain a Quality Assurance System in accordance with Appendix 2: Quality Assurance to these Employer's Requirements for design and providing fabrication fixing procedures and the interfaces between them. This Quality Assurance system shall be applied without prejudice to, or without in any way limiting, any Quality Assurance Systems that the Contractor already maintains.

### **2.11. Site Information**

- 2.11.1. The project site is located in 3<sup>rd</sup> floor, NMRC office, Ganga Shopping complex, sec-29, Noida, U.P.
- 2.11.2. The Contractor shall plan his works keeping in view restriction of approach and availability of space and time.
- 2.11.3. Climatic Conditions – Noida-Greater Noida experiences extreme climatic conditions and tenderers must acquaint themselves about the same before submitting the tender. The Employer shall in no way be responsible on this account.

### **2.12. Contractor's Superintendence**

- 2.12.1. The Contractor shall submit a Staff Organization Plan in accordance with the GCC. This plan shall be updated and resubmitted whenever there are changes to the staff. The plan shall show the management structure and state clearly the duties, responsibilities and authority of each staff member.

The design of the temporary works shall be undertaken by a designer (the designer) who has experience in the design of Restoration work. During execution of work, if at any stage the performance is not found satisfactory, the contractor shall change with prior permission of NMRC. The designer will certify the temporary works design/ Restoration work design and as built drawings, if this work is to be carried out by others and he will do regular inspection of the works to confirm that the construction complies with the intent of the design.

- 2.12.2. The site agent and his associates/supervisors shall have experience and qualification appropriate to the type and magnitude of the Works. Full details shall be submitted of the qualifications and experience of all proposed staff to the Engineer for his approval.

### **2.13. Use of Site**

- 2.13.1. The Site or Contractor's Equipment shall not be used by the Contractor for any purpose other than for carrying out the Works in the scope of this contract, except that, with the consent in writing of the Engineer, the Site or Contractor's Equipment such as batching and mixing plants for concrete and bituminous materials may be used for the work in connection with other contracts under the Employer.
- 2.13.2. The location and size of each materials, including retriive materials, within the Site shall be as permitted by the Engineer. Stockpiles shall be maintained at all times in a stable condition.

2.13.3. Entry to and exit from the Site shall be controlled and shall be only available at the locations for which the Engineer has given his consent.

#### **2.14. Access to the Site**

2.14.1. The Contractor shall make its own arrangements, subject to the consent of the Engineer, for any further access required to the Site.

2.14.2. In addition, the Contractor shall ensure that access to every portion of the Site is continually available to the Employer and Engineer.

#### **2.15. Barricades and Signboards**

2.15.1. The Contractor shall erect soft/hard barricades as per requirement & wherever necessary around its areas of operations to prevent entry by unauthorized persons to his Works Areas. No work shall be commenced in any Works Area until the Engineer has been satisfied that the barricades installed by the Contractor are sufficient to prevent, within reason, unauthorized entry.

2.15.2. Barricades shall be maintained in clean and good order by the Contractor until the completion of the Works.

2.15.3. All Barricades installed by the Contractor shall be removed by the Contractor upon the completion of the Works, unless otherwise directed by the Engineer.

2.15.4. Barricades can be reused after removing from one place to other locations/ sites provided they are in good condition and approved by Engineer.

2.15.5. Damage/worn-out barricades shall be replaced by contractor within 24 hours. Engineer's decision regarding need for replacement shall be final and binding and if no action is taken by contractor, the Engineer may get it repaired through other agency and the cost of any repairs will be deducted by the Engineer from any payment due to the Contractor.

#### **2.16. Clearance of Site**

All Temporary Works which are not to remain on the Site after the completion of the Works shall be removed prior to completion of the Works or at other times instructed by the Engineer. The Site shall be cleared and reinstated to the lines and levels and to the same condition as existed before the Works started except as otherwise stated in the Contract.

#### **2.17. Survey of Site and Investigations**

The datum used for the Contract shall be Mean Sea Level Datum.

2.17.1. The Contractor shall relate the maintenance of the Works to the Site Grid. To facilitate this, survey reference points have been established and the Engineer will provide benchmarks in the vicinity of the Site.

2.17.2. Before the Contractor commences the setting out of the Works, the Engineer will provide a drawing showing the position of each survey reference point and bench mark, together with the co-ordinates and/or level assigned to each point. The Contractor shall satisfy itself that there are no conflicts between the data given and shall establish and provide all subsidiary setting out points, monuments, towers and the like which may be necessary for the proper and accurate setting out and checking of the Works.

2.17.3. The Contractor shall carefully protect all the survey reference points, bench marks, setting out points, monuments, towers and the like from any damages and shall maintain them and promptly repair or replace any points damaged from any causes whatsoever. The Contractor shall regularly recheck the position of all setting out points, bench marks and the like to the satisfaction of the Engineer.

2.17.4. Upon handover to the Contractor, the survey reference points will become the responsibility of the Contractor. The Contractor shall, by annual or more frequent review, ensure that these survey points continue to remain consistent with the bench marks.

2.17.5. The Contractor shall carry out all further site investigations necessary for the design of the Permanent Works and to enable the determination of the methods of maintenance and the nature, extent and design of the Temporary Works.

## **2.18. Safety, Health and Environmental Requirements**

The Contractor shall comply with in the conditions stipulated in the Conditions of contracts on Safety, Health & Environment (SHE), Cost towards compliance of SHE conditions are included in the quoted rates by the bidder.

2.18.1. Use of "Tractor Transmission type" Pick and Carry Hydra crane:-

"Tractor Transmission type" Pick and Carry Hydra Crane – 1st Generation model is prohibited at NMRC works. Contractor shall mobilize "Truck Transmission type" Pick and Carry Hydra Crane – 2nd Generation model or higher version.

2.18.2. Other Safety Measures - Standby Equipment

The Contractor shall provide adequate stand-by equipment to ensure the safety of personnel, the Works and the public.

## **2.19. Technology Transfer**

The Contractor shall ensure that all local contractors and sub-contractors engaged in the works are given training, guidance and the necessary opportunity for transfer of technology in various areas of maintenance such as instrumentation, safety, quality assurance, viaduct and station etc.

## **2.20. Care of the Works**

- a. Unless otherwise permitted by the Engineer all work shall be carried out in dry conditions.
- b. The works, including materials for use in the works, shall be protected from damage due to water. Water on the Site and water entering the Site shall be promptly removed by temporary drainage or pumping systems or by other methods capable of keeping the Works free of water. Silt and debris shall be removed by traps before the water is discharged and shall be disposed of at a location or locations to which the Engineer has given his consent.
- c. The discharge points of the temporary systems shall be as per the consent of the Engineer. The Contractor shall make all arrangements with and obtain the necessary approval from the relevant authorities for discharging water to drains watercourses etc. The relevant work shall not be commenced until the approved arrangements for disposal of the water have been implemented.
- d. The methods used for keeping the Works free of water shall be such that settlement of, or damage to, new and existing structures do not occur.

- e. Measures shall be taken to prevent flotation of new and existing structures.

#### **2.21. Protection of the Works from Weather**

- 2.21.1. Work shall not be carried out in weather conditions that may adversely affect the Works unless proper protection is provided to the satisfaction of the Engineer.
- 2.21.2. Permanent Works, including materials for such Works, shall be protected from exposures of weather conditions that may adversely affect such Permanent Works or materials.
- 2.21.3. During maintenance of the Works storm restraint systems shall be provided where appropriate. These systems shall ensure the security of the partially completed and ongoing stages of maintenance and in all weather conditions. Such storm restraint systems shall be installed as soon as practicable and shall be compatible with the right of way, or other access around or through- out the Site.
- 2.21.4. The Contractor shall at all times, make programme and order progress of the work and make all protective arrangements such that the Works can be made safe in the event of storms.
- 2.21.5. The finished works shall be protected from any damage that could arise from any activities on the adjacent site/ works.

#### **2.22. Damage and Interference**

- a. Work shall be carried out in such a manner that there is no damage to or interference with:
  - (i) watercourses or drainage systems; (ii) utilities; (iii) structures (including foundations), roads, including street furniture, or other properties; (iv) public or private vehicular or pedestrian access; (v) monuments, trees, graves or burial grounds other than to the extent that is necessary for them to be removed or diverted to permit the execution of the Works. Heritage structures shall not be damaged or disfigured on any account. The Contractor shall inform the Engineer as soon as practicable of any items which are not stated in the Contract to be removed or diverted but which the Contractor considers need to be removed or diverted to enable the Works to be carried out. Such items shall not be removed or diverted until the consent of the Engineer to such removal or diversion has been obtained.
- b. Items which are damaged or interfered with as a result of the Works and items which are removed to enable work to be carried out shall be reinstated to the satisfaction of the Engineer and to at least the same condition as existed before the work started. Any claims by Utility Agencies due to damage of utilities by the Contractor shall be borne by the Contractor.
- c. The Contractor shall immediately inform the Engineer of any damage to structures, roads or other properties.
- d. The Contractor shall take all necessary precautions to protect the structures or works being carried out by others adjacent to and, for the time being, within the Site from the effects of vibrations, undermining and any other earth movements or the diversion of water flow arising from its work.

#### **2.23. Site Establishment - Latrines and Washplaces**

- 2.23.1. The Contractor shall provide latrines and wash places for the use of its personnel and all persons who will be on the Site. The size and disposition of latrines and wash places shall accord with the numbers and dispositions of persons entitled to be on the Site, which may necessitate their location on structures and, where necessary there shall be separate facilities for males and females. The capacities and layout shall be subject to approval of the Engineer. The Contractor shall arrange regular disposal of effluent and sludge in a manner that shall be in accordance with local laws/ regulations.

2.23.2. The Contractor shall be responsible for maintaining all latrines and wash places on the Site in a clean and sanitary condition and for ensuring that they do not pose a nuisance or a health threat. The Contractor shall also take such steps and make such provisions as may be necessary or directed by the Engineer to ensure that vermin, mosquito breeding etc. are at all times controlled.

#### **2.24. Quality Assurance**

2.24.1. The Contractor shall establish and maintain a Quality Assurance System in accordance with Appendix 2: Quality Assurance. This Quality Assurance system shall be applied without prejudice to, or without in any way limiting, any Quality Assurance Systems that the Contractor already maintains.

#### **2.25. Testing**

2.25.1. The Contractor shall provide and perform all forms of testing procedures applicable to the Works and various components and the interfacing of the Works with the other Contract works and shall conduct all necessary factory, site and acceptance tests.

2.25.2. All testing procedures shall be submitted at least thirty (10) days prior to conducting any Test. The Testing procedures shall show unambiguously the extent of testing covered by each submission, the method of testing, the Acceptance Criteria, the relevant drawing (or modification) status and the location.

2.25.3. The testing Procedures shall be submitted, as required, by the Contractor during the duration of the contract to reflect changes in system design or the identification of additional testing requirements.

2.25.4. All costs associated with the Testing shall be borne by the Contractor, unless otherwise specified, including the services of any specialised personnel or independent assessors. The Contractor shall also bear any expenses incurred due to resetting caused by defects or failure of equipment to meet the requirements of the Contract in the first instance.

2.25.5. Unless agreed in writing by the Engineer, the personnel engaged on testing shall be independent of those directly engaged in the design or installation of the same equipment.

2.25.6. All testing equipment shall carry an appropriate and valid calibration labels.

2.25.7 Contractor will provide MTC and external independent lab test reports for each item as per the request of engineer in charge of NMRC. The rates quoted are inclusive of testing expenditure.

#### **2.26. Batches, Samples and Specimens**

2.26.1. A batch of material is a specified quantity of the material that satisfies the specified conditions. If one of the specified conditions is that the material is delivered to the Site at the same time, then material delivered to the Site over a period of a few days may be considered as part of the same batch if in the opinion of the Engineer there is sufficient proof that the other specified conditions applying to the batch apply to all of the material delivered over the period.

2.26.2. A sample is a specified quantity of material that is taken from a batch for testing and which consists of a specified amount, or a specified number of pieces or units, of the material.

2.26.3. A specimen is the portion of a sample that is to be tested.

#### **2.27. Samples for testing**

2.27.1. Samples shall be of sufficient size and in accordance with relevant Standards to carry out all specified tests.

2.27.2. Samples taken on the Site shall be selected by, and taken in the presence of, the Engineer and shall be suitably marked for their identification. An identification marking system should be evolved

at the start of works in consultation with the Engineer. Samples shall be protected, handled and stored in such a manner that they are not damaged or contaminated and such that the properties of the sample do not change.

2.27.3. Samples shall be delivered by the Contractor, under the supervision of the Engineer, to the specified place of testing. Samples on which non-destructive tests have been carried out shall be collected from the place of testing after testing and delivered to the Site or other locations instructed by the Engineer.

2.27.4. Samples which have been tested may be incorporated in the Permanent Works provided that: the sample complies with the specified requirements; ii) the sample is not damaged; and iii) the sample is not required to be retained under any other provision of the Contract.

2.27.5. Additional samples shall be provided for testing if in the opinion of the Engineer: material previously tested no longer complies with the specified requirements; or ii) material has been handled or stored in such a manner that it may not comply with the specified requirements.

## **2.28. Conducting Testing**

2.28.1. The Contractor shall be responsible for all on-site and off-site testing and for all in-situ testing. All appropriate laboratory tests shall be carried out in the Contractor's laboratory, unless otherwise permitted or required by the Engineer. Where the laboratory is not appropriately equipped and/or staffed for some tests, or if agreed to by the Engineer, tests may be carried out in other laboratories provided that:

- i. They are accredited for the relevant work to a standard acceptable to the Engineer; and
- ii. Particulars of the proposed laboratory are submitted to the Engineer for his consent.
- iii. In-situ tests shall be done in the presence of the Engineer.

2.28.2. Equipment, apparatus and materials for in-situ tests and laboratory compliance tests carried out by the Contractor shall be provided by the Contractor. The equipment and apparatus shall be maintained by the Contractor and shall be calibrated before the testing starts and at regular intervals as permitted by the Engineer. The equipment, apparatus and materials for in the situ tests shall be removed by the Contractor as soon as practicable after the testing is complete.

2.28.3. The Contractor shall be entitled in all cases to attend the testing carried out in the Employer's or other laboratories, to inspect the calibration certificates of the testing machines and to undertake the testing on counterpart samples. Testing of such samples shall be undertaken in laboratories complying with Clause above and particulars of the laboratory proposed shall be submitted to the Engineer for consent prior to the testing.

2.28.4. Attendance on tests, including that by the Engineer, Contractor and Designer, shall be as laid down in the Quality Assurance procedures.

## **2.29. Compliance of Batch**

2.29.1. The results of tests on samples or specimens shall be considered to represent the whole batch from which the sample was taken.

2.29.2. A batch shall be considered as complying with the specified requirements for a material if the results of specific tests for of the specified properties comply with the specified requirements for the properties.

2.29.3. If additional tests are permitted or required by the Engineer but separate compliance criteria for the additional tests are not stated in the Contract, the Engineer shall determine if the batch



complies with the specified requirements for the material on the basis of the results of all tests, including the additional tests, for every property.

### **2.30. Records of Tests**

2.30.1. Records of in-situ tests and laboratory compliance tests carried out by the Contractor shall be kept by the Contractor on the Site and a report shall be submitted to the Engineer within seven (7) days, or such other time stated in the Contract or in the Quality Assurance Programme, after completion of each test. In addition to any other requirements, the report shall contain the following details:

- a. material or part of the Works tested;
- b. location of the batch from which the samples were taken or location of the part of the Works;
- c. place of testing;
- d. date and time of tests;
- e. weather conditions in the case of in-situ tests;
- f. technical personnel supervising or carrying out the tests;
- g. size and description of samples and specimens;
- h. method of sampling;
- i. properties tested;
- j. method of testing;
- k. readings and measurements taken during the tests;
- l. test results, including any calculations and graphs;
- m. specified acceptance criteria; and
- n. Other details stated in the Contract.

2.30.2. Reports of tests shall be signed by the site agent or his assistant, or by another representative authorized by the Contractor.

2.30.3. If requested, records of tests carried out by the Employer's staff or by the Engineer shall be given to the Contractor.

### **2.31. Records**

2.31.1. **Drawing Submission:** - All detail drawings will be submitted by contractor to NMRC in following format

- a. 3 Nos. copy of working drawings of each activity in ISO A3 size in color.
- b. 3 Nos. copy of design calculation of each activity in ISO A4 size in color.
- c. 3 Nos. copy of shop drawings/typical section drawings in ISO A4 size in Black & White.
- d. Any drawings and design to be submitted in 2 weeks before commencement of works at site. Initial submission of drawings to be done by 3 weeks for the date of start.

2.31.2 **Design Submission:** - The contractor will provide the detailed design with drawings for the scope of works suggested by NMRC. NMRC will provide outline requirement details w.r.t to scope of works. The rates quoted are inclusive of all designed drawings submission.

2.31.2. Drawings produced by the Contractor - Drawings produced by the Contractor including drawings of site layouts, Temporary Works, etc. for submission to the Engineer shall generally be to ISO A1 size. The number of copies to be submitted to the Engineer shall be as stated in the Contract, or as required by Engineer.

2.31.3. Progress Photographs:

- a. The Contractor shall provide monthly progress photographs which have been properly recorded to show the progress of the works to the Engineer. The photographs, shall be taken on locations agreed with the Engineer to record the exact progress of the Works. Two sets of photographs shall be provided on CD ROM format with two sets of colour prints of 175 mm x 125 mm size.
- b. The Contractor shall ensure that no photography is permitted on the Site without the agreement/ permission of the Engineer. Contractor should be aware of the local regulations and conditions with regard to Photography in some "RESTRICTED AREA" in Noida.

### **2.32. Materials**

- 2.32.1. Materials and goods for inclusion in the Permanent Works shall be new unless the Engineer has consented otherwise. Preference shall be given to local materials where available. Approved Manufacturers/Suppliers of few important items have been given in tender document. These materials shall be procured only for these manufacturers/Suppliers.
  - 2.32.2. Certificates of tests by manufacturers which are to be submitted to the Engineer shall be current and shall relate to the batch of material delivered to the Site. Certified true copies of certificates may be submitted if the original certificates could not be obtained from the manufacturer.
  - 2.32.3. Parts of materials which are to be assembled on the Site shall be marked to identify the different parts.
  - 2.32.4. Materials which are specified by means of trade or proprietary names may be substituted by materials from a different manufacturer which has received the consent of the Engineer provided that the materials are of the same or better quality and comply with the specified requirements.
- 23.5 Samples of materials submitted to the Engineer for information or consent shall be kept on the Site and shall not be returned to the Contractor or used in the Permanent Works unless permitted by the Engineer. The samples shall be used as a mean of comparison which the Engineer shall use to determine the quality of the materials subsequently delivered. Materials delivered to the Site for use in the Permanent Works shall be of the same or better quality as the samples which have received consent.

### **2.33. Miscellaneous Conditions**

- 2.33.1. Fly Ash - The Contractor shall use fly ash as a percentage substitution of cement, in concrete for certain structures and works as prescribed in MoEF & CC fly ash notification. In all such cases of Fly ash, the contractor shall maintain a detailed record of Fly ash.
  - 2.33.2. Energy Management – The contractor shall optimize the use of tools and plants and equipment to perform works with correct power.
  - 2.33.3. Construction and Demolition Waste - Construction and Demolition Waste means the waste comprising of building materials, debris and rubble resulting from construction, re-modeling, repair and demolition of any civil structure. C&D waste shall be stored at a designated area. The waste shall be covered properly as long as stored at site. Disposal of C&D waste along with river bed, natural drainage and wet land is strictly prohibited.
- **As Built Drawings:**  
Contractor should submit as built drawings (4 sets – Colour copies) to engineer after completion of works in all respects.

### **Installation and Commissioning of CCTV, PAS and Telephone system at NMRC Headquarters**

#### **TELECOM SCOPE OF WORK**

1. CCTV, Telephone and PA system installation to be done at NMRC Headquarter, Sec-29 Noida, Gautum Buddh Nagar, U.P.

2. CCTV system must be installed with full 15 days recording and Storage must be install accordingly. NMS for the CCTV system must be robust for use & industrial grade and Application must be user friendly. True Day/Night Vivid color image by day and clear black and white images at night with ICR. CCTV must have excellent low light performance.
3. Client Software must have capability of adding multiple NVR. Also Server must be installed with full License/Lifetime with supporting configuration.
4. Servers for All the system must have user friendly application with windows based OS.
5. CCTV must be installed with minimum Encoder but should cover all the blank spot in premises. For distance Encoders, Distance Coaxial or CAT cable shall be used so that streaming should enough for live feed as well as recording.
6. Telephone system must have in built mini exchange which shall be placed in NMRC HQ and must cover all the Rooms in HQ according to drawing. It should have the features to connect with outside telephone network and ISDN as well.
7. Fixation of CCTV Servers and work stations and Distribution panel must be done properly, also before installation spot for such fixation shall be discussed with NMRC Supervisor.
8. PA system shall cover the environment where it will be installed and output should be faithful with no noise.
9. PA amplifier must be of good industrial quality with easy to handle and use. Speakers used must have sufficient output according to room size.
10. Proper Zone and Zone selection control shall be provided after the discussion with NMRC.
11. Location for Server, Exchange, Amplifier etc must be decided with confirmation of NMRC Supervisor.
12. Power distribution path from dedicated panel shall be discussed with NMRC staff, and all power cables must of industrial grade with fire proof and low smoke standard.
13. Field Manager and contractor team must have minimum qualification in respective field.
14. Contractor and team should follow the safety guidelines within working environment and must carry all the protection equipment.
15. Contractor should discuss and carried out work with coordination of NMRC staff and follow the direction given by NMRC.
16. Once installation complete, Contractor/firm must do successful testing with NMRC for all the applications of all the systems.
17. Contractor/Engineer must ensure that all the consumables, cables and device are of industrial and heavy duty standards. Also cable laying within the premises should be neat and according to laying plan provided by NMRC Engineer.
18. Any damage to NMRC property during the Installation and testing work will be responsibility of Contractor/Firm and NMRC may ask compensation for such issues.
19. All tools, Consumables and other equipment to be use in installation, testing and commissioning must be arrange by Contractor/Firm. NMRC will not provide any kind of Equipment for installation, testing and Maintenance.
20. All team members working in Premises must have valid ID proof.
21. It shall be duty of the Firm to make whole system work satisfactorily throughout the contract period and handover the system in working condition to the NMRC after completion.

**Telecom Payment Term:**

1. 70 % Payment shall be done after successful delivery of material at NMRC site and after submission of Tax Invoice, E way Bill, Delivery Challan and acceptance certificate issued by Telecom department of NMRC.
2. 20 % Payment will be released after successful installation, Testing and Commissioning of Telecom system as per BOQ.
3. Balance 10% Payment will be released after 6 month of successful operation of system, on certification from telecom department.

**Inspection:**

NMRC telecom team reserve the right to inspect all or any telecom working during execution of telecom work. Any shortcomings if found during inspection to be rectified by contractor within reasonable time.

### 3. Section 3: Instructions to Bidders

#### 3.1. General instructions

- a. A tenderer shall submit only one bid in the same tendering process, either individually as a tenderer or as a partner of a J.V. A tenderer who submits or participates in, more than one bid will cause all of the proposals in which the tenderer has participated to be disqualified. No tenderer can be a sub-contractor while submitting a bid individually or as a partner of a JV in the same bidding process. A tenderer, if acting in the capacity of subcontractor in any bid, may participate in more than one bid, but only in that capacity.
- b. The Bidder shall initiate, and actively pursue and involve itself in all investigations and enquiries, Corporation feedbacks, information, convening of and attendance at meetings, and in any other activities as are or may be necessary for producing high quality work as per the requirements.
- c. The Bidder shall carry out the services in compliance with the provisions of this Agreement. Any and all changes necessary to ensure that the Bidder's documents conform to the intent and purpose set out in the Agreement, shall be made at the Bidder's own expense. The Bidder represents that it is a professional and experienced company, and hereby agrees to bear full responsibility for the correctness and technical merit of the services performed.
- d. Bidders shall be evaluated on the basis of the Evaluation Criteria specified in this document. Bidders shall be deemed to have understood and agreed that no explanation or justification for any aspect of the Selection Process will be given and that NMRC's decisions are without any right of appeal whatsoever.
- e. Any entity which has been barred by the Central/State Government in India or by any entity controlled by them, from participating in any project, and the bar subsists as on the date of Bid, would not be eligible to submit an e - Bid.
- f. Bidders are encouraged to inform themselves fully about the assignment and the local conditions before submitting the e-Bid by paying a visit to the Corporation and/or by sending written queries to NMRC before the last date for receiving queries/clarifications.
- g. NMRC shall not be liable for any omission, mistake or error on the part of the Bidder in respect of any of the above or on account of any matter or thing arising out of or concerning or relating to e-Bid or the Selection Process, including any error or mistake therein or in any information or data given by NMRC.
- h. The currency for the purpose of the Proposal shall be the Indian Rupee (INR).
- i. Tenderers shall not have a conflict of interest. All Tenderers found to have a conflict of interest shall be disqualified. Tenderers shall be considered to have a conflict of interest with one or more parties in this bidding process, if:
  - i. A tenderer has been engaged by the Employer to provide consulting services for the preparation related to procurement or implementation of the project;
  - ii. A tenderer is any associates/affiliates (inclusive of parent firms) mentioned in subparagraph above; or
  - iii. A tenderer lends, or temporarily seconds its personnel to firms or organizations which are engaged in consulting services for the preparation related to procurement for an implementation of the project, if the personnel would be involved in any capacity on the same project.

##### 3.1.1. Cost of Bid Document / e-Tender processing Fee

- a. The tenderer shall bear all costs associated with the preparation and submission of its e-Bid and Noida Metro Rail Corporation Ltd. ("NMRC" or "the Corporation"), will in no case be responsible or liable for these costs, regardless of the conduct or outcome of the e-Bid process.

- b. This tender document is available on the web site <http://etender.up.nic.in> or on NMRC website ([www.nmrcnoida.com](http://www.nmrcnoida.com)) to enable the tenderers to view, download the e-Bid document and submit e-Bids online up to the last date and time mentioned in e-Tender notice/e-tender document against this e-Tender. The tenderers shall have to pay cost of bid document/ e-Tender processing fee of as mentioned in **Data Sheet** through RTGS/NEFT only payable in favour of Noida Metro Rail Corporation Limited in the A/c No. mentioned in **Data Sheet**. The scanned copy of RTGS/NEFT receipt with transaction Id certified by the same bank must be enclosed along with the e-Bid. This cost of bid document/ e-Tender processing fee as mentioned in **Data Sheet** will be non-refundable. Tender without cost of bid document/ e-Tender processing fee in the prescribed form, will not be accepted.

### **3.1.2. Acknowledgement by Bidder**

It shall be deemed that by submitting the e-Bid, the Bidder has:

- a. made a complete and careful examination of the e-Bid;
- b. received all relevant information requested from NMRC;
- c. acknowledged and accepted the risk of inadequacy, error or mistake in the information provided in the e-Bid or furnished by or on behalf of NMRC;
- d. satisfied itself about all matters, things and information, necessary and required for submitting an informed Application and performance of all of its obligations there under;
- e. acknowledged that it does not have a Conflict of Interest; and
- f. agreed to be bound by the undertaking provided by it under and in terms hereof.

### **3.1.3. Availability of Bid Document**

This Bid document is available on the web site <http://etender.up.nic.in> or on Noida Metro website [www.nmrcnoida.com](http://www.nmrcnoida.com) to enable the Bidders to view, download the e-Bid document and submit e-Bids online up to the last date and time mentioned in e-Bidder notice/ e-Bid document. The Bidder's shall have to pay e-Bid document fee and EMD as mentioned in Data sheet through RTGS/ NEFT on addresses given in data sheet. The scanned copy of RTGS/ NEFT with transaction ID certified by the same bank must be enclosed along with the e-Bid. This e-Bid document fee will be non-refundable. Bid without Bid fee in the prescribe form will not be accepted.

### **3.1.4. Clarifications of e-Bid**

- a. During evaluation of e-Bid, NMRC may, at its discretion, ask the Bidder for a clarification of his/her e-Bid. The request for clarification shall be in writing.
- b. Any queries or request for additional information concerning this RFP shall be submitted in writing or by fax and e-mail to the Executive Director, NMRC **only before or during Pre-Bid Meeting** held at NMRC. The envelopes/ communication shall clearly bear the following identification/ title: "**Queries/ Request for Additional Information: RFP for Restoration contract for Civil, Electrical, Telecom works of NMRC Head Office**". The responses will be posted to all such queries on the official Website [www.nmrcnoida.com](http://www.nmrcnoida.com). NMRC reserves the right not to respond to any questions or provide any clarifications, in its sole discretion, and nothing in this Clause shall be taken or read as compelling or requiring NMRC to respond to any question or to provide any clarification.
- c. A pre- submission meeting shall be called on the date mentioned in **Data Sheet** at NMRC Office. Any change corresponding to date, if any, shall be communicated to the Bidder vide NMRC/ e-Tendering website.

- d. In case the Bidder seeks for any queries, he shall send letter or e-mail to the correspondence address given in Data Sheet.
- e. However, NMRC shall not entertain any correspondence from the Bidders during the period of e-Bid opening to selection of the successful Bidder. Any wrong practice shall be dealt under Fraud and Corrupt Practices.
- f. The Tenderer is advised to visit and examine the Site of Works and its surroundings and obtain for himself on his own responsibility all information that may be necessary for preparing the Tender and entering into a contract for the proposed work. The costs of visiting the Site shall be borne by the Tenderer. It shall be deemed that the Contractor has undertaken a visit to the Site of Works and is aware of the site conditions prior to the submission of the tender documents.
- g. The Tenderer and any of his personnel will be granted permission by the Employer to enter upon his premises and lands for the purpose of such inspection, but only upon the express condition that the Tenderer, and his personnel, will release and indemnify the Employer and his personnel 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.

#### **3.1.5. Amendment of e-Bid Document**

- a. At any time prior to the deadline for submission of e-Bid, NMRC may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective Bidder, modify the e-Bid document by amendments. Such amendments shall be uploaded on the e-procurement website <http://etender.up.nic.in> or NMRC's website [www.nmrcnoida.com](http://www.nmrcnoida.com). The relevant clauses of the e-Bid document shall be treated as amended accordingly.
- b. It shall be the sole responsibility of the prospective Bidder to check the web site <http://etender.up.nic.in> or NMRC's website [www.nmrcnoida.com](http://www.nmrcnoida.com) from time to time for any amendment in the e-Bid documents. In case of failure to get the amendments, if any, NMRC shall not be responsible for it.
- c. In order to allow prospective e-Bids a reasonable time to take the amendment into account in preparing their e-Bids, NMRC, at the discretion, may extend the deadline for the submission of e-Bids. Such extensions shall be uploaded on the e-procurement website <http://etender.up.nic.in> or NMRC's website [www.nmrcnoida.com](http://www.nmrcnoida.com).

### **3.2. Preparation and submission of Bids**

#### **3.2.1. Language of e-Bid**

The e-Bid prepared by the Bidder, as well as all correspondence and documents relating to the e-Bid exchanged by the Bidder and NMRC shall be written in English language. Only English numerals shall be used in the e-Bid. The correspondence and documents in any other language must be accompanied by transcripts verified by the Embassy of Home Country or equivalent.

#### **3.2.2. Documents constituting the e-Bid**

**The e-Bid prepared by the Bidder shall comprise the following components:**

##### **a. Technical e-Bid- Technical e-Bid will comprise of -**

- iv. **Fee details** - Details of Bid processing fee and prescribed EMD
- v. **Eligibility details** - Includes copies of required documents in PDF format justifying that the Bidder is qualified to perform the contract if his/her bid is accepted and the Bidder has financial & technical capability necessary to perform the contract and meets the

criteria outlined in the Qualification requirement and technical specification and fulfill all the conditions of the contract.

- vi. **Technical evaluation** - Details of all documents needed for Technical evaluation as mentioned in this RFP

**b. Financial e-Bid -**

- i. **Price bid** – Bill of Quantities in XLS format to be filled in after downloading from the e-Procurement website for this e-tender. There shall be a single quote.

**3.2.3. Documents establishing Bidder's Qualification**

- a. The Bidder shall furnish, as part of its technical e-Bid, documents establishing the Bidder's qualification to perform the contract if its e-Bid is accepted. The documentary evidence should be submitted by the Bidder electronically in the PDF format.
- b. The documentary evidence of Bidder's qualification to perform the contract if its e-Bid is accepted shall be as per qualification requirements specified in e-Bid document.

**3.2.4. E-Bid form**

The Bidder shall complete the e-Bid form and the appropriate price schedule/BOQ furnished in the e-Bid document.

**3.2.5. E-Bid Currency**

Prices shall be quoted in Indian Rupees only.

**3.2.6. Formats and Signing of e-Bid**

- a. The Bidder shall prepare one electronic copy of the technical e-Bid and financial e-Bid separately.
- b. The e-Bid document shall be digitally signed, at the time of uploading, by the Bidder or a person or persons duly authorized to bind the Bidder to the contract. The later authorization shall be indicated by a scanned copy of written power-of attorney accompanying the e-Bid. All the pages/documents of the e-Bid that are to be uploaded shall be digitally signed by the person authorized to sign the e-Bid.
- c. Bidders should provide all the information as per the RFP and in the specified formats. NMRC reserves the rights to reject any proposal that is not in the specified formats.
- d. In case the Bidders intends to provide additional information for which specified space in the given format is not sufficient, it can be furnished in duly stamped and signed PDFs.

**3.2.7. Deadline for submission of e-Bid**

E-Bid (Technical and financial) must be submitted by the Bidder at e-procurement website <http://etender.up.nic.in> not later than the time specified on the prescribed date (as the server time displayed in the e-procurement website). NMRC may, at its discretion, extend this deadline for submission of e-Bid by amending the e-Bid document, in which case all rights and obligations of NMRC and Bidders previously subject to the deadline will thereafter be subject to the deadline as extended.

**3.2.8. Submission of e-Bid**

- a. The bid submission module of e-procurement website <http://etender.up.nic.in> enables the Bidders to submit the e-Bid online in response to this e-Bid published by NMRC.

- b. Bid submission can be done only from the bid submission start date and time till the bid submission end date and time given in the e-Bid. Bidders should start the bid submission process well in advance so that they can submit their e-Bid in time.
- c. The Bidder should submit their e-Bid considering the server time displayed in the e-procurement website. This server time is the time by which the e-Bid submission activity will be allowed till the permissible time on the last/end date of submission indicated in the e-Bid schedule.
- d. Once the e-Bid submission date and time is over, the Bidders cannot submit their e-Bid. For delay in submission of e-Bid due to any reasons, the Bidders shall only be held responsible.

**The Bidders have to follow the following instructions for submission of their e-Bid:**

- a. For participating in e-Bid through the e-Bidding system it is necessary for the Bidders to be the registered users of the e-procurement website <http://etender.up.nic.in>. The Bidders must obtain a user login Id and password by registering themselves with U.P. Electronics Corporation Ltd., Lucknow if they have not done so previously for registration.
- b. In addition to the normal registration, the Bidder has to register with his/her digital signature certificate (DSC) in the e-Bidding system and subsequently he/she will be allowed to carry out his/her e-Bid submission activities. Registering the digital signature certificate (DSC) is a one-time activity. Before proceeding to register his/her DSC, the Bidder should first log on to the e-Bidding system using the user login option on the home page with the login Id and password with which he/she has registered.

For successful registration of DSC on e-procurement website <http://etender.up.nic.in> the Bidder must ensure that he/she should possess class-2/class-3 DSC issued by any certifying authorities approved by controller of certifying authorities, Government of India, as the e-procurement website <http://etender.up.nic.in> is presently accepting DSC issued by these authorities only. The Bidder can obtain user login Id and perform DSC registration exercise given above even before the e-Bid submission date starts. NMRC shall not be held responsible if the Bidder tries to submit his/her e-Bid at the moment before end date of submission but could not submit due to DSC registration problem.

- c. The Bidder can search for active Bids through "search active tenders" link, select a Bid in which he/she is interested in and then move it to 'My Tenders' folder using the options available in the e-Bid submission menu. After selecting and the Bid, for which the Bidder intends to e-Bid, from "My tenders" folder, the Bidder can place his/her e-Bid by clicking "pay offline" option available at the end of the view Bid details form. Before this, the Bidder should download the e-Bid document and price schedule/bill of quantity (BOQ) and study them carefully. The Bidder should keep all the documents ready as per the requirements of e-Bid document in the PDF format except the price schedule /bill of quantity (BOQ) which should be in the XLS format (excel sheet).
- d. After clicking the 'pay offline' option, the Bidder will be redirected to terms and conditions page. The Bidder should read the terms & conditions before proceeding to fill in the Bid fee and EMD offline payment details. After entering and saving the Bid fee and EMD details form so that "bid document preparation and submission" window appears to upload the documents as per technical (fee details, qualification details, e-Bid form and technical specification details) and financial (e-Bid form and price schedule/BOQ) schedules/packets given in the Bid details. The details of the RTGS/NEFT should tally with the details available in the scanned copy and the date entered during e-Bid submission time otherwise the e-Bid submitted will not be accepted.
- e. Next the Bidder should upload the technical e-Bid documents for fee details (e-Bid fee and EMD), Qualification details. Before uploading, the Bidder has to select the relevant digital signature certificate. He may be prompted to enter the digital signature certificate password, if necessary.



For uploading, the Bidder should click "browse" button against each document label in technical and financial schedules/packets and then upload the relevant PDF/XLS files already prepared and stored in the Bidder's computer. The required documents for each document label of technical ( fee details, qualification details, e-Bid form and technical specification details) and financial ( e-Bid form and price schedule/BOQ) schedules/packets can be clubbed together to make single different files for each label.

- f. The Bidder should click "Encrypt" next for successfully encrypting and uploading of required documents. during the above process, the e-Bid document are digitally signed using the DSC of the Bidder and then the documents are encrypted/locked electronically with the DSC's of the bid openers to ensure that the e-Bid documents are protected, stored and opened by concerned bid openers only.
- g. After successful submission of e-Bid document, a page giving the summary of e-Bid submission will be displayed confirming end of e-Bid submission process. The Bidder can take a printout of the bid summary using the "print" option available in the window as an acknowledgement for future reference.
- h. NMRC reserves the right to cancel any or all e-Bids without assigning any reason.

#### **3.2.9. Late e-Bid**

- a. Bids received by NMRC after the specified time on the Bid Due Date shall not be eligible for consideration and shall be summarily rejected.
- b. The server time indicated in the bid management window on the e- procurement website <http://etender.up.nic.in> will be the time by which the e-Bid submission activity will be allowed till the permissible date and time scheduled in the e-Bid.
- c. Once the e-Bid submission date and time is over, the Bidder cannot submit his/her e-Bid. Bidder has to start the bid submission well in advance so that the submission process passes off smoothly. The Bidder will only be held responsible if his/her e-Bid is not submitted in time due to any of his/her problems/faults, for whatsoever reason, during e-Bid submission process.

#### **3.2.10. Withdrawal and resubmission of e-Bid**

- a. At any point of time, a Bidder can withdraw his/her e-Bid submitted online before the bid submission end date and time. For withdrawing the Bidder should first log in using his/her login id and password and subsequently by his/her digital signature certificate on the e-procurement website <http://etender.up.nic.in>. The Bidder should then select "My bids" option in the bid submission menu. The page listing all the bids submitted by the Bidder will be displayed. Click "View" to see the details of the bid to be withdrawn. After selecting the "bid withdrawal" option the Bidder has to click "Yes" to the message "Do you want to withdraw this bid?" displayed in the bid information window for the selected bid. The Bidder also has to enter the bid withdrawing reasons and upload the letter giving the reasons for withdrawing before clicking the "Submit" button. The Bidder has to confirm again by pressing "OK" button before finally withdrawing his/her selected e-Bid.
- b. No e-Bid may be withdrawn in the interval between the deadline for submission of e-Bids and the expiration of period of e- bid validity. Withdrawal of an e-Bid during this interval may result in the forfeiting of Bidder's e-Bid security.
- c. The Bidder can re-submit his/her e-Bid as when required till the e-Bid submission end date and time. The e-Bid submitted earlier will be replaced by the new one. The payment made by the Bidder earlier will be used for revised e-Bid and the new e-Bid submission summary generated after the successful submission of the revised e-Bid will considered for evaluation purposes. For resubmission, the Bidder should first log in using his/her login Id and password and subsequently

by his/her digital signature certificate on the e-procurement website <http://etender.up.nic.in>. The Bidder should then select "My bids" option in the bid submission menu. The page listing all the bids submitted by the Bidder will be displayed. Click "View" to see the detail of the e-Bid to be resubmitted. After selecting the "bid resubmission" option, click "Encrypt & upload" to upload the revised e-Bids documents.

- d. The Bidder can submit their revised e-Bids as many times as possible by uploading their e-Bid documents within the scheduled date & time for submission of e-Bids.
- e. No e-Bid can be resubmitted subsequently after the deadline for submission of e-Bids.

**3.2.11. NMRC's right to accept any e-Bid and to reject any or all e-Bids.**

- a. Notwithstanding anything contained in this e-Bid, NMRC reserves the right to accept or reject any Bid and to annul the Selection Process and reject all Bids, at any time without any liability or any obligation for such acceptance, rejection or annulment, and without assigning any reasons thereof.
- b. NMRC reserves the right to reject any Bid if:
  - At any time, a material misrepresentation is made or uncovered, or
  - The Bidder does not provide, within the time specified by NMRC, the supplemental information sought by NMRC for evaluation of the e-Bid.
- c. Such misrepresentation/ improper response may lead to the disqualification of the Bidder. If such disqualification /rejection occurs after the e-Bid have been opened and the highest ranking Bidder gets disqualified / rejected, then the NMRC reserves the right to consider the next best Bidder, or take any other measure as may be deemed fit in the sole discretion of NMRC, including annulment of the Selection Process.

**3.2.12. Period of validity of e-Bid**

- a. e-Bid shall remain valid for 180 days after the date of e-Bid opening prescribed by NMRC. An e-Bid valid for a shorter period shall be rejected by NMRC as non-responsive.
- b. In exceptional circumstances, NMRC may solicit the Bidder's consent to an extension of the period of e-Bid validity. The request and the response thereto shall be made in writing.

**3.2.13. Correspondence with the Bidder**

- a. Save and except as provided in this e-Bid, NMRC shall not entertain any correspondence with any Bidder or its Technical Partners in relation to acceptance or rejection of any e-Bid.
- b. Subject to Clause 3.4.5 no Bidders or its Technical Partners shall contact NMRC on any matter relating to his e-Bid from the time of Bid opening to the time contract is awarded.
- c. Any effort by the Bidder or by its Technical Partners to influence NMRC in the Bid evaluation, Bid comparison or contract award decisions, may result in the rejection of his Bid.

**3.3. Earnest Money Deposit**

**3.3.1. Earnest money deposit (EMD)**

- a. The tenderer shall furnish, as part of its e-Bid, an e-Bid security/ EMD as stated in Data Sheet in form of RTGS/NEFT only in favour Noida Metro Rail Corporation Limited in the A/c No. mentioned in **Data Sheet**. The scanned copy of RTGS/NEFT receipt of Security/ EMD with transaction Id certified by the same bank must be enclosed along with the e-Bid. Tender without Earnest Money in the prescribed form, will not be accepted.

- b. Any e-Bid not secured in accordance with above shall be treated as non-responsive and rejected by NMRC.
- c. Unsuccessful Bidder's EMD will be returned within 45 days of opening of the Price Bid in case of Conclusion or discharge of the tender.
- d. No interest will be paid by the Employer on the Earnest Money Deposit.
- e. The successful Bidder's e-Bid EMD will be adjusted with Performance Bank Guarantee, if applicable, to be submitted by the Bidder upon signing the contract.
- f. The EMD may be forfeited:
  - i. If Bidder (a) withdraws its e-Bid during the period of e-Bid validity specified by the Bidder on the e- bid form: or (b) does not accept the correction of errors or (c) modifies its e-Bid price during the period of e-Bid validity specified by the Bidder on the form.
  - ii. In case of a successful Bidder, if the Bidder fails to sign the contract with the Corporation.
- g. In case of joint venture/consortia, Bank Guarantee/FDR for tender security shall be in the name of joint venture/consortia and not in name of individual members.

### **3.4. Opening and Evaluation of Bids**

#### **3.4.1. Opening of technical e-Bid by NMRC**

- a. NMRC will open all technical e-Bids, in the presence of Bidder`s representatives who choose to attend on the prescribed date of opening at NMRC Office. The Bidder's representatives who are present shall submit the letter to NMRC on the letter head of the company stating that the representative (name) is authorized to attend the meeting (Please note – The representative is required to carry a copy during pre-bid and other related meetings as well). He / She shall sign a register evidencing their attendance at NMRC. In the event of the specified date e-Bid opening being declared a holiday for the Corporation, the e –bids shall be opened at the appointed time and place on the next working day.
- b. The Bidder who is participating in e-Bid should ensure that the RTGS/NEFT of Bid Processing Fee and EMD must be submitted in the prescribed account of NMRC within the duration (strictly within opening & closing date and time of individual e-Bid) of the work as mentioned in Bid notice, otherwise, in any case, e-Bid shall be rejected.
- c. The Bidders names and the presence or absence of requisite e-Bid security and such other details as NMRC at its discretion may consider appropriate, will be announced at the opening.

#### **3.4.2. Opening of financial e-Bid**

- a. After evaluation of technical e-Bid, through the evaluation committee NMRC shall notify those Bidders whose technical e-Bids were considered non-responsive to the conditions of the contract and not meeting the technical specifications and qualification requirements indicating that their financial e-Bids will not be opened.
- b. NMRC will simultaneously notify the Bidders, whose technical e-Bids were considered acceptable to the Corporation. The notification may sent by e-mail provided by Bidder.
- c. The financial e-Bids of technically qualified Bidders shall be opened in the presence of technically qualified bidders who choose to attend. The date and time for opening of financial bids will be communicated to the technically qualified Bidders subsequently after completion of technical bids evaluation through e-mail provided by the Bidder.

#### **3.4.3. Correction of Errors**

- a. Financial Bids determined to be responsive will be checked by NMRC for any arithmetic errors. Where there is a discrepancy between the rate quoted in the Financial Bid, in figures and in words, the amount in words will prevail over the amounts in figures, to the extent of such discrepancy.
- b. The amount stated in the Financial Bid will be adjusted by NMRC in accordance with the above procedure for the correction of errors and shall be considered as binding upon the Bidder. If the Bidder does not accept the corrected quoted rate of e-Bid, his e-Bid will be rejected, and his Bid Security shall be liable for forfeiture in accordance with Clause 3.3.1f

#### **3.4.4. Examination of e-Bid document**

- a. The NMRC will examine the e-Bid to determine if:
  - i. They are complete;
  - ii. They meet all the conditions of the contract;
  - iii. The required e-Bid Processing fee, EMD and other required documents have been furnished;
  - iv. The documents have been properly digitally signed; and
  - v. The e-Bids are in order.
- b. Any e-Bid or e-Bids not fulfilling these requirements shall be rejected.

#### **3.4.5. Contacting NMRC**

- a. No Bidder shall contact NMRC on any matter relating to his/her e-Bid, from the time of the e-Bid opening to the time the contract is awarded. If the Bidder wishes to bring additional information to the notice of NMRC, he/she can do so in writing.
- b. Any effort by a Bidder to influence NMRC in its decisions on e-Bid evaluation, e- bid comparison or contract award may result in rejection of the Bidder's e-Bid.
- c. In the event of any information furnished by the Bidder is found false or fabricated, the minimum punishment shall be debarring /blacklisting from Noida Metro works and legal proceeding can also be initiated. EMD of such bidders will be forfeited.

#### **3.4.6. Confidentiality**

- a. Information relating to the examination, clarification, evaluation, and recommendation for the Bidders shall not be disclosed to any person who is not officially concerned with the process or is not a retained professional advisor advising NMRC in relation to or matters arising out of, or concerning the Bidding Process. Any effort by a Bidder to exert undue or unfair influence in the process of examination, clarification, evaluation and comparison of Proposal shall result in outright rejection of the offer, made by the said Bidder.
- b. NMRC shall treat all information, submitted as part of Bid, in confidence and shall require all those who have access to such material to treat the same in confidence. NMRC may not divulge any such information unless it is directed to do so by any statutory entity that has the power under law to require its disclosure or is to enforce or assert any right or privilege of the statutory entity and/ or NMRC or as may be required by law or in connection with any legal process.

### **3.5. Award of Contract**

#### **3.5.1. Award Criteria**

- a. NMRC will award the contract as per evaluation criteria stated in the RFP Document.

- b. NMRC will award the contract to the successful Bidder whose bid has been determined to be responsive to all the conditions of the contract and meeting the eligibility requirement of the bidding document.

**3.5.2. Notice of Award (NOA)**

- a. Prior to the expiration of the period of e-Bid validity, NMRC will notify the successful Bidder in writing, by letter/e-mail/fax, that its e-Bid has been accepted.
- b. The acceptance of NOA will constitute the formation of the contract.

**3.5.3. Signing of contract**

At the same time as NMRC notifies the successful Bidder that its e-Bid has been accepted, the successful Bidder shall have to sign the contract agreement with relevant document as mentioned in the RFP. The agreement draft along with other related terms and conditions will be same as furnished in this e-Bid. Any refusal will not be allowed. The Bidder need not download and submit in hard copies of these documents.

**3.5.4. NMRC's right to accept any e-Bid and to reject any or all e-Bids**

NMRC reserves the right to accept or reject any e-Bid, and to annul the e-Bid process and reject all e-Bids at any time prior to contract award, without thereby incurring any liability to the affected tenderer or tenderers.

## 4. Section 4: Qualification, Evaluation and Selection Process

### 4.1. Eligibility Criteria

The Bidder's competence and capability is proposed to be established by the following parameters. The Bidder should meet all the criteria given in this section.

- a. Sole proprietorship, registered partnership firm, public limited company, private limited company can submit the Bidder. The firms and the companies should be registered in India. Joint ventures not allowed.
- b. The Bidder should have a minimum experience of having satisfactorily completed similar works during last 7 (Seven) years period ending last day of month previous to the one in which the bids are invited should be either of the following:
  - i. One similar completed work costing not less than the amount equal to **Rs. 1.04 Crore** (Rupees One Crore Four Lakh only) or
  - ii. Two similar completed works each costing not less than the amount equal to **Rs. 65.00 Lakh** (Rupees Sixty Five Lakh only) or
  - iii. Three similar completed works each costing not less than the amount equal to **Rs. 52.00 Lakh** (Rupees Fifty Two Lakh only)

**Similar work** for this contract shall be "Civil Construction/ Civil maintenance works of building/ structures including E&M works" in any Central Govt./ State Govt./ PSU's or any Private Limited company of repute

- c. The Bidder should have minimum **average annual turnover** of **Rs. 1.04 Crore** (Rupees One Crore Four Lakh only) in the last 3 (Three) Financial Years (**2018-19, 2019-20, 2020-21**) preceding the Bid Due Date.
- d. The Bidder should not have been blacklisted/ banned/ declared ineligible for corrupt and fraudulent practices by the Government of India/ any State Government/ Government Agency and Supreme court and contracts have been terminated/ foreclosed by any company / department due to non- fulfilment of Contractual obligation in last 5 (five) financial years.
- e. **T1 – Liquidity**  
It is necessary that the firm can withstand cash flow that the contract will require until payments received from the Employer. Liquidity therefore becomes an important consideration. This shall be seen from the balance sheets. Net current assets from Balance Sheet of last year audited **Rs. 18.61 Lacs** to meet cash flow for this contract, net of applicant's commitments for other contracts.
- f. **T2 – Profitability:**  
Profit before Tax should be positive in at least **2 (two) years**, out of the last three years audited Financial years.
- g. **T3 – Net Worth:**  
Net worth of tenderer during last audited financial year should be **> 26.00 Lacs**
- h. Work-in hand from may be added in RFP & accordingly Bid Capacity criteria may be changed of RFP clause 4.2.

**The Bidder shall also furnish the following documentary proof:**

- a. For above criteria 4.1a
  - i. Statutory proof of existence as the legal entity
  - ii. PAN certificate as per legal entity
  - iii. GST Registration certificate
  
- b. For above criteria 4.1b
  - i. Form 4: Work Experience with documentary evidence as mentioned in the Form
  
- c. For above criteria 4.1c
  - i. Form 5: Financial Capability Details
  - ii. A copy of the Audited balance sheets and Profit and Loss Statements for the last 3 (Three) financial years **(2018-19, 2019-20, 2020-21)**.  
In case the Financial Statements for the latest financial year are not audited and therefore the Bidder cannot make it available, the Bidder shall give an undertaking to this effect and the statutory auditor/charted accountant shall certify the same. In such a case, the Bidder shall provide the Audited Financial Statements for 2 (two) years preceding the year for which the Audited Financial Statement is not being provided. Also, pertaining to latest financial year, the bidder shall submit an affidavit certifying that "The Annual Accounts have not been audited so far. We are submitting the CA certified provisional accounts, which shall be substantiated by the Audited Accounts, when prepared."
  - iii. Self attested copy of ITR for the last 3 (Three) financial years **(2018-19, 2019-20, 2020-21)**.
  
- a. For above criteria 4.1d
  - i. Form 7: Undertaking

#### 4.2. Bid Capacity Criteria:

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

Bid capacity will be calculated based on the following formula:

$$\text{Available Bid Capacity} = 2 * A * N - B$$

Where,

**A** = Maximum of the value of work executed in any one year during the last three financial years (updated to the last day of the previous month of tender submission price level assuming 5% inflation for Indian Rupees every year and 2% for foreign currency portions per year).

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

**B** = Value of existing commitments (as on the last day of the previous month of tender submission) for on-going works during period of 4 months w.e.f. from the first day of the month of tender submission.

**Notes:**

- Financial data for latest last three financial years has to be uploaded by the tenderer in Form-5 of Tender along with audited financial statements. The financial data in the prescribed format shall be certified by the Chartered Accountant with his stamp and signature in original.
- Value of existing commitments for on-going works during period of 4 months w.e.f. from the first day of the month of tender submission has to be uploaded by the tenderer in Form-4 of Tender. These data shall be certified by the Chartered Accountant with his stamp and signature in original.
- Where a work is undertaken by a group, only that portion of the contract which is undertaken by the concerned applicant/member should be indicated and the remaining done by the other members of the group be excluded. This is to be substantiated with documentary evidence

The tender submission of tenderers, who do not qualify the minimum eligibility criteria stipulated in the clauses 3.2.2 a & b above, shall not be considered for further evaluation and therefore rejected. The mere fact that the tenderer is qualified as mentioned in clause 3.2.3 a & b above shall not imply that his bid shall automatically be accepted. The same should contain all technical data as required for consideration of tender prescribed in the RFP.



**4.3. Personnel**

The Tenderer shall submit - Form 12: Undertaking pertaining to Personnel a staffing schedule containing the names, qualifications, professional experience and corporate affiliation of all proposed management personnel (above the level of shift supervisor) and specialists for this work. The submission shall include a provisional management structure and organisation chart showing areas of responsibility, relative seniorities and lines of reporting. The proposed staffing plan shall be in conformity with the following:

**RESOURCES PROPOSED FOR THE PROJECT – PERSONNEL**

The figures indicated below are the minimum number of Project-Personnel required which are to be deployed as per the minimum level of supervision and qualification/experience of site staff is given as follows:

| <b>S. No.</b> | <b>Designation of Project Personnel</b> | <b>Minimum Requirement</b>  |
|---------------|-----------------------------------------|-----------------------------|
| 1             | Civil Engineer/Site Engineer            | 1                           |
| 2             | Supervisor Civil, Electrical, Telecom   | 3 (One for each department) |
| 3             | Bill Engineer                           | 1                           |

It is to be noted that:

- i. The contractor shall deploy resources as per the above mentioned minimum requirement and also confirm to deploy manpower over and above the minimum numbers indicated above, if the work requires so.
- ii. These minimum resources are as per the requirements of the various activities at different stages of works. All resources need not to be mobilised simultaneously, resources as per the requirement of various stages of works shall be mobilised in accordance with the instructions of the Engineer. The decision of the Engineer shall be final and bonding.
- iii. The performance of project personal deployed will be evaluated periodically by Employer during the contract period. In case the performance of any of the personnel is not satisfactory, the contractor shall replace them with good personnel immediately as per the directions of the Engineer.
- iv. If staff is absent or found missing from his duty, recovery @ ₹2000/- for supervisor and @ ₹3000/- for engineer per day shall be imposed on the contractor and to be recovered from the running bill of the contractor.

**MINIMUM ORGANISATION STRUCTURE REQUIRED**

Minimum level of supervision & qualification/ experience of site staff is as follows:

| <b>S. No.</b> | <b>DESIGNATION</b> | <b>QUALIFICATION</b> | <b>EXPERIENCE LEVEL</b> |
|---------------|--------------------|----------------------|-------------------------|
|---------------|--------------------|----------------------|-------------------------|

|    |                              |                                                                         |                                                                          |
|----|------------------------------|-------------------------------------------------------------------------|--------------------------------------------------------------------------|
| 1. | Civil Engineer/Site Engineer | Graduate/ B. Tech in Civil Engineering                                  | Total minimum experience of 05 years for Degree and 8 years for Diploma. |
| 2. | Supervisor                   | Diploma in Civil Engineering, Electrical Engineering, Telecommunication | Total minimum experience of 05 years.                                    |
| 3. | Bill Engineer                | Diploma in Civil Engineering/ Quantity Surveying                        | Minimum 3 year experience                                                |

**4.4. Compliance with Technical Specifications**

The Bidders must comply with the stipulated technical specifications as mentioned in the tender documents

**4.5. Information of the Technical and Financial Proposal**

- a. The Bidder satisfying technical and financial eligibility criteria under Clause 4.1 shall be considered as technically and financially qualified.
- b. The financial proposal of only technically qualified Bidders shall be opened for evaluation.
- c. The Bidder with the lowest quoted price for the RFP for Restoration contract for Civil, Electrical, Telecom works of NMRC Head Office in the financial quote (**L1 bidder**) shall be selected for the award of contract.

**4.6. Selection of Bidder**

After the above evaluation process, the Technically Qualified Bidder, who is declared as L1 (lowest quoted price) may be declared as the selected Bidder (“Selected Bidder”) for the Project.

- a. In case, two or more technically qualified bidders quote the same rate in the Commercial Bid, and become Lowest (i.e. L-1), then the tender would be awarded to the bidder who has the highest / higher Average Annual Turnover from ‘Similar Works’ (as per Minimum Eligibility Criteria defined in Section 4 under “Definition of Similar Work”) during the last 3 years ending on the last day of the month preceding the month in which the tender has been floated. Experience certificate / work completion certificate on client's letter head is mandatory to ascertain the nature, period and value of work which shall be required to be uploaded by the bidder by the last date of tender submission. Prior to the expiry of the period of bid validity, NMRC will notify the successful bidder in writing, either through Notice of Award (NOA), that his bid has been accepted.
- b. Prior to the expiry of the period of bid validity, NMRC will notify the successful bidder in writing, either through Notice of Award (NOA), that his bid has been accepted.
- c. The NOA would be sent in duplicate to the successful bidder, who will return one copy to NMRC duly acknowledged, signed and stamped by the authorized signatory of the bidder, as an unconditional acceptance of the NOA, within 10 (ten) days from the date of issue of NOA.
- d. No correspondence will be entertained by NMRC from the unsuccessful bidders.

**4.7. Notice of Award and Execution of Contract Agreement**

- a. NMRC will notify the Successful Bidder by a NOA that its bid has been accepted.
- b. The Selected Bidder shall, within 10 (ten) days of the receipt of the NOA, sign and return the duplicate copy of the NOA in acknowledgement thereof along with letter of acceptance of NOA. In the event, the duplicate copy of the NOA duly signed by the Selected Bidder and letter of acceptance of NOA is not received by the stipulated date, NMRC may, unless it consents to extension of time for submission thereof, appropriate the Bid Security of such Bidder as mutually

agreed genuine pre-estimated loss and damage suffered by NMRC on account of failure of the Selected Bidder to acknowledge the NOA

- c. The Successful Bidder shall execute the Contract Agreement within 30 (thirty) days of the letter of acceptance of NOA or such extended period as may be decided by the Corporation.
- d. Failure of the Successful Bidder to comply with the requirement of acknowledgement of NOA shall constitute sufficient grounds for the annulment of the NOA, and forfeiture of the bid security.
- e. The Purchaser reserves the right to increase or decrease the quantity up to 25% of the quantity offered by the successful tenderer. The bidder is bound to accept the increase or decrease in the tendered quantity up to 25% under this clause without any change in unit price.

In case the variation in individual items or the group of items as stipulated above, is more than 25% on plus side, the rate for the varied quantity beyond 25% shall be negotiated between the NMRC and the Contractor and mutually agreed rates arrived at before actual execution of the extra quantity. In case the contractor executes the extra quantity without written approval of the NMRC with specific instructions to execute pending the finalization of rates, the payment shall be made at contract rate only. In the event of disagreement, the Engineer shall fix such rates of price as are, in his opinion appropriate and shall notify the Contractor accordingly, with a copy to the Employer. Until such time as rates or prices are agreed or fixed, the Engineer shall determine provisional rates or prices to enable on account payments to the Contractor. Alternatively, in the event of disagreement, the Contractor shall have no claim to execute extra quantities/new items and the Engineer shall be free to get such additional quantities beyond 25% new items executed through any other agency. However, if the Engineer or the Employer so directs the Contractor shall be bound to carry out any such additional quantities beyond the limits stated above original quantities and or new items and the disagreement or the difference regarding rates to be paid for the same shall be settled in the manner laid down under the conditions for the settlement of dispute.

#### **4.8. Performance Bank Guarantee / Security Deposit**

- a. To fulfil the requirement of performance bank guarantee during the implementation period, the Successful Bidder (herein referred to as the "Contractor") shall deposit **3% of the Contract Price** in form of FDR/ DD or unconditional and irrevocable Bank Guarantee bond issued by a scheduled bank in favor of Noida Metro Rail Corporation Ltd., which may be reduced for balance years on completion of each year, within 30 days from Notice of Award. EMD amount of successful bidder shall be adjusted in the performance bank guarantee, if applicable. For unsuccessful bidder, EMD shall be refunded without any interest. The Performance Guarantee should be valid for a period of 06 (six) months beyond the Defect Liability Period.
- b. It is to note that if contract value increases by more than 25% of the original contract value, the performance bank guarantee shall be increased accordingly.
- c. A Contract agreement will have to be signed by the Contractor at his cost on proper stamp paper. Without performance guarantee by Contractor, Contract agreement shall not be signed.
- d. NMRC reserves the right for deduction of NMRC dues from Contractor's Performance Bank Guarantee/ Security Deposit (interest free) for – Any penalty imposed by NMRC for violation of any terms and conditions of agreement committed by the Contractor.
- e. Any amount which NMRC becomes liable to the Government/Third party due to any default of the Contractor or any of his director/ employees/ representatives/ servant/ agent, etc.
- f. Any payment/ fine made under the order/judgment of any court/consumer forum or law enforcing Contractor or any person duly empowered in his behalf.
- g. Any outstanding payment/ claims of NMRC remained due after completion of relevant actions as per agreement.

- h. Once the amount under above Clause is debited, the Contractor shall replenish the Security Deposit/ Performance Bank Guarantee to the extent the amount is debited within 15 days period, failing which, it shall be treated as Contractor Event of Default and will entitle NMRC to deal with the matter as per the provisions of RFP and Contract Agreement.

#### **4.9. Contract during Proposal Evaluation**

- a. Proposals shall be deemed to be under consideration immediately after they are opened and until such time NMRC makes official intimation of award/ rejection to the Bidders. While the Proposals are under consideration, Bidders and/ or their representatives or other interested parties are advised to refrain from contacting by any means, NMRC and/ or their employees/ representatives on matters related to the Proposals under consideration till the time Contract is awarded.
- b. Any effort by a Bidder to influence NMRC in its decisions on e-Bid evaluation, e-Bid comparison or contract award may result in rejection of the Bidder's e-Bid.
- c. In the event of any information furnished by the Contractor is found false or fabricated the minimum punishment shall be debarred/ blacklisting and the legal proceeding may also be initiated.
- d. If the Bidder wishes to bring additional information to the notice of NMRC, he/she can do so in writing. All correspondence/ enquiry should be submitted to the following in writing by fax/ post/courier:  
  
GM (Technical)  
Noida Metro Rail Corporation (NMRC) Limited  
Block-III, 3rd Floor, Ganga Shopping Complex, Sector-29,  
Noida -201301  
District Gautam Budh Nagar, Uttar Pradesh  
Email: nmrcnoida@gmail.com
- e. No interpretation, revision, or other communication from NMRC regarding this solicitation is valid unless in writing and signed by the competent authority from NMRC.

#### **4.10. Other Instruction**

- a. Canvassing in connection with the tenders is strictly prohibited and the tenders, submitted by Bidder, who resort to canvassing, are liable to be rejected. EMD will be forfeited of those tenders who will be found non serious and if it is felt by the tender committee that the Bidders submitted their tender only to influence the tendering process.
- b. On acceptance of the tender, the name of the accredited representative of the Contractor, who would be responsible for taking instructions from the NMRC or the official deputed by NMRC, shall be communicated to the NMRC or the official deputed by NMRC in writing.

#### **4.11. Project Financial Terms**

##### **4.11.1. Payment Terms**

- a. The payment for items given in Bill of Quantity/Pricing Document shall be made on the basis of actually executed quantities.
- b. The work executed against the BOQ items in would be paid on measurement basis.
- c. The Contractor may raise their 'On Account' payments on monthly basis as per the status of work on the last day of the respective month.

#### **4.12. Contractor's Labour Camp**

##### **4.12.1. Employer not to provide Quarters for Contractor's Labour**

The Employer will not provide living accommodation for the use of the Contractor or any of his staff or labour employed on the Works. Living accommodation shall not be established on any land provided to the contractor by the Employer.

#### **4.12.2. Provision of Labour Camp**

The Contractor, shall, at his own expense, make adequate arrangements for the housing, supply of drinking water and provision of bathrooms, latrines and urinals, with adequate water supply, for his staff and workmen directly or through sub-contractors employed on the Works at the location authorised by Engineer. No labour camp shall be allowed at work site or any unauthorised place. The Contractor at his own cost shall maintain all campsites in a clean and sanitary condition. The Contractor shall obey all health and sanitary rules and regulations, and carry out at his cost all health and sanitary measures that may from time to time be prescribed by the Local/Medical Authorities and permit inspection of all health and sanitary arrangements at all times by the Employer, Engineer and the staff of the local municipality or other authorities concerned. Should the Contractor fail to provide adequate health and sanitary arrangements these shall be provided by the Employer and the cost recovered from the Contractor. The Contractor shall at his own cost, provide First Aid and Medical facilities at the Labour Camp and at work sites on the advice of the Medical Authority in relation to the strength of the Contractor's staff and workmen, employed directly or through sub-contractors. The Contractor shall at his own cost, provide the following minimum requirements for fire precautions:

- Portable Fire Extinguishers
- Manual Fire Alarms
- Water Supply for use by the Fire Service.

The Contractor at his own cost shall provide necessary arrangements for keeping the camp area sufficiently lighted to avoid accidents to the workers. He should also ensure that electrical installations are done by Trained Electricians. These installations shall be maintained and daily maintenance records must be made available for inspection of the Engineer.

#### **4.12.3. Camp Discipline**

The Contractor shall take requisite precautions, and use his best endeavours to prevent any riotous or unlawful behaviour by or amongst his workmen, and others, employed directly or through sub-contractors. These precautions shall be for the preservation of the peace and protection of the inhabitants and security property in the neighbourhood of the Works. In the event of the Employer requiring the maintenance of a Special Police Force at or in the vicinity of the site, during the tenure of the work, the expenses thereof shall be borne by the Contractor and if paid by the Employer, shall be recoverable from the Contractor. The sale of alcoholic drinks or other intoxicating drugs or beverages upon the work, in any labour camp, or in any of the buildings, encampments or tenements owned or occupied by, or within the control of, the Contractor or any of his employees directly or through subcontractors employed on the work, shall be forbidden, and the Contractor shall exercise his influence and authority to secure strict compliance with this condition. The Contractor shall also ensure that no labour or employees are permitted to work at the site in an intoxicated state or under the influence of drugs. The Contractor shall remove from his camp such labour and their families, as refuse protective inoculation and vaccination when called upon to do so by the Engineer on the advice of the Medical Authority. Should Cholera, Plague or any other infectious disease break out, the Contractor shall at his own cost burn the huts, bedding, clothes and other belongings of or used by the infected parties. The Contractor shall promptly erect new huts on healthy sites as required by the Employer, within the time specified by the Employer, failing which the work may be done by the Employer and the cost recovered from the Contractor.

#### **4.12.4. Labour Accommodation**

The Contractor shall provide living accommodation that is equal to or exceeds the minimum criteria established in the following sub-sections, needed to house his staff, workers employed directly or through sub-contractors. The buildings shall be constructed so as to have a minimum life of not less than the length of the Contract.

- a. The roofs shall be watertight and laid with suitable non-flammable materials permissible for residential use under local regulations and for which the consent of the Engineer has been obtained.
- b. Each hut shall have suitable ventilation. All doors, windows, and ventilators shall be provided with security leaves and fasteners. Back to back units may be avoided.
- c. The minimum height of each unit shall be 2.10m and shall have separate cooking place.
- d. Suitable no. of common toilet/bath shall be provided.

#### **4.12.5. Water Supply**

The Contractor shall provide an adequate supply of water for the use of labourers in the Camp. The provision shall not be less than two gallons of pure and wholesome water per head per day for drinking purposes and three gallons of clean water per head per day for bathing and washing purposes. Where piped water supply is available, supply shall be at stand posts and where the supply is from wells or river, tanks which be of metal or masonry shall be provided. The Contractor shall also at his expense make arrangements for the provision and laying of water pipe lines from the existing mains wherever available and shall pay for all the fees and charges thereof.

#### **4.12.6. Drainage**

The Contractor shall provide efficient arrangements for draining away sewage water so as to keep the camp neat and tidy. Surface water shall be drained away from paths and roads and shall not be allowed to accumulate into ditches or ponds where mosquitoes can breed.

#### **4.12.7. Sanitation**

The Contractor shall make arrangements for conservancy and sanitation in the labour camps according to the rules and regulations of the Local Public Health and Medical Authorities. The Contractor shall provide a sewage system that is adequate for the number of residents in the camp, and which meets the requirements of the Municipality Authorities.

## 5. Section 5: Special Conditions of Contract (SCC)

NOTE: The conditions in SCC shall be read in condition with GCC of tender documents.

| SCC Clause | Reference to GCC Sub-Clause No. | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|------------|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1          | <b>Sub-Clause 3.2</b>           | <p><b>Functions of Engineer</b></p> <p>In addition to the duties mentioned in Clause 3.2 of General Conditions of Contract:</p> <p>(i) Shall watch and inspect the Works, monitor and examine any material to be used and workmanship employed by the Contractor in connection with the Works;</p> <p>(ii) Shall carry out such duties and exercise such powers vested in the Engineer in accordance with the provisions of the Contract;</p> <p>(iii) Shall issue instructions which in his opinion are necessary for the execution of the Works; and</p> <p>(iv) May issue any other instruction which in his opinion is desirable in connection with the Works.</p> <p>In case The Engineer is employee of any agency hired by the Employer, the Engineer shall take the approval of the Employer for all technical and financial matters otherwise he shall be deemed to have taken the approval of the Employer.</p> |
| 2          | <b>Sub Clause 4.2.1</b>         | <p><b>PERFORMANCE SECURITY</b></p> <p>The amount of Performance Security for this contract will be 3% of contract value instead of 10% stipulated in the GCC. If the contract value increases by more than 25% of the original contract value, the Performance Security will be increased accordingly for complete revised value on every increase. 100% Performance Security will be released after completion of Defect Liability Period and issuing of taking over certificate/ Final completion certificate.</p>                                                                                                                                                                                                                                                                                                                                                                                                      |
| 3          | <b>Sub-Clause 4.4</b>           | <p><b>Coordination with other Contractors</b></p> <p>The contractor for this package shall plan and execute work in coordination and in co-operation with other contractors working for adjacent/other packages</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 4          | <b>Sub-clause 4.5</b>           | <p><b>Sub-contractors</b></p> <p>The work should not be sublet without the written approval of Engineer in-charge.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 5          | <b>Sub-Clause 4.10</b>          | <p><b>Sufficiency of Tender</b></p> <p>The Tenderer shall be entirely responsible for sufficiency of rates quoted by him in his tender.</p> <p>The Contractor (Successful Tenderer) shall be paid for only at quoted/accepted rates for the items of works executed as per BOQ.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 6          | <b>Sub-Clause 4.11</b>          | <p><b>Access Route</b></p> <p>All operations for the execution of the Works shall be carried out so as not to interfere unnecessarily with the convenience of the public or the access to public or private roads or footpaths or properties owned by the Employer or by any other person.</p> <p>The Contractor shall select routes, choose and use vehicles so that movement of Contractor's Equipment, Plant and Materials from and to the Site is limited so that traffic is not delayed and damage to highways and bridges is prevented. If there is any delay or damage or injury, the cost of rectification or reconstruction of highways or bridges shall be borne by the Contractor. The Contractor shall indemnify the Employer in respect of all claims, demands, proceedings, damages, costs, charges and expenses whatsoever arising out of or in relation to any such matters</p>                           |

| SCC Clause | Reference to GCC Sub-Clause No. | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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| 7          | Sub-Clauses 5.3                 | <p><b>Manufacture, Installation and Construction Methods</b></p> <p>The Contractor shall submit complete documents and information pertaining to the methods of manufacture, installation and construction which the Contractor proposes to adopt or use, (and if applicable such calculations of stresses, strains and deflections and the like that will or may arise in the Works or to the other works comprising the Project or any parts thereof during installation from the use of such methods). The Engineer will then check to see whether, if such methods are adhered to, the Works can be executed in accordance with the Contract and without detriment to the Works (when completed) and to other works comprising the Project and in a manner which minimises disruption to office adjacent.</p> <p>The Engineer shall inform the Contractor in writing within 7 days after receipt of the above information;</p> <p>(a) that the Contractor's proposed methods of manufacture, installation and construction have the consent of the Engineer; or</p> <p>(b) in what respects, in the opinion of the Engineer the Contractor's proposed methods of manufacture, installation and construction:</p> <p>(i) fail to comply with the Employer's Requirements and/or the Definitive Design and/or the Final Design;</p> <p>(ii) would be detrimental to the Works and/or to the other works comprising the Project;</p> <p>(iii) do not comply with the other requirements of the Contract;</p> <p>(c) as to the further documents or information which are required to enable the Engineer to properly assess the proposed methods of manufacture, installation and construction.</p> <p>In the event that the Engineer does not give his consent, the Contractor shall take such steps or make such changes in the said methods or supply such further documents or information as may be necessary to meet the Engineer's requirements and to obtain his consent. The Contractor shall not change the methods of manufacture, installation and construction which have received the Engineer's consent without further review and consent in writing of the Engineer.</p> <p>Notwithstanding the foregoing provisions of this Clause, or that certain of the Contractor's proposed methods of manufacture, installation and construction may be the subject of the consent of the Engineer, the Contractor shall not be relieved of any liability or obligation under the Contract.</p> |
| 8          | Sub-Clauses 4.16 and 6.7        | <p><b>Safety Precautions</b></p> <p>The Contractor is required to make himself aware of all the requirements of the Employer's Safety, Health and Environmental Manual in this regard and comply with them. The Site Safety Plan shall include detailed policies, procedures and regulations which, when implemented, will ensure compliance with Sub-Clauses 4.16 and 6.7 of General Conditions of Contract.</p> <p>The Contractor shall, from time to time and as necessary or required by the Engineer, produce supplements to the Site Safety Plan such that it is at all</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |



| SCC Clause | Reference to GCC Sub-Clause No. | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
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|            |                                 | <p>times a detailed, comprehensive and contemporaneous statement by the Contractor of his site safety and industrial health obligations, responsibilities, policies and procedures (under the laws of India) or as stated in the Contract or elsewhere relating to work on Site If at any time the Site Safety Plan is, in the opinion of the Engineer, insufficient or requires revision or modification to ensure the security of the Works and the safety of all workmen upon, and visitors to the Site, the Engineer may instruct the Contractor to revise the Site Safety Plan. The Contractor shall, within 7 days, submit the revised plan to the Engineer for review.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 9          | <b>Sub-Clause 4.17</b>          | <p><b>Protection of the Environment</b><br/>                     The Contractor shall maintain ecological balance by preventing deforestation, water pollution and defacing of natural landscape. The Contractor shall, so conduct his cleaning operations, as to prevent any avoidable destruction, scarring or defacing of natural surroundings in the vicinity of work. In respect of ecological balance, the Contractor shall observe the following instructions</p> <p>(a) Where destruction, scarring, damage or defacing may occur as a result of operations relating to construction and maintenance activities, the same shall be repaired, replanted or otherwise corrected at Contractor's expense. All work areas shall be smoothed and graded in a manner to confirm to natural appearance of the landscape as directed by the Engineer.</p> <p>(b) All trees and shrubbery, which are not specifically required to be cleared or removed for cleaning purposes, shall be preserved and shall be protected from any damage that may be caused by Contractor's cleaning operations and equipment. The removal of trees or shrubs will be permitted only after prior approval by the Engineer. Trees shall not be used for anchorage. The Contractor shall be responsible for injuries to trees and shrubs caused by his operations. The term "injury" shall include, without limitation, bruising, scarring, tearing and breaking of roots, trunks or branches. All injured trees and shrubs shall be restored as nearly as practicable, without delay, to their original condition at Contractor's expenses.</p> <p>(c) The Contractor shall provide all necessary access, assistance and facilities to enable the Engineer and the Employer to monitor and conduct tests to verify that the Site Environmental Plan is being properly and fully implemented</p> |
| 10         | <b>Sub-Clause 4.18</b>          | <p><b>Electricity and Water</b><br/>                     Electricity and water shall be arranged by the contractor on his own and at his cost.</p> <p>If available, the Employer may provide Water supply and Electricity on chargeable basis. The contractor shall make his own arrangements to tap the Electricity from the nominated and existing sockets/ points. The contractor shall tap the Electricity as per IE Rules &amp; IE Act (Latest) duly complying all safety precautions and under following conditions:</p> <p>(a) The contractor shall submit full scheme for the requirement of Electricity &amp; water. If scheme mentions Electricity requirement which is beyond the capacity of the Employer, in that case the contractor shall make his own arrangements/ alternative arrangements.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

| SCC Clause | Reference to GCC Sub-Clause No. | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
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|            |                                 | (b) The Contractor should make his own arrangements to draw the water from the available water point to the working place without affecting the premises                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 11         | <b>Sub-Clause 4.19</b>          | <b>Employer Supplied Machinery and Materials</b><br>The Employer will not provide any machinery or materials under the Contract.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 12         | <b>Sub Clause 4.27</b>          | <p><b>Security of the Site</b><br/>The Contractor shall take all measures necessary to ensure such security, including exercising control over all persons and vehicles which are employed or engaged on the Site or in connection with the Works or the other works comprising the Project and with the security arrangements applicable to any other site within the Project.</p> <p>The Contractor shall arrange the issue of passes for the admission of all persons and vehicles to the Site or to any part thereof and may refuse admission to or remove from the Site any person or vehicle failing to show an appropriate pass on demand to any duly authorised person.</p> <p>If required by the Engineer, the Contractor shall submit a list identifying all persons to whom passes have been issued together with two photographs of each person and all entities to which a pass has been issued in respect of any vehicle and shall satisfy the Engineer of the bonafides of any such person or entity.</p> <p>The Contractor shall not, without the written permission of the Engineer or otherwise in accordance with the Contract, allow access to the Site to any person unless the presence on Site of such person is necessary in connection with the execution of the Works or with the discharge of the duties of any relevant authority.</p> <p>For the purposes of this Clause only, "Site" shall include off-Site places of manufacture or storage and the Contractor's Work Areas and shall include, areas provided to the Contractor by others.</p> |
| 13         | <b>Sub-Clause 5.3</b>           | <p><b>Submission of Documents</b><br/>The Contractor shall submit drawings and documents, as required by the Contract, to the Engineer in accordance with any submittal schedule agreed with the Engineer. This submittal shall be made sufficiently before the Works are to be carried out to give the Engineer and the Employer reasonable time to examine the drawings or other documents, to prepare comments and for any changes to be accommodated by the Contractor.</p> <p>Where the consent of the Engineer is required, the Engineer shall notify the Contractor in writing of his decision either within such period as may expressly be stipulated in the Contract or otherwise within a reasonable time.</p> <p>The Operation and Maintenance Manuals and drawings submitted by the Contractor shall, if required, be updated by him during the Defects Liability Period and re-submitted for review by the Employer's Representative.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 14         | <b>Sub-Clause 6.0</b>           | <b>Training of Contractor's Employees / Staff / Workers</b><br>Contractor shall provide a training / workshop on Safety, Health & Environment (SHE) to all its workers/ employees/ sub-contractors at the time of induction as per required of condition of contract on Safety, Health and                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

| SCC Clause | Reference to GCC Sub-Clause No. | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
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|            |                                 | Environment. Before posting any of his workers/ staff/ employees/ sub-contractors, the contractor shall give a certificate that the said person had undergone the requisite SHE training.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 15         | <b>Sub-Clause 6.4</b>           | <p><b>Labour Laws and NMRC Labour Welfare Fund</b></p> <p>(a) The Contractor shall, if required by the Employer, deliver to the Engineer or to his office; a return in detail, in such form and at such intervals as the Employer may prescribe, showing the number of labour employed in different categories by the Contractor for the entire work.</p> <p>The contractor must ensure compliance of all the labour laws including obtaining labour licence and registration of workers with BOCW Board.</p> <p>(b) In case of death of staff, the agency is required to deposit ₹1,00,000/- in NMRC Labour welfare fund to enable NMRC to release ₹2,00,000/- for heir apparent as immediate relief to his dependent. Subsequently agency should facilitate compensation on priority. Violation of these basic provisions shall attract a penalty of 5% of contract value and repeated violations shall lead to termination of contract.</p> |
| 16         | <b>Sub-Clause 6.6</b>           | <p><b>Housing Facilities</b></p> <p>The Contractor shall have to make his own arrangements for housing facilities for his staff.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 17         | <b>Sub-Clause 6.7</b>           | <p><b>Health and Safety</b></p> <p>Contractors are required to have tie-up with well equipped reputed hospitals having facilities of MRI, CT Scan, Ultrasound, Blood Bank, specialist Doctors like neurosurgeon, orthopedic as mandatory requirement and fire station located in the neighbourhood for attending to the casualties promptly and emergency vehicle kept on standby duty during the working hours for the purpose.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 18         | <b>Sub Clause 7.0</b>           | <p><b>Quality Control</b></p> <p>The Contractor shall appoint a suitably qualified and experienced person, not otherwise engaged in the performance of the Contract, to act as manager of the quality assurance system and shall provide such other personnel and resources as required to ensure effective operation of the quality assurance system. The said manager shall carry out audits of the application of the quality assurance system, and ensure effective quality control and delivery of quality assurance.</p> <p>The Contractor shall provide all necessary access, assistance and facilities to enable the Engineer to carry out surveillance visits both on and off the Site to verify that the quality assurance system is being properly and fully implemented. No extra payment shall be made in this regard and the cost of the Work under this element shall be deemed to be included in the Contract Price.</p>       |
| 19         | <b>Sub Clause 10.1</b>          | <p><b>Defect liability period</b></p> <p>The Defect liability period (DLP) shall be <b>12 months</b> from the date of issue of the latest Taking over Certificate for the whole of the works.</p> <p><b>Work by persons other than the Contractor.</b></p> <p>If by reason of any accident or failure or other event occurring to, in, or in connection with the Works any remedial or other work shall, in the opinion of the Engineer, be urgently necessary and the Contractor is unable or unwilling at once to do such remedial or other work, the Engineer may authorise the carrying out of such remedial or other work by a person other than the Contractor. If the remedial or other work so authorised by the Engineer is</p>                                                                                                                                                                                                       |

| SCC Clause | Reference to GCC Sub-Clause No.                                                               | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|------------|-----------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|            |                                                                                               | work, which, in the Engineer's opinion, the Contractor was liable to do under the defect liability period Contract, all expenses properly incurred in carrying out the same shall be recoverable by the Employer from the Contractor, provided that the Engineer shall, as soon after the occurrence of any such emergency as may be reasonably practicable, notify the Contractor thereof in writing.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| 20         | <p><b>Sub-Clause 11.1</b></p> <p><b>Sub-Clause 11.1.1</b></p> <p><b>Sub-Clause 11.1.4</b></p> | <p><b>Contract Price &amp; Payment</b></p> <p><b>In respect of All Inclusive Contract</b><br/>The Contract Price, subject to any adjustment thereto in accordance with the contract conditions, shall be all inclusive (including all taxes, duties, royalties etc.)</p> <p><b>Change in Taxes Duty</b><br/>(a) "Change in Taxes/Duties/Levies" means the occurrence or coming into force of the following, at any time after the date of submission of tender.<br/>(i) Any new tax which is imposed on Composite Works Contractors applicable on Metro Project.<br/>(ii) Change in the rate of GST on Composite Works Contractors applicable on Metro Project as Per GST Act.</p> <p>(b) The Contract Price shall be adjusted due to any of the above two conditions. Adjustment in contract price will be applicable up to the stipulated date of completion of work including the extended period of completion where such extension has been granted under sub clause 8.4.1 of GCC or it is specifically mentioned that extension is with adjustment for changes as stated above.</p> <p>(c) If the extension of contract period is on account of contractor's fault under Sub-clause 8.4.3 of GCC, no compensation shall be made towards upward revision towards "change in Taxes/Duty (taking place during the said extended contract period)" as mentioned at Sl. No. (a) (i) &amp; (ii) above, during the original contract period or extended contract period shall be on employer's account.</p> <p>(d) Any other changes (except on account of clause (a) (i) &amp; (ii) above) in existing taxes/new taxes on supply of materials/services/works etc. will not be considered and its impact shall be considered covered in the price variation clause provided in the Contract and in Contract where Price Variation clause is not provided, the impact on any other change (except on account of clause (a) (i) &amp; (ii) above) in existing taxes/new taxes on supply of materials/services/works etc. will be deemed to be included in the quoted contract price.</p> <p>(e) Also, the contract price shall not be adjusted on account of fluctuations in the rates of exchange between the foreign currencies of the contract and Indian rupees from the last date of submission of tender.</p> |
| 21         | <b>Sub clause 11.1.3</b>                                                                      | <p><b>Price Variation</b></p> <p>This is a fixed price contract and no Price Variation is admissible in this contract.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 22         | <b>Sub-Clause 11.2</b>                                                                        | <p><b>Advance</b></p> <p>No Advance is admissible in this contract.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 23         | <b>Sub-Clause</b>                                                                             | <b>Payment</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

| SCC Clause | Reference to GCC Sub-Clause No. | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|------------|---------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|            | 11.6                            | <p>For the purpose of On-account payment, the contractor shall submit detailed activities carried out as per BOQ recorded in Measurement sheets, Abstract sheets along with recorded bill for the item actually executed for checking and payment. Payment will be effected based on unit rates as approved in the Bill of Quantities.</p> <p>The payment shall be made on a monthly basis for the activities carried out as per the work orders in a month. At the end of the month, the contractor shall submit necessary documents &amp; Bill in the standard format for payment.</p>                                                                                                                                                                                                                                                                                                                                                                                       |
| 24         | <b>Sub-Clause 15.0</b>          | <p><b>Insurance</b></p> <p>(a) All of the contractor's employees drawing monthly wages up to ₹21,000/- or as applicable as per the enhanced limit, shall have to be covered under ESI. The Contractor shall take insurance policy as specified in the Employee's Compensation Act only for those employees who are not covered by ESI.</p> <p>(b) The contractor shall insure against liability to third parties in the joint name of the Employer and the contractor for any loss, damage, death or injury which may occur to any physical property (except things insured otherwise) or any person (except person insured by employer, staff of other contractor working in the premises, contractor's staff under sub clause above which may arise out of the performance of the contract. The insurance shall be at least for the amount of ₹7,50,000/- for each incident.</p> <p>(c) Insurance cover for Contractor's All Risk shall be full value of Contract price.</p> |
| 25         | <b>Sub-Clause 18.1</b>          | <p><b>Notices and Instructions</b></p> <p>The Contractor shall furnish to the Employer/Engineer the postal address of his office at Delhi NCR. Any notice or instructions to be given to the Contractor under the terms of the contract shall be deemed to have been served on him if it has been delivered to his authorized agent or representative at site or if it has been sent by registered post to the office, or to the address of the firm last furnished by the Contractor.</p> <p>The Contractor shall establish an office in the Delhi NCR in consultation with the in charge for planning, co-ordination and monitoring the progress of the Work and intimate the same in writing to in charge. In addition, the Contractor may set up field offices at convenient and approved locations for co-ordination and for monitoring the progress of fieldwork at his own cost.</p>                                                                                    |

## 6. Section 6: Technical Specifications

### CIVIL

#### 6.1. Specifications

- a. IS (Indian Standards) Codes and CPWD (Central Public Works Department) Specifications are applicable in this contract.

#### 6.2. Manufacturers/ Suppliers

All materials and products shall conform to the relevant standard specification, BIS codes and other relevant codes etc. and shall be of make as approved by Engineer.

The list of makes for products and materials is given below. Other equivalent manufacturers may also be considered with prior approval of the Engineer, if found conforming to all standards. Such requests should be made with all documents to the Engineer at least 45 days before the material is required and any order shall be placed only after receiving the written approval of the Engineer.

| S. No. | Details of Materials/ Products  | Manufacturer's Name                                                                                                                                                                                                                                                                                          |
|--------|---------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1      | Cement                          | ACC, Ultratech, Gujarat, Ambuja, Grasim, JK Lakshmi, JSW, Lafarge                                                                                                                                                                                                                                            |
| 2      | Reinforcement Bars              | SAIL Plants, Rashtriya Ispat Nigam Ltd. (Vizag Steel Plant, Andhra Pradesh), Tata Steel (Jharkhand), Ispat Industries (Maharashtra), JSW Steel (Karnataka), JSP, Essar Steel (Gujarat), Monnet Steel, Electro Steel, Shyam Steel and any other integrated steel plant as per Ministry of Steel's definition. |
| 3      | Epoxy                           | FOSROC, SIKA QUALCRETE, Araldite, BASF, Kunal Conchem, CHRYSO, Don Chemicals, STP, Cleantech SA, TAM, CICO, MC-Bauchemie, Pinnacle, Fibrex, MYK Schomburg, Parex Group (Lanko), Hindustan Silicate & Chemical, ACC, MYK Schomburg                                                                            |
| 4      | Expansion Joints                | Kantaflex, Kanta, Maruti Techno, MYK Schomburg, Prequalified Manufacturers as per RDSO's latest approved list                                                                                                                                                                                                |
| 5      | Admixtures                      | FOSROC, MBT, MC Baucheme, Sika, APEX, Pidlite, Polygon, CHRYSO, Choksey, STP, MYK Schomburg, BASF, MAPEI, Kunal Conchem, Durabuild, Conproof, CAC, H & R Johnson, Asian Lab., TAM, Adoadditives, STP, CICO, Fairmate, ATPL, Pinnacle, Rheoplast, Grace Construction, ACC, Hindcon, DON                       |
| 6      | Pile Integrity Testing Agency   | CBRI, FUGRO-KND, Pile Dynamic, AIMIL, Geo dynamic, CEG Test House, EMC India, Mythcon, ATL AVANTECH, Soil Engineering Consultants                                                                                                                                                                            |
| 7      | Anchor Fastener                 | HILTI, FISHER, AXEL Industries, Cannon, Pioneer Nuts and Bolts (TUFF Brand), MUNGO, LPSEJOT, Ripple                                                                                                                                                                                                          |
| 8      | Structural Steel                | TATA, SAIL, ESSAR, Maharashtra Pipes, Jindal Steel & Power Ltd., JSW, K.L. Steel, Steel Works & Power Engineers, SKS Ispat & Power, Shamil Steel, Topworth                                                                                                                                                   |
| 9      | Stainless Steel                 | Jindal, SAIL or approved equivalent                                                                                                                                                                                                                                                                          |
| 10     | Pre-stressing Strand (LRPC)     | TATA SSL Ltd., USHA Martin, DP wires, (Ramsarup Nirmaan) only if there is shortfall                                                                                                                                                                                                                          |
| 11     | Pot/ Elastomeric Bearings       | Prequalified Manufacturers as per RDSO's latest approved list                                                                                                                                                                                                                                                |
| 12     | Horizontal Tie Bars/ Shear Bars | BB Bars System, BBV Systems, Macalloy or approved equivalent.                                                                                                                                                                                                                                                |

| S. No. | Details of Materials/ Products            | Manufacturer's Name                                                                                                                              |
|--------|-------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| 13     | HDPE Sheathing                            | Rex Polyextrusion, Gwalior Polypies Ltd., Kataria Sheathing, M/s. Tirupati, M/s. Dynamic Prestress                                               |
| 14     | Formwork Release Agent                    | FOSROC, MBT, MC Baucheme, Ado Conmnat, CICO, CHRYSO, Choksey, BASF, Adoadditives, STP, DON, MYK Schomburg, Pinnacle                              |
| 15     | Prestressing System                       | Freyssinet, BBR, VSL, Dynamic, Killick Nixon, Tensaccial (India Ltd.), JK Prestressing, Usha Martin, Posten, VSIL, Wartex Systems                |
| 16     | Reinforcment Couplers                     | Dextra, Moment, Arise, Hi-Tech, G.Tech, Kridhan, JB Engg., Unitech, Sanfield                                                                     |
| 17     | Hollow Sections, Pipes                    | Surya Pipes, Hi-Tech Pipes, JSW, JSPL, Bihar, Ravindra Tubes, Garg Ispat Udyog, Navratan                                                         |
| 18     | Drainage Pipes                            | Tirupati Plastomatics, Duraline, REX, STIPL, Kriti, Vishal, Eonn                                                                                 |
| 19     | Acrylic Textured Coatings                 | Spectrum, Renova, Wallz, Surfa Nova, Jotun, Asian Paints                                                                                         |
| 20     | Non shrink Grout                          | Fosroc Chemical (India), SIKA BASF, ELCHEM, MBT, Sika, CHRYSO, Don, Choksey, Cleantech IR, Adoadditives, TAM, STP, CICO, MYK Schomburg, Pinnacle |
| 21     | Bonding Coat                              | CICO, FOSROC, Sunanda speciality coating Pvt. Ltd., BASF, CHRYSO, TAM, DON, MYK Schomburg                                                        |
| 22     | Polysuphide Sealant                       | CICO, Pidilite, BASF, FOSROC, CHRYSO, STP, SIKA, Fairmate, DON                                                                                   |
| 23     | Steel Structural Fasteners                | Pooja Forge, Sundram Fasteners, Unbrako, Nelson, Panchsheel, LPSEJOT                                                                             |
| 24     | Corrosion Protection Paints               | Berger, Johnson Nicholson, Nerolac, Asian, Akzo Nobel, PPG, Jotun, Shalimar 3M, Fosroc                                                           |
| 25     | Micro Silica                              | Sika, Elkem, FOSROC, MAPEI, Corniche, Star Silica, TAM, CALIPAR, CICO, Rockfit                                                                   |
| 26     | Fire Resistant Paints                     | Akzo, Noble, PPG, Jotun                                                                                                                          |
| 27     | External Acrylic Emulsion                 | Berger, Apex, Asian, Nerolac, Jenson & Nicklson                                                                                                  |
| 28     | Integral Crystalline Waterproofing Method | Kryton Buildmat Co. (Pvt.) Ltd., Penetron, Vandex International Ltd., BASF, Chryso, XYPEX, Normet India, DON, MYK Schomburg                      |
| 29     | Water stopper/ Bar                        | Kanta Rubber, Greenstreak, Maruti, Duron, Deep-Jyoti Rubber                                                                                      |
| 30     | Liquid polymer membrane waterproofing     | INTEGRITANK, BASF, MAPEI, PIDILITE, CICO, Normet India, DON, MYK Schomburg                                                                       |
| 31     | Curing Compound                           | Clean tech concure, SINAK, FOSROC, Adoadditives, TAM, STP CHRYSO, CICO, DON, Pinnacle                                                            |
| 32     | Polycarbonate Sheets                      | M/s. Gallina Acroplus, Coxwell, Poly U, Fabric, Lexan, (SABIC Innovative Plastics), DANPALON, GE Plastics                                        |
| 33     | Fly Ash                                   | Thermal Plants, Ashcrete, Ultra Pozz, Star Pozz (the Fly Ash shall be as per our specifications)                                                 |
| 34     | Pre-coated profiled Metal Sheetings       | Blue, Scope steel, Multicolor, Essar Steel, Bhushan Steel, Ispat Profile India.                                                                  |
| 35     | Welding Electrodes                        | Esab India, Advani-Oerlikon, D&H Welding Electrodes, Superon Schweisstechnik India, Maruti Weld, Modi Arc, Modi Hitech, Weld ally                |

**Finishes Work Vendor List**

| S. No. | Work Category | Items/ Products                   | Approved Manufacturers/ Vendors                    |
|--------|---------------|-----------------------------------|----------------------------------------------------|
| 1      | FLOORING      | VITRIFIED TILES                   | Kajaria                                            |
|        |               |                                   | H&R Johnson (India)                                |
|        |               |                                   | Naveen                                             |
|        |               |                                   | Somany                                             |
|        |               |                                   | Orient                                             |
|        |               |                                   | R. K. Ceramics                                     |
|        |               |                                   | Restile Ceramics Limited                           |
|        |               |                                   | Asian Granito India Ltd.                           |
|        |               |                                   | Oasis (Marbomax Group)                             |
|        |               |                                   | Euro Tiles                                         |
|        |               |                                   | Oracle Granito Limited ('Marbito' Vitrified Tiles) |
|        |               | Nitco                             |                                                    |
|        |               | CERAMIC TILES/<br>PORCELAIN TILES | Kajaria                                            |
|        |               |                                   | Bell Ceramics                                      |
|        |               |                                   | H&R Johnson (India)                                |
|        |               |                                   | Nitco                                              |
|        |               |                                   | Regency Ceramics Ltd.                              |
|        |               |                                   | Somany                                             |
|        |               |                                   | Orient                                             |
|        |               |                                   | Kenzai Ceramic                                     |
|        |               |                                   | Raja Tiles                                         |
|        |               |                                   | Mridul Enterprises                                 |
|        |               |                                   | Italia                                             |
|        |               |                                   | Euro Tiles                                         |
|        |               |                                   | Hindustan Tiles                                    |
|        |               | TERRAZZO TILES                    | Nitco                                              |
|        |               |                                   | Hindustan Tiles                                    |
|        |               | TACTILE                           | Pelican Ceramic Industries Pvt. Limited            |
|        |               |                                   | UniStone Products (India) Pvt. Ltd                 |
|        |               |                                   | Nimco Prefab Ltd.                                  |
|        |               | PVC Floors                        | Armstrong World Industries (India) Pvt. Ltd.       |
|        |               |                                   | Gerfloor India                                     |
|        |               |                                   | Tarkett                                            |
|        |               |                                   | VeeKay Polycoats Limited                           |
|        |               | RAISED FLOORS                     | Hewetson/ Kingspan Access Floors                   |



| S. No.                                             | Work Category | Items/ Products          | Approved Manufacturers/ Vendors                         |
|----------------------------------------------------|---------------|--------------------------|---------------------------------------------------------|
|                                                    |               |                          | United Access Floors/ United Insulation                 |
|                                                    |               |                          | Uniflair                                                |
|                                                    |               |                          | Unifloor                                                |
|                                                    |               |                          | Acons                                                   |
|                                                    |               | WOODEN FLOORS            | Armstrong World Industries (India) Pvt. Ltd.            |
|                                                    |               |                          | Action Tesa (Action Buildwell)                          |
|                                                    |               |                          | Pergo                                                   |
|                                                    |               | PU COATED FLOORS         | Cipy Polyurethanes                                      |
|                                                    |               |                          | H.C. Associates                                         |
|                                                    |               |                          | Pidilite                                                |
|                                                    |               |                          | Shalimar Paints                                         |
|                                                    |               |                          | Sika                                                    |
|                                                    |               | GRC PAVING TILES         | Unistone                                                |
|                                                    |               |                          | Nimco Prefab                                            |
|                                                    |               |                          | Hindustan Tiles                                         |
|                                                    |               | PAVERS & CHEQUERED TILES | UniStone Products (India) Pvt. Ltd                      |
|                                                    |               |                          | CCC Builders Merchant Delhi Pvt. Ltd.                   |
|                                                    |               |                          | Nimco Prefab                                            |
|                                                    |               |                          | Hindustan Tiles                                         |
|                                                    |               |                          | Terra Firma (Now TERRA FIRMA GRC & CONCRETE INDUSTRIES) |
|                                                    |               |                          | Nitco                                                   |
|                                                    |               |                          | Hindustan Tiles                                         |
|                                                    |               |                          | Ultra Tiles                                             |
| Oracle Granito Limited ('Marbito' Vitrified Tiles) |               |                          |                                                         |
| 2                                                  | FINISHING     | MOSAIC TILES             | Bisazza (Glass Mosaic Tiles)                            |
|                                                    |               |                          | Mridul Enterprises                                      |
|                                                    |               |                          | Italia                                                  |
|                                                    |               |                          | Kenzai                                                  |
|                                                    |               |                          | Opio                                                    |
|                                                    |               |                          | Eon Ceramics                                            |
|                                                    |               | EMULSION PAINTS          | ICI Dulux                                               |
|                                                    |               |                          | Modi Industries                                         |
|                                                    |               |                          | Acro Paints                                             |
|                                                    |               |                          | Asian                                                   |
|                                                    |               |                          | Berger                                                  |

| S. No. | Work Category | Items/ Products           | Approved Manufacturers/ Vendors                             |
|--------|---------------|---------------------------|-------------------------------------------------------------|
|        |               |                           | Nerolac                                                     |
|        |               |                           | Jenson & Nicholson                                          |
|        |               |                           | Kamdhenu Paints                                             |
|        |               |                           | Shalimar Paints                                             |
|        |               |                           | Sherwin Williams Paints                                     |
|        |               | SYNTHETIC ENAMELS         | ICI Dulux                                                   |
|        |               |                           | Acro Paints                                                 |
|        |               |                           | Asian                                                       |
|        |               |                           | Berger                                                      |
|        |               |                           | Nerolac                                                     |
|        |               |                           | Jenson & Nicholson                                          |
|        |               |                           | Kamdhenu Paints                                             |
|        |               |                           | Shalimar Paints                                             |
|        |               |                           | Sherwin Williams Paints                                     |
|        |               | TEXTURE PAINTS            | Spectrum                                                    |
|        |               |                           | Unitile                                                     |
|        |               |                           | Bakelite Hylam(Surface Texture Division)- "Heritage" Paints |
|        |               |                           | Texfin Products (M/s Niko)                                  |
|        |               |                           | Acro Paints                                                 |
|        |               |                           | Birla                                                       |
|        |               |                           | ICI Dulux                                                   |
|        |               |                           | NCL ALTEK                                                   |
|        |               |                           | Kamdhenu Paints                                             |
|        |               |                           | Bizzar                                                      |
|        |               |                           | Sherwin Williams Paints                                     |
|        |               | POLYURETHANE PAINTS       | MRF paints                                                  |
|        |               |                           | Nerolac                                                     |
|        |               |                           | H.C. Associates                                             |
|        |               |                           | Modi Industries Ltd. (Paint Section)                        |
|        |               | WALL CARE PUTTY           | J.K. White                                                  |
|        |               |                           | Unistone                                                    |
|        |               |                           | Birla (Aditya Birla Group)                                  |
|        |               |                           | Shalimar Paints                                             |
|        |               |                           | Gyproc wall Putty (Saint Gobain)                            |
|        |               | GLASS (Float / Toughened) | Float Glass India Ltd. (Asahi float)                        |
|        |               |                           | Asahi Float (AIS)                                           |

| S. No.                                       | Work Category                         | Items/ Products                    | Approved Manufacturers/ Vendors       |                           |                                                                                                |
|----------------------------------------------|---------------------------------------|------------------------------------|---------------------------------------|---------------------------|------------------------------------------------------------------------------------------------|
|                                              |                                       |                                    | Modigaurd                             |                           |                                                                                                |
|                                              |                                       |                                    | Glaverbel                             |                           |                                                                                                |
|                                              |                                       |                                    | Saint Gobain                          |                           |                                                                                                |
|                                              |                                       |                                    | Sejal                                 |                           |                                                                                                |
|                                              |                                       | STRUCTURAL GLAZING FABRICATORS     | PERMASTEELISA (INDIA) PRIVATE LIMITED |                           |                                                                                                |
|                                              |                                       |                                    | Alufit (INDIA) Pvt. Ltd.              |                           |                                                                                                |
|                                              |                                       |                                    | SP fabricators pvt. Ltd               |                           |                                                                                                |
|                                              |                                       |                                    | Alpro India,                          |                           |                                                                                                |
|                                              |                                       |                                    | Ashoo Decore (India) Pvt. Ltd.,       |                           |                                                                                                |
|                                              |                                       |                                    | Innovators                            |                           |                                                                                                |
|                                              |                                       | Façade India Testing Inc.          |                                       |                           |                                                                                                |
|                                              |                                       | 3                                  | CLADDING                              | ALUMINIUM COMPOSITE PANEL | AlucoBond                                                                                      |
|                                              |                                       |                                    |                                       |                           | Reynobond<br>(Marketed through Kawneer India;<br>Stockists HECTAFINE CONSTECH INDIA PVT. LTD.) |
| ALPOLIC<br>(A Mitsubishi product)            |                                       |                                    |                                       |                           |                                                                                                |
| Alstrong                                     |                                       |                                    |                                       |                           |                                                                                                |
| Alex Panels                                  |                                       |                                    |                                       |                           |                                                                                                |
| ALSTONE INTERNATIONAL                        |                                       |                                    |                                       |                           |                                                                                                |
| Aludecor Lamination Pvt. Ltd.                |                                       |                                    |                                       |                           |                                                                                                |
| Alupan Composite Panels Pvt. Ltd.            |                                       |                                    |                                       |                           |                                                                                                |
| GRC PRODUCTS<br>(GRC Screen,<br>Panels etc.) | UniStone Products (India) Pvt. Ltd    |                                    |                                       |                           |                                                                                                |
|                                              | Hindustan                             |                                    |                                       |                           |                                                                                                |
|                                              | TERRA FIRMA GRC & CONCRETE Industries |                                    |                                       |                           |                                                                                                |
| WAX PLASTER                                  | Unitile                               |                                    |                                       |                           |                                                                                                |
|                                              | Okios India Pvt. Ltd                  |                                    |                                       |                           |                                                                                                |
|                                              | Acro Paints                           |                                    |                                       |                           |                                                                                                |
| 4                                            | CEILINGS                              | GYPBOARD CEILINGS                  | Gyproc (Saint Gobain)                 |                           |                                                                                                |
|                                              |                                       |                                    | Lafarge Boral Gypsum India Pvt. Ltd.  |                           |                                                                                                |
|                                              |                                       | CALCIUM SILICATE BOARD             | Promat                                |                           |                                                                                                |
|                                              |                                       |                                    | Hilux                                 |                           |                                                                                                |
|                                              |                                       |                                    | Acon Pan                              |                           |                                                                                                |
|                                              |                                       |                                    | Aerolite                              |                           |                                                                                                |
|                                              |                                       | SS, MS / GI POWDER COATED CEILINGS | Hunter Douglas                        |                           |                                                                                                |
|                                              |                                       |                                    | Armstrong                             |                           |                                                                                                |

| S. No. | Work Category                 | Items/ Products                  | Approved Manufacturers/ Vendors                                   |
|--------|-------------------------------|----------------------------------|-------------------------------------------------------------------|
|        |                               |                                  | Durlum                                                            |
|        |                               |                                  | Fameline                                                          |
|        |                               |                                  | Canon Ceiling System                                              |
|        |                               | ALUMINIUM CEILINGS               | Hunter Douglas                                                    |
|        |                               |                                  | Armstrong                                                         |
|        |                               |                                  | Durlum                                                            |
| 5      | ADHESIVES, FILLERS & SEALANTS | ADHESIVES FOR TILES              | Pidilite                                                          |
|        |                               |                                  | Araldite (Huntsman Advanced Materials)                            |
|        |                               |                                  | Toyo Ferrous Crete (P) Ltd.                                       |
|        |                               |                                  | Somany Ezy Grout                                                  |
|        |                               |                                  | MYK Laticrete                                                     |
|        |                               |                                  | Mapei                                                             |
|        |                               |                                  | Unistone Ultimate Tile Adhesive                                   |
|        |                               | TILE JOINT FILLER                | Bal Adhesives and Grouts                                          |
|        |                               |                                  | "Roff Rainbow Tile mate" of Roff Construction Chemicals Pvt. Ltd. |
|        |                               |                                  | Winsil 20/ malibu-tech                                            |
|        |                               |                                  | Silicon Sealant of GE Bayer Silicone                              |
|        |                               |                                  | "Zentrival FM" of MC-Bauchemie (India) Pvt. Ltd.                  |
|        |                               |                                  | MYK Laticrete                                                     |
|        |                               |                                  | Toyo Ferrous Crete(P) Ltd.                                        |
|        |                               |                                  | Mapei                                                             |
|        |                               | POLY SULPHIDE SEALANTS           | Unistone Super Grout                                              |
|        |                               |                                  | Pidilite                                                          |
|        |                               |                                  | STP Limited                                                       |
|        |                               |                                  | Sika                                                              |
|        |                               |                                  | CICO                                                              |
|        |                               |                                  | BASF                                                              |
|        |                               |                                  | FOSROC                                                            |
|        |                               | SILICONE SEALANTS                | SWC                                                               |
|        |                               |                                  | GE Bayer Silicones                                                |
|        |                               |                                  | Dow Corning                                                       |
|        |                               |                                  | Sika                                                              |
|        |                               | SILICON WATER REPELLANT SOLUTION | McCoy Soudal                                                      |
|        |                               |                                  | GE Bayer Silicones                                                |
|        |                               |                                  | Metroark                                                          |

| S. No. | Work Category                    | Items/ Products                 | Approved Manufacturers/ Vendors                            |
|--------|----------------------------------|---------------------------------|------------------------------------------------------------|
|        |                                  |                                 | STP Limited                                                |
|        |                                  |                                 | MC Bauchemnic                                              |
|        |                                  |                                 | Choksey Chemicals                                          |
|        |                                  | POLYURETHANE SEALANTS           | 3M                                                         |
|        |                                  |                                 | SIKA                                                       |
|        |                                  |                                 | McCoy Soudal                                               |
| 6      | JOINARY/<br>WOODWORK<br>PRODUCTS | PLYWOOD                         | Duroply- Sharda Ply wood Industries                        |
|        |                                  |                                 | Century Ply                                                |
|        |                                  |                                 | Kitply                                                     |
|        |                                  |                                 | Green Ply wood                                             |
|        |                                  |                                 | Virgo Lam<br>(M/s Virgo Industries -> Virgo Plywoods Ltd.) |
|        |                                  |                                 | Swastik Plyboard Ltd. (Swati Plyboard)                     |
|        |                                  |                                 | Merino                                                     |
|        |                                  | BLOCKBOARD                      | Duroply- Sharda Ply wood Industries                        |
|        |                                  |                                 | Century Ply                                                |
|        |                                  |                                 | Kitply                                                     |
|        |                                  |                                 | Green Ply wood                                             |
|        |                                  |                                 | Virgo Lam<br>(M/s Virgo Industries -> Virgo Boards Ltd.)   |
|        |                                  |                                 | Merino                                                     |
|        |                                  | LAMINATE                        | Decolam / Decolite (A Bakelite Hylam Product)              |
|        |                                  |                                 | Formica Corporation                                        |
|        |                                  |                                 | Sundek International Decorative laminates                  |
|        |                                  |                                 | BAKELITE HYLAM LTD                                         |
|        |                                  |                                 | Greenlam Asia Pacific Pte Ltd                              |
|        |                                  |                                 | Merino                                                     |
|        |                                  |                                 | Virgo Lam<br>(M/s Virgo Industries)                        |
|        |                                  | PRE-LAMINATED<br>PARTICLE BOARD | Novopan (GVK Group)                                        |
|        |                                  |                                 | Ecoboard                                                   |
|        |                                  |                                 | Action Tesa (Action Buildwell)                             |
|        |                                  |                                 | Bhutan Board                                               |
|        |                                  | FLUSH DOORS                     | KanchanPly                                                 |
|        |                                  |                                 | Swastik Ply                                                |
|        |                                  |                                 | Kutty's                                                    |
|        |                                  |                                 | Diamond Flush Doors/Star Metal Forms p. Ltd                |

| S. No.                          | Work Category | Items/ Products           | Approved Manufacturers/ Vendors                              |
|---------------------------------|---------------|---------------------------|--------------------------------------------------------------|
|                                 |               |                           | Raa Veela                                                    |
|                                 |               |                           | Alpro Panels                                                 |
|                                 |               | COMPACT LAMINATED DOORS   | Merino                                                       |
|                                 |               |                           | Greenlam Asia Pacific Pte Ltd sturdo rest rooms and cubicals |
|                                 |               |                           | GreenPly                                                     |
|                                 |               | PRESSED STEEL DOOR FRAMES | AGEW STEEL MANUFACTURES PVT LTD                              |
|                                 |               |                           | Sen-Harvic Windows Private Limited                           |
|                                 |               |                           | Raymus                                                       |
|                                 |               | FIRE DOORS                | Signum Fire Protection (I) Pvt. Ltd.                         |
|                                 |               |                           | Godrej & Boyce Manufacturing Company Limited.                |
|                                 |               |                           | RADIANT FIRE PROTECTION ENGINEERS PVT. LTD.                  |
|                                 |               |                           | NAVAIR INTERNATIONAL LTD.                                    |
|                                 |               |                           | Sehgal & Sehgal                                              |
|                                 |               |                           | ShaktiMet                                                    |
| 7                               | PLUMBING      | SANITARYWARE              | Hindware                                                     |
|                                 |               |                           | Cera                                                         |
|                                 |               |                           | Roca                                                         |
|                                 |               |                           | Parryware                                                    |
|                                 |               |                           | Euro                                                         |
|                                 |               |                           | Somany                                                       |
|                                 |               | SANITARY & BATH FITTINGS  | Mayur/ Othello                                               |
|                                 |               |                           | Jaquar and Company Pvt. Ltd.                                 |
|                                 |               |                           | Kohler                                                       |
|                                 |               |                           | Kingston (Plastocraft Sanitary India Pvt. Ltd.)              |
|                                 |               |                           | Lauret                                                       |
|                                 |               |                           | Marc                                                         |
|                                 |               |                           | 8                                                            |
| Hafele                          |               |                           |                                                              |
| Dorset                          |               |                           |                                                              |
| Dline                           |               |                           |                                                              |
| Insta Hardware                  |               |                           |                                                              |
| Hardwyn                         |               |                           |                                                              |
| SPIDER FITTINGS/ PATCH FITTINGS | Ozone         |                           |                                                              |
|                                 | Kich          |                           |                                                              |
|                                 | Dunex         |                           |                                                              |
|                                 |               |                           |                                                              |

| S. No. | Work Category    | Items/ Products                                 | Approved Manufacturers/ Vendors |
|--------|------------------|-------------------------------------------------|---------------------------------|
|        |                  |                                                 | Dline                           |
|        |                  | ANCHOR FASTENERS                                | Hilti India Pvt. Ltd.           |
|        |                  |                                                 | BOSCH FISCHER                   |
|        |                  |                                                 | Canon Fasteners                 |
|        |                  |                                                 | Axel                            |
|        |                  |                                                 | Boun Group                      |
|        |                  | STONE CLADDING CLAMPS                           | Hilti India Pvt. Ltd.           |
|        |                  |                                                 | BOSCH FISCHER                   |
|        |                  |                                                 | Canon Fasteners                 |
|        |                  |                                                 | Alex Industries                 |
|        |                  |                                                 | BOUN Group                      |
|        |                  | DOOR HARDWARE                                   | Dorma                           |
|        |                  |                                                 | Hafele                          |
|        |                  |                                                 | Dorset                          |
|        |                  |                                                 | Dline                           |
|        |                  |                                                 | Hardwyn                         |
|        |                  |                                                 | Ozone                           |
|        |                  |                                                 | Hettich India Pvt Ltd           |
| 9      | PIPES & FITTINGS | DRAINAGE PIPES                                  | Tirupati Plastomatics           |
|        |                  |                                                 | Duraline                        |
|        |                  |                                                 | Rex                             |
|        |                  | DUCTILE IRON PIPES                              | Electro Steel                   |
|        |                  |                                                 | Jindal (Hissar)                 |
|        |                  | CAST IRON (L.A.) S/S PIPES & FITTINGS (IS:1536) | Kesoram                         |
|        |                  |                                                 | KDPL                            |
|        |                  |                                                 | NECCO                           |
|        |                  |                                                 | HEPCO                           |
|        |                  | GI & MS PIPES (IS :1239 PART I & II, IS :3589)  | Jindal (Hissar)                 |
|        |                  |                                                 | Surya                           |
|        |                  |                                                 | Swastik                         |
|        |                  |                                                 | Prakash                         |
|        |                  | GI FITTING - MALLEABLE (IS:1879 PART I TO X)    | Zoloto                          |
|        |                  |                                                 | Unik                            |
|        |                  |                                                 | "R"                             |
|        |                  |                                                 | KS                              |

| S. No. | Work Category                      | Items/ Products                                 | Approved Manufacturers/ Vendors                                                                                     |
|--------|------------------------------------|-------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
|        |                                    |                                                 | DRP                                                                                                                 |
|        |                                    | Upvc pipes & fittings (is: 4985-1981)           | Finolex                                                                                                             |
|        |                                    |                                                 | Supreme                                                                                                             |
|        |                                    |                                                 | Prince                                                                                                              |
|        |                                    |                                                 | Polypack                                                                                                            |
|        |                                    |                                                 | Jindal Plast (India)                                                                                                |
|        |                                    | CPVC PIPES & FITTINGS                           | Flowguard – Astral                                                                                                  |
|        |                                    |                                                 | Ajay                                                                                                                |
|        |                                    |                                                 | Ashirwad                                                                                                            |
|        |                                    | STONEWARE PIPES & GULLY TRAPS (IS:651)          | Perfect                                                                                                             |
|        |                                    |                                                 | Anand                                                                                                               |
|        |                                    |                                                 | R.K.                                                                                                                |
|        |                                    |                                                 | Priya                                                                                                               |
|        |                                    | RCC PIPES (IS:458)                              | Pragati                                                                                                             |
|        |                                    |                                                 | Jain Spun                                                                                                           |
|        |                                    |                                                 | Daya Spun                                                                                                           |
|        |                                    |                                                 | Usha                                                                                                                |
|        |                                    | COPPER PIPES & FITTINGS                         | Mehta Tubes                                                                                                         |
|        |                                    |                                                 | Rajco                                                                                                               |
|        |                                    |                                                 | Maxflow                                                                                                             |
|        |                                    | HDPE PIPES & FITTINGS                           | Gebreti                                                                                                             |
|        |                                    |                                                 | Reliance (Hasti)                                                                                                    |
|        |                                    |                                                 | Nosil                                                                                                               |
|        |                                    | STAINLESS STEEL PIPES                           | Remi                                                                                                                |
|        |                                    |                                                 | Jyoti Apex                                                                                                          |
|        |                                    |                                                 | Kamdhenu                                                                                                            |
|        |                                    | PPR PIPES & FITTINGS                            | Supreme                                                                                                             |
|        |                                    |                                                 | Prince                                                                                                              |
|        |                                    |                                                 | Uro-Allwin                                                                                                          |
|        |                                    | POLYBUTYLENE (PB) PIPES & FITTINGS              | Georg Fischer                                                                                                       |
|        |                                    |                                                 | Flexalen                                                                                                            |
| 10     | WATERPROOFING/ REPELLANTS COMPOUND | MODIFIED BITUMINOUS MEMBRANE ROOF WATERPROOFING | Multiplas Standard of Integrated Waterproofing Membrane Limited /"SUPER THERMOLAY"/"POLYFLEX' of <u>STP Limited</u> |
|        |                                    |                                                 | "LOTUS-3" of the Structural Waterproofing Co. Limited                                                               |
|        |                                    |                                                 | Sika                                                                                                                |



| S. No. | Work Category     | Items/ Products                           | Approved Manufacturers/ Vendors                               |
|--------|-------------------|-------------------------------------------|---------------------------------------------------------------|
|        |                   |                                           | Kemco                                                         |
|        |                   |                                           | Kryton Buildmat                                               |
|        |                   |                                           | MBT                                                           |
|        |                   |                                           | FOSROC                                                        |
|        |                   | INTEGRAL CRYSTALLINE WATERPROOFING METHOD | Kryton Buildmat                                               |
|        |                   |                                           | Penetron                                                      |
|        |                   |                                           | Mapei                                                         |
|        |                   |                                           | Vandex International Ltd.                                     |
| 11     | POWDER COATINGS   |                                           | Berger                                                        |
|        |                   |                                           | Nerocoat                                                      |
|        |                   |                                           | Jenson & Nicholson                                            |
|        |                   |                                           | Jatun                                                         |
|        |                   |                                           | Radiant Anodisers Pvt Ltd                                     |
| 12     | METALS            | ALUMINIUM SECTIONS                        | Hindustan Aluminium                                           |
|        |                   |                                           | Jindal Aluminium Ltd.                                         |
|        |                   |                                           | Bhoruka                                                       |
|        |                   |                                           | Bharat Aluminium Company Limited/vedanta BALCO                |
|        |                   |                                           | Hindalco                                                      |
|        |                   | HOLLOW SECTIONS, PIPES                    | Surya Pipes                                                   |
|        |                   |                                           | Hi-Tech pipes                                                 |
|        |                   |                                           | JSW                                                           |
|        |                   |                                           | JSPL                                                          |
|        |                   |                                           | Bihar (Bihar Tubes Ltd)                                       |
|        |                   | M.S. TUBES/ SECTIONS                      | Tata Metal                                                    |
|        |                   |                                           | Llyod Metal                                                   |
|        |                   |                                           | NSL Limited                                                   |
|        |                   |                                           | Bihar Tube Ltd                                                |
|        |                   |                                           | Swastik Pipes Ltd                                             |
|        |                   |                                           | JSW ISPAT                                                     |
|        |                   |                                           | Rana                                                          |
|        |                   | SS Works                                  | Dharam Industries (FABRINOX)                                  |
|        |                   |                                           | Ozone                                                         |
|        |                   |                                           | Jindal Stainless (JSL)                                        |
| 13     | ROOFING/ SHEETING | ROOFING SHEETS                            | Roofit (Fibre Glass Roofing, Metal Roofing, galvalume Sheets) |

| S. No. | Work Category | Items/ Products      | Approved Manufacturers/ Vendors                                                  |
|--------|---------------|----------------------|----------------------------------------------------------------------------------|
|        |               |                      | Wonder Sheets (3 layer uPVC - "Wonder Sheets-Pro")                               |
|        |               |                      | Lloyd Insulations India Limited                                                  |
|        |               | METAL ROOFS          | "TRACDEK"<br>Interarch Building Products Pvt. Ltd.<br>(Metal Roofing Sheet)      |
|        |               |                      | TATA Bluescope (Metal coated and Pre-painted Sheets - "Zincalume" , "Colorbond") |
|        |               | POLYCARBONATE SHEETS | "Lexan" (SABIC Innovative Plastics)                                              |
|        |               |                      | Danpalon                                                                         |
|        |               | TENSILE FABRIC       | Ferrari                                                                          |
|        |               |                      | Mehler                                                                           |

## Electrical

### 6.3. Electrical specifications and preferred make

#### Standards And Codes

Updated and current Indian Standard Specifications and Codes of Practice will apply to the equipment and the work covered by the scope of this contract. In addition the relevant clauses of the Indian Electricity Act 2003, Indian Electricity Rules 1956, National Building Code 1997, National Electric Code 1985, Code of Practice for Fire Safety of Building (general): General Principal and Fire Grading – IS 1641, 1988 as amended up to date shall also apply. Wherever appropriate Indian Standards are not available, relevant British and/or IEC Standards shall be applicable.

#### Load balancing

Balancing of circuits in three phase installation shall be planned by the Consultants and shall be checked by the contractor before the commencement of wiring and shall be strictly adhered to.

#### Colour code of conductors

1. **Colour code for normal supply** – Red, Yellow, Blue for three Phases, Black for Neutral and Green for Earth – shall be maintained for the electrical wiring installation
2. **Colour code for UPS supply** – Red/white, Yellow/white, Blue/white for three Phases, white for Neutral and Green/yellow for Earth

#### Routine and completion tests

1. Installation Completion Tests

At the completion of the work, the entire installation shall be subject to the following tests: i. Wiring continuity test ii. Insulation resistance test iii. Earth continuity test iv. Earth resistivity test

2. Besides the above, any other test specified by the local authority shall also be carried out. All tested and calibrated instruments for testing, labour, materials and incidentals necessary to conduct the above tests shall be provided by the contractor at his own cost.
3. Wiring Continuity Test

All wiring systems shall be tested for continuity of circuits, short circuits, and earthing after wiring is

completed and before installation is energized.

**4. Insulation Resistance Test**

The insulation resistance shall be measured between earth and the whole system conductors, or any section thereof with all protection in place and all switches closed and except in concentric wiring all lamps in position of both poles of the installation otherwise electrically connected together, a direct current pressure of not less than twice the working pressure provided that it does not exceed 1100 volts for LT circuits. Where the supply is derived from AC three phase system,

the neutral pole of which is connected to earth, either direct or through added resistance, pressure shall be deemed to be that which is maintained between the phase conductor and the neutral.

5. The insulation resistance measured as above shall not be less than 50 megohms divided by the number of points provided on the circuit the whole installation shall not have an insulation resistance lower than one megohm.
6. The insulation resistance shall also be measured between all conductors connected to one phase conductor of the supply and shall be carried out after removing all metallic connections between the two poles of the installation and in those circumstances the insulation shall not be less than that specified above.
7. The insulation resistance between the frame work of housing of power appliances and all live parts of each appliance shall not be less than that specified in the relevant Standard specification or where there is no such specification, shall not be less than half a megohm or when PVC insulated cables are used for wiring 12.5 megohms divided by the number of outlets. Where a whole installation is being tested a lower value than that given by the above formula subject to a minimum of 1 Megohms is acceptable.

**Testing of earth continuity path**

The earth continuity conductor including metal conduits and metallic envelopes of cable in all cases shall be tested for electric continuity and the electrical resistance of the same along with the earthing lead but excluding any added resistance of earth leakage circuit breaker measured from the connection with the earth electrode to any point in the earth continuity conductor in the completed installation shall not exceed one ohm.

**Testing of polarity of non-linked single pole switches**

In a two wire installation a test shall be made to verify that all non-linked single pole switches have been connected to the same conductor throughout, and such conductor shall be labelled or marked for connection to an outer or phase conductor or to the non-earthed conductor of the supply. In the three of four wire installation, a test shall be made to verify that every non-linked single pole switch is fitted to one of the outer or phase conductor of the supply. The entire electrical installation shall be subject to the final acceptance of the Engineer-in-Charge as well as the local authorities.

**Earth resistivity test**

Earth resistivity test shall be carried out in accordance with IS Code of Practice for earthing IS 3043.

**Performance**

Should the above tests not comply with the limits and requirements as above the contractor shall rectify the faults until the required results are obtained. The contractor shall be responsible for providing the necessary instruments and subsidiary earths for carrying out the tests. The above tests are to be carried out by the contractor without any extra charge.

**Tests and test reports**

The Contractor shall furnish test reports and preliminary drawings for the equipment to the Engineer-

inCharge for approval before commencing supply of the equipment. The Contractor should intimate with the tender the equipment intended to be supplied with its technical particulars. Any test certificates etc., required by the local Inspectors or any other Authorities would be supplied by the Contractor without any extra charge. All test reports shall be approved by the Engineer-in-Charge prior to energizing of installation.

## **Specifications for Manually Operated Fire Detection and Alarm System**

### **General description:**

#### **Scope**

This specification covers the supply, installation, testing and commissioning of the Fire Alarm Systems and generally comprise

1. Provision of Manual Call Points
2. Provision of Hooters
3. Local Control Unit for the System
4. Wiring between MCP, Hooter and Control Units to make the complete System

#### **Standards and codes**

All equipment and the installation shall be as per the relevant Indian Standards Specifications. Where these Standards do not exist, the relevant British Standards or any other internationally accepted Standard shall apply.

#### **Internal wiring**

All internal wiring shall be with 1.5 sq mm PVC insulated copper conductor wires colour coded and labelled with ferrules for easy identification. The wiring shall be properly bunched and harnessed. The wiring shall be done in a manner such that it is readily accessible from the front for maintenance.

#### **Test certificates**

Type test certificates from a recognized independent agency shall be furnished for all the equipment. The equipment shall comply with the requirements of the Indian, International Standards, Fire Insurance Authorities and all National and Local Regulations in force.

## **Specifications for HVAC**

### **Section - I: Air Handling Units (Suitable For Working With VRV/VRF )**

#### **Scope**

It includes the supply, erection, testing and commissioning of double skin type air handling units, conforming to these Specifications and as detailed in the Schedule of Quantities and approved shop drawings.

#### **Type**

The air handling units shall be double skin construction, horizontal or vertical type through blow through type comprising of various sections i.e. filter section/s coil section/s and fan section. Mixing box (with dampers), (wherever the return air, or and fresh air are ducted) as included in schedule of quantities and shown in shop drawings.

#### **Capacity**

The air handling capacities in terms of air delivery, maximum motor horse power and static pressure shall be as identified in Schedule of Quantities and in shop drawings.

#### **Dampers**

Dampers provided at supply air inlet, return air & fresh air intake shall be opposed blade type made of

double skinned aerofoil aluminium sections, assembled within a rigid extruded aluminium alloy frame work with gasket. All linkages shall be made of aluminium or nylon, having Teflon bushes. Dampers shall be provided with a Bakelite knob for locking the damper blades in position. Linkages shall be extended wherever specified for motorized operation.

**Fresh Air Intakes**

Anodized extruded aluminium construction fresh air louvers with bird screen pre filters and dampers shall be provided in the external masonry walls of the air handling unit rooms. Fresh air dampers shall be of the interlocking, opposed-blade louver type. Blades shall be made of extruded aluminium construction and shall be rattle-free. Dampers shall be similar to those specified in —Air DistributionII. Fresh air fans and fresh air intakes shall be as per the requirements of Schedule of Quantities.

**Performance Data**

AHU selection shall be for the lowest operating noise level. Fan performance curve and power consumption data, with operating point indicated shall be submitted in technical submittals which shall be verified at the time of testing and commissioning of the installation.

**Painting**

Shop coats of paint that have become marred during shipment or erection shall be cleaned off with mineral spirits, wire brushed and spot primed over the affected areas, then coated with paint to match the finish over the adjoining shop painted surface.

**Testing**

Cooling / heating capacity of each air handling unit shall be computed from the measurements of air flow and dry and wet bulb temperatures of air entering and leaving the coil. Flow measurements shall be by voltmeter anemometer and temperature measurements by accurately calibrated mercury-inglass thermometer. Computed results shall conform to the specified capacities and quoted ratings. Power consumption shall be measured from w.r.t incoming voltage and input current.

**Section – III: Air Distribution Alternate: I  
(For Ducts Fabricated In Factory as Per “SMANCA” Standards)**

**Scope**

The scope of this section comprises supply fabrication, installation and testing of all sheet metal / aluminium ducts, supply, and installation, testing and balancing of all grilles, registers and diffusers. All to be in accordance with these specifications and the general arrangement shown on the Drawings.

**Duct materials**

1. Raw materials: Galvanizing shall be Class VII – light coating of zinc, nominal 120gm/sq. m surface area and Lock Forming Quality prime material along with mill test certificates. In addition, if deemed necessary, samples of raw material, selected at random by owner’s site representative shall be subject to approval and tested for thickness and zinc coating at contractor's expense.
2. Gauges, bracing by size of ducts: All ducts shall be factory fabricated from galvanized steel/ aluminium of the following thickness, as indicated as below :

a. 2.2.1 For Ducts with external SP up to 250 Pa ( ESP up to 25mmWg)

|                                |                                          |                   |                        |
|--------------------------------|------------------------------------------|-------------------|------------------------|
| <b>Rectangular Ducts G. S.</b> | <b>Pressure 250 Pa</b>                   |                   |                        |
|                                | <b>Duct Section Length 1.2 m (4 ft.)</b> |                   |                        |
| <b>Maximum Duct Size</b>       | <b>Gauge</b>                             | <b>Joint Type</b> | <b>Bracing Spacing</b> |
| 1–500 mm                       | 26                                       | C&S Connector     | Nil                    |

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|                |    |               |                   |
|----------------|----|---------------|-------------------|
| 501 – 750 mm   | 26 | C&S Connector | Nil               |
| 751 – 900 mm   | 26 | TDF Flange    | Nil               |
| 901 – 1200 mm  | 24 | TDF Flange    | Nil               |
| 1201 – 1500 mm | 22 | TDF Flange    | Nil               |
| 1501 – 1800 mm | 22 | TDF Flange    | JTR or ZEE<br>BAR |
| 1801 – 2100 mm | 20 | TDF Flange    | JTR or ZEE<br>BAR |
|                |    |               | BAR               |
| 2101 – above   | 18 | TDF Flange    | JTR or ZEE<br>BAR |

OR

Installation practice, Fire & smoke dampers, Supply and return air diffusers, Ducting Supports, Piping Supports, Documentation & measurements for ducting, Insulation, Duct acoustic lining Measurement of insulation, Hanging Support System, HVAC Supports etc. execution shall be done as per standard norms.

**Electrical preferred Make**

| S. No. | Description of items                                                                           | Makes                                                         |
|--------|------------------------------------------------------------------------------------------------|---------------------------------------------------------------|
| 1      | Conduits                                                                                       | BEC, AKG, steelcraft                                          |
| 2      | Copper conductor FR/FRLS PVC Insulated Wires ISI Marked                                        | Polycab, KEI, Finolex, Havells, Bonton                        |
| 3      | Modular system switches, sockets outlets and wiring accessories with moulded cover plate       | Crabtree, MK Electric, CPL Obsession, Legrand, Schneider, ABB |
| 4      | Supplying and fixing call bell/ buzzer suitable for single phase, 230 V, complete as required. | Crabtree, MK Electric, CPL Obsession, Legrand, Schneider, ABB |
| 5      | Lights fittings                                                                                | Philips, Bajaj, Crompton, Wipro                               |
| 6      | ceiling fan of 5 star rating and Accessories, Metal EXHAUST FAN.                               | Crompton, Bajaj, Orient, Havells, Khaitan                     |
| 7      | Distribution board                                                                             | L&T, Hager, Legrand, Siemens, Schneider, ABB                  |
| 8      | RCBO/RCCB                                                                                      | L&T, Hager, Legrand, Siemens, Schneider, ABB                  |
| 9      | Miniature Circuit Breakers (MCB)                                                               | L&T, Hager, Legrand, Siemens, Schneider, ABB                  |
| 10     | Meters (digital)                                                                               | MECO, DUCATI, ALLEN                                           |
| 11     | Supply of 400 mm sweep wall mounted fan with regulator                                         | Crompton, Bajaj, Orient, Havells, Khaitan                     |
| 12     | Water treatment plant and Brine Agitator                                                       | Thermax                                                       |

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|    |                                                                                                                        |                                                                |
|----|------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|
| 13 | XLPE armoured FRLSH cable                                                                                              | Finolex, KEI, Havells, Asian/RPG, Bonton, cords cable, polycab |
| 14 | Cable joints                                                                                                           | Denson, M3, Mahindra, comet, dowells, jainson                  |
| 15 | Brass compression gland .                                                                                              | comet, dowells, jainson                                        |
| 16 | Providing and fixing 25 mm X 5 mm G.I. strip on surface or in recess for connections etc. as required                  | MEM, BEC, Indiana                                              |
| 17 | perforated Hot Dipped Galvanised Iron cable tray                                                                       | MEM, BEC, Indiana                                              |
| 18 | Copper/Aluminium (crimping type) cable lugs for 1100 volts grade cables                                                | Comet, Dowells, Jainson                                        |
| 19 | Supply of fire resistant Insulation tape 25mmX25 meter Roll                                                            | Flexsteel, steelgrip, Nippon                                   |
| 20 | Portable Fire Extinguishers ISI Marked                                                                                 | Minimax, Safex, Zenith, safeguard or mentioned in BOQ          |
| 21 | TV                                                                                                                     | SAMSUNG / NEC / LG                                             |
| 22 | LT Jointing Kit / Termination                                                                                          | Birla-3M Raychem REPL                                          |
| 23 |                                                                                                                        | Safe Kit                                                       |
| 24 | Lighting & Surge Voltage Protection                                                                                    | ABB                                                            |
| 25 |                                                                                                                        | Hager ObeoBetterman Schneider Electric                         |
| 26 | Exit Signage's                                                                                                         | Legrand MK                                                     |
| 27 |                                                                                                                        | Prolite Philips Thorn                                          |
| 28 | Cable tray                                                                                                             | Ricco Slotco, Indiana Engineering or equivalent                |
| 29 | Raceway                                                                                                                | Legrand - CMS MK, Schneider or equivalent                      |
| 30 | VRV/VRF/ HVAC ductable/Split AC                                                                                        | Bluestar, Daikin , LG                                          |
| 31 | Inline / Propeller Fan                                                                                                 | Ostberg Kruger Systemair                                       |
| 32 | Axial Flow Fan(AMCA Certified)                                                                                         | Systemair Kruger Greenhack                                     |
| 33 | Air Handling Units (Suitable for VRV application)                                                                      | Wave Zeco Edgetech Humidin                                     |
| 34 | Factory Made Duct(Spiral /Elliptical)                                                                                  | Wave Rolastar Zeco                                             |
| 35 | Pipe / duct supports                                                                                                   | Gripple Easyflex Hilti                                         |
| 36 | Grille / Diffuser / Dampers(UL Listed)                                                                                 | Pineaire Systemair Ruskin Titus Mapro                          |
| 37 | Insulation                                                                                                             |                                                                |
| 38 | Microban Closed Cell Elastomeric nitrile rubber (with protective coating of 7 mill black woven fiberglass as required) | Armacell(Armaflex) K- Flex                                     |
| 39 | Acoustic insulation                                                                                                    | Armacell (Arma Sound) K- Flex                                  |
| 40 | Nitrile Rubber with antimicrobial property                                                                             |                                                                |

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|    |                              |                               |
|----|------------------------------|-------------------------------|
| 41 | Starter Panel for fans & AHU | ABB                           |
| 42 |                              | L&T Honeywell                 |
| 43 | Fire Sealant                 | Paramount Polytreat Foster    |
| 44 |                              | Bostik                        |
| 45 | Fire Wrap/Board/Paint        | Paramount Polytreat 3M        |
| 46 | Copper Pipe & fittings       | Rajco                         |
| 47 |                              | Mandev Tubes Mehta Tubes      |
| 48 | uPVC Drain Pipe              | Astral Supreme AKG            |
| 49 | Miscellaneous                |                               |
| 50 | Vibration Isolator           | Dunlop Easyflex               |
| 51 | Flexible Pipe Connection     | Easyflex Pineair              |
| 52 | Flexible duct connector      | Pineair Easyflex Ruskin Titus |

Note:

**Before dispatch of machine at site,**

Technical specification of materials to be provided 1st, then Inspection of material to be done before dispatch of material.



## 7. Section 7: Draft Contract Agreement

THIS AGREEMENT made on the .....day of ..... 2021 at Noida, District Gautam Budh Nagar, Uttar Pradesh Between **Noida Metro Rail Corporation Limited** (Hereafter referred to as "NMRC"), a company incorporated under Companies Act 2013, vide corporate identification Number: U60231UP2014SGC066849 and having its registered office at **Block-III, 3rd Floor, Ganga Shopping Complex, Sector-29, Noida -201301, District Gautam Budh Nagar, Uttar Pradesh, India** represented by ..... of the company, by virtue of his designation and authorization by **Shri/Smt. ...., Managing Director, NMRC** (hereinafter called as the "Employer"), which expression shall unless excluded by or repugnant to the context or meaning thereof be deemed to include its successors and permitted assigns) of the one part,

**AND**

..... having its registered office at ..... represented by ..... (herein after called the "**Contractor**", which expression shall unless excluded by or repugnant to the context or meaning thereof be deemed to include its successors and permitted assigns) of the other part. WHEREAS the Employer desires that the Works known as the "....." should be executed by the Contractor, and has accepted a contract by the Contractor for the execution and completion of these Works.

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 -

### Reference:

- (i) Tender No. .... Dated .....
- (ii) Bid Documents duly accepted and submitted by ..... dated .....
- (iii) The Bidding Documents which include all the Sections specified below:
  - a. Section 1: General Information
  - b. Section 2: Terms of Reference
  - c. Section 3: Instructions to Bidders
  - d. Section 4: Qualification, Evaluation and Selection Process
  - e. Section 5: Special Conditions of Contract
  - f. Section 6: Technical Specifications
  - g. Section 7: Draft Contract Agreement
  - h. Section 8: Appendix and Forms
  - i. General Conditions of Contract (GCC)
  - j. Safety, Health and Environment Management (SHE)
  - k. Amendment/ Modification, if any
- (iv) Notice of Award (.....) issued by NMRC
- (v) Letter of Acceptance of NOA (.....) given by ..... to NMRC
- (vi) Any other admitted correspondence documents between NMRC and the Bidder.

**3. Duration of Contract**

The Corporation intends to appoint a Contractor to NMRC for a period of 4 (Four) Months.

**4. Price Schedule**

NMRC shall consider the following Total Contract Price, as quoted by the Contractor as part of financial bid.

5. The courts at District Gautam Budh Nagar, Uttar Pradesh shall have the exclusive jurisdiction to try all disputes arising out of this agreement between the parties.

6. In consideration of the payments to be made by the Employer to the Contractor as specified 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 and Notice of Award issued. **"Any conditions, deviation, assumption, exclusion, suggestion of alternative clauses, request of amendments in conditions & specifications of work submitted by bidders along with his Technical Bid or Financial bid, which is different from the Tender Document, Corrigendum, Addendum uploaded by NMRC on the E-Tender Portal (<http://etender.up.nic.in>) or [www.nmrcnoida.com](http://www.nmrcnoida.com) and any other correspondence in this regard, shall not be treated as a part of the contract Agreement & shall not be binding upon NMRC in anyway whatsoever at any stage of work during execution or thereafter."**

7. The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the Works, 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 and NOA.

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

For and on behalf of the Contractor  
Signature of the authorized official

For and on behalf of the Employer  
Signature of the authorized official

**Name of the official**

**Name of the official**

Stamp/Seal of the contractor

Stamp/Seal of the Employer

In the presence of:

In the presence of:

Sign of Witness 1 \_\_\_\_\_

Sign of Witness 1 \_\_\_\_\_

Name \_\_\_\_\_

Name \_\_\_\_\_

Address \_\_\_\_\_

Address \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Sign of Witness 2\_\_\_\_\_

Sign of Witness 2\_\_\_\_\_

Name\_\_\_\_\_

Name\_\_\_\_\_

Address\_\_\_\_\_

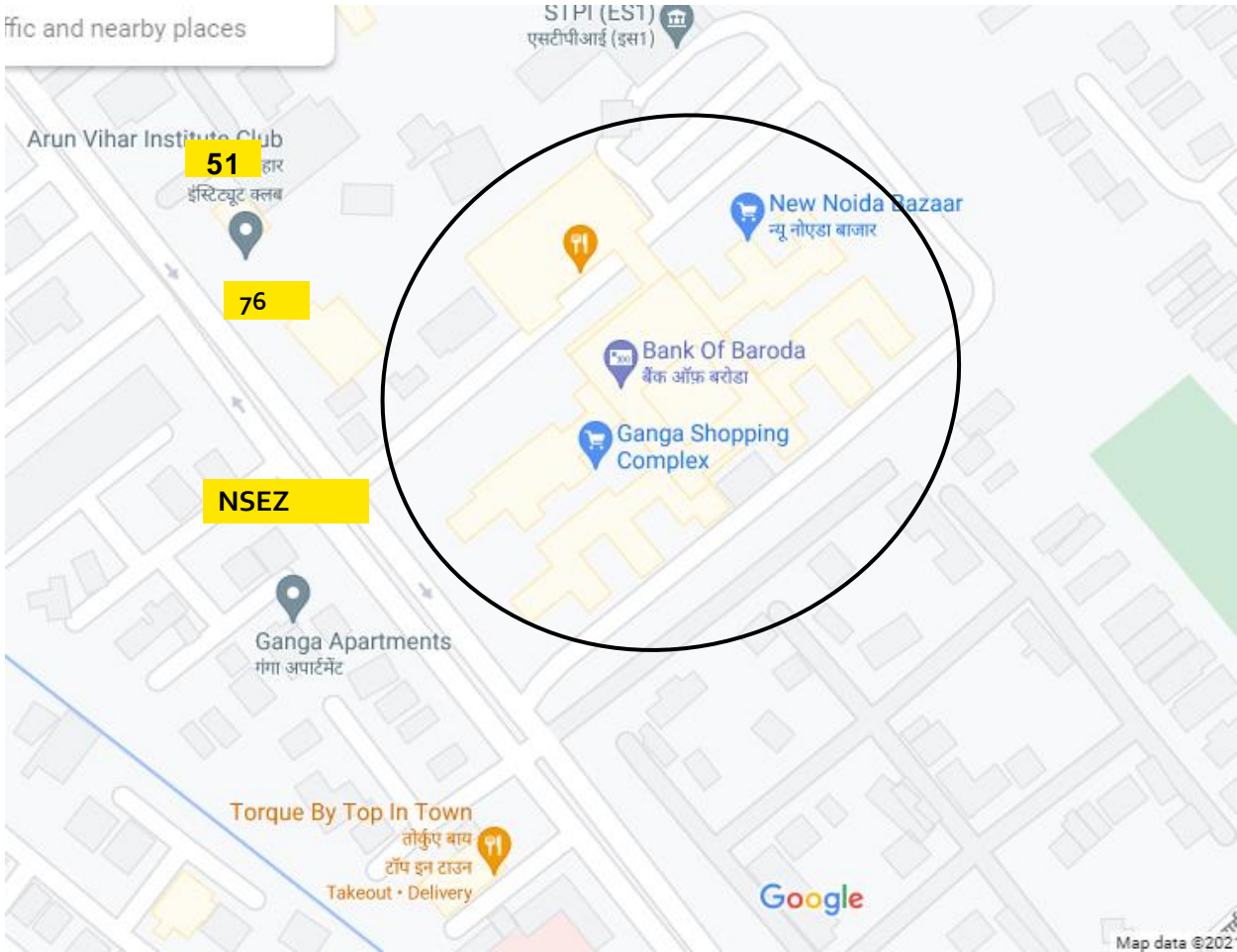
Address\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## 8. Section 8: Appendix and Forms of Tender

### 8.1. Appendix 1: NMRC Head Office



Please Note: The map shown above is indicative (not to scale)

|  |  |
|--|--|
|  |  |
|--|--|

## **8.2. Appendix 2: Quality Assurance**

The Contractor shall implement a Project Quality Management Plan in accordance with ISO9001 "Quality System - Model for Quality Assurance in Design/Development, Production, Installation and Servicing" to ensure that all materials, workmanship, plant and equipment supplied and work done under the contract meets the requirements of the contract. This plan shall apply to all activities related to the quality of items, including designing, purchasing, inspecting, handling, assembling, testing, storing, and shipping of materials and equipment and different elements of maintenance work and installations of system components.

The Quality Plan to be prepared by the Contractor and submitted to the Engineer shall follow the requirements of ISO 9000 and address each element therein.

Registration of the Contractor's organisation, or subcontractors or sub-consultants is not required for this Project but the Project Quality Management Plan as submitted shall meet the intent of the ISO 9000 requirement in that there is a comprehensive and documented approach to achieving the project quality requirements.

### **Quality Assurance Management Plan**

The Project Quality Management Plan (PQMP) shall as a minimum address the quality system elements as required by ISO 9001, generally noting the applicability to the Contractor's Works Programme for the Project. Procedures or Quality Plans to be prepared by others (Suppliers, Subcontractors, and Sub-consultants) and their incorporation in the overall PQMP shall be identified.

The Contractor shall provide and maintain a Quality Assurance Plan (QA) to regulate methods, procedures, and processes to ensure compliance with the Contract requirements. The QA Plan, including QA written procedures, shall be submitted to the Engineer for his review.

Adequate records shall be maintained in a readily retrievable manner to provide documented evidence of quality monitoring and accountability. These records shall be available to Employer at all times during the term of the Contract and during the Defects Liability Period and for a five year period thereafter.

The Plan shall identify:

- a. Design Process: that control, check and verify the accuracy, completeness and integration of the design shall be performed by certified personnel and in accordance with documented procedure that have the written consent of the Engineer.
- b. Special Processes: that control or verify quality shall be performed by certified personnel and in accordance with documented procedures that have the written consent of the Engineer;
- c. Inspection and Test: Inspection and testing instructions shall provide for reporting nonconformance's or questionable conditions to the Engineer; Inspection shall occur at appropriate points in the installation sequence to ensure compliance with drawings, test specifications, process specifications, and quality standards. The Engineer shall designate, if necessary, inspection hold points into installation or inspection planning procedures;

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- d. Receiving Inspection: These procedures shall be used to preclude the use of nonconforming materials and to ensure that only correct and accepted items are used and installed;
- e. Identification and Inspection Status: a system for identifying the progressive inspection status of equipment, materials, components, subassemblies, and assemblies as to their acceptance, rejection, or non-inspection shall be maintained;
- f. Identification and Control of Items: an item identification and traceability control shall be provided;
- g. Handling, Storage, and Delivery: provide for adequate work, surveillance and inspection instructions.
- h. The Plan shall ensure that conditions adverse to quality such as failures, malfunctions, deficiencies, deviations, and defects in materials and equipment shall be promptly identified and corrected.
- i. The Plan shall provide for establishing, and maintaining an effective and positive system for controlling non-conforming material including procedures for the identification, segregation, and disposal of all non-conforming material. Dispositions for the use or repair of nonconforming materials shall require the Engineers consent.

**Plan Implementation and Verification**

The Plan shall clearly define the QA Organisation. Management responsibility for the QA shall be set forth on the Contractor's policy and organisation chart. The Plan shall define the requirements for QA personnel, their skills and training. Records of personnel certifications shall be maintained and monitored by the QA personnel. These records shall be made available to the Engineer for review, upon request.

The QA operations shall be subject to the Engineers, Employer or Employer's authorised representative's verification at any time, including: surveillance of the operations to determine that practices, methods and procedures of the plan are being properly applied; inspection to measure quality of items to be offered for acceptance; and audits to ensure compliance with the Contract documents.

The contractor's Quality Audit Schedule shall be submitted to the Engineer for consent every three months or more frequently as required.

The results of Quality Audits shall be summarized in the Contractor's monthly reports.

The Contractor shall provide all necessary access, assistance and facilities to enable the Engineer to carry out on-site and off-site surveillance of Quality Assurance Audits to verify that the quality system which has the consent of the Engineer is being implemented fully and properly.

### **8.3. Form 1: Letter of Proposal Submission**

[Location, Date]

To

GM (Technical)  
Noida Metro Rail Corporation (NMRC) Limited  
Block-III, 3rd Floor, Ganga Shopping Complex, Sector-29,  
Noida -201301  
District Gautam Budh Nagar, Uttar Pradesh

**Subject: Restoration contract for Civil, Electrical, Telecom works of NMRC Head Office.**

Dear Sir,

We, the undersigned, offer to provide Restoration contract for Civil, Electrical, Telecom works of NMRC Head Office in accordance with your RFP Document dated [ Insert Date] and our Proposal. We are hereby submitting our Technical and Financial Proposal, in a sealed envelope/online submission. We confirm that we have read the RFP Document in totality and abide by the terms and conditions stated in the document.

We acknowledge that we have

- Studied and analyzed and satisfied ourselves about all the requirement of the tender including but not limited to market and market conditions
- Carefully assessed the commerciality of Project and that we will be fully responsible for all its assessment in this regard.
- Seen / visited / assessed the potential locations and fully understand and comprehend the technical, financial, commercial and investment requirements.

We have filled the complete information correctly in **Form 18**.

We hereby declare that all the information and statements made in this Proposal are true and accept that any misinterpretation contained in it may lead to our disqualification. Our Proposal is binding upon us.

We understand you are not bound to accept any Bid you receive.

\_\_\_\_\_  
Yours Sincerely,

Authorized Signature [In full and initials]:

Name and Title of Signatory:

Name and address of Firm:

8.4. Form 2: Firm Details

| 1.                                    | <b>Title and name of the Project:</b><br>Restoration contract for Civil, Electrical, Telecom works of NMRC Head Office                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                    |                                   |                                                    |                                   |                                                   |    |  |  |  |  |    |  |  |  |  |
|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|-----------------------------------|----------------------------------------------------|-----------------------------------|---------------------------------------------------|----|--|--|--|--|----|--|--|--|--|
| 2.                                    | State the structure of the Bidder's organization (Bidders to complete/delete as appropriate)<br>Sole Bidder/Consortium                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                    |                                   |                                                    |                                   |                                                   |    |  |  |  |  |    |  |  |  |  |
| 3.                                    | For Bidders who are individual companies or firms, state the following:<br>Name of Company or firm: .....<br>Legal status: (e.g. incorporated private company, proprietorship, etc.)<br>.....<br>Registered address: .....<br>Year of incorporation.....<br>Principal place of business: .....<br>Contact person: .....<br>Contact person's title: .....<br>Address, telephone, facsimile number and e-mail ID of contact person:<br>.....<br>.....<br>.....                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                    |                                   |                                                    |                                   |                                                   |    |  |  |  |  |    |  |  |  |  |
| 4.                                    | In case of a consortium, state the following: <table border="1" style="width: 100%; margin-top: 10px; border-collapse: collapse;"> <thead> <tr> <th style="width: 25%;">Names of members (Lead member first):</th> <th style="width: 20%;">Legal Status</th> <th style="width: 25%;">Registered address and principal place or business</th> <th style="width: 15%;">Percentage participation (equity)</th> <th style="width: 15%;">Contact Details (Name, Mobile No., Email Address)</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">a.</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">b.</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p style="margin-top: 10px;">Note:</p> <p>Authorized contact person (from lead member):</p> <p>Contact person's title:</p> <p>Address, telephone, facsimile and e-mail ID of contact person:</p> | Names of members (Lead member first):              | Legal Status                      | Registered address and principal place or business | Percentage participation (equity) | Contact Details (Name, Mobile No., Email Address) | a. |  |  |  |  | b. |  |  |  |  |
| Names of members (Lead member first): | Legal Status                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Registered address and principal place or business | Percentage participation (equity) | Contact Details (Name, Mobile No., Email Address)  |                                   |                                                   |    |  |  |  |  |    |  |  |  |  |
| a.                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                    |                                   |                                                    |                                   |                                                   |    |  |  |  |  |    |  |  |  |  |
| b.                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                    |                                   |                                                    |                                   |                                                   |    |  |  |  |  |    |  |  |  |  |
| 5.                                    | Employees Provident Fund No. (attach documentary proof) -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                    |                                   |                                                    |                                   |                                                   |    |  |  |  |  |    |  |  |  |  |
| 6.                                    | Employees State Insurance Acts in India No. (attach documentary proof) -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                    |                                   |                                                    |                                   |                                                   |    |  |  |  |  |    |  |  |  |  |
| 7.                                    | GST Registration No. (attach documentary proof) -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                    |                                   |                                                    |                                   |                                                   |    |  |  |  |  |    |  |  |  |  |
| 8.                                    | PAN (attach documentary proof) -                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                    |                                   |                                                    |                                   |                                                   |    |  |  |  |  |    |  |  |  |  |



**8.5. Form 3: Capability Statement**

It is Compulsory for the bidder to fill this statement and the bidder must upload those document that support this statement

Tender Reference No : \_\_\_\_\_

Name of Work : \_\_\_\_\_

Name of Bidder: \_\_\_\_\_

| <b>S.No.</b> | <b><u>ELIGIBILITY CRITERIA</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b>(To be filled by the Bidder)</b> |
|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|
| 1            | Sole proprietorship, registered partnership firm, public limited company, private limited company or Consortium of any of the above can submit the Bidder. The firms and the companies should be registered in India.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Yes/ No                             |
| 2            | The Bidder should have a minimum experience of having satisfactorily completed similar works during last 7 (seven) years period ending last day of month previous to the one in which the bids are invited should be either of the following <ul style="list-style-type: none"> <li>i. One similar completed work costing not less than the amount equal to <b>Rs. 1.04 Crore</b> (Rupees One Crore Four Lakh only) or</li> <li>ii. Two similar completed works each costing not less than the amount equal to <b>Rs. 65.00 Lakh</b> (Rupees Sixty Five Lakh only) or</li> <li>iii. Three similar completed works each costing not less than the amount equal to <b>Rs. 52.00 Lakh</b> (Rupees Fifty Two Lakh only)</li> </ul> | 7 Years                             |

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| <b>S.No.</b> | <b>ELIGIBILITY CRITERIA</b>                                                                                                                                                                                                                                                                                                                                        | <b>(To be filled by the Bidder)</b>                                                                                                                                                                                                                                                                                                                                                                                               |             |  |             |  |             |  |       |  |
|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|--|-------------|--|-------------|--|-------|--|
| 3            | <p>The Bidder should have in the last 3 (Three) Financial Years preceding the Bid Due Date -</p> <p><b>i.</b> Minimum average annual turnover of Rs. 1.04 Crore (Rupees One Crore Four Lakh only)</p>                                                                                                                                                              | <table border="1"> <tr> <td data-bbox="692 320 900 383">FY- 2020-21</td> <td data-bbox="900 320 1104 383"></td> </tr> <tr> <td data-bbox="692 383 900 445">FY- 2019-20</td> <td data-bbox="900 383 1104 445"></td> </tr> <tr> <td data-bbox="692 445 900 508">FY- 2018-19</td> <td data-bbox="900 445 1104 508"></td> </tr> <tr> <td data-bbox="692 508 900 571">Total</td> <td data-bbox="900 508 1104 571"></td> </tr> </table> | FY- 2020-21 |  | FY- 2019-20 |  | FY- 2018-19 |  | Total |  |
| FY- 2020-21  |                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                   |             |  |             |  |             |  |       |  |
| FY- 2019-20  |                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                   |             |  |             |  |             |  |       |  |
| FY- 2018-19  |                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                   |             |  |             |  |             |  |       |  |
| Total        |                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                   |             |  |             |  |             |  |       |  |
| 4            | Liquidity – Net current assets from balance sheet of last year audited Rs. 18.61 Lacs to meet cash flow for this contract                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                   |             |  |             |  |             |  |       |  |
| 5            | The bidder should have minimum Net Worth of greater than 26.00 lakhs in audited Financial Year                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                   |             |  |             |  |             |  |       |  |
| 6            | The Bidder should have positive profit before tax in at least 2 years, out of the last 5 financial years                                                                                                                                                                                                                                                           | <p><b><u>Fy- 2018-19</u></b></p> <p><b><u>Fy- 2019-20</u></b></p> <p><b><u>Fy- 2020-21</u></b></p> <p><b><u>Total</u></b></p>                                                                                                                                                                                                                                                                                                     |             |  |             |  |             |  |       |  |
| 7            | The Bidder should not have been blacklisted/ banned/ declared ineligible for corrupt and fraudulent practices by the Government of India/ any State Government/ Government Agency and Supreme court and contracts have been terminated/ foreclosed by any company / department due to non- fulfilment of Contractual obligation in last 7 (Seven) financial years. |                                                                                                                                                                                                                                                                                                                                                                                                                                   |             |  |             |  |             |  |       |  |
| 8            | The Bidder must have either the registered office or the functional branch office located in delhi NCR/Noida/G.Noida                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                   |             |  |             |  |             |  |       |  |
| 9            | The bidder should be registered with goods & service tax authorities                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                   |             |  |             |  |             |  |       |  |

**8.6. Form 4: Work Experience**

The following format shall be used for statement of experience of Bidder:

| SN                          | Similar Contract description | Contract Identification Number | Award date & Completion date | Employer's Name, address, telephone number, e-mail etc | Role in contract |                | If in JV/consortium then % participation | Completion cost | Value of similar work in completed work |
|-----------------------------|------------------------------|--------------------------------|------------------------------|--------------------------------------------------------|------------------|----------------|------------------------------------------|-----------------|-----------------------------------------|
|                             |                              |                                |                              |                                                        | Individual       | JV/ Consortium |                                          |                 |                                         |
| 1                           |                              |                                |                              |                                                        |                  |                |                                          |                 |                                         |
| 2                           |                              |                                |                              |                                                        |                  |                |                                          |                 |                                         |
| 3                           |                              |                                |                              |                                                        |                  |                |                                          |                 |                                         |
| 4                           |                              |                                |                              |                                                        |                  |                |                                          |                 |                                         |
| Add required number of rows |                              |                                |                              |                                                        |                  |                |                                          |                 |                                         |

**Authorized signatory**

**Name:**

**Date:**

**Name of the Bidder with seal**

**NOTE:**

1. Only the value of contract as executed by the applicant/member in his own name should be indicated. Where a work is undertaken by a group, only that portion of the contract which is undertaken by the concerned applicant/member should be indicated and the remaining done by the other members of the group be excluded. This is to be substantiated with documentary evidence
2. The tenderer shall upload details of work executed by them in the prescribed format for the works to be considered for qualification of work experience criteria. Documentary proof such as completion certificates from the client clearly indicating the nature/scope of work, actual completion cost and actual date of completion for such work should be uploaded. In case work is executed for private client documentary proof such as copy of work order, Bill of quantities, Bill wise details of payment received certified by CA, TDS certificates for all the payments received, copy of final/ last bill paid by the client should be uploaded. The offers submitted without this documentary proof will not be evaluated.
3. Value of successfully completed portion of any ongoing work up to the last day of the previous month of tender submission will also be considered for qualification of work experience criteria.
4. For completed works, value of work done shall be updated to the last day of the previous month of tender submission price level assuming 5% inflation for Indian Rupees every year and 2% for foreign currency portions per year. The exchange rate of foreign currency shall be applicable 28 days before the submission date of tender.
5. If the above work(s) comprise(s) other works also, then client's certificate clearly indicating the amount of work done in respect of the "similar work" shall be furnished by the tenderer in support of work experience along-with their tender submissions.

**8.7. Form 5: Financial Capability Details**

Bidder should submit their financial details as per the following:

This is to certify that the Average Annual Turnover of M/s .....

having registered office at .....

....., as applicable, is as below:

| S.No. | Financial year          | Name of the Bidder | Turnover from Similar Work |
|-------|-------------------------|--------------------|----------------------------|
| 1.    | 2018-19                 |                    |                            |
| 2.    | 2019-20                 |                    |                            |
| 3.    | 2020-21                 |                    |                            |
|       | Average Annual Turnover |                    |                            |

| S.No. | Financial year | Name of the Bidder | Liquidity |
|-------|----------------|--------------------|-----------|
|       |                |                    |           |

| S.No. | Financial year | Name of the Bidder | Net Worth |
|-------|----------------|--------------------|-----------|
|       |                |                    |           |

| S.No. | Financial year | Name of the Bidder | Profitability |
|-------|----------------|--------------------|---------------|
| 1     |                |                    |               |
| 2     |                |                    |               |
| 3     |                |                    |               |
| 4     |                |                    |               |
| 5     |                |                    |               |

**Certificate of the Chartered Accountants/Statutory Auditors**

Based on Audited Accounts and other relevant documents of \_\_\_\_\_ (Name of Bidder), we M/s \_\_\_\_\_, Chartered Accountants/ Statutory Auditors, certify that the above information pertaining to FY 2020-21, 2019-20, 2018-17 is correct.

Signature and Seal of  
Chartered Accountants/Statutory Auditors  
(with membership no.)  
UDIN No-

**Authorised Signatory**

**(Name & Designation of Authorised Signatory)**

*In case the Financial Statements for the latest financial year are not audited and therefore the Bidder cannot make it available, the Bidder shall give an undertaking to this effect and the statutory*

**RFP for Restoration contract for Civil, Electrical, Telecom works of NMRC Head Office**

*auditor/chartered accountant shall certify the same. In such a case, the Bidder shall provide the Audited Financial Statements for 2 (two) years preceding the year for which the Audited Financial Statement is not being provided. Also, pertaining to latest financial year, the bidder shall submit an affidavit certifying that "The Annual Accounts have not been audited so far. We are submitting the CA certified provisional accounts, which shall be substantiated by the Audited Accounts, when prepared."*

**NOTE:**

1. All such documents reflect the financial data of the bidder and not that of sister or parent company.
2. The financial data in above prescribed format shall be certified by CA/ Company Auditor under his signature and stamp in original along with membership no.
3. The Bidder shall provide the audited annual financial statements as required.

**8.8. Form 6: Memorandum**

**Name of Work: Restoration contract for Civil, Electrical, Telecom works of NMRC Head Office**

I/We agree to keep the quoted rate open for acceptance for 180 days from the due date of submission thereof and not make any modification in its terms and conditions.

I/We hereby declare that I/We shall treat the quotation documents, drawings and other records connected with the works as secret/ confidential documents and shall not communicate information derived there from to any person other than the information in any manner prejudicial to the safety of NMRC.

---

Signature of the bidder with seal

Dated:

Witness:

Address:

Occupation

**8.9. Form 7: Undertaking**

I confirm that We, Tenderer, \_\_\_\_\_

- a. Have not been banned /declared ineligible for corrupt and fraudulent practices by any government/government-undertaking/ semi-government/ govt. controlled institutions, any court of law having jurisdiction in India for the past 5 (five) years.
- b. Do not have any pending litigation & non-performing contracts during last 5 (five) years. Further, has not been barred by any government/government-undertaking/ semi-government/ govt. controlled institutions
- c. Have not abandoned any work in last 5 (five) years.
- d. Have not delayed in similar work completion during orders executed in last 5 (five) years.
- e. Do not ever been terminated due to poor performance.
- f. Have not suffered Bankruptcy/ insolvency in last 5 (five) years.
- g. Have not been blacklisted/debarred by any organization.
- h. Have not been be involved in any illegal activity and/or has not been charge sheeted for any criminal act during the last 5 (five) years.
- i. Have not submitted any misleading information in the Bid.
- j. Are financially sound to perform the work.

**Authorized signatory**

**Name:**

**Date:**

**Name of the Bidder with seal**

8.10. Form 8: Power of Attorney

(To be on non-judicial stamp paper of appropriate value as per Stamp Act relevant to place of execution.)

Power of Attorney to be provided by the Bidding Company in favour of its representative as evidence of authorized signatory's authority.

Know all men by these presents, We .....(name and address of the registered office of the Bidding Company) do hereby constitute, appoint and authorize Mr./Ms.....(name and residential address) who is presently employed with us and holding the position of \_\_\_\_\_, as our Attorney to do in our name and our behalf all or any of the acts, deeds or things necessary or incidental to submission of our Bid for **Restoration contract for Civil, Electrical, Telecom works of NMRC Head Office** in response to the RFP Document dated \_\_\_\_\_ issued by Noida Metro Rail Corporation ("NMRC" or "the Corporation"), including signing and submission of the Bid and all other documents related to the Bid, including but not limited to undertakings, letters, certificates, acceptances, clarifications, guarantees or any other document which the Corporation may require us to submit. The aforesaid Attorney is further authorized for making representations to the NMRC or any other authority, and providing information / responses to the NMRC, representing us in all matters before the NMRC, and generally dealing with the Corporation in all matters in connection with our Bid till the completion of the bidding process as per the terms of the RFP Document and further till the Contract is entered into with the NMRC and thereafter till the expiry of the Contract.

We hereby agree to ratify all acts, deeds and things done by our said attorney pursuant to this Power of Attorney and that all acts, deeds and things done by our aforesaid attorney shall be binding on us and shall always be deemed to have been done by us.

All the terms used herein but not defined shall have the meaning ascribed to such terms under the RFP Document.

Signed by the within named  
.....[Insert the name of the executant company]  
through the hand of  
Mr. ....  
duly authorized by the Board to issue such Power of Attorney  
Dated this ..... day of .....

Accepted  
.....  
Signature of Attorney  
(Name, designation and address of the Attorney)

Attested  
.....  
(Signature of the executant)  
(Name, designation and address of the executant)

.....  
Signature and stamp of Notary of the place of execution

Common seal of ..... has been affixed in my/our presence pursuant to Board of Director's Resolution dated.....

WITNESS



**RFP for Restoration contract for Civil, Electrical, Telecom works of NMRC Head Office**

1. ....  
(Signature)  
Name .....

Designation.....

2. ....  
(Signature)  
Name .....

Designation.....

**Notes:**

- (1) The mode of execution of the power of attorney should be in accordance with the procedure, if any, laid down by the applicable law and the charter documents of the executant(s) and the same should be under common seal of the executant affixed in accordance with the applicable procedure. Further, the person whose signatures are to be provided on the power of attorney shall be duly authorized by the executant(s) in this regard.
- (2) In the event, power of attorney has been executed outside India, the same needs to be duly notarized by a notary public of the jurisdiction where it is executed.
- (3) Also, wherever required, the executant(s) should submit for verification the extract of the charter documents and documents such as a board resolution / power of attorney, in favour of the person executing this power of attorney for delegation of power hereunder on behalf of the executant(s).

8.11. Form 9: Bid Capacity Information

| Name and brief particulars of contract (Clearly indicate the part of the work assigned to the applicant(s)) | Name of client with telephone number and fax number | Contract Value In Rupees Equivalent (Give only the value of work assigned to the applicant(s)) | Value of balance work yet to be done in Rupee equivalent as on last day of the previous month of tender submission | Date of Completion as per Contract Agreement | Expected Completion Date | Delay if any, with reason | Value of work to be done during next 4 months with effect from the first day of the month of tender submission |
|-------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|----------------------------------------------|--------------------------|---------------------------|----------------------------------------------------------------------------------------------------------------|
|                                                                                                             |                                                     |                                                                                                |                                                                                                                    |                                              |                          |                           |                                                                                                                |
| Total                                                                                                       |                                                     |                                                                                                |                                                                                                                    |                                              |                          |                           |                                                                                                                |

| S.No. | Financial year | Total Value of Works done as per audited financial statements |
|-------|----------------|---------------------------------------------------------------|
| 1.    | FY 2018-19     |                                                               |
| 2.    | FY 2019-20     |                                                               |
| 3.    | FY 2020-21     |                                                               |

Bid Capacity (Bidder shall calculate, mention his bid capacity and enclose the supporting calculation)

A = Rs. ....

N = .....years

B = Rs. ....

Assessed available bid capacity =  $2 * A * N - B$

**Certificate of the Chartered Accountants / Company Auditor**

We, M/s \_\_\_\_\_, Chartered Accountants/ Company Auditors, certify that the above information is correct.

Name of Chartered Accountants / Company Auditor

Signature and Seal of Chartered Accountants/ Company Auditor

Membership Number of Chartered Accountants/ Company Auditor

UDIN No of Chartered Accountants/ Company Auditor

**Authorised Signatory**

**(Name & Designation of Authorised Signatory)**

**NOTE:**

1. The financial data in above prescribed format shall be certified by Chartered Accountant/ Company Auditor in original under his signature & stamp along with audited financial statements
2. Value of existing commitments for on-going works during period of 36 months w.e.f. from the first day of the month of tender submission has to be uploaded by the tenderer in Form. These data shall be certified by the Chartered Accountant with his stamp and signature in original with membership number

**8.12. Form 10: Salable Form for Tender Document**

Job No. ....

The required fee of tender form has been deposited in \_\_\_\_\_ Bank A/c No. \_\_\_\_\_ RTGS/NEFT and the scanned copy of UTR receipt with Transaction Id is being enclosed with E-tender documents. If the copy of UTR receipt is not uploaded with the E-tender the tender shall be rejected.

DETAILS OF ERNEST MONEY ATTACHED

The required amount of Earnest money has been deposited in \_\_\_\_\_ Bank A/c No. \_\_\_\_\_ RTGS/NEFT and the scanned copy of UTR receipt with transaction Id is being enclosed with E-tender documents. If the copy of UTR receipt is not uploaded with the E-tender the tender shall be rejected.

BIDDER

8.13. Form 11: Declaration of Refund of Earnest Money

Noida Metro Rail Corporation (NMRC) Limited  
Block-III, 3<sup>rd</sup> Floor,  
Ganga Shopping Complex, Sector-29, Noida -201301,  
District Gautam Budh Nagar, Uttar Pradesh, India

|    |                 |                      |
|----|-----------------|----------------------|
| 1  | Bidder Name     | <input type="text"/> |
| 2  | Bidder Address  | <input type="text"/> |
| 3  | Bank Name       | <input type="text"/> |
| 4  | Bank Branch     | <input type="text"/> |
| 5  | A/c No          | <input type="text"/> |
| 6  | IFSC Code       | <input type="text"/> |
| 7  | PAN No.         | <input type="text"/> |
| 8  | Tin/TAN No.     | <input type="text"/> |
| 9  | GST No.         | <input type="text"/> |
| 10 | Phone No.       | <input type="text"/> |
| 11 | Mobile No.      | <input type="text"/> |
| 12 | Email-Id        | <input type="text"/> |
| 13 | Type of Account | <input type="text"/> |

For Office Use Only

|    |                 |                      |
|----|-----------------|----------------------|
| 14 | Party Unique Id | <input type="text"/> |
|----|-----------------|----------------------|

The above provided information is true to the best of my knowledge.

Date:

Signature with Stamp/Seal

**8.14. Form 12: Undertaking pertaining to Personnel**

- We confirm to deploy Project Personnel required to achieve progress of work as per approved construction of work program and conditions mentioned in the tender document.
- We confirm to deploy man power requirement of SHE Organization as required under Conditions of contract on Safety and Health for civil works of O&M wing and confirm to deploy man power over and above the minimum numbers, if the work requires.
- The contractor shall deploy resources as per the mentioned minimum requirement in the tender and also confirm to deploy manpower over and above the minimum numbers indicated above, if the work requires so.
- These minimum resources are as per the requirements of the various activities at different stages of works. All resources need not to be mobilised simultaneously, resources as per the requirement of various stages of works shall be mobilised in accordance with the instructions of the Engineer. The decision of the Engineer shall be final and bonding.
- The performance of project personal deployed will be evaluated periodically by Employer during the contract period. In case the performance of any of the personnel is not satisfactory, the contractor shall replace them with good personnel immediately as per the directions of the Engineer.

**Date:**

**Signature with Stamp/Seal**

**8.15. Form 13: Resources proposed for the O&M - Plant & Equipment**

1. We hereby confirm to deploy the minimum resources as per mentioned minimum requirement in the tender document.
2. We further confirm that we shall only mobilize “Truck Transmission type” Pick and Carry Hydra Crane – 2nd Generation models, wherever Hydra Cranes will be required.
3. We confirm that the age of the following Construction Plant & Machinery has been restricted by NMRC as given below. If any of these machinery is used by us at the site, the machinery shall abide by the following age restrictions :

| S.No | Construction Plant & Machinery                                                                                                                                                        | Maximum Permissible Age | No. of Equipment                 |
|------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|----------------------------------|
| 1    | Mobile Crawler Cranes                                                                                                                                                                 | 15 years                | 1                                |
| 2    | Man lifter                                                                                                                                                                            | 10 years                | 1                                |
| 3    | Mobile Tyre Mounted Hydraulic Cranes                                                                                                                                                  | 10 years                | 1                                |
| 4    | All other plant and machinery like transit mixers, trailers, Dumpers, Boom Placer, Excavators, Pressure vessel including Air Compressors, Diesel Generator Sets, and locomotives etc. | 10 years                | According to requirement of site |

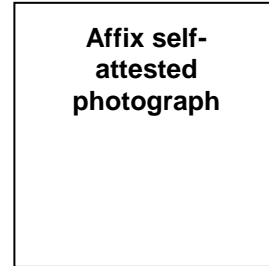
Note: These resources are for peak period of each activity. All plants and equipments need not to be mobilized simultaneously, plants and equipment’s as required as per the progress of the work shall be brought at site in advance as directed by the Engineer-in-Charge.

4. We confirm to deploy resources as per the above-mentioned minimum requirement and also confirm to deploy plants & equipments over and above the minimum numbers indicated above, if the work requires so.
5. Hiring of Cranes shall be as per approved by Engineer-in-Charge. Third party certification of cranes, competency certification of the operators etc. would be required before grant of approval.

**Date:**

**Signature with Stamp/Seal**

8.16. Form 14: Proposed Personnel



NAME : .....

FATHER'S NAME : .....

DATE OF BIRTH : .....

PERMANENT ADDRESS : .....

RESIDENTIAL ADDRESS : .....

MARITAL STATUS : .....

EDUCATIONAL QUALIFICATION : .....

TECHNICAL QUALIFICATION : .....

EXPERIENCE : .....

LANGUAGE KNOWN : .....

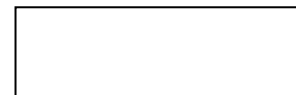
NATIONALITY : .....

CATEGORY : .....

EMPLOYEE ID

DATE: .....

PLACE: .....



**SIGNATURE**

(To be filled by contractor)

**Attested by authorised person:**

**Note:** A staffing schedule containing the names, qualifications, professional experience and corporate affiliation of all proposed management personnel (above the level of shift supervisor) and specialists for this work. The submission shall include a provisional management structure and organisation chart showing areas of responsibility, relative seniorities and lines of reporting. The proposed staffing plan shall be in conformity with the "Clause 4.3 – Personnel" of tender document



## 8.17. Form 15: Obligation/ Compliance to be ensured by Contractor

| Sl. No. | Items                                                                                                                                                                      | Compliance of Contractor<br>(To be filled by contractor) |    |
|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|----|
|         |                                                                                                                                                                            | Yes                                                      | No |
| 1       | License for employing contract labour                                                                                                                                      |                                                          |    |
| 2       | Compliance of minimum wages Act by payment of wage on 7th of every month through Bank or in the presence of nominated representative of employer (NMRC Supervisor/manager) |                                                          |    |
| 3 (a)   | Compliance of provision of ESI & EPF Act                                                                                                                                   |                                                          |    |
| 3 (b)   | Ensure treatment in ESI hospital in case of accident/injuries suffered in performance of work and compensation under ESI Act.                                              |                                                          |    |
| 4       | Send Accident report to Regional Labour Commissioner (RLC) & ESI authorities.                                                                                              |                                                          |    |
| 5       | Observance of working hours, weekly rest and overtime payments as per minimum wages Act-1948.                                                                              |                                                          |    |

Note: - A Non- filling or “No” by contractor will lead to non-eligibility for contractor in further tendering process.

| S.N | Description                                                                              | Reference Clause       | Requirement                                                                                                                                                                                               |
|-----|------------------------------------------------------------------------------------------|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| i   | Latest “date for commencement” of the Works                                              | Clause 8.1 of the GCC  | Date given in NOA or Employer’s Notice to Proceed                                                                                                                                                         |
| ii  | Liquidated Damages                                                                       | Clause 8.5 of the GCC  | (i) 0.015% of contract price per day of delay in completion of whole work.<br>(ii) Total maximum limit of LD including sums payable by the employer to designated contractors is 15% as mentioned in GCC. |
| iii | Insurance for workers/ employees                                                         | Clause 15.4 of the GCC | All of the contractor’s employees shall have to be covered under ESI and ECA as per Special conditions of contract.                                                                                       |
| iv  | Insurance cover for Contractor’s All Risk and other requirements as specified in the GCC | Clause 15 of the GCC   | <b>100%</b> of the Total Contract Price.                                                                                                                                                                  |
| v   | Amount of Third Party Insurance                                                          | Clause 15.3 of the GCC | INR 0.75 Million for any one incident, with no. of incidents unlimited.                                                                                                                                   |
| vi  | Period in which all insurances have to be effected                                       | Clause 15.5 of the GCC | Within 1 week from the “date of commencement”                                                                                                                                                             |

Signature of authorized signatory of Tenderer

8.18. Form 16: Proforma for Clarifications / Amendments on the RFP

| Sl. No. | Document | Clause No. and Existing Provision | Clarification required | Suggested Text for the Amendment | Rationale for the Clarification or Amendment |
|---------|----------|-----------------------------------|------------------------|----------------------------------|----------------------------------------------|
|         |          |                                   |                        |                                  |                                              |
|         |          |                                   |                        |                                  |                                              |

Authorized signatory

Name:

Date:

Name of the Bidder with seal

**RFP for Restoration contract for Civil, Electrical, Telecom works of NMRC Head Office**

**8.19. Form 17: Bid Offer/ BOQ (Format)**

To

Executive Director

Noida Metro Rail Corporation (NMRC) Limited

Block-III, 3<sup>rd</sup> Floor, Ganga Shopping Complex

Noida -201301,

District Gautam Budh Nagar, Uttar Pradesh

***THIS FORM IS NOT TO BE FILLED. THE BIDDERS ARE REQUIRED TO FILL THE FINANCIAL PROPOSAL IN XLS FORMAT AFTER DOWNLOADING THE FORM FROM THE E-PROCUREMENT WEBSITE FOR THIS TENDER DOCUMENT***

**Sub: Restoration contract for Civil, Electrical, Telecom works of NMRC Head Office**

Dear Sir,

I/we have read and examined the RFP document, general terms and conditions.

I/we hereby quote for the Total Price for Restoration contract for Civil, Electrical, Telecom works of NMRC Head Office as specified below, payable by NMRC.

| BILL OF QUANTITY                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |      |         |          |          |
|---------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|---------|----------|----------|
| S.No                            | Item Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Unit | Rate    | Quantity | Amount   |
| <b>SCHDEULE A (CIVIL WORKS)</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |      |         |          |          |
| 1                               | <p>Designing, fabricating, testing, installing and fixing in position Curtain Wall with Aluminium Composite Panel Cladding, with open grooves for linear as well as curvilinear portions of the building , for all heights and all levels etc. including:a) Structural analysis &amp; design and preparation of shop drawings for pressure equalisation or rain screen principle as required, proper drainage of water to make it watertight including checking of all the structural and functional design. b) Providing, fabricating and supplying and fixing panels of aluminium composite panel cladding in pan shape in metallic colour of approved shades made out of 4mm thick aluminium composite panel material consisting of 3mm thick FR grade mineral core sandwiched between two Aluminium sheets (each 0.5mm thick). The aluminium composite panel cladding sheet shall be coil coated, with Kynar 500 based PVDF / Lumiflon based fluoropolymer resin coating of approved colour and shade on face # 1 and polymer (Service) coating on face # 2 as specified using stainless steel screws, nuts, bolts, washers, cleats, weather silicone sealant, backer rods etc. c) The fastening brackets of Aluminium alloy 6005 T5 / MS with Hot Dip Galvanised with serrations and serrated washers to arrest the wind load movement, fasteners, SS 316 Pins and anchor bolts of approved make in SS 316, Nylon separators to prevent bi-metallic contacts all complete required to perform as per specification and drawing The item includes cost of all material &amp; labour component, the cost of all mock ups at site, cost of all samples of the individual components for testing in an approved laboratory, field tests on the assembled working curtain wall with aluminium composite panel cladding, cleaning and protection of the curtain wall with aluminium composite panel cladding till the handing over of the building for occupation. Base frame work for ACP cladding is payable under the relevant aluminium item.s The Contractor shall provide curtain wall with</p> | sqm  | 3022.01 | 12.84    | 38802.61 |

**RFP for Restoration contract for Civil, Electrical, Telecom works of NMRC Head Office**

|   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |      |         |        |           |
|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|---------|--------|-----------|
|   | aluminium composite panel cladding, having all the performance characteristics all complete, as per the Architectural drawings, as per item description, as specified, as per the approved shop drawings and as directed by the Engineer-in-Charge. However, for the purpose of payment, only the actual area on the external face of the curtain wall with Aluminum Composite Panel Cladding (including width of groove) shall be measured in sqm. up to two decimal places. |      |         |        |           |
| 2 | DOOR AND WINDOWS Providing and fixing ISI marked flush door shutters conforming to IS: 2202 (Part I) non-decorative type, core of block board construction with frame of 1st class hard wood and well matched commercial 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters : 35 mm thick including ISI marked Stainless Steel butt hinges with necessary screws.                                                                 | sqm  | 1377.28 | 15.23  | 20975.97  |
| 3 | Extra for providing lipping with 2nd class teak wood battens 25 mm minimum depth on all edges of shutters (over all area of door shutter to be measured) over item no. 9.20 and 9.21                                                                                                                                                                                                                                                                                          | sqm  | 284.86  | 15.23  | 4338.42   |
| 4 | Providing & Fixing decorative high pressure laminated sheet of plain / wood grain in gloss / matt / suede finish with high density protective surface layer and reverse side of adhesive bonding quality conforming to IS : 2046 Type S including cost of adhesive of approved quality 1.0 mm thick.                                                                                                                                                                          | sqm  | 542.17  | 199.92 | 108390.63 |
| 5 | Providing and fixing aluminum die cast body tubular type universal hydraulic door closer (having brand logo with ISI, IS : 3564, embossed on the body, door weight upto 35 kg and door width upto 700 mm) with necessary accessories and screws etc. complete.                                                                                                                                                                                                                | each | 839.74  | 7.00   | 5878.18   |
| 6 | Providing and fixing chromium plated handle with necessary screws etc. complete.125 mm                                                                                                                                                                                                                                                                                                                                                                                        | each | 172.45  | 19.00  | 3276.55   |
| 7 | Providing and fixing 12 mm thick frameless toughened glass door shutter of approved brand and manufacturer, including providing and fixing top & bottom pivot & spring type fixing arrangement and making necessary holes etc. for fixing required door fittings, all complete as per direction of Engineer-in-charge (Door handle, lock and stopper etc.to be paid separately).                                                                                              | sqm  | 3836.28 | 13.02  | 49948.37  |

**RFP for Restoration contract for Civil, Electrical, Telecom works of NMRC Head Office**

|   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |     |         |       |          |
|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|---------|-------|----------|
| 8 | <p>Providing and fixing approved brand and manufacturer SS 304 grade hardware's for Doors etc. Providing and fixing double action hydraulic floor spring of approved brand and manufacture conforming to IS : 6315 , having brand logo embossed on the body/ plate with double spring mechanism and door weight upto 125 kg, for doors including cost of cutting floors ,embedding in floors as required and making good the same matching to the existing floor finishing and cover plates with brass pivot and single piece M.S. sheet outer box with slide plate etc. complete as per the direction of Engineer-in-Charge. With stainless steel cover plate minimum 1.25 mm thickness.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | nos | 1651.39 | 10.00 | 16513.90 |
| 9 | <p><b>PARTITIONS AND WALL CLADDING GYPSUM PARTITIONING:-</b><br/>         Providing and fixing partition upto ceiling height consisting of G.I. frame and required board, including providing and fixing offrame work made of special section power pressed/ roll form G.I. sheet with zinc coating of 120 gms/sqm (both side inclusive), consisting of floor and ceiling channel 50mm wide having equal flanges of 32 mm and 0.50 mm thick, fixed to the floor and ceiling at the spacing of 610 mm centre to centre with dash fastener of 12.5 mm dia meter 50 mm length or suitable anchor fastener or metal screws with nylon plugs and the studs 48 mm wide having one flange of 34 mm and other flange 36 mm and 0.50 mm thick fixed vertically within flanges of floor and ceiling channel and placed at a spacing of 610 mm centre to centre by 6 mm dia bolts and nuts, including fixing of studs along both ends of partition fixed flush to wall with suitable anchor fastener or metal screws with nylon plugs at spacing of 450 mm centre to centre, and fixing of boards to both side of frame work by 25 mm long dry wall screws on studs, floor and ceiling channels at the spacing of 300 mm centre to centre. The boards are to be fixed to the frame work with joints staggered to avoid through cracks, M.S. fixing channel of 99 mm width (0.9 mm thick having two flanges of 9.5 mm each) to be provided at the horizontal joints of two boards, fixed to the studs using metal to metal flat head screws, including jointing and finishing to a flush finish with recommended jointing compound, jointing tape, angle beads at corners (25 mm x 25 mm x 0.5 mm), joint finisher and two coats of primer suitable for board as per manufacture's specification and direction of engineer in charge all complete. Providing</p> | sqm | 1024.61 | 17.65 | 18084.37 |

**RFP for Restoration contract for Civil, Electrical, Telecom works of NMRC Head Office**

|    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |     |         |         |           |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|---------|---------|-----------|
|    | & Fixing Full Height Glass partition using 12mmThk.Toughened glass partition complete with SS/ Alloy U channel at bottom of the floor and inside the ceiling as per manufacturer's specifications and to the satisfaction of the Engineer in charge. (For Measurement only Installed area will be considered).75 mm overall thickness partition with 12.5 mm thick double skin fire rated board confirming to is : 2095 : part I                                                                                                                                                                                                                     |     |         |         |           |
| 10 | Providing and fixing frame work for partitions/ wall lining etc. made of 50x50x1.6 mm hollow MS tube,placed along the walls, ceiling and floor in a grid pattern with spacing @ 60 cm centre to centre bothways (vertically & horizontally ) or at required spacing near opening, with necessary welding at junctions and fixing the frame to wall/ ceiling/ floors with steel dash fasteners of 8 mm dia, 75 mm longbolt, including making provision for opening for doors, windows, electrical conduits, switch boardsetc., including providing with two coats of approved steel primer etc. complete, all as per direction of Engineer-in-charge. | Kg  | 72.88   | 1496.38 | 109056.17 |
| 11 | Providing & Fixing Full Height Glass partition using 12mmThk.Toughened glass partition complete with SS/ Alloy U channel at bottom of the floor and inside the ceiling as per manufacturer's specifications and to the satisfaction of the Engineer in charge. (For Measurement only Installed area will be considered).                                                                                                                                                                                                                                                                                                                             | sqm | 2259.57 | 23.49   | 53077.30  |
| 12 | FROSTED FILM (CRYSTAL QUALITY) :- Providing and fixing scotchcal over glass surface with 15 yrs MCS warranty) as approval of the Architect. (Only film surface area shall be measured and paid).                                                                                                                                                                                                                                                                                                                                                                                                                                                     | sqm | 1968.74 | 100.37  | 197602.43 |
| 13 | <b>INSULATION-</b> Providing and fixing thermal insulation with Resin Bonded rock wool conforming to IS: 8183, having density 48 kg/m <sup>3</sup> ,50 mm thick,wrapped in 200 G Virgin Polythene Bags fixed to wall with screw, rawel plug & washers and held and in position by criss crossing GI wire etc. complete as per directions of Engineer-in-Charge.                                                                                                                                                                                                                                                                                      | SQM | 264.75  | 192.00  | 50832.00  |

**RFP for Restoration contract for Civil, Electrical, Telecom works of NMRC Head Office**

|    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |     |         |        |           |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|---------|--------|-----------|
| 14 | Providing and laying vitrified floor tiles in different sizes (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS : 15622, of approved make, in all colours and shades, laid on 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand), including grouting the joints with white cement and matching pigments etc., complete. Size of Tile 600x600 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | sqm | 1146.58 | 100.00 | 114658.00 |
| 15 | TILE GROUTING :- Grouting the joints of flooring tiles having joints of 3 mm width, using epoxy grout mix of 0.70 kg of organic coated filler of desired shade (0.10 kg of hardener and 0.20 kg of resin per kg), including filling/ grouting and finishing complete as per direction of Engineer-in-charge. Size of Tile 600x600 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | SQM | 147.64  | 265.00 | 39124.60  |
| 16 | Providing and laying wooden flooring with 1210 x 190 x 8mm thick pe laminated wooden panels of vistroyal range including the cost of fixing PE sheet flush factor glue and bopp tape. The floor shall be provided with PE sheet than the PE sheet shall be provided with flush factor foam sheet so as to naturalise load / weight effect on the flooring panels . The flooring panels shall be provided from top to tongened groove arrangement in flooring around .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | sqm | 3036.54 | 220.00 | 668038.80 |
| 17 | CEILING GYPBOARD CEILING :- Providing and fixing false ceiling at all height including providing and fixing of frame work made of special sections, power pressed from M.S. sheets and galvanized with zinc coating of 120 gms/sqm (both side inclusive) as per IS : 277 and consisting of angle cleats of size 25 mm wide x 1.6 mm thick with flanges of 27 mm and 37mm, at 1200 mm centre to centre, one flange fixed to the ceiling with dash fastener 12.5 mm dia x 50mm long with 6mm dia bolts, other flange of cleat fixed to the angle hangers of 25x10x0.50 mm of required length with nuts & bolts of required size and other end of angle hanger fixed with intermediate G.I. channels 45x15x0.9 mm running at the spacing of 1200 mm centre to centre, to which the ceiling section 0.5 mm thick bottom wedge of 80 mm with tapered flanges of 26 mm each having lips of 10.5 mm, at 450 mm centre to centre, shall be fixed in a direction perpendicular to G.I. intermediate channel with connecting clips made out of 2.64 mm dia x 230 mm long G.I. wire at every junction, including fixing perimeter | SQM | 657.92  | 650.00 | 427648.00 |



**RFP for Restoration contract for Civil, Electrical, Telecom works of NMRC Head Office**

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|    | channels 0.5 mm thick 27 mm high having flanges of 20 mm and 30 mm long. Including jointing and finishing to a flush finish oftapered and square edges of the board with recommended jointing compound , jointing tapes , finishing with jointing compound in 3 layers covering upto 150 mm on both sides of joint and two coats of primer suitable for board, all as per manufacturer's specification and also including the cost of making openings for light fittings, grills, diffusers, cutouts made with frame of perimeter channels suitably fixed, all complete as per drawings, specification and direction of the Engineer in Charge but excluding the cost of painting with :12.5 mm thick tapered edge gypsum plain boardconforming to IS: 2095- Part I |     |        |        |          |
| 18 | Providing and Applying plaster of Paris putty of 2mm thickness over Plastered surface to prepare the surface even and smooth complete                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | sqm | 82.53  | 200.00 | 16506.00 |
| 19 | Finishing walls with textured exterior paint of required shade : New work (Two or more coats applied @ 3.28 ltr/10 sqm) over and including priming coat of exterior primer applied @ 2.20kg/10 sqm.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | sqm | 103.90 | 25.43  | 2642.18  |
| 20 | Finishing walls with textured exterior paint of required shade :with water thinable cement primer on wall surface having VOC content less than than 50 grams/ litre                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | sqm | 25.79  | 750.00 | 19342.50 |
| 21 | Wall painting with premium acrylic emulsion paint of interior grade, having VOC (Volatile Organic Compound ) content less than 50 grams/ litre. of Approved brand and manufacture, including applying additional coats wherever required to achieve even shade and colour. Two coats.                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | sqm | 57.84  | 812.84 | 47014.67 |
| 22 | Applying priming coats with primer of approved brand and manufacture, having low VOC (Volatile Organic Compound ) content.With ready mixed red oxide zinc chromatic on steel /iron works having VOC content less than 250 grams/litre.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | sqm | 23.50  | 0.00   | 0.00     |

**RFP for Restoration contract for Civil, Electrical, Telecom works of NMRC Head Office**

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| 23 | Providing and fixing 18mm thick gang saw cut mirror polished premoulded and prepolished) machine cut for kitchen platforms, vanity counters, window sills , facias and similar locations of required size of approved shade, colour and texture laid over 20mm thick base cement mortar 1:4 (1 cement : 4 coarse sand) with joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing, moulding and polishing to edge to give high gloss finish etc. complete at all levels. Granite of any colour and shadeArea of Slab over 0.50sqm | sqm   | 3081.73 | 17.65  | 54392.53 |
| 24 | Extra for providing edge moulding to 18mm thick marble stone counters, Vanities etc. including machine polishing to edge to give high gloss finish etc. complete as per design approved by Engineer-in-Charge.Granite work.                                                                                                                                                                                                                                                                                                                                                           | metre | 172.21  | 37.80  | 6509.54  |
| 25 | Extra for providing opening of required size & shape for wash basins/ kitchen sink in kitchen platform, vanity counters and similar location in marble/Granite/stone work including necessary holes for pillar taps etc. including rubbing and polishing of cut edges etc. complete.                                                                                                                                                                                                                                                                                                  | each  | 286.78  | 2.00   | 573.56   |
| 26 | Dismantling tile work in floors and roofs laid in cement mortar including stacking material within 50 metreslead. Dismantling tile work in floors and roofs laid incementmortar including stacking material within 50 metreslead. For thickness of tiles above 25 mm and up to 40 mm                                                                                                                                                                                                                                                                                                  | Sqm   | 32.50   | 180.00 | 5850.00  |
| 27 | Dismantling doors, windows and clerestory windows (steel or wood) shutter including chowkhats, architrave, holdfasts etc. complete and stacking within 50 metres lead: Of area 3 sq. metres and below                                                                                                                                                                                                                                                                                                                                                                                 | nos   | 104.48  | 25.00  | 2612.00  |
| 28 | Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means, including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer in-charge, beyond 50 m initial lead, for all leads including all lifts involved.Lime, murrum, building rubbish upto 30 kms                                                                                                                                                                                                                                | Cum   | 101.25  | 50.00  | 5062.50  |

**RFP for Restoration contract for Civil, Electrical, Telecom works of NMRC Head Office**

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| 29 | SUBHEAD - II : COLD / FLUSHING WATER SUPPLY (INTERNAL / EXTERNAL): Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having Thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge.. 20 mm nominal outer dia Pipes | RM     | 198.69 | 20.00   | 3973.80 |
| 30 | SUBHEAD - II : COLD / FLUSHING WATER SUPPLY (INTERNAL / EXTERNAL): Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having Thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge.. 25 mm nominal outer dia Pipes | RM     | 243.57 | 20.00   | 4871.40 |
| 31 | SUBHEAD - II : COLD / FLUSHING WATER SUPPLY (INTERNAL / EXTERNAL): Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having Thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge..32 mm nominal outer dia Pipes  | RM     | 293.40 | 20.00   | 5868.00 |
| 32 | Providing and placing on terrace (at all floor levels) polyethylene water storage tank ISI : 12701 marked, with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fittings and the base support for tank.                                                                                                                                                                                                                 | liters | 4.99   | 2000.00 | 9980.00 |
| 33 | Providing and fixing of <b>copper connection</b> 450 mm long including nuts and washers and making connection to fixtures and fittings complete as required. <b>(Make-Jaquar-Model-ALD-805B )</b>                                                                                                                                                                                                                                                                                          | Nos.   | 259.97 | 10.00   | 2599.70 |

**RFP for Restoration contract for Civil, Electrical, Telecom works of NMRC Head Office**

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| 34 | Diluting and injecting chemical emulsion for POST-CONSTRUCTIONAL anti-termite treatment (excluding the cost of chemical emulsion) : Treatment of existing masonry using chemical emulsion @ one litre per hole at 300 mm interval including drilling holes at 45 degree and plugging them with cement mortar 1:2 (1 cement : 2 coarse sand) to the full depth of the hole : With Chlorpyriphos/Lindane E.C. 20% with 1% concentration | RMT.  | 14.31    | 100.00 | 1431.00   |
| 35 | Supplying chemical emulsion in sealed containers including delivery as specified. Chlorpyriphos / Lindane emulsifiable concentrate of 20%                                                                                                                                                                                                                                                                                             | litre | 152.01   | 100.00 | 15201.00  |
| 36 | Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with hold fast lugs or with dash fasteners of required dia & length ( hold fast lugs or dash fastener shall be paid for separately). Second class teak wood                                                                                                                                                | Cum   | 74798.72 | 0.50   | 37399.36  |
| 37 | Repairs to plaster of thickness 12 mm to 20 mm in patches of area 2.5 sq meters and under, including cutting the patch in proper shape, raking out joints and preparing and plastering the surface of the walls complete, including disposal of rubbish to the dumping ground within 50 metres lead: With cement mortar 1:4 (1 cement : 4 fine sand)                                                                                  | Sqm   | 202.58   | 100.35 | 20328.90  |
| 38 | Providing and fixing thermal insulation of ceiling (under deck insulation) with Resin Bonded Rockwool conforming to IS: 8183,density 48 kg/m <sup>3</sup> , 50 mm thick, wrapped in 200 G Virgin Polythene bags fixed to ceiling with metallic cleats (50x50x3 mm) @ 60 cm and wire mesh of 12.5mm x 24 gauge wire mesh,for top most ceiling of building.                                                                             | SQM   | 401.07   | 323.78 | 129858.44 |

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| 39 | <p>Providing and fixing double scaffolding system (cup lock type) on the exterior side of building/structure, upto 25 metre height, above ground level, including additional rows of scaffolding in stepped manner as per requirement of site, made with 40 mm dia M.S. tube, placed 1.5 metre centre to centre, horizontal &amp; vertical tubes joint with cup &amp; lock system with M.S. Tubes, M.S. tube challis, M.S. clamps and staircase system in the scaffolding for working platform etc. and maintaining it in a serviceable condition for execution of work of cleaning and/ or pointing and/ or applying chemical and removing it thereafter. The scaffolding system shall be stiffened with bracings, runners, connecting with the building etc, wherever required, if feasible, for inspection of work at required locations with essential safety features for the workmen etc., complete as per directions and approval of Engineer-in-charge. Note:- (1) The elevational area of the scaffolding shall be mesured for payment purpose. (2) The payment will be made once only for execution of all items of such works.</p> | SQM | 130.72 | 150.00 | 19608.00  |
| 40 | <p>Providing and fixing plywood 4 mm thick, one side decorative veneer conforming to IS: 1328 (type-1), for plain lining / cladding with necessary screws, including priming coat on unexposed surface with : Decorative veneer facings of approved manufacture. Approved Make:- Greenlame/Century/Merino</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Sqm | 945.19 | 393.11 | 371563.64 |

|    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |     |         |       |           |
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| 41 | <p>Providing and fixing partition upto ceiling height consisting of G.I. frame and required board, including providing and fixing of frame work made of special section power pressed/ roll from G.I. sheet with zinc coating of 120 gms/sqm (both side inclusive), consisting of floor and ceiling channel 50mm wide having equal flanges of 32mm and 0.50mm thick, fixed to the floor and ceiling at the spacing of 610 mm centre to centre with dash fastener of 12.5 mm dia meter 50 mm lenght or suitable anchor fastener or metal screws with nylon plugs and the studs 48 mm wide having ond flange of 34 mm and other flange 36 mm and 0.50 mm thick fixed vertically within flanges of floor and ceiling channel and placed at a spacing of 610 mm centre to centre by 6 mm dia bolts and nuts, including fixing of studs along both ends of partition fixed flush to wall with suitable anchor fastener or metal screws with nylon plugs at spacing of 450mm centre to centre, and fixing of boards to both side of frame work by 25 mm long dry wall screws on studs, floor and ceiling channels at the spacing of 300 mmm centre to centre. The boards are to be fixed to the frame work with joints staggered to avoid through cracks, M.S. fixing channel of 99 mm width (0.9 mm thick having two flanges of 9.5 mm each ) to be provided at the orizontal joints of two boards, fixed to the studs using metal to metal flat head screws, including jointing and finishing to a flush finish with recommended jointing compound, jointing tape, angle beads at corners ( 25 mm x 25 mm x 0.5 mm), joint finisher and two coats of primer suitable for board as per manufacture's specification and direction of engineer in charge all complete. 75 mm overall thickness partition with 12 mm commercial ply over 6 mm thick ply both side</p> | Sqm | 3224.87 | 80.00 | 257989.60 |
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**RFP for Restoration contract for Civil, Electrical, Telecom works of NMRC Head Office**

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| 42 | <p>Providing and fixing partition upto ceiling height consisting of G.I. frame and required board, including providing and fixing of frame work made of special section power pressed/ roll from G.I. sheet with zinc coating of 120 gms/sqm (both side inclusive), consisting of floor and ceiling channel 50mm wide having equal flanges of 32mm and 0.50mm thick, fixed to the floor and ceiling at the spacing of 610 mm centre to centre with dash fastener of 12.5 mm dia meter 50 mm lenght or suitable anchor fastener or metal screws with nylon plugs and the studs 48 mm wide having ond flange of 34 mm and other flange 36 mm and 0.50 mm thick fixed vertically within flanges of floor and ceiling channel and placed at a spacing of 610 mm centre to centre by 6 mm dia bolts and nuts, including fixing of studs along both ends of partition fixed flush to wall with suitable anchor fastener or metal screws with nylon plugs at spacing of 450mm centre to centre, and fixing of boards to both side of frame work by 25 mm long dry wall screws on studs, floor and ceiling channels at the spacing of 300 mmm centre to centre. The boards are to be fixed to the frame work with joints staggered to avoid through cracks, M.S. fixing channel of 99 mm width (0.9 mm thick having two flanges of 9.5 mm each ) to be provided at the orizontal joints of two boards, fixed to the studs using metal to metal flat head screws, including jointing and finishing to a flush finish with recommended jointing compound, jointing tape, angle beads at corners ( 25 mm x 25 mm x 0.5 mm), joint finisher and two coats of primer suitable for board as per manufacture's specification and direction of engineer in charge all complete. 75 mm overall thickness partition with 12 mm commercial ply over 6 mm thick ply in one side and another side 12.5 mm thick tapered edge gypsum fire resistant board.</p> | Sqm | 2062.63  | 20.00 | 41252.60 |
| 43 | <p>Providing, and fixing S.S.316 GradeDoor Stop Half Moon[Finish : Satin] of approved quality with necessary screws etc. complete. Approved Make:- Kich/Hafele/ Godrej</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Nos | 477.58   | 6.00  | 2865.48  |
| 44 | <p>Providing, and fixing SS 316 Pull Handle with lock Ø 38mm X 1125mm (C/C)X1500mm(L) of approved quality with necessary screws etc. complete.Approved Make:- Kich/Hafele/ Godrej</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Nos | 12100.51 | 8.00  | 96804.08 |

**RFP for Restoration contract for Civil, Electrical, Telecom works of NMRC Head Office**

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| 45 | Providing, and fixing SS 316 Door Hinge with 2 Ball Bearing (100X75X3)mm including SS Screws [PR Series] [Satin]of approved quality with necessary screws etc. complete. Approved Make:- Kich/Hafele/ Godrej                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Nos  | 529.93  | 12.00  | 6359.16   |
| 46 | Providing, and fixing Soft Closing Clip on Hinge (Inset) [Finish: Satin] of approved quality with necessary screws etc. complete. Approved Make:- Kich/Hafele/ Godrej                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Nos  | 369.57  | 100.00 | 36957.00  |
| 47 | Providing and fixing Lock Body 9" [With Stainless Steel Main and strike Plate] of approved quality with necessary screws etc. complete. <b>Approved Make:- Kich/Hafele/ Godrej</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Nos. | 745.12  | 12.00  | 8941.44   |
| 48 | Providing and fixing Cylinder-60 mm [key & knob] [Fire Rated- BSEN 1634 : 1 : 2000 Certified] of approved quality with necessary screws etc. complete. <b>Approved Make:- Kich/Hafele/ Godrej</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Nos. | 701.92  | 12.00  | 8423.04   |
| 49 | Providing and fixing SS 316 Grade Mortice Handle □ 19mm+duro profile escutcheons [Satin][BSEN 1906-2010 Tested] with screws etc. complete. <b>Approved Make:- Kich/Hafele/ Godrej</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Nos. | 2086.96 | 12.00  | 25043.52  |
| 50 | Providing and fixing SS 304 Grade Tower Bolt (Square) Size: 300mm Finish: Satin with necessary screws etc. complete. <b>Approved Make:- Kich/Hafele/ Godrej 250x10 mm</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Nos. | 649.57  | 12.00  | 7794.84   |
| 51 | Providing and fixing factory made uPVC white color sliding glazed window upto 1.8m in height, dimension comprising of uPVC multi-chambered extruded frame and sash profiles, Frame should be duly reinforced with 1mm G.I. section & Sash with 1.5 to 2mm thick G.I. section based on wind load calculation, (shape & size according to uPVC profile), appropriate dimension of uPVC extruded glazing beads, uPVC extruded interlocks, and uPVC extruded interlocks, and uPVC extruded inline sash adaptor (if required), Co-extruded TPV Gasket having separate drainage system, wool pile, zincalloy (white powder coated) handle on one side of extreme panel along with zinc plated mildsteel multi locking having transmission gear with keeps, zinc alloy (white powder coated) touchlocks with hook, (if required for wire mesh panel) stainless steel (SS 304 grade) body with adjustable double nylon rollers (weight bearing capacity to be 120kg), G.I. Fasteners 100x8 mm size for fixing frame to finished wall, plastic packers, plastic | sQm  | 8553.72 | 50.00  | 427686.00 |



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|    | <p>caps and necessary steel screws etc. Profile of Frame &amp; sash shall be metered cut and fusion welded at all corner. including drilling of holes for fixing hardware &amp; drainage etc. After fixing frame, the gap between frame and adjacent wall shall be filled with PU foam / backer rod of required size and the approved quality. After that sealed with weather proof silicon sealant at both the side (inside &amp; outside), all complete as per approved drawing and direction of Engineer-in-charge. NOTE- For uPVC frame sash &amp; mullion extruded profile minus 5% tolerance in dimension i.e. in depth &amp; width of profile shall be acceptable. Three track five panels sliding cum fixed windows out of them one is completely fixed at centre &amp; two sliding glass panels along with two nos fly proof SS wire mesh panel (two nos glazed &amp; two nos wire mesh panel) made of frame 108x45 mm &amp; sash 39x58 mm &amp; screen sash 39x58 mm, all having wall thickness of 2.2+0.2 mm single glazing bead 20x18mm &amp; necessary interlock of appropriate dimensiion. Glass:- 6mm Tooughened.<br/>Approved Make:- Wintech/ Aluplast/Fenesta/EuroGroup</p>                                                                                                      |     |         |      |          |
| 52 | <p>Providing and fixing factory made uPVC white colour casement/ Casement cumfixed glazed door comprising of uPVC multi-chambered frame, sash and mullion(where ever required) extruded profiles duly reinforced with 1.60 ± 0.2 mm thickgalvanized mild steel section made from roll forming process of required length(shape &amp; size according to uPVC profile), uPVC extruded glazing beads ofappropriate dimension, EPDM gasket, zinc alloy (white powder coated) 3D hingesand one handle on each side of panels along with zinc plated mild steel multipoint locking having transmission gear, cylinder with keeps and one side key,G.I fasteners 100 x 8 mm size for fixing frame to finished wall and necessarystainless steel screws, etc. Profile of frame &amp; sash shall be mitred cut and fusionwelded at all corners, mullion (if required) shall be also fusion welded includingdrilling of holes for fixing hardware's and drainage of water etc. After fixingframe the gap between frame and adjacent finished wall shall be filled withweather proof silicon sealent over backer rod of required size and of approved quality, all complete as per approved drawing &amp; direction of Engineer-in-Charge.(Single / double glass panes and silicon sealent shall be paid</p> | SQM | 8891.63 | 9.00 | 80024.67 |

**RFP for Restoration contract for Civil, Electrical, Telecom works of NMRC Head Office**

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|    | separately).Note: For uPVC frame, sash and mullion extruded profiles minus 5% tolerance in dimension i.e. in depth & width of profile shall be acceptable.Casement door with 3D hinges made of (big series) frame 60 x 55 mm & sash 60x 102 mm both having wall thickness of 2.3 ± 0.2 mm and single glazing bead /double glazing bead of appropriate dimension. (Area of door upto 2.00 sqm).Glass : - 6mm Toughened Saint Gobain Approved Make:- Kich/Hafele/ Godrej                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |     |         |        |           |
| 53 | Providing and fixing in wall lining on layer of the 12 mm thick commercial ply over second layer 6 mm thick commercial ply including necessary grooves and fixing arrangement over ms frame as per drawing and direction of E/I MS frame shall be paid separately.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | SQM | 1784.15 | 270.00 | 481720.50 |
| 54 | Providing and fixing S.S. 304 Grade Cupboard Lock Size : 25mm [finish: Satin] of approved quality including necessary screws etc. complete. Approved Make:- Kich/Hafele/ Godrej                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | NOS | 544.05  | 20.00  | 10881.00  |
| 55 | Providing and fixing mineral fibre false ceiling tiles at all heights of size 595X595mm (dune) of approved texture, design and pattern. The tiles should have Humidity Resistance (RH) of 99%, Light Reflectance ?85%, Thermal Conductivity k = 0.052 - 0.057 w/m K, Fire Performance as per (BS 476 pt - 6&7)in true horizontal level suspended on interlocking T-Grid (DC Flexzone Silhouette slotted tee) of hot dipped allround galvanized iron section of 0.33 mm thick (galvanized @120 gsm )comprising of main T runners of 15x32 mm of length 3000 mm, cross T of size 15x32mm of length 1200 mm and secondary intermediate cross T of size 15x32 mm of length 600 mm to form grid module of size 600x600 mm suspended from ceiling using galvanized mild steel item (galvanised@80gsm) 50 mm long 8mm outer diameter M-6 dash fasteners, 6 mm diameter fully threaded hanger rod up to 1000 mm length and L-shape level adjuster of size 85x25x2 mm, spaced at 1200 mm centre to centre along main 'T'. The system should rest on periphery walls /partitions with the help of GI perimeter wall angle of size 24x24X3000 mm made of 0.40 mm thick sheet, to be fixed to the wall with help of plastic rawl plug at 450 mm centre to centre & 40 mm long dry wall S.S. screws. The exposed bottom portion of all T-sections used in false ceiling support system shall be pre-painted with polyester baked paint, for all heights. The work shall be carried out as | SQM | 1422.84 | 60.00  | 85370.40  |

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|    | per specifications, drawings and as per directions of the engineer-in-charge. With 16 mm thick beveled tegular mineral fibre false ceiling tile (NRC 0.55 to 0.6) Approved Make:- Armstrong/Anatone                                                                                                                                                                                                                                                                                                                                                               |       |         |        |           |
| 56 | Providing and fixing plain lining with necessary screws/nuts & bolts/nails,including a coat of approved primer on one face, and fixed on wooden /steel frame work, complete as per direction of Engineer-incharge (Framework shall be paid for separately). 12mm thick commercial ply conforming to IS : 1328 BWR typeincluding a coat of approved primer on one face, and fixed on wooden /steel frame work, complete as per direction of Engineer-incharge (Framework shall be paid for separately). 12mm thick commercial ply conforming to IS : 1328 BWR type | sqm   | 865.90  | 60.00  | 51954.00  |
| 57 | Providing and fixing 18mm thk AGL make Ultra White composite marble. Make is as per direction of Engineer-in-charge                                                                                                                                                                                                                                                                                                                                                                                                                                               | sqm   | 7141.00 | 3.50   | 24993.50  |
| 58 | P/ f partition upto ceiling height consisting of G.I. frame and required board 75 mm overall thickness partition with 12 mm commercial ply in one side and another side 12.5 mm thick tapered edge gypsum fire resistant board.                                                                                                                                                                                                                                                                                                                                   | sqm   | 1690.66 | 12.00  | 20287.92  |
| 59 | P/ f partition upto ceiling height consisting of G.I. frame and required board 75 mm overall thickness partition with 12 mm commercial ply in both side                                                                                                                                                                                                                                                                                                                                                                                                           | sqm   | 2446.05 | 33.00  | 80719.65  |
| 60 | P/ A of Melamine polish including cost of PU Coating on wood surface by compressor Make is as per direction of Engineer-in-charge                                                                                                                                                                                                                                                                                                                                                                                                                                 | sqm   | 1487.00 | 410.00 | 609670.00 |
| 61 | Providing and fixing 18 mm thick, 150 mm wide pelmet.Make is as per direction of Engineer-in-charge                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Metre | 678.83  | 45.00  | 30547.35  |
| 62 | Providing and fixing of Teak Wood door Cover moulding including melamine polishing etc., complete in all respect size 50x25 mm                                                                                                                                                                                                                                                                                                                                                                                                                                    | Metre | 188.76  | 35.00  | 6606.60   |
| 63 | Providing and fixing of TEAK WOOD DESIGNER MOULDING 38X15MM WITH GROOVE including melamine polishing etc., complete in all respect                                                                                                                                                                                                                                                                                                                                                                                                                                | Metre | 204.94  | 135.00 | 27666.90  |
| 64 | Providing and fixing of 1mm thick LAMINATE DECORATIVE SPECIAL EDITION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | SQM   | 840.26  | 25.00  | 21006.50  |

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| 65 | Providing and fixing 50 mm wide X 75MM HIGH Boxing for Fixed Glass made out of 18MM THICK COMMERCIAL BOARD WITH 1MM THICK LAMINATE BOTH SIDE, fixing with rawl plugs 100 mm long etc. all complete                                                                                                                                                           | Metre | 895.63  | 15.00  | 13434.45  |
| 66 | Extra for design for wall ,designer grooves with horizontal and vertical complete in all respect                                                                                                                                                                                                                                                             | sqm   | 471.09  | 350.00 | 164881.50 |
| 67 | FIXED FURNITURE Cabinet Carcass- Providing and fixing Pre-laminated 18mm thick Commercial Ply, with one side decorative and other side balancing lamination Grade I, Type II exterior grade IS : 12823 marked, in cabinet carcass with screws and fittings wherever required, edges to be painted with polyurethane primer (fittings to be paid separately). | Sqm   | 2835.71 | 120.00 | 340285.20 |
| 68 | Supply and Installation of Roller Blinds without head rail of approved shade and color. Suggested Brand: VISTA                                                                                                                                                                                                                                               | sqm   | 1834.69 | 50.00  | 91734.50  |
| 69 | Providing and laying Upvc 90 mm dia pipe Make is as per direction of Engineer-in-charge                                                                                                                                                                                                                                                                      | Metre | 189.30  | 20.00  | 3786.00   |
| 70 | Providing and laying Upvc 110 mm dia pipe.Make is as per direction of Engineer-in-charge                                                                                                                                                                                                                                                                     | Metre | 269.96  | 20.00  | 5399.20   |
| 71 | Providing and laying Upvc 160 mm dia pipe.Make is as per direction of Engineer-in-charge]                                                                                                                                                                                                                                                                    | Metre | 553.00  | 20.00  | 11060.00  |
| 72 | P/F 110 mm dia UPVC Door Bend, having thermal stability for hot & cold water supply.                                                                                                                                                                                                                                                                         | Each  | 124.00  | 2.00   | 248.00    |
| 73 | P/F 110 mm dia UPVC Plain Bend, having thermal stability for hot & cold water supply                                                                                                                                                                                                                                                                         | Each  | 183.00  | 2.00   | 366.00    |
| 74 | P/F 110 mm dia UPVC Door "T", having thermal stability for hot & cold water supply.                                                                                                                                                                                                                                                                          | Each  | 156.00  | 2.00   | 312.00    |
| 75 | P/F 110 mm dia UPVC Plain "T", having thermal stability for hot & cold water supply.                                                                                                                                                                                                                                                                         | Each  | 227.00  | 2.00   | 454.00    |
| 76 | P/F 110 mm dia UPVC Naini Trap, having thermal stability for hot & cold water supply                                                                                                                                                                                                                                                                         | Each  | 140.00  | 2.00   | 280.00    |
| 77 | P/F 160 mm dia UPVC Door Bend, having thermal stability for hot & cold water supply.                                                                                                                                                                                                                                                                         | Each  | 302.00  | 2.00   | 604.00    |
| 78 | P/F 160 mm dia UPVC Plain "T", having thermal stability for hot & cold water supply.                                                                                                                                                                                                                                                                         | Each  | 410.00  | 2.00   | 820.00    |

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| 79 | P/F 160 mm dia UPVC Plain Bend, having thermal stability for hot & cold water supply.                                                                                                                                                                                                                                                                                                                                                                                                                              | Each | 194.00  | 2.00   | 388.00    |
| 80 | P/F 160 mm dia UPVC End Cap, having thermal stability for hot & cold water supply.                                                                                                                                                                                                                                                                                                                                                                                                                                 | Each | 146.00  | 2.00   | 292.00    |
| 81 | P/F 90 mm dia UPVC Door Bend, having thermal stability for hot & cold water supply.                                                                                                                                                                                                                                                                                                                                                                                                                                | Each | 156.00  | 2.00   | 312.00    |
| 82 | P/F 90 mm dia UPVC Plain Bend, having thermal stability for hot & cold water supply.                                                                                                                                                                                                                                                                                                                                                                                                                               | Each | 124.00  | 2.00   | 248.00    |
| 83 | P/F 90 mm dia UPVC Door "T", having thermal stability for hot & cold water supply.                                                                                                                                                                                                                                                                                                                                                                                                                                 | Each | 200.00  | 2.00   | 400.00    |
| 84 | P/F 90 mm dia UPVC Plain "T", having thermal stability for hot & cold water supply.                                                                                                                                                                                                                                                                                                                                                                                                                                | Each | 146.00  | 2.00   | 292.00    |
| 85 | P/F 110 mmx90mm dia UPVC Naini Trap, having thermal stability for hot & cold water supply.                                                                                                                                                                                                                                                                                                                                                                                                                         | Each | 151.00  | 2.00   | 302.00    |
| 86 | P/F 110 mm dia UPVC Cowl, having thermal stability for hot & cold water supply.                                                                                                                                                                                                                                                                                                                                                                                                                                    | Each | 167.00  | 2.00   | 334.00    |
| 87 | P/F 90 mm dia UPVC Cowl, having thermal stability for hot & cold water supply.                                                                                                                                                                                                                                                                                                                                                                                                                                     | Each | 140.00  | 2.00   | 280.00    |
| 88 | P/L vitrified floor tiles in different sizes of approved make Size of Tile 120x60 cm                                                                                                                                                                                                                                                                                                                                                                                                                               | sqm  | 1791.25 | 150.00 | 268687.50 |
| 89 | Providing and laying rectified Glazed Ceramic floor tiles of size 300x300mm or more (thickness to be specified by the manufacturer), of 1st quality conforming to IS : 15622, of approved make, in colours White,Ivory, Grey, Fume Red Brown, laid on 20 mm thick cement mortar 1:4Ivory, Grey, Fume Red Brown, laid on 20 mm thick cement mortar 1:4(1 Cement: 4 Coarse sand), jointing with grey cement slurry @ 3.3 kg/sqm including grouting the joints with white cement and matchingpigments etc., complete. | SQM  | 776.66  | 15.00  | 11649.90  |
| 90 | Providing and fixing 28mm thick imported wooden seasoned and chemically treated Wall clading including base frame of 50x25mm aluminium section with inside fill hardwood section 48x23 mm finished of required size with necessary connecting brackets, screws , etc ( cost of polising paid separately)                                                                                                                                                                                                           | SQM  | 5277.00 | 55.00  | 290235.00 |

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|-------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----------|---------|-------------------|
| 91                                              | Supplying and placing hanging planter box in the size of 300mm X 250mm X 450mm - 2nos. made out of 26mm thick imported wooden seasoned and chemically treated , Steel with painting, etc. including cost of ms frame workDouble hanging planter                      | SET | 8500.00  | 2.00    | 17000.00          |
| 92                                              | Providing and fixing 12 mm thick transparent multi wall poly carbonate sheet partition with ss 304 grade patch connector of approved brand and manufacture ( cost of SS Frame paid seprately)                                                                        | SQM | 1608.00  | 6.26    | 10066.08          |
| 93                                              | Providing and fixing of CNC CUT DESIGN WPC - Wood Polimer Composite Boards are made from 70% of virgin polymer, 15% of wood powder and rest 15% of additives and requisite chemicals (0% Harmfull Chemicals). As per approved designs                                | SQM | 3435.00  | 5.65    | 19407.75          |
| 94                                              | Providing and fixing of Artificial Grass 40 mm thick, composion made out of UV Resistant Polyethylene and Polypropylene Blend, with Straight and Curly Mono filament Yarn, pile weight 1,160Gr/Sq.m, backing WovenPolypropylenewithFibrelockedFleeceandLatexCompound | SQM | 1000.00  | 70.00   | 70000.00          |
| 95                                              | Providing and fixing of VISTA MAKE rectreble awning systems with fabric complete in all respect                                                                                                                                                                      | SQM | 5210.00  | 15.33   | 79869.30          |
| 96                                              | Providing and fixing of 6mm thick laquard glass as per approved design                                                                                                                                                                                               | SQM | 6165.00  | 16.86   | 103941.90         |
| 97                                              | Providing and fixing of 100mm thick 42 mm density Cushion with leatherite for seating module as per approved colour                                                                                                                                                  | SQM | 4714.00  | 0.75    | 3535.50           |
| 98                                              | Providing and fixing of Printed Glass with approved design                                                                                                                                                                                                           | SQM | 8500.00  | 18.29   | 155465.00         |
| 99                                              | Providing and fixing of Customised wooden Name plate with 6 mm thick transparent acrylic sheet as per approved design including cost of melamine polishing complete in all respect                                                                                   | NOS | 1168.00  | 4.00    | 4672.00           |
| 100                                             | Providing and fixing of Various painting                                                                                                                                                                                                                             | LOT | 18122.00 | 1.00    | 18122.00          |
| 101                                             | Applying of groove Polishing on wall panelling/partition                                                                                                                                                                                                             | RM  | 25.00    | 1000.00 | 25000.00          |
| <b>TOTAL AMOUNT OF SCHDEULE A (CIVIL ITEMS)</b> |                                                                                                                                                                                                                                                                      |     |          |         | <b>6875165.55</b> |
|                                                 |                                                                                                                                                                                                                                                                      |     |          |         |                   |

| <b>SCHDEULE B (ELECTRICAL WORKS)</b> |                                                                                                                                                                                                                                                                                                                                                                          |       |        |        |           |
|--------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|--------|--------|-----------|
| 102                                  | Providing and fixing plain 16/0.20mm (0.50sqmm) twin flat flexible, FRLS PVC insulated, copper conductor cable, in PVC sleeve of suitable size on the floor/ wall, or side of the table/ door etc. as required.                                                                                                                                                          | meter | 22.815 | 5      | 114.075   |
| 103                                  | Wiring for light point / fan point / exhaust fan point / call bell point with 1.5 sq. mm FRLS PVC insulated copper conductor single core cable in surface / recessed Medium class PVC conduit with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq. mm FRLS PVC insulated copper conductor single core cable etc as required - Group C | Point | 586.97 | 175    | 102719.75 |
| 104                                  | Wiring for light / power plug with 2 x 4 sq. mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit along with 1 No. 4 sq. mm FRLS PVC insulated copper conductor single core cable for loop earthing as required.                                                                                                      | Metre | 132.44 | 539.9  | 71504.36  |
| 105                                  | Wiring for circuit / submain alongwith earth wiring with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface / recessed in suitable size of steel conduit as required. 2 x 2.5 sq. mm + 1 x 2.5 sq. mm earth wire                                                                                                                   | Metre | 107.09 | 1507.6 | 161448.88 |
| 106                                  | Wiring for circuit / submain alongwith earth wiring with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface / recessed in suitable size of steel conduit as required. 2 x 4 sq. mm + 1 x 4 sq. mm earth wire                                                                                                                       | Metre | 132.44 | 232    | 30726.08  |
| 107                                  | Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 3 pin 5/6 amps modular socket outlet and 5/6 amps modular switch, connection etc. as required. (For light plugs to be used in non residential buildings).                                                                        | Each  | 247.7  | 111    | 27494.70  |
| 108                                  | Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 6 pin 5/6 & 15/16 amps modular socket outlet and 15/16 amps modular switch, connection etc. as required.                                                                                                                         | Each  | 322.91 | 50     | 16145.50  |
| 109                                  | Supplying and drawing co-axial TV cable RG-6 grade, 0.7 mm solid copper conductor PE insulated, shielded with fine tinned copper braid and protected with PVC sheath in the existing surface / recessed steel /                                                                                                                                                          | Metre | 22.89  | 342.8  | 7846.69   |

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|     | PVC conduit as required.                                                                                                                                                                                                                                                                                                                                                                                          |       |         |        |          |
| 110 | Supplying and fixing of following sizes of steel conduit along with accessories in surface / recess including painting in case of surface conduit, or cutting the wall and making good the same in case of recessed conduit as required. 25 mm                                                                                                                                                                    | Metre | 116.09  | 253.06 | 29377.74 |
| 111 | Supplying and Fixing following sizes / modules , GI box along with modular base & cover plate for modular switches in recess etc as required. 1 or 2 Module (75mmX75mm)                                                                                                                                                                                                                                           | Each  | 135.71  | 17     | 2307.07  |
| 112 | Supplying and fixing modular blanking plate on the existing modular plate & switch box excluding modular plate as required                                                                                                                                                                                                                                                                                        | Each  | 18.8    | 12     | 225.60   |
| 113 | Providing and laying 1.6 MM thick AL factory fabricated raceways of the following sizes including providing removable 3 mm thick GI cover knock out holes and fixing accessories earthing with 8 SWG copper earth wire at ends complete as required including floor supports, bends, access boxes and tap off boxes as per specification and cross over as per site requirement. 250 mm wide x 40 mm deep raceway | RM    | 1650.53 | 43.06  | 71071.82 |
| 114 | Providing and laying 1.6 MM thick AL factory fabricated raceways of the following sizes including providing removable 3 mm thick GI cover knock out holes and fixing accessories earthing with 8 SWG copper earth wire at ends complete as required including floor supports, bends, access boxes and tap off boxes as per specification and cross over as per site requirement. 100 mm wide x 40 mm deep raceway | RM    | 696.51  | 104.21 | 72583.31 |
| 115 | SECTION - II - DISTRIBUTION BOARD Supplying and fixing following way, single pole and neutral, sheet steel, MCB distribution board, 240 volts, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator) 2 + 12 way, Double door                                        | Each  | 1098.72 | 1      | 1098.72  |
| 116 | Supplying and fixing following way, horizontal type three pole and neutral, sheet steel, MCB distribution board, 415 volts, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as                                                                                                                             | Each  | 2154.93 | 4      | 8619.72  |



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|     | required. (But without MCB/RCCB/Isolator) 6 way (4 + 18), Double door                                                                                                                                                                                                                                                                                       |      |         |     |           |
| 117 | Supplying and fixing following way, horizontal type three pole and neutral, sheet steel, MCB distribution board, 415 volts, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator) 8 way (4 + 24), Double door | Each | 2573.49 | 1   | 2573.49   |
| 118 | Supplying and fixing 5 amps to 32 amps rating, 240/415 volts, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required. Single pole                                                                                                 | Each | 174.62  | 186 | 32479.32  |
| 119 | Supplying and fixing following rating, double pole, (single phase and neutral), 240 V, residual current circuit breaker (RCCB), having a sensitivity current 30 mA in the existing MCB DB complete with connections, testing and commissioning etc. as required. <b>25 A</b>                                                                                | Each | 1927    | 4   | 7708.00   |
| 120 | Supplying and fixing following rating, double pole, (single phase and neutral), 240 V, residual current circuit breaker (RCCB), having a sensitivity current 30 mA in the existing MCB DB complete with connections, testing and commissioning etc. as required. <b>40A</b>                                                                                 | Each | 2095    | 9   | 18855.00  |
| 121 | Supplying and fixing following rating, double pole, (single phase and neutral), 240 V, residual current circuit breaker (RCCB), having a sensitivity current 30 mA in the existing MCB DB complete with connections, testing and commissioning etc. as required. <b>63A</b>                                                                                 | Each | 2640    | 3   | 7920.00   |
| 122 | Supplying and fixing 20 A, 240 V, SPN Industrial type socket outlet, with 2 pole and earth, metal enclosed plug top alongwith 20 A "C" curve, SP, MCB, in sheet steel enclosure, on surface or in recess, with chained metal cover for the socket out let and complete with connections, testing and commissioning etc. as required.                        | Each | 780     | 5   | 3900.00   |
| 123 | Supply and fixing of recess mounting round Ceilling cutout 160 mm height 55 mm 18 Watt LED Down Lighter having Powder coated die cast aluminium housing with heat sink, diffuser/ Reflector and driver set complete in all respect CAT-AAA                                                                                                                  | Nos. | 2158.65 | 97  | 209389.05 |

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| 124 | Supply and fixing of recess / surface / pendent mounting round 6 to 8 watt LED Light fixture having powder coated die cast aluminium housing with heat sink, diffuser and driver set complete in all respects. <b>(Philips Cat no. DN191B LED 6S-6500 PSU WH S1) Wipro:LD35-400-XXX-50-XX Panasonic:ADL01R076</b>               | Nos. | 1258.13 | 10  | 12581.32  |
| 125 | Supply and fixing of LED Tube light with batten suitable for up to 1 x 18 / 22 watt. LED plastic tube light, tube shall have 2100 lumen output complete including tube ect on surface complete in all respects. <b>(Philips Cat no. TMC 501 P 1X T-LED 22W P3241) Wipro :LL20-551-XXX-60-XX LL13-181-65 Panasonic:ABT021206</b> | Nos  | 1289.19 | 182 | 234632.58 |
| 126 | SECTION - VI : CABLE AND CABLE TRAYS Supply of following sizes of XLPE insulated PVC sheathed Aluminium / copper conductor armoured cable of 1.1 KV grade on existing cable tray / trench / surface including saddle, clamps etc. complete as required. 4.0 Core X 25 Sqmm.                                                     | Mtr. | 250.97  | 100 | 25097.00  |
| 127 | SECTION - VI : CABLE AND CABLE TRAYS Supply of following sizes of XLPE insulated PVC sheathed Aluminium / copper conductor armoured cable of 1.1 KV grade on existing cable tray / trench / surface including saddle, clamps etc. complete as required. 3½ Core X 95 Sqmm.                                                      | Mtr. | 626.21  | 8.9 | 5573.27   |
| 128 | Supply of thimbles of following types Copper Reducing type terminal/thimble                                                                                                                                                                                                                                                     |      |         |     |           |
| a   | 2.5 sq mm                                                                                                                                                                                                                                                                                                                       | no.  | 12.58   | 70  | 880.60    |
| b   | 4 sq mm                                                                                                                                                                                                                                                                                                                         | no.  | 12.58   | 200 | 2516      |
| c   | 6 sq mm                                                                                                                                                                                                                                                                                                                         | no.  | 13.29   | 15  | 199.35    |
| d   | 10 sq mm                                                                                                                                                                                                                                                                                                                        | no.  | 15.75   | 50  | 787.50    |
| e   | 2.5 sq mm                                                                                                                                                                                                                                                                                                                       | no.  | 4.325   | 70  | 302.40    |
| f   | 4 sq mm                                                                                                                                                                                                                                                                                                                         | no.  | 6.04    | 200 | 1208      |
| g   | 6 sq mm                                                                                                                                                                                                                                                                                                                         | no.  | 6.59    | 15  | 98.85     |
| h   | 10 sq mm                                                                                                                                                                                                                                                                                                                        | no.  | 8.31    | 50  | 415.50    |
| i   | 16 sq mm                                                                                                                                                                                                                                                                                                                        | no.  | 10.94   | 16  | 175.04    |

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| 129 | Supplying and installing following size of perforated pre-painted M.S. Cable trays reducers with perforation not more than 17.5% jointed with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc as required. 150 mm. Width x 50mm Depth x 1.6 mm Thickness | Mtr. | 1102.81 | 57.5 | 63411.58  |
| 130 | Supplying and installing following size of perforated pre-painted M.S. Cable trays reducers with perforation not more than 17.5% jointed with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc as required. 200 mm. Width x 50mm Depth x 1.6 mm Thickness | Mtr. | 1398.74 | 7.2  | 10070.93  |
| 131 | Supplying and installing following size of perforated pre-painted M.S. Cable trays reducers with perforation not more than 17.5% jointed with connectors, suspended from the ceiling with M.S. suspenders including bolts & nuts, painting suspenders etc as required. 300 mm. Width x 50mm Depth x 1.6 mm Thickness | Mtr. | 1702.04 | 67.2 | 114377.09 |
| 132 | Providing and Fixing 25mm X 5mm G.I. Strip on surface or in recess for connections etc. as required.                                                                                                                                                                                                                 | Rmt  | 116.09  | 22   | 2553.98   |
| 133 | Providing and fixing 6 SWG dia G.I. wire on surface or in recess for loop earthing as required.                                                                                                                                                                                                                      | Rmt  | 28.61   | 768  | 21972.48  |

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| 134 | <p>AIR COOLED DUCTABLE SPLIT AIR CONDITIONER (5.5 TR) Supply, installation, testing, commissioning and handing over the following equipment, schedule and drawings, all complete as required. Self Contained Air Cooled type Ductable split units system, complete with Scroll Compressor, motor, multi-row deep copper cooling coil with aluminum fins, multi -row deep air cooled condenser with copper tubes and aluminum fins, condenser fan. Indoor fan section with blower, fan motor and filters. The mounting of fan &amp; motor shall be isolated from unit body by means of vibration isolators. The unit shall be in two parts i.e. indoor units and outdoor units complete with interconnecting copper refrigerant piping &amp; insulation, electrical power &amp; control wiring between unit panel, indoor and outdoor unit, safeties, controls etc. Type of Unit: Compressor shall be Hermetically sealed Scroll type working on Refrigerant R-22</p> <p>OUTDOOR UNIT Supply, installation, testing and commissioning of out door units complete with scroll compressors , air cooled condenser with low noise fan having interconnected control wiring and refrigerant piping housed in compact housing duly powder coated of following capacities. Capacity : 5.5 TR Indoor units Supply, installation, testing and commissioning of indoor units with evaporator coil with Blower, Motor, filters &amp; drain pump, to dispose the condensate drain to the nearest drain.- 1 Nos. The indoor units shall be complete with corded remote Capacity : 11.0 TR -2 Nos. Indoor units Supply, installation, testing and commissioning of indoor units with evaporator coil with Blower, Motor, filters &amp; drain pump, to dispose the condensate drain to the nearest drain. The indoor units shall be complete with corded remote Capacity : 8.5 TR -2 Nos.</p> | Nos. | 100753.61 | 1 | 100753.61 |
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| 135 | <p>AIR COOLED DUCTABLE SPLIT AIR CONDITIONER Supply, installation, testing, commissioning and handing over the following equipment, schedule and drawings, all complete as required. Self Contained Air Cooled type Ductable split units system, complete with Scroll Compressor, motor, multi-row deep copper cooling coil with aluminum fins, multi -row deep air cooled condenser with copper tubes and aluminum fins, condenser fan. Indoor fan section with blower, fan motor and filters. The mounting of fan &amp; motor shall be isolated from unit body by means of vibration isolators. The unit shall be in two parts i.e. indoor units and outdoor units complete with interconnecting copper refrigerant piping &amp; insulation, electrical power &amp; control wiring between unit panel, indoor and outdoor unit, safeties, controls etc. Type of Unit: Compressor shall be Hermetically sealed Scroll type working on Refrigerant R-22 OUTDOOR UNIT Supply, installation, testing and commissioning of out door units complete with scroll compressors , air cooled condenser with low noise fan having interconnected control wiring and refrigerant piping housed in compact housing duly powder coated of following capacities. Capacity : 11.0 TR</p> | Nos. | 172611.86 | 2 | 345223.72 |
| 136 | <p>AIR COOLED DUCTABLE SPLIT AIR CONDITIONER Supply, installation, testing, commissioning and handing over the following equipment, schedule and drawings, all complete as required. Self Contained Air Cooled type Ductable split units system, complete with Scroll Compressor, motor, multi-row deep copper cooling coil with aluminum fins, multi -row deep air cooled condenser with copper tubes and aluminum fins, condenser fan. Indoor fan section with blower, fan motor and filters. The mounting of fan &amp; motor shall be isolated from unit body by means of vibration isolators. The unit shall be in two parts i.e. indoor units and outdoor units complete with interconnecting copper refrigerant piping &amp; insulation, electrical power &amp; control wiring between unit panel, indoor and outdoor unit, safeties, controls etc. Type of Unit: Compressor shall be Hermetically sealed Scroll type working on Refrigerant R-22 OUTDOOR UNIT Supply, installation, testing and commissioning of out door units complete with scroll compressors , air cooled condenser with low noise fan having interconnected control wiring and refrigerant piping housed in compact housing duly powder</p>                                                    | Nos. | 131288.87 | 2 | 262577.74 |

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|     | coated of following capacities. Capacity : 8.5 TR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |       |         |       |          |
| 137 | Note : Cost of Refrigerant / gas filling & charging for above units as per standard requirement for proper working is included in the above price. Refrigerant PipingSupply, installation and Testing & commissioning copper refrigerant piping to interconnect indoor unit and outdoor unit and routing the piping through the shaft / ceiling as shown in the drawing. Refrigerant piping shall be insulated complete with (19mm/13mm thick) closed cell elastomeric nitrile rubber tubular between each set of indoor & outdoor units, all the piping inside shall be properly supported with GI hanger. Size for 8.5TR unit:- (Suction:-1 1/8" and Liquid:-5/8") | Rmts. | 1446.98 | 25.19 | 36449.43 |
| 138 | Note : Cost of Refrigerant / gas filling & charging for above units as per standard requirement for proper working is included in the above price. Refrigerant PipingSupply, installation and Testing & commissioning copper refrigerant piping to interconnect indoor unit and outdoor unit and routing the piping through the shaft / ceiling as shown in the drawing. Refrigerant piping shall be insulated complete with (19mm/13mm thick) closed cell elastomeric nitrile rubber tubular between each set of indoor & outdoor units, all the piping inside shall be properly supported with GI hanger. Size for 5.5TR unit:- (Suction:-7/8" and Liquid:-5/8")   | Rmts. | 1249.96 | 66    | 82497.36 |
| 139 | Note : Cost of Refrigerant / gas filling & charging for above units as per standard requirement for proper working is included in the above price. Refrigerant PipingSupply, installation and Testing & commissioning copper refrigerant piping to interconnect indoor unit and outdoor unit and routing the piping through the shaft / ceiling as shown in the drawing. Refrigerant piping shall be insulated complete with (19mm/13mm thick) closed cell elastomeric nitrile rubber tubular between each set of indoor & outdoor units, all the piping inside shall be properly supported with GI hanger. Size for 1.5TR unit:- (Suction:-1/2" and Liquid:-1/4")   | Rmts. | 788.89  | 43.4  | 34237.83 |

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| 140 | Supply, installation, testing and commissioning of 1.5 TR split AC with power/ control cables of PVC sheathed flexible copper wire complete with earthing between indoor and outdoor units. All external cables shall run in cable trays.                                                                                                         | Nos.  | 41628.74 | 5      | 208143.70 |
| 141 | AUTOMATIC VOLTAGE STABILIZER Supply, Installation, testing and commissioning of AUTOMATIC VOLTAGE STABILIZER with 3 step relay to covert 140-280 volts incoming power to 200-240 volts out going power, low/high voltage cutout, time delay relay, digital display of voltage / current. Voltage stabilizer 4 KVA for 1.5 TR, (wall mounted type) | Nos.  | 2401     | 5      | 12005.00  |
| 142 | Base stand for outdoor unit fabricated out of 40 x 40 x 5 mm angle iron frame duly painted with black enamel paint                                                                                                                                                                                                                                | Nos.  | 2043.75  | 8      | 16350.00  |
| 143 | Drain Piping Supply, installation and Testing & commissioning of rigid heavy duty PVC piping complete with fittings, supports and duly insulated with 6 mm thick closed cell nitrile rubber insulation. 32 MM DIA                                                                                                                                 | Rmts. | 297.57   | 67     | 19937.19  |
| 144 | Drain Piping Supply, installation and Testing & commissioning of rigid heavy duty PVC piping complete with fittings, supports and duly insulated with 6 mm thick closed cell nitrile rubber insulation. 25 MM DIA                                                                                                                                 | Rmts. | 261.6    | 27.5   | 7194.00   |
| 145 | ( Quantity considered is 6 Rmt per unit ) AIR DISTRIBUTION Site Fabricated duct Supply, fabrication, installation and testing of sheet metal ducts including necessary supporting arrangement in accordance with the approved shop drawings and as per the specifications: 24 G (0.63 mm)                                                         | sqm.  | 494.59   | 168.79 | 83481.85  |
| 146 | ( Quantity considered is 6 Rmt per unit ) AIR DISTRIBUTION Site Fabricated duct Supply, fabrication, installation and testing of sheet metal ducts including necessary supporting arrangement in accordance with the approved shop drawings and as per the specifications: 22 G (0.8 mm)                                                          | sqm.  | 595.14   | 30     | 17854.20  |

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|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|---------|--------|-----------|
| 147 | DIFFUSERS SUPPLY AIR DIFFUSERS 'Supply,Installatio, Testing and commissioning of square supply air diffusers as per approved shop floor drawings and colour. Each diffuser will be equipped with removable core and an AL volume control damper which will be key operated. Powder coated extruded aluminium supply air diffuser of approved colour and shade.                                                                                                          | sqm. | 7080.37 | 1.5    | 10620.56  |
| 148 | RETURN AIR DIFFUSER 'Supply,Installation, Testing and commissioning of square return air diffusers as per approved shop floor drawings and colour. Each diffuser will be equipped with removable core . Powder coated extruded aluminium exhaust air diffuser of approved colour and shade.                                                                                                                                                                             | sqm. | 4573.1  | 1.5    | 6859.65   |
| 149 | GRILLS Supply, installation, testing and commissioning of extruded aluminium powder coated supply air grills of approved shade and make. Supply, installation, testing and balancing of one way blow linear supply cum return air grills as per approved shop drawings and specifications. The grills shall be of approved colour and shade. Powder coated aluminium grills of extruded sections with integral flanges on both sides and ends as required. 150mm high   | sqm. | 5809.97 | 3.5    | 20334.90  |
| 150 | VOLUME CONTROL DAMPERS Supply, Installation and Testing of multiblade box type GSS construction damper for ducts, to be provided with suitable links and quadrants for control of volume of air.                                                                                                                                                                                                                                                                        | sqm. | 4425.13 | 1.5    | 6637.70   |
| 151 | Supply, installation, testing and commissioning of extruded aluminium powder coated grills. Extruded aluminium construction, single louvered, powder coated grille for return air.                                                                                                                                                                                                                                                                                      | Sqm  | 3302.7  | 18     | 59448.60  |
| 152 | THERMAL INSULATION ( for site fabricated ducts) AC duct Supplying and fixing of following thickness duly laminated aluminium foil of mat finished closed cell Nitrile rubber (class "O") insulation on duct after applying two coats of cold setting adhesive (The joints shall sealed with 50mm wide and 3 mm thick self adhesive nitrile rubber tape insulaton complete as per specifications and as required. 19 mm thick insulation for supply air duct in AC area. | SqM  | 667.08  | 161.24 | 107559.98 |



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| 153 | Supply and fixing of acoustic lining of supply air duct and plenum with 25 mm thick resin bonded glass wool having density of 32 kg/m <sup>3</sup> , with 25 mm X 25 mm GI section of 1.25 mm thick, at 600 mm centre to centre covered with Reinforced Plastic tissue paper and 0.5 mm thick perforated aluminum sheet fixed to inside surface of ducts with cadmium plated nuts, bolts, stick pins, CPRX compound etc. complete as required and as per specifications. 25 mm thick | Sqm. | 443.9    | 10    | 4439.00   |
| 154 | P/F Hand Dryer(Electrical work)as per direction of Engineer-in-charge                                                                                                                                                                                                                                                                                                                                                                                                                | Each | 8122     | 4.00  | 32488.76  |
| 155 | Core Cutting Drilling , Size <b>63mmx350mm deep.</b>                                                                                                                                                                                                                                                                                                                                                                                                                                 | Each | 4117.53  | 5.00  | 20587.65  |
| 156 | Core Cutting Drilling , Size <b>125mmx350mm deep. as per direction of Engineer-in-charge</b>                                                                                                                                                                                                                                                                                                                                                                                         | Each | 5646.90  | 1.00  | 5646.90   |
| 157 | Providing and fixing of Fixing of Aluminium Anodised Imported Profile in the size of 70mm wide overall with acrellick milky difuser, end cap and spring for fixing arrangement with Osram/Panasonic make 48 watt LED Strip per 5 mtr 4000 k.....Make is as per direction of Engineer-in-charge                                                                                                                                                                                       | Mtr. | 2771.92  | 52.00 | 144139.93 |
| 158 | Supply, fabrication, installation and testing of the flexible connections constructed out of fire resistant double canvas sleeve as per the approved shop drawingsMake is as per direction of Engineer-in-charge                                                                                                                                                                                                                                                                     | Each | 5669.84  | 5.00  | 28349.20  |
| 159 | Providing and fixing Electric Geyser capacity 25 l with inlet and pot let connection appoved quality omplete and making good the wall where required. Make is as per direction of Engineer-in-charge                                                                                                                                                                                                                                                                                 | Each | 11969.66 | 4.00  | 47878.65  |
| 160 | Supply and installation of Inline Fans for Pantry and Toilet Exhaust with double canvass connection, support, etc.Make is as per direction of Engineer-in-charge                                                                                                                                                                                                                                                                                                                     | Each | 44098.75 | 1.00  | 44098.75  |
| 161 | Supply, laying, testing and commisssoning of 1100V grade armoured/Unarmoured cable having sector/circular shaped copper conductor PVC insulated cores under ground PVC tape..... of 1X25SQM Copper CableMake is as per direction of Engineer-in-charge                                                                                                                                                                                                                               | Rmt. | 243.93   | 20.00 | 4878.70   |
| 162 | Supply, laying, testing and commisssoning of 1100V grade Unarmoured cable having sector/circular shaped copper conductor PVC insulated cores under ground PVC tape..... of 4CX4 SQM Copper Cable                                                                                                                                                                                                                                                                                     | Rmt. | 180.17   | 99.80 | 17980.97  |

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| 163 | Supply, laying, testing and commissioning of 1100V grade Unarmoured cable having sector/circular shaped copper conductor PVC insulated cores under ground PVC tape..... of 4CX6 Sqm Copper Cable Make is as per direction of Engineer-in-charge\                                                                                                                                                                                                                                                                                                 | Rmt.  | 240.17     | 290.00 | 69649.30  |
| 164 | SITC of 2 TR Cassette AC as per the site requirement, complete in all respect as per the direction of Engineer in Charge                                                                                                                                                                                                                                                                                                                                                                                                                         | Each. | 81897.6861 | 1.00   | 81897.69  |
| 165 | Interconnecting R410A refrigerant pipe work with (13 mm thick) closed cell elastomeric nitrile rubber tubular insulation between each set of indoor & outdoor units as per specifications, all piping inside the room shall be properly supported....                                                                                                                                                                                                                                                                                            | Rmt.  | 1239.80497 | 7.00   | 8678.63   |
| 166 | Providing & fixing control cum transmission wiring of 3 core x 2.5 sq mm copper of following size on cable tray as required between indoor and out door unit.                                                                                                                                                                                                                                                                                                                                                                                    | Rmt.  | 109.0452   | 7.00   | 763.32    |
| 167 | Providing & fixing of MS Frame wall mounted stand. Make is as per direction of Engineer-in-charge                                                                                                                                                                                                                                                                                                                                                                                                                                                | Each. | 4435.16881 | 1.00   | 4435.17   |
| 168 | Supply, laying, testing and commissioning of 1100V grade PVC armoured cable 4.0 Core X 10 Sqmm. copper Cable.                                                                                                                                                                                                                                                                                                                                                                                                                                    | Rmt.  | 399.65     | 290.00 | 115898.50 |
| 169 | Supply, laying, testing and commissioning of 1100V grade PVC armoured cable 4.0 Core X 16SQM copper Cable.                                                                                                                                                                                                                                                                                                                                                                                                                                       | Rmt.  | 560.79     | 110.00 | 61686.90  |
| 170 | Supplying, Fixing, testing and commissioning of fire dampers in supply air duct/main branch and return air path as and where required of required sizes i/c control wiring, the damper shall be motorized and spring return so as to close the damper in the event of power failure automatically and open the same in case of power being restored. The spring return action shall be inbuilt mechanism and not externally mounted. The damper shall also be closed in the event of fire signal complete as required and as per specifications. |       |            |        |           |
| a   | Fire damper                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | sqm   | 5766       | 2      | 11532     |
| b   | Actuator                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Each  | 5355       | 5      | 26775     |

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| 171 | Supply and fixing of 36 Watt to 46 Watt indoor Recess mounting LED Square Fitting for Armstrong Ceiling having Powder coated die cast aluminium housing body with extended heat sink and diffuser of Special Polycarbonate material and driver set complete in all respect. CAT-AAA   | Each   | 5756    | 28    | 161168    |
| 172 | Supply and fixing of decorative 8 to 16 Watt LED bollard luminaire with driver set confirming to IP 65 protection complete in all respect                                                                                                                                             | Each   | 3327    | 6     | 19962     |
| 173 | Supply and fixing of call bell/Buzzer suitable for single phase, 230V complete as required.                                                                                                                                                                                           | Each   | 75      | 5     | 375       |
| 172 | S&F of 63 Amp. 4 pole MCB(10 KA) C Curve                                                                                                                                                                                                                                              | Nos.   | 1872    | 3     | 5616      |
| 173 | Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required. 2 X 1.5 sq. mm + 1 X 1.5 sq. mm earth wire                                      | Mtr.   | 86.65   | 51    | 4419.15   |
| 174 | Supply, installation, testing and commissioning of 1HP Pressure pump connected to tank, cable etc. , complete in all respect.                                                                                                                                                         | Each   | 22292   | 1     | 22292     |
| 173 | Supply and fixing of exhaust fan and complete in all respect.                                                                                                                                                                                                                         | Each   | 2577    | 8     | 20616     |
| 174 | Supply and fixing of 12 watt LED Spot/Spike light luminaire Confirming to IP 65 Protection complete in all respect.                                                                                                                                                                   | Each   | 2508    | 12    | 30096     |
| 175 | Supply and fixing of 12 w step light , complete in all respect.                                                                                                                                                                                                                       | Each   | 1672    | 4     | 6688      |
| 174 | Supply and fixing of lantern light, complete in all respect.                                                                                                                                                                                                                          | Each   | 4180    | 4     | 16720     |
| 175 | Supply and fixing weather proof socket , complete in all respect.                                                                                                                                                                                                                     | Each   | 2090    | 2     | 4180      |
| 176 | Supply and fixing of wall washer light, complete in all respect.                                                                                                                                                                                                                      | Each   | 2508    | 4     | 10032     |
| 175 | Providing and fixing of IP65 BOX for fountain starter motor                                                                                                                                                                                                                           | Nos.   | 7744    | 4     | 30976     |
| 176 | Providing and fixing of SS-304 grade stainless steel brush finish sheet for electrical junction box in various size                                                                                                                                                                   | SQINCH | 15      | 200   | 3000      |
| 177 | <b>FIRE ALARM</b>                                                                                                                                                                                                                                                                     |        |         |       |           |
| 176 | <b>PHOTOTHERMAL (MULTITECH) DETECTOR</b>                                                                                                                                                                                                                                              |        |         |       |           |
| 177 | Supply, Installation, Testing & Commissioning, Installation of UL listed Intelligent Addressable MultiCriteria smoke cum Heat detector, optical type with blinking LED and standard base, being capable of being addressed electronically. Manual Addressing not acceptable. complete | Nos.   | 4661.86 | 35.00 | 163165.10 |

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|     | with base etc. as required. <b>Approved Make:-Notifier/Ansul/Edwards</b>                                                                                                                                                                                                                                                                                                                           |      |         |        |          |
| 178 | <b>FAULT ISOLATOR</b>                                                                                                                                                                                                                                                                                                                                                                              |      |         |        |          |
| 177 | Supply, Installation, Testing & Commissioning of UL Listed Addressable Fault Isolator module complete which detects short circuit and separates the segment, complete etc. as required.and as per specifications. <b>Approved Make:-Notifier/Ansul/Edwards</b>                                                                                                                                     | Nos. | 4035.64 | 2.00   | 8071.28  |
| 178 | <b>CONTROL MODULES</b>                                                                                                                                                                                                                                                                                                                                                                             |      |         |        |          |
| 179 | Supply of UL Listed Addressable control module (MCP) complete as required for switching ON of smoke extraction fans / Pressurisation Fans etc. and switching off AHU' s, capable of being addressed electronically. Manual Addressing (Dip/ Rotary Switches) not acceptable, complete as required.and as per specifications. Sprinkler flow switches. <b>Approved Make:-Notifier/Ansul/Edwards</b> | RO   | 4610.9  | 2.00   | 9221.80  |
| 178 | <b>MONITOR MODULES</b>                                                                                                                                                                                                                                                                                                                                                                             |      |         |        |          |
| 179 | Supply, Installation, Testing & Commissioning of UL Listed Addressable Monitor module complete as required for monitoring flow switches/ interface with any third party equipment capable of being addressed electronically etc. completeas required and as per specifications Hooters Circuit. <b>Approved Make:-Notifier/Ansul/Edwards</b>                                                       | Nos  | 4377.66 | 1.00   | 4377.66  |
| 180 | Suppluing abd Installation , of exit signs: photo luminescent safety signage made up of photo luminescent material of rare earth aluminates, non radioactive working.                                                                                                                                                                                                                              | Nos  | 372.4   | 3.00   | 1117.20  |
| 179 | <b>CABLES</b>                                                                                                                                                                                                                                                                                                                                                                                      |      |         |        |          |
| 180 | Supply, Installation, Testing & Commissioning of PVC Insulated 2 x 1.5 sq mm FRLS copper conductor flexible cable with termination on each end with ferrules . <b>Approved Make:-Polycab/Customized/Parashield</b>                                                                                                                                                                                 | RM   | 119.56  | 450.00 | 53802.00 |
| 181 | Response Indicator.<br><b>Approved Make:-Notifier/Edwards/Ansul</b>                                                                                                                                                                                                                                                                                                                                | Nos. | 122.5   | 4.00   | 490.00   |

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| 180 | <b>HEAT DETECTOR</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |      |         |       |          |
| 181 | Supply, installing, testing and commissioning of UL Listed Addressable Rate of Rise Heat Detector rated at 9.4 deg C/min. The detector shall have twin bi-colour LED for 360 deg viewing. Addressing shall be with user friendly rotary decimal switches. <b>Approved Make:-Notifier/Edwards/Ansul</b>                                                                                                                                                                                                                                                                                          | Nos. | 3992.5  | 4.00  | 15970.00 |
| 182 | <b>SPEAKERS</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |      |         |       |          |
| 181 | Supply, installing, testing and commissioning of UL Listed 2W/6W Ceiling Mounted speaker with capacity to have 1/4,1/2,1 and 2 watt tapping, working at 83dB compatible with amplifier complete as required. <b>Approved Make:-Honeywell/Bosch/Ateis</b>                                                                                                                                                                                                                                                                                                                                        | Nos. | 2590.14 | 16.00 | 41442.24 |
| 182 | <b>Fire Hydrant System</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |      |         |       |          |
| 183 | Providing, fixing, testing & commissioning of MS air cushion tank on top of each riser fabricated from 6mm thick MS plate, 200 mm in diameter and 1.2 m in height with dished ends fabricated from 8mm thick MS plate with Air release valve with stop cock, flanged inlet connection and drain arrangement with 25mm dia valve, pressure gauge with gun metal stop cock complete with all accessories as required and conforming to IS 4736-1968. (The cushion tank should be suitable for rated working pressure. <b>(Make: SafeFire, Radiant, East West)</b>                                 | set  | 7303.65 | 2     | 14607.30 |
| 182 | Providing & fixing <b>dial type (100 mm) pressure gauge</b> with isolation ball valve suitable for working pressure of 250 PSI. Cost shall be inclusive of providing any short pieces, nipples, elbows etc as required.                                                                                                                                                                                                                                                                                                                                                                         | Nos  | 777.49  | 3     | 2332.47  |
| 183 | <b><u>SUBHEAD: II: Hydrants, Sprinkler,Piping &amp; Accessories</u></b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |      |         |       |          |
| 184 | Supplying, laying, fixing, testing and commissioning of following sizes (NB) of ISI marked heavy class M.S. pipes including cutting, threading, welding etc. and providing all victaulic fittings e.g. elbows, reducers, clamps, hangers, flanges, gaskets, nuts, bolts and washers etc. including painting of pipes and fittings with red paint over a coat of ready mixed primer, both of approved quality and shade including cutting holes and chases in brick or RCC walls/slabs and making good the same etc. complete in all respect as required. <b>(Make: Tata , Radiant , Jindal)</b> |      |         |       |          |

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| a   | 150 mm dia                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Metre | 1981.11 | 50     | 99055.50 |
| b   | 100 mm dia                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Metre | 1430.99 | 22.25  | 31839.53 |
| c   | 80 mm dia                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Metre | 1050.88 | 14     | 14712.32 |
| d   | 65 mm dia                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Metre | 918.15  | 15     | 13772.25 |
| e   | 50 mm dia                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Metre | 762.3   | 15.75  | 12006.23 |
| f   | 40 mm dia                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Metre | 609.36  | 23.25  | 14167.62 |
| g   | 32 mm dia                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Metre | 560.47  | 10.5   | 5884.94  |
| h   | 25 mm dia                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Metre | 492.32  | 107.75 | 53047.48 |
| 185 | Providing and fixing forged brass ball valve with forged brass ball (suitable for test pressure of not less than 15 kg / sq.cm of the following size : (Make: Zoloto, AIP, Sant) (Cost shall be inclusive of providing necessary union / flange connection).                                                                                                                                                                                                                                                           |       |         |        |          |
| a   | 25 mm dia                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | No.   | 959.36  | 1      | 959.36   |
| 186 | Providing & fixing of butterfly valve (suitable for test pressure of 15 kg / sqm) with flanges, nut bolts, gaskets and necessary pad locking arrangement complete required. <b>(Make: Zoloto, AIP, Sant)</b>                                                                                                                                                                                                                                                                                                           |       |         |        |          |
| a   | 80 mm dia                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | No.   | 2945.02 | 1      | 2945.02  |
| b   | 100 mm dia                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | No.   | 3762.1  | 2      | 7524.20  |
| c   | 150 mm dia                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | No.   | 5668.61 | 1      | 5668.61  |
| 187 | Providing & fixing swinging type <b>First Aid hose reel</b> in red colour drum with 30 mts long and 20 mm dia heavy duty rubber water hose, 20 mm dia globe valve stop cock, terminating with G.M. coupling & nozzle of 6mm outlet with shut off valve conforming to IS 8090 - 1976 complete with MS socket for tap-off, drum and brackets (including painting) for fixing on wall with anchor fastner, bolts & nuts conforming to IS:884-1969 complete as required. <b>(Make: Radiant, East West,Padmani, Zoloto)</b> |       |         |        |          |
|     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | No.   | 6243.44 | 1      | 6243.44  |

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|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|---------|----|----------|
| 188 | Providing & fixing non-percolating rubber reinforced lined fire <b>hose pipe</b> (as per IS : 636) of 63 mm dia and length as described below. The hose shall be rated for burst pressure of 35.7 Kg/sqcm. Hose shall be complete with ISI marked S.S male & female coupling (IS:903) bound & rivetted to hose pipe with copper rivets & 1.5 mm copper wire (Location : Internal fire hydrant) <b>(Make: Radiant, East West,Padmani,)</b> |     |         |    |          |
| a   | 15 m length                                                                                                                                                                                                                                                                                                                                                                                                                               | Nos | 4712.03 | 2  | 9424.06  |
| 189 | Providing and Fixing 63 mm dia instantaneous pattern <b>branch short Stainless Steel pipe</b> , 20 mm dia nozzle conforming to IS 903, suitable for inter connection to hose pipe coupling complete as required. <b>(Make: Radiant,Padmani,kartar,)</b>                                                                                                                                                                                   | Nos | 2462.04 | 2  | 4924.08  |
| 190 | Providing and fixing standard <b>fire man's axe</b> with heavy rubber handle. <b>(Make: Radiant, East West,Padmani)</b>                                                                                                                                                                                                                                                                                                                   | Nos | 559.56  | 1  | 559.56   |
| 191 | Providing and fixing 5 mm thick glass door (with M.S. frame) of size 2.1 m x 1.2 m with center opening for fire hose cabinet. Suitably marked on the outside with the letters "FIRE HOSE" including locking arrangement. All M.S. work to be in Red P.O. colour over appropriate primer. The above item is only for masonry fire station. <b>(Make: Radiant, East West,Padmani)</b>                                                       | No. | 9541.86 | 2  | 19083.72 |
| 192 | Providing and fixing flexible connectors consisting of flexible core 1.5 mtr. in length of corrugated stainless steel tubing under the braid, (Braiding to be SS-304, tubing to be SS-304) for minimum working pressure rating of 200 PSI to be installed at connections from branch pipes to pendant sprinklers blow false ceiling as per specification of the manufacturers. <b>(Make: Radiant, East West,Padmani)</b>                  | Nos | 902.83  | 70 | 63198.10 |
| 193 | Providing and Fixing 15 mm dia gunmetal / brass quartzoid type Sprinkler Head with quartz bulb and set to operate at specified temperature. <b>(Make:East West,Padmani)</b>                                                                                                                                                                                                                                                               |     |         |    |          |
| 194 | Pendant Type,68° C, Chrome plated                                                                                                                                                                                                                                                                                                                                                                                                         | Nos | 240.75  | 70 | 16852.50 |
|     | <b><u>SUBHEAD: III: Portable Chemical Fire Extinguishers</u></b>                                                                                                                                                                                                                                                                                                                                                                          |     |         |    |          |
| 195 | Supply, installation, testing and commissioning of following types of extinguisher with provision of wall bracket (fixed with anchor fastner).                                                                                                                                                                                                                                                                                            |     |         |    |          |

|                                                      |                                                                                                                                                                                                                                                                                                                                                                       |      |           |    |                   |
|------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------|----|-------------------|
| 196                                                  | ISI marked (IS:940) portable chemical fire extinguisher, water (gas pressure) type capacity 9 litres with gun metal cap and nozzle and complete in all respects including initial fill and wall suspension brackets( <b>Make: East West,Padmani</b> )                                                                                                                 | Each | 3534.02   | 5  | 17670.10          |
| 197                                                  | ISI marked (IS:2878) Fire Extinguisher, Carbon-di-oxide type capacity 4.5 Kg. Flat base including valve, discharge hose of not less than 10 mm dia, 1M long and complete in all respects including initial fill with CO2 gas conforming to IS:307-1966 filled to a filling rate of not more than 0.667 and wall suspension bracket.( <b>Make: East West,Padmani</b> ) | Each | 6007.84   | 3  | 18023.52          |
| 198                                                  | ISI marked (IS:2171) Portable Dry Chemical Power Type Fire Extinguisher with Gun Metal cap and nozzle and complete in all respects including initial fill and wall suspension bracket( <b>Make: East West,Padmani</b> )                                                                                                                                               |      |           |    |                   |
| a                                                    | 5 Kg                                                                                                                                                                                                                                                                                                                                                                  | Each | 3239.52   | 3  | 9718.56           |
|                                                      | <b>Lift</b>                                                                                                                                                                                                                                                                                                                                                           |      |           |    |                   |
| 199                                                  | Supply of items, repairs and annual maintenance of MD lift parts make kone & equivalent                                                                                                                                                                                                                                                                               | Set  | 292667    | 1  | 292667            |
| 200                                                  | 65inch LED TV Make LG, SONY, Samsung 4k, UHD smart TV with Installation                                                                                                                                                                                                                                                                                               | Nos. | 178203.33 | 1  | 178203.33         |
| <b>TOTAL AMOUNT OF SCHDEULE B (ELECTRICAL ITEMS)</b> |                                                                                                                                                                                                                                                                                                                                                                       |      |           |    | <b>5101813.40</b> |
| <b>SCHDEULE C (TELECOM WORKS)</b>                    |                                                                                                                                                                                                                                                                                                                                                                       |      |           |    |                   |
| 201                                                  | Supply installation testing and commissioning of following telephone instruments as per technical specification and as required. Digital Insturments with 12 Button Programable Digital Phone                                                                                                                                                                         | Each | 12722.75  | 28 | 356237.07         |
| 202                                                  | Supply installation testing and commissioning of following telephone instruments as per technical specification and as required. Analog CLI Normal Phone                                                                                                                                                                                                              | Each | 1170.66   | 52 | 60874.32          |
| 203                                                  | Supply and Installation of 100 Pair MDF with Housing                                                                                                                                                                                                                                                                                                                  | Each | 13781.42  | 1  | 13781.42          |



**RFP for Restoration contract for Civil, Electrical, Telecom works of NMRC Head Office**

|     |                                                                                                                                                                                                                                                                                                                                                                                                                  |      |          |      |           |
|-----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----------|------|-----------|
| 204 | Supply installation testing & Commissioning of intelligent Ethernet switch 24 Port RJ-45 Autosensing 10/100/1000 Ports (EEE 802.3 Type 10 BASE-T LEEE 802.3u 100BASE-2SFP Fixed 1000 ports RJ 45 Serial console port support throughput minimum 84 gbps support advanced layer 2 feature should support POE power Budget 100W Should support zero touch deployment with india power cord make: Alcatel/ Net gear | Each | 38677.56 | 6    | 232065.36 |
| 205 | Supplying, Laying, Testing & Commissioning of Cat 6, PowerCat Plus ,UTP Cable, 4 pair, Blue (23 AWG, Reel in a Box packing) as per the requirement & complete in all respect and as directed to the satisfaction of engineer. <b>Approved Make (Systimax / Molex / Penduit/D Link)</b>                                                                                                                           | Mtr. | 26.98    | 7000 | 188860    |
| 206 | Supplying and fixing following size / modules, GI Box alongwith modular base & cover plate for modular switches in recess etc as required. 1 or 2 module ( 75mm x 75mm)                                                                                                                                                                                                                                          | Nos. | 135.71   | 80   | 10856.80  |
| 207 | Supply and Fixing Following size/modules, GI Box along with modular base and Cover Plate for Modular switches in recess etc as required 1 or 2 module                                                                                                                                                                                                                                                            | Nos. | 64.58    | 80   | 5166.40   |
| 208 | Supply,Installation ,Testing and Commissioning of Single Port Iconable with RJ-45 I/O-White Preferred make D Link/ Systimax                                                                                                                                                                                                                                                                                      | Nos. | 348.26   | 80   | 27860.80  |
| 209 | Supplying, Installation, Testing & Commissioning of Slime line RJ45 to RJ45 Cat6 UTP patchcord with flexible transparent Boot, Blue (Data Rack end) = 3 Feet, <b>Preferred Make (Systimax / Molex / Penduit)</b>                                                                                                                                                                                                 | Nos. | 285.31   | 80   | 22824.80  |
| 210 | Supplying, Installation, Testing & Commissioning of Slime line RJ45 to RJ45 Cat6 UTP patchcord with flexible transparent Boot, Blue (Data Rack end) = 7 Feet, <b>Preferred Make (Systimax / Molex / Penduit)</b>                                                                                                                                                                                                 | Nos. | 327.00   | 80   | 26160.00  |
| 206 | Supplying, Installation, Testing & Commissioning of 24 Port Cat 6 Straight Patch Panel, UTP 568A/B with Rear Cable Manager, 1U as per the requirement & complete in all respect and as directed to the satisfaction of engineer, Preferred <b>Make (Systimax / Molex / Penduit)</b>                                                                                                                              | Nos. | 8414.53  | 6    | 50487.17  |
| 207 | Supply installation testing & Commissioning armored multimode OFC cable 6 core unitube with two steel wire for interflow switch connectivity Preferred Make Digi –link/ Schneider/ AMP/ D- Link/ D -Link                                                                                                                                                                                                         | Nos. | 228.90   | 100  | 22890.00  |

|                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |        |         |      |                    |
|---------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|---------|------|--------------------|
| 207                                               | Supply, installation, testing and commissioning of Data Rack 15 U (800mm * 800mm) free standing cabinet with front locable door, side panels, 2 set of castor wheel, 230V AC 90 CFM fan 4, three hardware packet 1set (containing 20Nos each of 3), AC Power strip combination of 5A - 15A 12 socket, heavy duty stationary shelf 600W x 475D, 2 cable channel 100mm wide 42U, one earthing strip 150mm H, 4 cable manager 1U height., <b>Approved Make (Systemax / Molex / Penduit)</b> | Nos.   | 8545.33 | 2    | 17090.66           |
| 224                                               | Supplying, Laying, Testing & Commissioning of 1100 V grade unarmoured cable having sector /circular shape copper conductor pvc insulated cores under ground pvc tape of 4Cx4 SQM copper cable                                                                                                                                                                                                                                                                                            | Nos.   | 180.17  | 99.8 | 17980.966          |
| <b>TOTAL AMOUNT OF SCHDEULE C (TELECOM ITEMS)</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |        |         |      | <b>1053135.71</b>  |
| <b>TOTAL AMOUNT OF SCHEDULE (A+B+C)</b>           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |        |         |      | <b>13030114.66</b> |
| <b>Qouted amount (Rs.)</b>                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |        |         |      |                    |
| S.No                                              | words                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | figure | Words   |      |                    |
| 1                                                 | <u>Qouted Rate in %(Percentage)</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                      |        |         |      |                    |
| 2                                                 | <u>Rebate in %(Percentage)if Any</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                     |        |         |      |                    |
| <b>Name of Contractor &amp; SEAL</b>              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |        |         |      |                    |



**Please Note:**

1. The Bidder with the lowest quoted cost for Restoration contract for Civil, Electrical, Telecom works of NMRC Head Office in the financial quote (L1 bidder) shall be selected for the award of contract.
2. The Bidder shall be required to quote the percentage in the BOQ.
3. It will be deemed to include all Taxes including GST, Duties, Octroi, Royalty etc., cost of all plants, labour, supervision, materials, transport, all temporary works, erection, maintenance, utility identification, contractor's profit and establishment/ overheads, together with preparation of design and drawings, all general risks, insurance liabilities, compliance of labour laws and obligations set out or implied in the contracts.
4. The work executed against the BOQ items in would be paid on measurement basis.
5. The Contractor may raise their 'On Account' payments on monthly basis as per the status of work on the last day of the respective month.
6. The Financial Bid submitted is unconditional and fulfills all the requirements of the TOR Document.
7. We have completely read and understood the Bid Document. The Financial Tender submitted is unconditional and fulfils all the requirements of the Tender Document.
8. Our Financial Proposal shall be binding upon us subject to the modifications resulting from contract negotiations, up to expiration of the validity period of the Proposal. We understand you are not bound to accept any Proposal you receive.
9. If the restoration work includes any work for which no rates were specified in the contract than such work shall be carried out at the rates entered in the schedule of rates for DSR 2018 plus/minus percentage (as quoted by the contractor in BOQ) which the total tendered amount in respect of schedules of items bear to the estimate cost of the entire work put to tender.
10. If the restoration work includes any work for which no rates were specified in the contract and no rates are specified in schedule rates for DSR 2018 then sub work shall be carried out at the rates prevailing in the market plus/minus- percentage (as quoted by the contractor in BOQ) which the total tendered amount in respect of schedule of items bear to the estimate cost of the entire work put to tender.

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Signature and Name of the Authorized Person

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NAME OF THE BIDDER AND SEAL

**8.20. Form 18: Bid Details**

The following list is intended to help the tenderers in submitting offer which are complete. An incomplete offer is liable to be rejected. Tenderers are advised to go through the list carefully and take necessary action.

| S.No. | Particulars                                                                                                                                          | Attached<br>Yes / No / Not<br>Applicable | Page no.<br>(Mandatory) |
|-------|------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|-------------------------|
| 1     | Bid Processing Fees                                                                                                                                  |                                          |                         |
| 2     | Earnest Money Deposit                                                                                                                                |                                          |                         |
| 3     | Form 1: Letter of Proposal Submission                                                                                                                |                                          |                         |
| 4     | Form 2: Firm Details                                                                                                                                 |                                          |                         |
| 5     | Form 3: Capability Statement                                                                                                                         |                                          |                         |
| 6     | Form 4: Work Experience                                                                                                                              |                                          |                         |
| 7     | Form 5: Financial Capability Details                                                                                                                 |                                          |                         |
| 8     | Form 6: Memorandum                                                                                                                                   |                                          |                         |
| 9     | Form 7: Undertaking                                                                                                                                  |                                          |                         |
| 10    | Form 8: Power of Attorney                                                                                                                            |                                          |                         |
| 11    | Form 9: Bid Capacity                                                                                                                                 |                                          |                         |
| 12    | Form 10: Salable Form for Tender Document                                                                                                            |                                          |                         |
| 13    | Form 11: Declaration of Refund of Earnest Money                                                                                                      |                                          |                         |
| 14    | Form 12: Undertaking pertaining to Personnel                                                                                                         |                                          |                         |
| 15    | Form 13: Resources proposed for the O&M -<br>Plant & Equipment                                                                                       |                                          |                         |
| 16    | Form 14: Proposed Personnel                                                                                                                          |                                          |                         |
| 17    | Form 15: Obligation/ Compliance to be ensured<br>by Contractor                                                                                       |                                          |                         |
| 18    | Form 16: Proforma for Clarifications /<br>Amendments on the RFP                                                                                      |                                          |                         |
| 19    | Form 17: BOQ                                                                                                                                         |                                          |                         |
| 20    | Form 18: Bid Detail                                                                                                                                  |                                          |                         |
| 21    | Statutory proof of existence as the legal entity                                                                                                     |                                          |                         |
| 22    | PAN certificate as per legal entity                                                                                                                  |                                          |                         |
| 23    | A copy of the Audited balance sheets and Profit<br>and Loss Statements for the last 3 (three)<br>financial years                                     |                                          |                         |
| 24    | Self attested copy of ITR                                                                                                                            |                                          |                         |
| 25    | Copy of GST registration certificate, EPF, ESI                                                                                                       |                                          |                         |
| 26    | Any other document asked by the Employer if<br>submitted, specify the documents<br>Or<br>Any other document which the Tenderer<br>considers relevant |                                          |                         |