

**TENDER DOCUMENT FOR THE SUPPLY, INSTALLATION,  
CONFIGURATION, AND COMMISSIONING, TESTING  
AND ACCEPTANCE OF A CENTRALIZED DATA  
STORAGE SOLUTION (SAN STORAGE WITH BACKUP  
INFRASTRUCTURE), INCLUDING ASSOCIATED CIVIL,  
INTERIOR, ELECTRICAL, ELV, NETWORKING,  
COOLING, FIRE SUPPRESSION, UPS AND STABILIZER  
RELATED WORK  
FOR  
ELECTRICAL RESEARCH & DEVELOPMENT ASSOCIATION  
AT VADODARA, GUJARAT, INDIA**

**SPECIAL CONDITIONS OF CONTRACT (SCC)**

**CLIENT:**



**ELECTRICAL RESEARCH & DEVELOPMENT ASSOCIATION**

**ERDA Road,  
G.I.D.C., Makarpura,  
Vadodara 390010.  
Phone: (265) 3043128`**

## **SPECIAL CONDITIONS OF CONTRACT**

### **1. GENERAL**

- a) These Special Conditions of Contract shall be read in conjunction with the General Conditions of Contract (as defined below), Specifications, Drawings and any other documents, including the Tender Documents, forming part of the Contract.
- b) Notwithstanding the division of the Tender Documents into separate sections and volumes every part of each Tender Document shall be deemed to be supplementary to and complementary of every other part and shall be read into the Contract so far as it may be practicable to do so.
- c) Where any portion of the General Conditions of Contract is inconsistent with, repugnant to or at variance with provisions of the Special Conditions of Contract, unless specifically stated in writing, the provisions of the Special Conditions of Contract shall be deemed to over-ride the provisions of the General Conditions of Contract to the extent of such inconsistency, repugnance or variance.
- d) Wherever it is mentioned in the Tender Documents that the Contractor shall perform certain work or provide certain facilities/materials, the Contract Value (which shall include all Taxes other than Goods Service tax) and the Work Schedule shall be inclusive of the cost and time required for providing such facilities/materials or for performance of such works. The Contractor shall not be entitled to any additional payment, claim or time in this respect.
- e) The material designs and workmanship shall be in compliance with the relevant Indian standards, the Specifications contained and codes referred to herein as well as all applicable laws, to the satisfaction of the Electrical Research & Development Association/Consultant. Where the Specifications stipulate requirements in addition to those contained in standard codes/applicable laws, these additional requirements shall also be satisfied/ complied with.

### **2. SITE MANAGEMENT**

- a) The management of the Site shall be the responsibility of the Engineer-In-Charge of the Electrical Research & Development Association.
- b) In the absence of the Engineer-In-Charge, his duties and functions will be performed by a substitute appointed by the Electrical Research & Development Association.
- c) It shall be the responsibility of the Contractor to communicate with the Engineer-In-Charge at all times in connection with the Works.

### **3. SCOPE OF WORK**

- a) The Contractor shall be responsible for the [construction] of the following at the Site in accordance with the Specifications and the Drawings:
  - 1. CENTRALIZED DATA STORAGE SOLUTION (SAN STORAGE WITH

BACKUP INFRASTRUCTURE), INCLUDING ASSOCIATED CIVIL, INTERIOR, ELECTRICAL, ELV, NETWORKING, COOLING, FIRE SUPPRESSION, UPS AND STABILIZER RELATED WORK

#### **4. EXECUTION OF WORK**

- a) The Works shall be executed by the Contractor in accordance with the terms and conditions laid down in the Tender Documents, including as set out in the following:
  - i) Specifications;
  - ii) Notice Inviting Tenders;
  - iii) Special Conditions of Contract;
  - iv) General Conditions of Contract;
  - v) All Drawings. It is clarified that the Electrical Research & Development Association reserves to itself the right of altering the Drawings and scope of the Works by adding to or omitting any items of work or having portions of the same carried out by another entity without prejudice to this Contract;
  - vi) Drawing and details supplied by or approved by the Engineer-In-Charge from time to time during the course of execution of the Works; and
  - vii) Relevant/applicable Indian standards and specifications for materials and construction, codes of Practice etc. whether specifically referred to in the Tender Documents or not.
- b) The Contractor shall have to work in such place and under conditions where other agencies will also be engaged for other work.
- c) The Contractor shall carry out any addition or omission or substitution of any work as directed by the Electrical Research & Development Association/Engineer-In-Charge.
- d) The Contractor shall maintain the record of all execution protocols duly endorsed by all concerned.

#### **5. TIME OF COMPLETION**

- a) The Contractor shall Complete, to the satisfaction of the Electrical Research & Development Association/ the entire Works, in accordance with the terms of the Contract, within a period of 4 **(Four) months** (As specified in Salient Feature of Tender) from the date of the Letter of Award, being the Specified Completion Date. This period includes the time required for mobilization as well as testing, rectifications, if any, re-testing and Completion in all respects of the entire Works to the satisfaction of Engineer-In-Charge and the Electrical Research & Development Association.
- b) The Works shall be executed strictly as per the Work Schedule. The Contractor shall plan [his] construction programs and activities so as to complete the Works by the Specified Completion Date. The period of completion given includes the time required for mobilization as well as testing, rectifications, if any, re-testing and completion in all respects to the entire satisfaction of Engineer-In-Charge.
- c) Time being a very important consideration in the execution of this Contract, the Contractor will be expected to furnish all labour and materials in sufficient quantities and at appropriate times, expedite and schedule the work as required

and so manage the operation that the Works are Completed by the Specified Completion Date. In addition to providing the Work Schedule the Contractor shall submit an outlined and graphic schedule of proposed procedures to the Engineer-In-Charge for approval which shall be a graphic representation of the Work Schedule.

- d) In the event that the Engineer-In-Charge is of the opinion that the progress of the Works is not in accordance with the Work Schedule and that there is likely to be any delays in meeting any milestones set out in the Work Schedule, the Contractor shall mobilize all necessary additional resources in terms of manpower, machineries, equipment's, tools, tackles and consumables to mitigate the delay within such period as instructed by the Engineer-In-Charge without any additional cost to the Electrical Research & Development Association. The assessment of the progress of the Works by the Engineer-In-Charge shall, at all times, be final and binding on the Contractor. In case the progress of the Works is found unsatisfactory, the Electrical Research & Development Association reserves the right to intervene and appoint another contractor for the Works, if it so deems fit, at the Contractor's risk and cost, after issuing notice of 7 (seven) days to the Contractor in this respect.
- e) The Contractor shall, within 15 (fifteen) days of the date of the Contract, furnish to the Engineer-In-Charge, the Work Schedule as set out in paragraph **Error! Reference source not found.** of the Notice Inviting Tenders showing the various milestones and critical path for Completion of the Works by the Specified Completion Date and as per conditions of the Contract. The Work Schedule shall clearly include (i) manpower, materials and machinery resources proposed to be deployed for achieving the targeted progress; (ii) justification for the same, based on machinery output; (iii) the date from which each of the aforesaid shall be available at the Site (in case of machinery, the date on which such machinery shall be available at the Site in working condition). The Work Schedule shall be subject to the approval of Engineer-In-Charge, who may require changes in the Work Schedule. The decision of Engineer-In-Charge shall be final and binding in this regard.
- f) The Contractor is expected to mobilize and employ sufficient resources as indicated in the Work Schedule as finalised by the Engineer-In-Charge to ensure Completion of the Works by the Specified Completion Date, at all times in accordance with the prevailing industry standards and applicable law for safety, health and environment. No additional payment shall be made to the Contractor for any multiple shift work or other incentive methods contemplated by him in the Work Schedule even though the Work Schedule is approved and finalised by the Engineer-In-Charge.
- g) The Contractor is expected to adhere to the Work Schedule with respect to milestones set out therein and total Completion of the Works and such adherence will be a part of the Contractor's obligations under the Contract.
- h) The Contractor shall not have any right to receive from the Electrical Research & Development Association, and the Electrical Research & Development Association shall be under no obligation to make to the Contractor, any payments till such time as the Contractor submits and the Engineer-In Charge approves of the Work Schedule.

## 6. RESPONSIBILITIES OF THE CONTRACTOR

- a) The Contractor shall provide all necessary and adequate (i) skilled, semi-skilled and unskilled, but experienced workmen; (ii) materials for construction; and (iii) other equipment, tools and tackles, consumables, etc. for proper and timely execution of the Works. The Quoted Rates shall be inclusive of all such resources. All materials, tools, plants and equipment which are proposed to be used for the Works shall be approved by the Engineer-In-Charge prior to their procurement and use.
- b) The Contractor shall provide all necessary personal protective equipment such as safety helmets, safety shoes, etc. for [his/its] staff and workmen.
- c) The Contractor shall follow field quality plan provided to [him/it] by the Engineer-In-Charge from time to time.
- d) The Contractor shall be responsible for the implementation of the prevailing industry standards pertaining to health, safety and environment at all times in compliance with applicable law.
- e) The Contractor shall ensure that all structures to be erected on the Site are erected using mechanized equipment only i.e. using cranes. No structures shall be erected manually.
- f) The Contractor shall procure and bring materials/equipment at the Site on the basis of Drawings approved for construction and not on the basis of Schedule of Quantities and Rates which are provisional only.
- g) The Contractor shall make [his] own arrangement to obtain all materials required for the Works other than cement and reinforcing steel which will be supplied free of cost (on accountable basis) by the Electrical Research & Development Association. A test certificate for all materials (including the cement and reinforcing steel) shall be submitted by the Contractor to the Consultant and the Electrical Research & Development Association for review and approval, prior to use of such material for the Works. It is clarified, however that neither cement nor reinforcing steel shall be supplied by the Electrical Research & Development Association for any brought out items such as ready mix concrete, RCC Pipes, cement tiles, pre cast covers, concrete blocks, etc.
- h) The Contractor shall maintain a register for record of consumption of cement for the different items of the Works (as set out in Clause 3 hereto). The theoretical consumption of cement will be worked out based on standard consumption of cement per unit of particular items as per Central Public Works Department (C.P.W.D.) or as otherwise specified by the Electrical Research & Development Association/Engineer-In-Charge and the Contractor shall adhere to the same for the implementation of the Works for the purposes of accounting.
- i) The Contractor shall maintain at the Site a register (the “**Works Diary**”) in which [he/it] shall accurately record [at least once a day] (i) the progress of the Works item wise; (ii) the number of men employed under each trade, plant and equipment at the Site; (iii) the materials used in each item of the Works; and (iv) the weather, temperature and other aspects having a bearing on the progress of or otherwise on the Works. The Contractor shall make the Works Diary available for inspection by the Engineer-In-Charge whenever called for by the Engineer-In-Charge.
- j) The Contractor shall maintain records of the materials used by it at the Site, including records of the daily consumption of materials or any other record as

may be required by Engineer-In-Charge from time to time.

- k) The Contractor shall exercise extreme care at all times on the Site to maintain cleanliness in all operations, avoid fires and accidents, avoid hazards and remove all inflammable debris promptly.
- l) The Site shall be kept clean of construction dirt and debris and shall be maintained in a condition reasonably acceptable to the Electrical Research & Development Association at all times. It shall be the specific responsibility of the Contractor for Works to fully advise other the persons engaged by the Contractor (including Sub-Contractors) in respect of what responsibility each such person has in scheduling and performing [his/its] work so as to conform to the Work Schedule and the Specified Completion Date.
- m) The Contractor has to submit shop drawing to the Engineer-In-Charge if required for any fabrication or other work for approval before execution of work.
- n) The Contractor shall afford every reasonable facility for the carrying out of all works relating to Works, installation of sanitary work and fittings, permanent water supply, electrical installation, and fittings, in the manner laid down in the Tender Documents, and shall make good any damages done to walls, floors, etc. after the completion of such works.

## **7. DRAWINGS**

Final Drawings for the Plant will be issued by the Electrical Research & Development Association/Engineer-In-Charge during the course of execution of the Works. The Contractor's work shall not deviate from Drawings. Any inconsistencies or error found in the Drawings shall forthwith be brought to the notice of the Engineer-In-Charge by the Contractor for interpretation/clarification or correction. All Drawings furnished for construction are the property of the Electrical Research & Development Association, should not be disclosed to anybody and form part of the subject matter.

## **8. CO-ORDINATION OF WORK**

The Engineer-In-Charge shall co-ordinate the works of the various agencies (including the Contractor) engaged at the Site to ensure minimum disruption of work carried out by the different agencies. It shall be the responsibility of the Contractor to plan and execute the Works strictly in accordance with instructions of the Engineer-In-Charge to avoid hindrance to the work being executed by other agencies.

## **9. OFFICE, STORE ON THE SITE:**

- a) Open space for the Site Office not exceeding 200 sqmt. (200 square meters) shall be provided to the Contractor at the Site. The Contractors shall, however, be responsible for constructing a temporary structure for the Site Office.
- b) The Storage Area as approved by the Electrical Research & Development Association/ Engineer-In-Charge shall be provided to the Contractor at the Site. The Contractor shall provide all necessary store on the Site at [his/its] own cost in the Storage Area for all materials such as Cement (having 700 bags storing capacity or 4 weeks consumption, whichever is less). The materials which are likely to deteriorate by exposure to sun, rain, or other weather conditions shall be adequately protected by the Contractor. The Store Area shall be cleared away and the ground left in good and proper order and condition on Completion of the Works unless otherwise expressly mentioned herein.

All materials which are stored in the Storage Area, or, if permitted in writing by the Electrical Research & Development Association, elsewhere on the Site such as bricks, metal, sand etc., shall be stacked in such a manner as to facilitate rapid and easy checking of quantities of such materials. All materials shall be stored at the Contractor's risk.

**10. SCOPE OF SUPPLY**

**TO BE SUPPLIED BY THE CONTRACTOR:**

Electrical Research & Development Association will approve as per terms and conditions set forth in the Tender, the following supplier and rates for materials as mentioned below.

- a. Cement
- b. Reinforcing Steel & fibre reinforcement
- c. Structural steel sections & plate

**Further such issue shall be subject to the following conditions:**

- a. The contractor shall bear all costs including unloading / lifting, carting from issue points to work site/contractor's store, custody and handling etc.
- b. All steel shall be procured in available lengths/shapes and no claims for extra payment on account of issue of non-standard lengths/shape will be entertained. All steel, shall be procured on weight basis. The difference in unit weight as per IS and actual as issued, if any, shall be deemed to include the above and wastage mentioned below.
- c. **SCRAP AND SERVICEABLE MATERIAL:**

For the purpose of account of reinforcing steel and structural steel other than MS plates issued by the Electrical Research & Development Association, all cut pieces measuring in length of 2M and above when returned to storage points, shall be treated as serviceable material. All pieces measuring less than 2M will be treated as wastage/scrap. For the purpose of accounting of MS plate, all plate measuring more than 1 Sqm in area and having any dimension less than 200mm shall be treated as wastage scrap. For plates measuring more than 200mm in width then returned to Electrical Research & Development Associations storage point, shall be treated as serviceable material.

Excess cement, shall be returned to storage/issue points in good conditions, as certified by Engineer-in-charge, Otherwise Penal recovery shall be applicable.

Empty Cement bags will be the property of contractor.

In case of excess consumption/wastage/loss/theft/non accounting of steel materials drawn by the contractor over and above the permissible limits, contractor shall be charged panel rate equivalent to 1.5 times the market rate prevailing at the time of final bill.

All other equipment, cranes, tractors, trailer, appliances, consumables, accessories, special templates for casting foundations / bolt setting, fitting Galvanized Structural /grating /handrails/ pipes for hand rail etc. required for the completion of work as per scheme, scope of work, specifications and specific requirements shall be procured and supplied by the contractor at his own cost.

Any other material not specifically mentioned in the tender but necessary for execution/completion of job as envisaged in the tender documents shall be

arranged and supplied by the contractor.

Following construction equipment shall be made available on site till completion of work:

Theodolite, Dumpy level, measuring tapes, Cube Mould, PH meter, Slump Cone, Core cutter, weighing machine field testing equipment, earth compactor, "UTM (cube test machine) and in house material testing laboratory at site. etc.

All above equipment shall be with valid calibration certificate or recently calibrated and copy of the same to be submitted to the Electrical Research & Development Association / Engineer-in-charge.

Contractor shall have to give deployment of minimum man power including their staff and list of machineries & equipment that he proposes to arrange for this work.

Mobilization shall be considered complete only after fulfillment of above activity.

## **B) READY MIX CONCRETE**

The Contractor shall provide the quotation for ready mix concrete. Pursuant thereto, the Electrical Research & Development Association shall, at its own discretion, supply ready mix concrete on free basis or shall require the Contractor to supply ready mix concrete.

## **11. ACCOUNTS FOR MATERIALS**

- a) The Contractor shall maintain a separate register for recording material and consumed by it and shall submit along with each R.A. Bill, the Contractor shall submit an account for all the materials and their consumption in the format prescribed by the Engineer-In-Charge. On completion of the Works, the Contractor shall submit a materials reconciliation statement for all materials. f
- b) The Contractor shall submit cement consumption statement along with each R.A. Bill showing the theoretical consumption and actual consumption of cement for particular items. The theoretical consumption of cement will be calculated on the basis of measurements worked out from the Drawings and Specifications or from joint measurements of the items in case of non-availability of Drawing.
- c) The Contractor shall maintain a separate register for recording the use of cement and reinforcing steel received at Site and consumed by it and shall submit a reconciliation statement to the Engineer-In-Charge in this respect with each R.A. Bill. Payment of the Final Bill shall be made on the basis of approved reconciliation statement & standard unit weight as given in relevant I.S. Code.
- d) All the cement and reinforced steel procured by contractor shall be strictly accounted for by the Contractor. In case of cement, permissible wastage shall be 1% (one percent) of the amount supplied and in case of reinforced steel, permissible wastage shall be 3% (three percent), of which, the Contractor shall be liable to account for 2.5% (two point five percent) and shall not be liable to account of 0.5% (zero point five percent). Reinforced steel for which the Contractor shall not be liable to account for shall mean that wasted/lost/scrapped due to burning, cutting, using cut rods up to 300 mm (three hundred millimetres) in length for miscellaneous work, samples/ and testing etc. The Contractor shall submit to the Electrical Research & Development Association an account for cement and reinforced steel procured



and their consumption along with each R.A. Bill in the form format prescribed by the Engineer-In-Charge.

- e) For the purpose of accounting of reinforcing steel and structural steel other than MS plates, all pieces measuring 2M (two meters) or more in length shall be treated as serviceable material and all other pieces measuring less than 2M will be treated as wastage/scrap. For the purpose of accounting of MS plates, all plates measuring less than 1 Sqm (one square meter) in area and having any dimensions less than 200 mm (two hundred millimetres) shall be treated as wastage scrap. For MS plates measuring more than 200 mm (two hundred millimetres) in all dimensions shall be treated as serviceable material.
- f) Excess cement and reinforcing steel, shall be stored in good condition, as certified by the Engineer-In-Charge. In the event that such cement or reinforcing steel if Electrical Research & Development Association require for some work shall be given as per purchase price.
- g) For the purposes of determining wastage, theoretical cement consumption shall be calculated as per the CPWD standard/I.S. Codes and actual consumption shall be calculated based on the records maintained for each type of work being executed.

**12. METHOD FOR THE ROLLING MARGIN DURING EXECUTION OF WORK:**

The average sectional weight per meter length shall be worked out for every lot of steel issued by the Electrical Research & Development Association as under for the purposes of calculating the theoretical consumption of steel:

- a. Lot is the total quantity of steel of one diameter received in one day at site of work. Samples from each lot shall be taken as given below:
  - i) For bars that are 6mm (six millimetres) in diameter when received in coils, 3 (three) pieces measuring about 2 mtr. (two meters) each shall be cut from each coil of the lot.
  - ii) For bars that are 8 mm (eight millimetres) in diameter received in coils, 3 (three) pieces measuring about 1m (one meter) each shall be cut from each coil of the lot.
  - iii) For bars that are 8 mm (eight millimetres) or 10mm (ten millimetres) in diameter received in bundles, 1 (one) full length bar shall be taken out from every 6 (six) bundles in the lot and sample pieces measuring about 1m (one meter) each shall be cut from the above full length bars.
- b. Sample pieces mentioned above shall be cut from the middle third of the full length sample bars of steel received in bundles. In case of steel received in coils, sample shall be drawn from three different positions at least one metre away from the ends.
- c. The length of the samples shall be measured correct to mm and weight (including avg. sectional weight per meter) in kgs shall be determined correct to third decimal. Engineer-In-Charge or his authorised representative shall certify that these are done in his presence.
- d. The average sectional weight of different diameter bars on above samples representing a lot shall be worked out and recorded in a register which shall be duly signed by the Engineer-in-Charge or his authorised representative in token of acceptance of the sectional weights.

- e. The issue of steel of different diameters to the Contractor shall be reckoned as the actual weight of the lot of rod of the particular diameter (referred to above) and divided by the average sectional weight of the rods as determined for the lot and entered in the register.
- f. The payment of work done shall, however, be on the basis of actual length multiplied by standard unit weights as per IS. Difference between the quantity shown as issued by the store and the quantity worked out based on sectional weight so determined shall be adjusted by direct debit/credit to the work.
- g. The weighing equipment used for weighing the steel to the accuracy required should be duly kept and properly calibrated at regular intervals.

The above procedure shall be followed for structural steel also except for cutting the sample pieces on the above basis.

**13. PROTOCOL FOR EXECUTION**

The following protocol shall be followed for execution.

- a) Relevant Specifications & Drawings
- b) If Specifications not available than CPWD specification to be followed.

**14. MODE OF MEASUREMENTS :**

Mode of measurement for the Works will be as per IS code practice except if otherwise specified in this Agreement. Reinforcement and structural steel work shall be measured based on Drawings and Specifications and weight worked out by multiplying length/size of the section with standard unit weight as per IS. Rolling margins, if any, shall be adjusted in the Quoted Rates. Laps, chairs, pins and splices shall be measured as actually provided at Site. Erection bolts in structural steel work shall not be measured separately. Filling work in plinth/foundations shall be measured as per theoretical dimensions given in Drawings and depth as per levels.

**15. USE AND TESTING OF MATERIALS**

The Contractor shall procure and use all materials from Approved Manufacturers or of Approved Brands (as set out in Annexure [Table-1] hereto) only for the Works. The Contractor shall submit all construction materials for testing in a testing laboratory approved by the Electrical Research & Development Association/Engineer-In-Charge. Materials shall be used only after acceptance of test results by Engineer-In-Charge. The Quoted Rates are deemed to be inclusive of necessary testing costs (including that for Electrical Research & Development Association issued material i.e. cement and steel) and testing of concrete cubes as per relevant Indian Standard Codes. The Contractor shall bear all testing expenses including expenses incidental thereto. The Contractor shall submit approved construction material for mix design to a laboratory approved by the Engineer-In-Charge/Electrical Research & Development Association. Cement for mix design shall be organized by successful bidder. Grade of cement to be submitted for mix design shall be as per instruction of the Engineer-In-Charge.

**16. LABOUR COLONY**

The Contractor shall make his own arrangement to construct / maintain a labour colony at [his/its] own cost outside the Site. Water and electricity used for labour colony shall be arranged for by the Contractor at [his/its] own cost. The Contractor shall maintain good house-keeping and sanitation at the labour colony and shall provide implement safe working methods.

**17. ADDITION / DELETION OF WORK**

Subject to the provisions of Clause **Error! Reference source not found.** of the General Conditions of Contract, the Electrical Research & Development Association may add or delete from the Works by notifying the Contractor of the same in writing. However, the Contractor shall continue the execution of the Works without any kind of interruption or delay under any circumstances for any reason whatsoever.

**18. MOBILIZATION AND PROGRESS OF WORK**

In case, the Contractor is unable to cause mobilization (in terms of Clause 10 hereof) or progress with the Works to the satisfaction of the Electrical Research & Development Association at any time, due to lack of plant and machinery / tools and tackles / labour / skilled / semi-skilled personnel, the Electrical Research & Development Association shall be free to replenish / augment the same at the cost of the Contractor. Additionally, the Electrical Research & Development Association shall have the right to terminate the Contract or part thereof for non-performance/delays by the Contractor at its (the Electrical Research & Development Association's) discretion. The Contractor shall not be entitled for any compensation, whatsoever, in any of the aforesaid circumstances. The costs for alternate arrangement for execution/continuation of the Works may be debited to the Contractor by the Electrical Research & Development Association.

**19. INSURANCES**

The Contractor shall obtain a contractor's all risk insurance policy and such other policies as may be required to insure [his] manpower, motor vehicles liabilities, liabilities under the Employee's Compensation Act, 1923 and equipment / machineries deployed by [him] at the Site. The contractor's all risk insurance policy shall also cover third party liabilities, including for loss of human life, disablement and damages to materials/equipment/properties, etc. of third parties. The Contractor shall submit copies of all insurance policies procured by it as well as proof of the relevant premiums having been paid, from time to time, to the Electrical Research & Development Association / Engineer-In-Charge. The Contractor shall take all such steps as are necessary to ensure that the insurance policies procured by it remain valid until the successful Completion of the Works. The Contractor shall strictly adhere with the provisions of this clause. In the event of any loss, injury, accident, theft or death at the Site, the Contractor shall forthwith report such event to the Electrical Research & Development Association, and in no case later than 2 (two) days of such event having occurred. Additionally, the Contractor shall lodge an FIR with at the relevant police station immediately on the event happening.

**20. SETTING OUT**

The Contractor shall be responsible for the true and proper setting out of the works in relation to original/reference point, line and level as given in Drawings or by the Engineer-In-Charge and also the correctness of the same. The

Contractor shall arrange all necessary instruments, appliances and labour in this connection at his cost. The Contractor shall mark reference benchmarks of permanent nature at various places including taking spot levels at regular interval so as to reveal topography of entire the battery limit. The required intermediate reference marks shall be made to facilitate the work as per instructions of the Engineer-In-charge.

**21. LABOUR LAWS**

- a) The Contractor shall, at all times, be responsible for observing all the statutory and regulatory obligations and compliances under the various laws pertaining to employment and labour, including the Contract Labour (Regulation and Abolition) Act, 1970; the Minimum Wages Act, 1948; the Workmen's Compensation Act, 1923; the Employees' Provident Funds and Miscellaneous Provisions Act, 1952 and any other laws applicable to the Electrical Research & Development Association, the Contractor and the persons employed under this Contract by the Contractor.
- b) The Contractor warrants that all persons employed/engaged by the Contractor for the purpose of executing/implementing the Works or otherwise under this Contract are in the employment of or engaged solely by the Contractor and the Electrical Research & Development Association shall in no way be responsible or concerned with the terms of employment/ engagement of such persons, including those relating to payment of salaries, wages and other benefits/statutory dues, claims, compensations and benefits and/or with respect to all disputes and questions, claims relating to the employment /appointment of persons working on the Contractor's behalf and the Electrical Research & Development Association shall have no connection or contractual obligation whatsoever with any such person and shall not be concerned or involved or be made a party in respect of any such disputes/ questions/claims that may arise as aforesaid.

**22. GOODS SERVICE TAX**

Goods Service tax will be paid extra by the Electrical Research & Development Association to the Contractor for each R.A. Bill and the Final Bill at the applicable rates and it shall be the responsibility of the Contractor to pay the necessary amounts to the relevant governmental authorities.

**23. SAFETY PROVISIONS**

The safety provisions specified in the Factories Act, 1948 shall be adhered to by the Contractor and [he] will be responsible for the implementation of such provisions. The Contractor shall strictly adhere to all safety norms in accordance with the prevailing industry standards and shall at all times be in compliance with applicable law and shall depute a person exclusively to take care of safety and health. The Contractor shall provide safety devices such as helmet, safety shoes, safety belts, hand gloves, etc. required for the safety of [his] workman and staff.

**24. FIELD QUALITY RECORDS**

The Contractor shall maintain quality records as per the approved quality plan and the same shall be submitted to the Electrical Research & Development Association on the Completion of the Works. A dedicated team of engineers shall be deputed by the Contractor for this purpose on full time basis at the Site.

**25. PROGRESS REPORT**

The Contractor shall submit progress reports every 15 days highlighting the works carried out during previous 15 days with a comparison against the works planned for such period and future activities planned. The frequency of reports and extent of details required in the progress report will be discussed with the Contractor. The Contractor will also have to submit a daily labour report for the manpower working at Site. The Contractor should submit the bar chart showing various activities and its completion as part of the progress report.

**26. DEPLOYMENT OF MANPOWER AND MATERIALS**

The Contractor shall submit all relevant details of the manpower and equipment to be deployed to the Site within 10 (ten) days of the date of the Letter of Award, including supervisors, project manager, engineers, surveyors, skilled and unskilled workers, machinery, tools and tackles, constructions materials, etc. The manpower deployment includes Project Manager, Site-in-charge & team of engineers for execution and implementation of field quality plan, billing engineer, surveyor, team of Supervisors and other supporting staff. The Contractor will have to submit the details of manpower, skilled / unskilled labours, equipment / machineries which he proposed to be deployed for the work.

**27. DEFECTS**

In the event that the Works have not been executed in compliance with the provisions of the Tender Documents or otherwise contain any defects, and any such non-compliance or defects are noticed by the Electrical Research & Development Association, Engineer-In-Charge or the Consultant at any time during which the Contract is in force, including any time prior to (and including the date of) Completion of the Works or during the Defects Liability Period the Contractor shall rectify the Works at his cost and consequence and shall be responsible for providing and procuring all necessary resources in this respect and / or shall pay such penalty as may be decided by the Electrical Research & Development Association. In the event the Contractor fails to so rectify the defect, the Electrical Research & Development Association may, on giving the Contractor 7 (seven) days' notice in writing of [his] intention to do so, proceed to rectify the defect at the cost and risk of the Contractor, provided that nothing in the Clause shall be deemed to deprive the Electrical Research & Development Association of or otherwise affect any rights of the Electrical Research & Development Association under the Contract, which the Electrical Research & Development Association may have in respect of such defect.

**28. PROCEEDING IN CASE OF DISCREPANCY :**

In case of discrepancy between specifications as set out in the Schedule of Quantities and Rates and the Specifications, the specifications as set out in the Schedule of Quantities and Rates shall prevail. In case of ambiguity in any clause of any Tender Document or a discrepancy between any clauses of the Tender Documents, the Contractor shall notify the Engineer-In-Charge of the same in writing and the decision taken by the Engineer-In-Charge in this respect shall be binding to the Contractor.

**29. TERMS OF PAYMENT :**

The Contractor shall submit to the Engineer-In-Charge the R.A. Bills at intervals of not less than [30 (THIRTEEN) days], provided, however, that each R.A. Bill submitted by the Contractor must be for a minimum amount of Rs. 20,00,000/- (

Rupees Twenty Lakhs only) (exclusive of Goods & Service Tax). Each R.A. Bill shall be processed as follows:

- a) R.A. Bill shall be checked at site by Engineer-In-Charge within 7 (Seven) days of receipt of R.A. Bill by him.
- b) The Electrical Research & Development Association will make payment against certificate of payment through cheque/ Online drawn of any bank within 10 days from the receipt of bill & Certificate of Payment in their office unless such amounts are being disputed or not approved by the Engineer.

**TABLE – 1**

**LIST OF MATERIALS OF APPROVED BRAND AND/OR MANUFACTURER**

<b>No.</b>	<b>Name of Item</b>	<b>Brand Name</b>
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1	Cement-	Ultratech, Adani, JK Lakshmi, Shree Cement, Nuvoco Vistas, Dalmiya,
2	Reinforcement Steel	TATA, RINL, SAIL, JINDAL,JSW, VSP, ET, Gallant
3	Structural Steel	SAIL, TATA, RINL, JINDAL,JSW, VSP, ET, Gallant
<b>Construction Chemical</b>		
4	Liquid Water Proofing compounds	Sika, Fosroc, Zycosil, BASF, Pidilite, MC-Bauchemie
5	Grouting Materials	Fosroc, Sika, BASF, Pidilite, MC-Bauchemie
6	Epoxy/Polyurethane Floor	Fosroc, Sika, Huntsman. BASF, MC-Bauchemie
7	Non-metallic Floor Hardner	Sika, Fosroc
<b>Paints</b>		
8	Waterproof Cement Paint	Snowcem Plus, Terracenem, Durocem
9	Paint	Asian ,Berger, Birla, JSW, Nerolac
10	White cement-based putty	Birla white, JK white
<b>Tiles &amp; Paver Blocks</b>		
11	Tiles	Nitco, Somani, Kajaria, Euro, AGL, Euro, Jhonson, RAK
<b>Doors &amp; Windows</b>		
12	Aluminum Sections for Door/Window/Ventilator	Jindal, Hindalco Industries
<b>Sanitary Items</b>		
13	Sanitary Ware	Jaquar, Grohe, Kohler, Hindware, Cera, Parryware,
14	Plumbing / Bathroom Fittings	Jaquar, Grohe, Kohler, Hindware, Cera, Parryware,
15	PVC/Upvc /Cpvc Pipe	Supreme, Finolex, Astral, Prince, Polycab
16	P.V.C Water Storage Tank	Any ISI Approved Make
<b>Miscellaneous</b>		
17	Anchor fastners	Hilti, Bosch

Any material not mentioned in the approved make list. Its need to be approved by Electrical Research & Development Association Engineer in Charge before procurement.