# REQUEST FOR PROPOSAL

**Name of the Work:** "Construction of Maulana Azad School Block with 1 year of Defect liability period"

Smart City
MISSION TRANSFORM-NATION

**BAREILLY SMART CITY LIMITED (BSCL)**

**BAREILLY**

(UTTAR PRADESH, INDIA)

**Employer: - Bareilly Smart City Limited (BSCL)**
Nagar Nigam, Bareilly- 243001
Telephone: 0581- 25510074

Email: ceo.bscl01@gmail.com

**BAREILLY SMART CITY LIMITED (BSCL)**
**BAREILLY (UTTAR PRADESH, INDIA)**

**Ref No: -BSCL/2020-21/434** Date:- 07/09/2020

Bareilly Smart City Limited, Bareilly invites e-tender for the following projects: -

| S.No. | Name of the Work | Earnest Money Deposit (Rs.) | Tender fee with GST @ 18% (Rs.) | Work completion Period | Bid Start Date |
|---|---|---|---|---|---|
| 01 | Supply of Heavy Tippers for Waste Management at Bareilly | 4 Lakhs | 11800 | 3 Months | 10/09/2020 |
| 02 | Supply of Super Sucker Machine with Dump Tanks at Bareilly | 5 Lakhs | 11800 | 3 Months | 10/09/2020 |
| 03 | Construction of Maulana Azad School Block with 1 year of Defect liability period | 7 Lakhs | 11800 | 6 Months | 10/09/2020 |
| 04 | Installation of Contactless Hand Washing Station in Bareilly under Bareilly Smart City with One-year Operation and Maintenance | 25000 | 1180 | 3 Month | 10/09/2020 |
| 05 | Construction, commissioning, Operation, and maintenance of 500 KLD phytroid STP for Conservation and Rejuvenation of Sanjay Community Hall Pond, Bareilly | 4 Lakhs | 11800 | 6 Months | 10/09/2020 |
| 06 | Design, Supply and Construction of Skywalk of 2.5 Km on PPP mode in Bareilly under Bareilly Smart City Limited | 75 Lakhs | 11800 | 12 Months | 10/09/2020 |

| | |
|---|---|
| 1. | Detailed NIT and Bid Document shall be available on: - https://etender.up.nic.in and http://www.bareillysmartcity.in |
| 2. | Tender call notice in two Bid systems (Part- I: General & Technical Bid and Part-II: financial Bid/Price Bid/BOQ) from intending bidders fulfilling the eligibility criteria mentioned in this Notice and other qualifying requirements mentioned in this RFP. |
| 3. | Amendment to NIT if any would be published on website only. |
| 4. | In case of any queries on this RFP, intending bidders may contact THE GENERAL MANAGER, BAREILLY SMART CITY LIMITED, Bareilly (Tel. No: - 0581- 25510074, 7055519602) or send an email to: ceo.bscl01@gmail.com |

**Chief Executive Officer,**
**Bareilly Smart City Limited, Bareilly.**

प्रकाशन हेतू नहीं

1. सम्पादक, Times Of India (All Editions), Hindustan Times (All Editions), Dainik Jagran (Local edition) को इस अनुरोध के साथ कि अपने राष्ट्रीय संस्करण समाचार पत्र में उपरोक्त निविदा सूचना का प्रकाशन आगामी संस्करण में डी0ए0बी00पी0 दरो पर न्यूनतम स्थान में एक बार प्रकाशित करने का कष्ट करे तथा 04 प्रतियों के साथ बिल भुगतान हेतू प्रेषित करें ।
2. आयुक्त महोदय, बरेली मण्डल, बरेली की सूचनार्थ ।
3. नोटिस बोर्ड पर चस्पा हेतू ।
4. कम्प्यूटर प्रभारी/ आई.टी0 एक्सपर्ट नगर निगम बरेली को इस अनुरोध के साथ प्रेषित कि उक्त निविदा सूचना को नगर निगम, बरेली की वेबसाइट पर प्रदर्शित करने का कष्ट करें ।

**Chief Executive Officer,**
**Bareilly Smart City Limited, Bareilly**

## DISCLAIMER

The information contained in this Request for Proposal document ("RFP") or subsequently provided to bidders, verbally or in documentary or any other form by or on behalf of the Bareilly Smart City Limited (here for the referred to as BSCL in this document) or any of its employees or advisers, is provided to bidders on the terms and conditions set out in this RFP and such other terms and conditions subject to which such information is provided.

This RFP is not an agreement and is not an invitation by the Employer to the prospective Consultants or any other person. The purpose of this RFP is to provide interested bidders with information that may be useful to them in the formulation of their Proposals pursuant to this RFP. This RFP includes statements, which reflect various assumptions and assessments arrived at by the Employer in relation to the Consultancy. Such assumptions, assessments and statements do not purport to contain all the information that each bidder may require. This RFP may not be appropriate for all persons, and it is not possible for the Employer, its employees or advisers to consider the objectives, technical expertise and particular needs of each party who reads or uses this RFP. The assumptions, assessments, statements and information contained in this RFP, may not be complete, accurate, adequate or correct. Each bidder should, therefore, conduct its own investigations and analysis and should check the accuracy, adequacy, correctness, reliability and completeness of the assumptions, assessments and information contained in this RFP and obtain independent advice from appropriate sources.

Information provided in this RFP to the bidder (consultant/contractor/developer/Manufacturer/Supplier etc.) is on a wide range of matters, some of which depends upon interpretation of law. The information given is not an exhaustive account of statutory requirements and should not be regarded as a complete or authoritative statement of law. The Employer accepts no responsibility for the accuracy or otherwise for any interpretation or opinion on the law expressed herein.

The BSCL and its employees and advisers make no representation or warranty and shall have no liability to any person including any bidder under any law, statute, rules or regulations or tort, principles of restitution or unjust enrichment or otherwise for any loss, damages, cost or expense which may arise from or be incurred or suffered on account of anything contained in this RFP or otherwise, including the accuracy, adequacy, correctness, reliability or completeness of the RFP and any assessment, assumption, statement or information contained therein or deemed to form part of this RFP or arising in any way in this Selection Process.

The BSCL also accepts no liability of any nature whether resulting from negligence or otherwise however caused arising from reliance of any bidder upon the statements contained in this RFP.

The BSCL may in its absolute discretion, but without being under any obligation to do so, update, amend or supplement the information, assessment or assumption contained in this RFP.

The issue of this RFP does not imply that the Employer is bound to select a bidder or to appoint the selected bidder, as the case may be, for the Consultancy and the BSCL reserves the right to reject all or any of the Proposals without assigning any reasons whatsoever.

The bidder shall bear all its costs associated with or relating to the preparation and submission of its Proposal including but not limited to preparation, copying, postage, delivery fees, expenses associated with any demonstrations or presentations which may be required by the BSCL or any other costs incurred in connection with or relating to its Proposal. All such costs and expenses will remain with the bidder and the BSCL shall not be liable in any manner whatsoever for the same or for any other costs or other expenses incurred by a bidder in preparation or submission of the Proposal, regardless of the conduct or outcome of the Selection Process.

**Chief Executive Officer,**
**Bareilly Smart City Limited,**
**Bareilly.**

**BAREILLY SMART CITY LIMITED (BSCL)**

**BAREILLY**
(UTTAR PRADESH, INDIA)

Letter no. BSCL/2020-21/434 Dt. 07/09/2020

## NATIONAL COMPETITIVE BIDDING THROUGH e-Procurement

Chief Executive Officer (CEO), Bareilly Smart City Ltd., Bareilly invites item Rate Bids for the work mentioned below through e-Procurement in conformity with the terms and conditions of this advertisement and the detailed tender call notice in two Bid systems (Part- I: General & Technical Bid and Part-II: financial Bid/Price Bid/BOQ) from intending bidders fulfilling the eligibility criteria mentioned in this Notice and other qualifying requirements mentioned in this RFP. Bidders can participate in the tender after registering them on E-tendering portal http://etender.up.nic.in. Bidder can download the RFP from http://etender.up.nic.in after paying the tender cost through online payment in the name of **Bareilly Smart City Limited, A/C No. : 0294001100000836, Name of Bank: Punjab National Bank, Branch: Pilibhit By-Pass Road, Bareilly, IFSC Code: PUNB0613400**. Bidder will have to upload the scanned copy of transaction slip along with technical bid, failing this; the Bid is liable to be rejected. The Bidder should deposit the Earnest Money online in above mentioned account number or in the form of Bank Guarantee in name of **Chief Executive Officer, Bareilly Smart City Limited, Bareilly**. The scanned copy of the transaction slip should be uploaded along with technical bid. The bidders should have necessary Portal enrollment (Digital Signature Certificate) under e-procurement process of Govt. of Uttar Pradesh in required class/category. In case of any queries on this RFP, intending bidders may contact CHIEF EXECUTIVE OFFICER, BAREILLY SMART CITY LIMITED, Bareilly (Tel. No: - 0581- 25510074)

| S.No. | Name of the Work | Earnest Money Deposit (Rs.) | Tender fee with GST @ 18% | Work completion Period |
|---|---|---|---|---|
| 1. | Construction of Maulana Azad School Block with 1 year of Defect liability period | ₹ Lakhs | 11,800 | 6 Months |

## Time schedule for Bidding:

| S. No | Description | Critical Dates |
|---|---|---|
| 1 | Upload/Publish of RFP | 10/9/2020 11:00AM |
| 2 | Bid start Date/Time of RFP | 10/9/2020 11:00AM |
| 3 | Pre-Bid Meeting | — — — |
| 4 | Bid Closing Date/Time of RFP | 24/9/2020 3:00PM |
| 5 | Technical Bid Opening Date/Time | 25/9/2020 3:00PM |
| 6 | Financial Bid Opening Date/Time | To be notified |

1. Other details can be seen on website http://etender.up.nic.in (for view, download and bidding) and on website www.nagarnigambareilly.com (for view and download only).
2. Subsequent corrigendum, if required, shall appear in these websites.
3. Authority reserves the right to reject any or all the tenders without assigning any reasons
4. Contractor who want to participate in bid must register themselves on http://etender.up.nic.in
5. For any other queries, please contact Nodal Officer, Bareilly Smart City Limited. Also, for any further queries, the bidders are advised to send an email to: ceo.bscl01@gmail.com

**Chief Executive Officer,**
**Bareilly Smart City Limited,**
**Bareilly.**

# Contents

**Project Profile**

Maulana Azad inter college was established in 1869 and is a private aided school. This School is located in Bareilly, Ward No 25, Uttar Pradesh. The school is Boys, State Board and Hindi is the medium of instructions in this school. School is located on the outer edge of the ABD Boundary near shyamatganj Flyover. One of the Block in the campus is in dilapidated condition and the authority and the school officials are willing to establish a new facility within the campus on the same site as that of dilapidated building where the Provisions of Several Labs and Classrooms shall be made.

The existing building is 8 mt high and having only one floor and made up of old lakhori bricks and contemporary bricks, Roof: I section with bricks and surkhi vaults with following functions:
Existing Spaces in dilapidated condition: Physics Lab, Chemistry Lab, Staff room, Science lab and Science Theater.

Provisions made: The proposal contains
1. 6 class rooms - 570 sq ft
2. 5 labs (Physics Lab, Chemistry Lab, Science Lab, Science Theatre, Extra Lab)- 1200 sq ft approximately
3. Staffroom
4. Waiting lobby

**Vision of the Project**

The project aims to develop the Infrastructure as per the requirements of the Inter College and establish a new Building inside the Campus to cater to the future needs of the Students and Faculty.

**Project Objective**

- To develop extra classrooms in the building for present and future needs
- To develop several Labs within the campus
- To develop a small Audi for the use of Science theatre
- To develop spaces for the staff
- To have an office space for the Building/campus in-charge
- To develop waiting Lobby for the visitors
- To develop a Reception space in the Building
- To have a well-defined connection between the new building and the other building blocks

## RFP PART- 1: SECTION-I
## SHORT TERMS AND DEFINITIONS

1. The words "Nagar Nigam, Bareilly", "BSCL", or "Employer" mentioned in the RFP shall mean explicitly/implicitly , Bareilly Smart City represented through its CHIEF EXECUTIVE OFFICER and shall also mean other official(s) concerned of BSCL formally or informally declared/advised/instructed by CHIEF EXECUTIVE OFFICER to act and perform the duties of BSC on behalf of ,CHIEF EXECUTIVE OFFICER " for any parts(s)/Portion(s) of the work or for the whole work. The word, BSCL shall also mean the various, committees of BSCL.

2. "Bidder" means an entity submitting the proposal.
3. "Govt." or Govt. of Uttar Pradesh OR Urban local bodies or any other Dept." or its subordinate functionaries/ organizations/agencies mentioned in this RFP shall have the same meaning, implication and power to intervene in this work as understood/implied from the corresponding clauses of this RFP where the above terminologies appeared/mentioned.

4. After the tender is finalized and accepted the words/ expression; selected bidder, selected contractor, selected agency, contractor, Contractor, Successful bidder mentioned in this RFP shall have the same meaning and shall, ordinarily, mean/be understood as "contractor".

5. The words, contract, Contract, Agreement, agreement appearing in this RFP shall mean agreement.

6. The words, "work", "Work" and "works" shall have the same meaning unless otherwise mentioned in this RFP and it includes the deliverables by the contractor during the defect liability period of 365 days from the date of completion of the original works.

7. Clarification(s) on other terminologies, if any required, shall be issued as and when necessary.

8. **"Last three financial years" means** 2016-17, 2017-18 and 2018-19.

9. **"Similar Work"** means "construction of School building/Commercial Establishment/ Office/ Facility Center".

## RFP PART- 1: SECTION-II

## Detailed Tender Notice

Bid shall be submitted in 2 separate parts:

1. Technical Bid
2. Financial Bid

**Eligibility criteria (Technical and Financial) for the Bidders intending to participate, Bidder shall fulfill the following Eligibility Criteria:**

**a. Technical Eligibility Criteria**

**Tenderer will have to upload the following documents to qualify for the Technical bid:**

- Bidder: Each intending Bidder may be a natural person/ sole proprietorship/ Company/ Partnership firm/ LLP having authority to participate in this RFP. Bidder shall enclose the relevant registration certificates.
- GST Registration
- PAN Card
- PF Registration
- Income tax return copy of last 3 years (FY 2016-17, 2017-18 and 2018-19) duly attested by Chartered Accountant.
- Bidder has to submit EMD through RTGS/ NEFT/ BANK GUARANTEE (BG) of Nationalized Bank and Tender Fees through RTGS/ NEFT. The receipt of the transaction has to be uploaded online. The Bank Guarantee should be submitted to BSCL within 3 days after Bid submission due date.
- Self-declaration certificate by Bidder in the form of Affidavit is to be submitted. (Format Annexure II).
- Affidavit required by the bidder stating that the Bidding firm has not been Black listed by any Central/State Government Authority/ Department in last three (3) years. (Format Annexure III).
- No Relationship Certificate (format Annexure I).
- Income tax return copy of last 3 years (FY 2016-17, 2017-18, 2018-19) duly attested by Chartered Accountant. Bidders should have an Average Annual Turnover of value more than 197 Lakhs of the estimated project cost during last three financial years.
- Experience certificate of having successfully completed similar works during last 7 years:

**Three** similar works, each were costing not less than the amount equal to 131 lakhs

or

**Two** similar works, each were costing not less than the amount equal to 164 lakhs.

or

**One** similar work costing not less than the amount equal to 265 lakhs.

**"Similar work"** shall mean any "construction of School building/Commercial Establishment/ Office/ Facility Center."

***All the above stated documents are required to be duly attested by the Contractor/Bidder under the company seal.**

*** If any of the above documents is found missing or incorrect, then the bid will be disqualified.**

***Proof of having successfully completed similar works must be submitted in the form of a**

**completion certificate issued by the Client.**
***Joint venture or consortium of Bidders is NOT permitted.**

Even though the Bidder meets the above qualifying criteria, he is subject to be disqualified if he has;

a. Made a misleading or false representation[s] in the Forms, Statements and Attachments submitted in Proof of the Qualification Requirements.

**And/ or**

b. A record of poor performance such as Abandoning a work, Poor quality of work, Claim, Litigation History, or Financial failures etc. in any State Govt. organization/services/corporations/local body etc. (by whatever names these are called).

**b. <u>Financial Eligibility Criteria / Selection Process</u>**

The financial Bid will be opened only if the bidder successfully qualifies the technical Bid round.

**Ranking order for Bid for Selection of Contractor** – Lowest Price to highest price. The bidder which qualifies all the conditions mention in the bid document and has quoted the lowest rate shall be selected for the contract.

**Drawl of Agreement**: If L1 bidder does not turn up for agreement after finalization of the tender, then he shall be debarred from participation in bidding at least for three years in BSCL and action may be taken to blacklist the contractor. In that case, the L2 bidder, if fulfilling, other required criteria, would be called for drawing agreement for execution of the work subject to the condition that L2 bidder negotiates his/her/their rate and terms and conditions as per with the rate quoted by the L1 bidder, otherwise the tender will be cancelled.

## RFP PART- 1: SECTION-III
### INSTRUCTIONS TO BIDDERS

1. Bid documents consisting of RFP are available on the e-procurement website i.e. http://etender.up.nic.in/ (for view, download and bidding) and in websites www.nagarnigambareilly.com (for view only)

2. As stated above, it is a two bid (Part1: General and Technical bid, Part II: Financial Bid) e-procurement Proposal of BSCL. As per the corresponding guidelines of Govt. of Uttar Pradesh, each on line Part-I bid, along with list of enclosures should be uploaded in the offer along with the checklist. Complete address, contact details, email address, website address, etc must be there on the letter head for easy and fast communication, legible scanned copies of valid contractor's Registration Certificate (License) (save as mentioned at above), EPF Registration, GST No., PAN CARD, Earnest Money Deposit (EMD)/Bid security, and cost of tender Documents (non – refundable).

3. Earnest Money Deposit: the value of EMD as mentioned in Tender Document) Earnest Money shall be paid through RTGS/ NEFT in favor of Bareilly Smart City Limited, Bareilly. After tender opening, The EMD of the unsuccessful bidders will be returned to account provided by the bidder during the registration on e-tendering portal under beneficiary Account number. Earnest money in the form of cheques or any other form except above will not be accepted. Scanned Copy of the transaction slip has to be uploaded along with the Technical Bid. EMD of the successful bidder shall be adjusted with the security deposit.

4. Regarding submission of original documents as a prime component of Part-I bid, the following instructions are to be followed. The intending bidders should submit their bid only through e-tendering and on-line Mode.

5. The on-line technical bids received shall be opened at **3:00 PM** on **Dt 25/09/2020** in the office chamber of the CEO, BSCL before Tender Evaluation Committee. If the same could not be opened on **Dt 25/09/2020** for any reason beyond the control of BSCL, then the same shall be opened on the next official working day at **3:00 PM** onwards.

6. Each received bid, if otherwise not rejected, shall remain valid for a period of 120 days from the date of opening. Subsequent extension of validity of any bid shall be subject to mutual consent of the respective bidder and BSCL.

7. Within 30 days after opening of the financial bids (RFP Part-II), the EMD(s) of the unsuccessful bidder(s) except the 2nd lowest bidder (L2) shall be refunded/ returned, preferably in the shape and manner submitted by the respective bidder(s) for the work on written request(s) and with proper acknowledgement(s). The EMD of L2 bidder can be refunded in the shape and manner to be decided by BSCL after finalization of the Bid for the work.

8. The intending bidders are also urged to acquaint themselves with the respective site conditions wherein, the intended works are to be executed and submit their bids accordingly.

9. In case of any inconsistency or contradiction among different clauses/ conditions/ instructions/ information furnished in this tender call notice/ RFP, then necessary clarification can be sought for by the bidders before submission of their bids. Similarly, in case of the agreement to be drawn by BSCL with the successful bidder, conditions to be stipulated in the agreement shall be followed for all practical purposes unless any of those condition(s) is/are found redundant/inapplicable and inconsistent with the relevant provisions, as issued and amended till the date of invitation of this tender. In case of any dispute between the selected bidder and BSCL regarding such overriding effect, decisions of BSCL shall be final and binding without prejudice to the remedies available to either parties under law of the nation (India), Intending bidders are requested to understand this condition thoroughly and submit their tenders accordingly. For legal dispute(s), if any, the matter shall be settled within the jurisdiction of Bareilly Court.

10. Construction and Demolition (C & D) waste materials generated, at the respective work sites during execution of the aforesaid work should be deposited at site suggested by BSCL.

11. Unusual or unilateral interpretation (if any), of any part or whole of the RFP by any bidder and subsequently by the selected bidder, of any information /condition /provision to be laid down in the agreement (to be drawn between the selected bidder and BSCL), shall be out rightly rejected. Insisting on the interpretation(s) by any bidder and seeking/claiming clarification(s)/ correspondence(s) on the same form BSCL, shall be treated as violation(s) of the terms and conditions of this RFP/agreement and hence, action as deemed fit by BSCL shall be taken against such bidder(s) or contractor. Under such circumstance(s), BSCL shall resort to any procedure deemed fit for execution/completion of the work no claim in any manner by any bidder or the contractor shall be entertained/ accepted by BSCL.

**Chief Executive Officer,**
**Bareilly Smart City Limited,**
**Bareilly**

## RFP PART– 1: SECTION –IV
## GENERAL CONDITIONS OF THE RFP/CONTRACT

1. **GST number required:** The bidder should have a valid GST number. Failure to comply with this instruction shall render his/her/there incomplete and shall be rejected with other punitive action against the said as deemed fit by BSCL. In any change or amendment made by the Government will be applicable according the instructions.

2. **Incomplete Tender(s) and Seeking Clarification(s):** Tenders received in incomplete shape or found incomplete during evaluation of the bids, are liable for rejection. However, during evaluation if felt necessary by BSCL that, further clarification(s) is/are required on any document(s) submitted by any bidder(s) then BSCL may, at its sole discretion, resort to any procedure(s) deemed fit and by assigning reasonable time(s) , as BSCL may decide just & proper for completion of the procedure(s).The result(s)of this/these time bound pursuit(s) shall have bearing(s) upon further evaluation/finalization of the corresponding tender(s) of the bidder(s) or on the tender for the work.

3. **No Claim for Bidding/Cancellation of Tender, etc.:** No claim shall be entertained towards any expenses made by any bidder for submission of the tender in case of cancellation/rejection/acceptance/withdrawal of the tender.

4. **Understanding the RFP Before Bidding:** The contractor shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his tender for the work and of the rates and prices quoted in the financial bid (RFP Part-II), which rates and prices shall, except as otherwise provided, cover all his obligations under the contract and all matters and things necessary for the proper completion and commissioning of the works. The tender amount accepted by BSCL with or without negotiation, as the case may be, shall remain firm until completion of the work. The tender(s) containing extraneous condition(s) are liable for rejection.

5. **Work Program:** The selected bidder shall submit construction schedule during signing of the agreement. The same shall be approved with necessary modifications, if any, by BSCL. However, BSCL shall reserve the right to modify the sequence of execution of different items/components/sub-items of the project as and when found necessary & in such cases it will be obligatory on the part of the selected bidder to abide by such changes in construction schedule/bar chart as per direction of BSCL. No claim and/or condition should either be put forth in any manner by the selected bidder or shall be acceptable to the BSCL.

6. **Urgent work:** If any urgent work in the opinion of BSCL becomes necessary to be executed and the contractor is unable and unwilling at once to carry out, the Engineer In-Charge may be his own or through other agency carry it out, as he may consider necessary. All incurred on it shall be recoverable from the contractor or shall be adjusted against any sum payable to the contractor.

7. **Change(s) in Name and Constitution of the Contractor:** Any change(s) in the name/constitution of the contractor, shall be forthwith notified by the contractor to BSCL for information. In case of failure to notify the change(s) within 15 days, BSCL may, by notice in writing, rescind the contract and the security deposit of the contractor shall, there upon, stand forfeited and be absolutely at the disposal of BSCL and, the same consequences shall be ensured as if the contract had been rescind thereof and in addition the contractor shall not be entitled to recover or to be paid for any work thereof actually performed under the contract.

8. **Period Of Contract:** The tender for Construction of Maulana Azad School Block shall be allotted for a period of 6 months (six months) from the date of commissioning & functioning Maulana Azad School Block with 1 year of Defect liability period and 3 years of Operation and maintenance, for which an agreement with the successful bidder shall be signed as per **ANNEXURE-III** and the conditions described herein shall also be part of the agreement.

- The successful bidder(s) shall execute an agreement/contract for the fulfillment of the contract on non-judicial stamp paper of appropriate value in the format enclosed, within ten days from the date of issuance of work award letter on acceptance of the tender.
- The incidental expenses of execution of agreement/contract shall be borne by the successful bidder.
- The conditions stipulated in the agreement/contract should be strictly adhered to and violation of any of these conditions will entail termination of the contract without prejudice to the rights of the BSCL and forfeiture of security deposit with BSCL.

9. **Security Deposit/ Performance Security**

The Successful bidder shall furnish 5% of Security deposit at the time of signing the agreement which includes EMD deposited along with the bid submission through FDR or online. Remaining 5 % security deposit shall be deducted from each running bills. Hence, total 10% security deposit shall be retained by BSCL till the completion of the project.

a) 5% of security deposit will be released after 2nd year of operation and maintenance.
b) And balance 5% of security deposit will be released after 3rd year of operation and maintenance.

10. **Payment and release of the Funds**

a) Payment shall be released as per the progress of the work. Contractor shall raise first running bill after approximately 15 % of the work done.
b) Other running bills shall be raised by contractor as per the progress of the work.
c) Final bill will be raised after the completion of the work in all respect.
d) After the completion of the work the contractor is liable for one-year Defect Liability Period from the date of issuance of completion certificate from the concerned Department.
e) If the contractor fails to maintain the project in satisfactory manner then BSCL is free to engage another agency to do the work at the risk and cost of the contractor.

11. **Custody of Materials**

The contractor shall be responsible for safe custody of his/her/their materials at the work sites and BSCL will not be responsible for any loss or damage of the property at site. There should not be any conflict of interest or relaxation/exoneration of responsibility of the contractor as per this

RFP/Contract, on any account whatsoever, regarding the work(s)/material(s)/property, of BSCL or of, any other agency/organization engaged/allowed by BSCL, available/to be made available/going on/to be started, at or in Connection with the work, failing which BSCL shall adopt any action deemed fit against the contractor with a view to continuing and complete the works. The portion or whole of the work executed by the contractor in connection with this contract shall remain in safe custody, watch & ward of the contractor till the same are handed over by the contractor to BSCL in required shape and manner or till, BSCL takes them over either unilaterally or as per this contract. Responsibility arising out of this safe custody, watch and ward till BSCL declares/assumes its right over the same, shall lie with the contractor. No claim in this regard by the contractor shall be acceptable by BSCL.

**12. Supply of Materials**

i. The contractor shall at his own expenses provide all materials required for the work. The materials supplied by the contractor shall conform to relevant latest editions of BIS specifications and Codes of Practices or in their absence to other specifications as may be decided by BSCL. The contractor shall furnish necessary certificate(s) in support of the quality of the materials as may be required by BSCL. In the event of there being no specifications born in the SOR of Uttar Pradesh for the items required for the work whether included in the Financial Bid or not, such items of the work shall be carried out by the contractor in accordance with the instructions and requirements of BSCL.

ii. BSCL shall have absolute authority to test the quality of materials/Equipment at any time through any reputed laboratory at the cost of contractor. The contractor shall not be eligible for any claim or compensation either arising out of any delay in the work or due to any corrective measures required to be taken on account of and as a result of testing of materials. BSCL shall have the right for removal from the work sites, of all specifications and in case of default, BSCL shall be at liberty to sell such materials and/or to employ other persons to remove the same without being answerable or accountable for any loss or damage that may happen or arise to such materials.

**13. Statutory Approvals and clearances**

The Contractor shall be liable to undertake all statutory clearances, NOC and approvals from the relevant Local/State/Central/Other statutory authorities for undertaking and executing the project. The Official fee for undertaking these clearances shall be paid / Reimbursed by the BSCL; however, all Incidental expenses shall be borne by the contractor.

**14. Contractor to Provide and Facilitate Inspection, Safety Gear, etc.:**

i. **Scaffolding:** Suitable scaffolding shall be provided for workmen for all works that cannot be safely done from the ground or solid construction except such short period of work as can be done safely from the ladders.

ii. **Inspection:** BSCL will have the right to inspect the scaffolding and centering etc. for the work and can reject partly or fully such structure if found defective in his opinion.

iii. **Precaution against Electrical Equipment:** Adequate precaution shall be taken to prevent danger from electrical equipment. Hand lamps shall be provided with Mesh guard, wherever required.

iv. **Preventing Public from Accident:** No materials on any of the sites shall be so stacked or placed as to cause danger or inconvenience to any person or public. The contractor shall provide all necessary fencing and light to protect the public from accident and shall be bound to bear expenses of defense or any suit action or other proceedings at law that may be brought by any persons for injury sustained owning to neglect of the above precaution and to pay any damages and cost which may be awarded in any such suit action or proceedings to any such person or which may with the consent of the contractor, be paid to compromise any claim by any such person. The contractor not to come cause blockage of traffic/disruption of traffic.

v. **Personal Safety Equipment:** All personal safety equipment shall be made adequately available by the contractor for use of persons employed at the site of work and maintained in a condition suitable for immediate use. The contractor shall take adequate steps to ensure proper use of the equipment by persons concerned.

vi. **Precautions against Fire:** Suitable fire extinguishers, water and sand buckets shall be provided at the work site to tackle situations of fire.

vii. **Demolition:** Before any demolition work is commenced and also during process of work;

a. All roads and open areas adjacent to the work site shall either be closed or suitably protected.
b. No electric cable or apparatus which is liable to be a source of danger shall remain electrically charged.
c. All practical steps shall be taken to prevent danger to persons employed from the risk of fire, explosion or flooding.

**15. Fair Wages Clause**

The contractor shall not employ for the purpose of this contract any person who is below the age of fourteen years and shall pay to each Labor for work done by such Labor's fair wages.
Explanation- **"Fair Wage"** means wages, whether for time or piece work prescribed by the State Public Works Department provided that where higher rates have been prescribed under the minimum wages act 1948 wages at such higher rates should constitute fair wages.
BSCL shall have the right to enquire into and decide any complaint alleging that the wages paid by the contractor to any Labor for the work done by such Labor is less than the wages described above.

**16. Contractor to Respond for Disengagement of Unruly Labor/Personnel**

BSCL are to have round the clock access to the work sites during execution and defect liability period. BSCL may require the contractor to remove dismiss any Labor/representative(s) of person of the contractors found to be incompetent or ill-mannered/behaved or of doubtful background/integrity, etc., and the contractor shall comply with such requirements.

**17. Provisions for Workman Compensation**

BSCL shall not be held liable to pay any compensation to any workman under workman's compensation Act, 1923. The contractor shall have to pay the entire compensation as decided in any court of law for any injury/loss sustained by any workman during execution of the work. If, by order of any authority/court, BSCL pays any compensation to honor and abide the order, then said amount(s) shall be recovered from the contractor.

**18. Contractor to Indemnify BSCL**

The contractor shall take every precaution not to damage or injure life and/or property of any person/organization/entity in connection with this work. He shall indemnify and keep BSCL indemnified against all claims for injuries or damages to any person/property which may arise out of or in consequence of any negligence or fault of the selected bidder for this work and, for all the claims, demands, proceedings, damages, costs, charges and expenses whatsoever, in respect of or in relation thereto, the contractor shall be responsible. BSCL will not assume any responsibility on this account.

**19. Resident Engineer(s) and Assistant(s)**

The contractor shall engage for this work with qualified and experienced Resident Engineer(s) and Assistant(s) to the satisfaction of BSCL. The Resident Engineer(s) shall represent the contractor in his/her/their absence for receiving instructions of BSCL which will be binding on the contractor.

**20. Unilateral Stoppage of Work Progress**

Unilateral stoppage of work by the Contractor, without prior written permission of BSCL, shall be considered as breach of contract and BSCL reserves the right to take such actions as it may be deemed fit against the contractor.

**21. Rescission of Contract**

Subject to other provisions contained in this RFP or in the agreement, BSCL may, without prejudice to any other right or remedy available to the contractor in respect of any delay, inferior workmanship, any claims for damages and / or any other provisions of this contract or otherwise, and whether the date of completion has or has not elapsed, rescind the contract in any of the following cases:

I. If the contractor having been given by BSCL a notice in writing to rectify, reconstruct or replace any defective work or that the work is being performed in an inefficient or otherwise improper manner shall omit/ fail to comply with the requirement of such notice for a period of seven days thereafter.
II. If the contractor being a company shall pass a resolution on the court shall make an order that the company shall be wound up or if a receiver or a manager on behalf of a creditor shall be appointed or if circumstances shall arise which entitle the court or the creditor to appoint a receiver or a manager or which entitle to court to make a winding up order.
III. If the contractor has, without reasonable cause, suspended the progress of the work with due diligence so that in the opinion of CHIEF EXECUTIVE OFFICER (which shall be final and binding) he will be unable to secure completion of the work by the due date of completion and continues to do so after a notice in writing of seven days from Chief Executive Officer, BSCL.
IV. If the contractor fails to follow and comply with the relevant provisions this RFP and/or agreement.
V. If the contractor fails to complete the work within the stipulated date or items of the work with individual date of completion. If any stipulated, on or before such date(s) of completion and does not complete them within the stipulated period.

**When the Contractor has made himself liable for action under any of the cases aforesaid, BSCL shall have the power to rescind the contract (of which rescission notice in writing to the contractor under the hand of CHIEF EXECUTIVE OFFICER shall be conclusive evidence), 20% of the value of the left over work will be realized from the contractor as Penalty in addition to other punitive measures deemed fit by BSCL including debarring the contractor from participating in BSCL Tenders at least for 3 years, blocking his/her/their Digital Signature Certificate (DSC) in the e-procurement portal and recommending the corresponding License Issuing Authority not to renew the license of the contractor. In case of rescission of contract, the contractor shall have no claim for compensation for**

**any loss sustained by him by reasons of having purchased or procured any materials/equipment or entered any engagement on account of or with a view to execute the work/ performance of the contractor.**

**22. Black Listing**

A contractor may be black listed for: -

a) Misbehavior/ threatening of Departmental & supervisory officers during execution of work/tendering process.
b) Involvement in any sort of tender fixing.
c) Constant non-achievement of milestones on insufficient and imaginary grounds and non- adherence to quality specifications despite being pointed out.
d) Persistent and intentional violation of important conditions of contract.
e) Security consideration of the State i.e., any action that jeopardizes the security of the state.
f) Submission of False/ fabricated/ forged documents for consideration of a tender.

In case a contractor is black listed, it will be widely published and intimated to all Departments of Government and also to Govt. of India Agencies working in the State.

**23. Force Majeure**

Neither the contractor nor BSCL shall be considered in default in delayed performance of its obligation if such performance is prevented or delayed because of work to hostilities, revolution, civil commotion, epidemic, accidental fire, cyclone, flood, earthquake or because of any law and order proclamation, regulations or ordinance of the Government thereof or because of an act of god or for any cause beyond reasonable control of the party affected. Should one or both the parties be prevented from fulfilling their contractual obligations due the aforesaid a state of force majeure lasting continuously for a period of 6 months, the two parties may consult each other regarding the further execution of the contract for mutual settlement.

**24. Jurisdiction for Legal Dispute**

That for the purpose of jurisdiction in the event of issue, if any, the contract should be deemed to have been entered in front of Chief Executive Officer, Bareilly Smart City Limited, Bareilly will be final authority to resolve the dispute.

## RFP PART-1: SECTION-V

## Scope of Work

The Contractor has to construct the Building, to revive all the functions which were present in the building block earlier and to accommodate more classrooms to shift majority of the classrooms of the campus inside the new Building. In order to make this the centre of the entire campus focus has been given to provide office area and the Staff area inside the building. In order to achieve all the functions which were present earlier and accommodate new it is essential to dismantle the existing building, and provide a 2 storey structure. Wherein 4 labs, 6 classrooms and 1 science theatre shall be provided.

**Broad Scope**

a. Contractors are requested to visit the site prior to filing/submission and undertake self-assessment of all the necessary works as per the specification and plans including all attributes/matters related for completion of this project.
b. The Contractor is to seek clarification prior to the submission date (where necessary), to have clarity of all the activities required to be carried out for a successful and timely completion of this project and the works which shall be carried out by the successful contractor.
c. The works under this Contract comprises, building of school block and all related works.
d. Other works may include installation or development of Electrical, Plumbing firefighting and Interior Furniture Works.
e. The contractor shall furnish all labour, material, tools and equipment necessary to complete the works as indicated or inferred in the supporting drawing package. Any item not specifically shown in the drawings or specified, but normally required to conform to the required outcome or such intent, should be considered part of the work unless identified by the contractor prior to commencement of works. The contractor shall include and price for such item in the BOQ accordingly.
f. The works shall be completed within the scheduled time unless otherwise approved by the Client or its representatives and shall be certified by the Employer upon Practical Completion.
g. The landscape planting shall be provided and in a healthy and vigorous growing condition.
h. The contractor shall submit for approval within 7 days of the issue of Letter of Award, his proposed Work Program based on the criteria of the overall schedule of works, showing the intended sequences, stages and order of proceeding with the works together with the period of time he has estimated for each and every stage of the progress including the resources and plant required.
i. The successful bidder shall have to prepare 'As Built Drawings' after execution depicting the exact construction carried out on site, in soft and hard copy format. Statutory and other charges for getting various required approvals as required shall be in scope of Successful bidder.
j. The successful bidder shall undertake confirmatory survey for accuracy and completeness of data prior to commencing the site works. The drawings provided with this document are also available in CAD and Bidders can collect the same, (if required) from the Employer. It is in scope of successful Bidder to undertake all relevant Site surveys, obtaining all required approvals from the relevant regulatory authorities, Prepare and submit maintenance manual to client for approval at least 4 weeks before start of post construction maintenance period. Key tasks/deliverables by the Contractor include: The contractor should submit a detailed timeline for scope of work to be carried out including details of the man power deployment for the projects prior to commencing the works for approval by the Employer.
k. The Employer or his representatives will supervise and monitor the progress of construction phase and Contractor shall provide necessary coordination.
l. Procurement programme indicating purchasing and dispatch of materials as per the implementation timelines. Shall also provide the supporting evidence for all the items delivered to the site and take possession of said items.

m. The Contractor shall prepare presentation, shop drawings/fabrication drawings for the all works in accordance with the approved concept design approved by Employer.
n. Preparation and submission of periodical progress report for all the stages on a weekly basis. The Contractor must be aware of general and specific site conditions, topography and any existing landscape prior to commencement of any landscape works on site.
o. The Bidder will arrange the site inspection for the client and consultant during the entire contract period.

Note: If work item is not detailed under Indian Standards, appointed contractor should refer to relevant international standard (BS or equivalent). This should be approved by Employer prior to commencing any works on site;

## Proposal

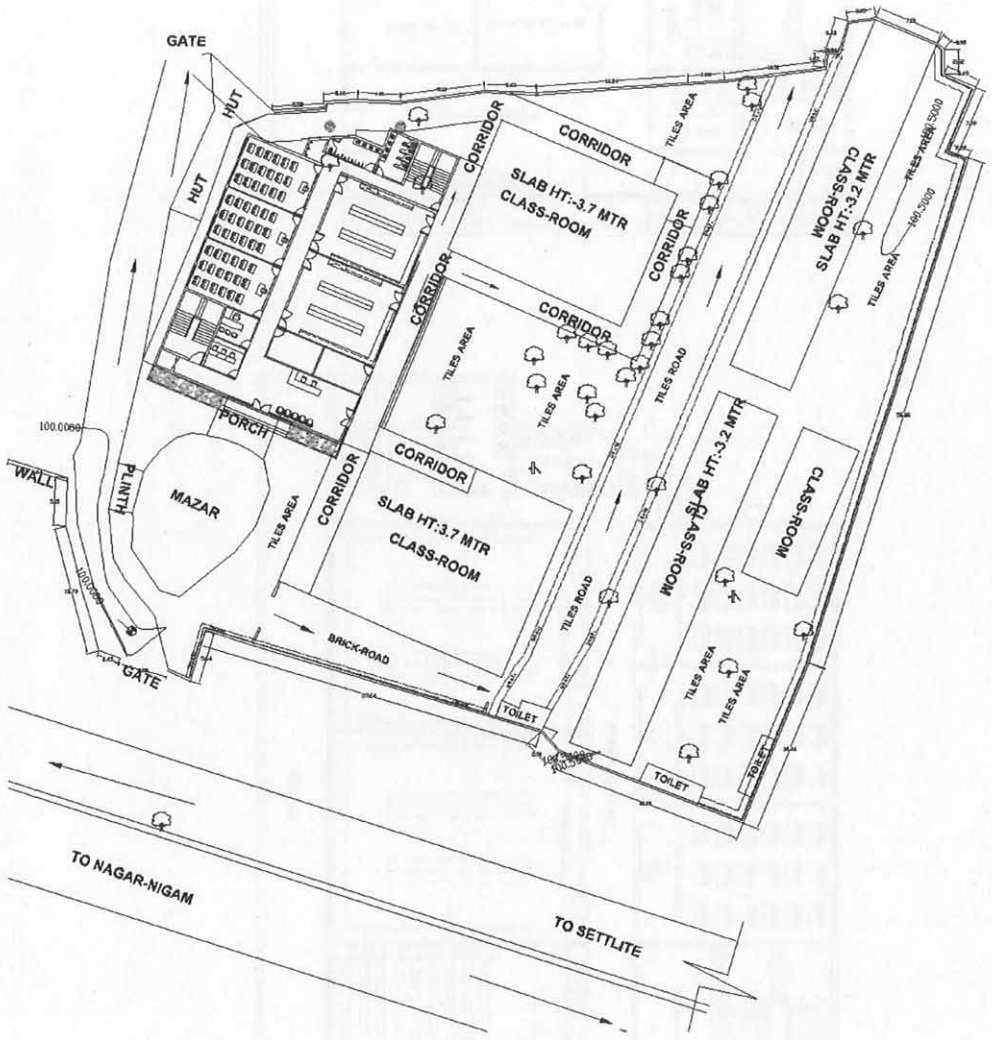


Figure 1 Site Plan

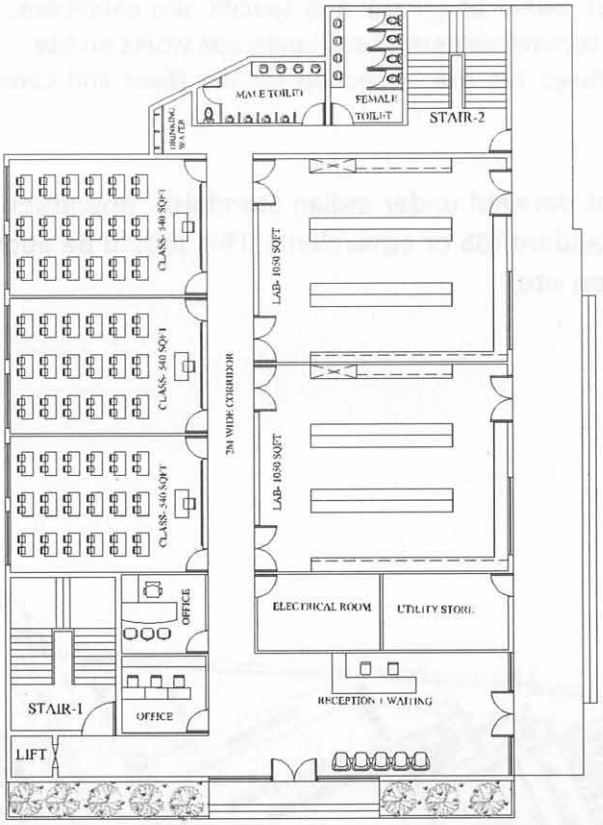


**Figure 2 GF Plan**

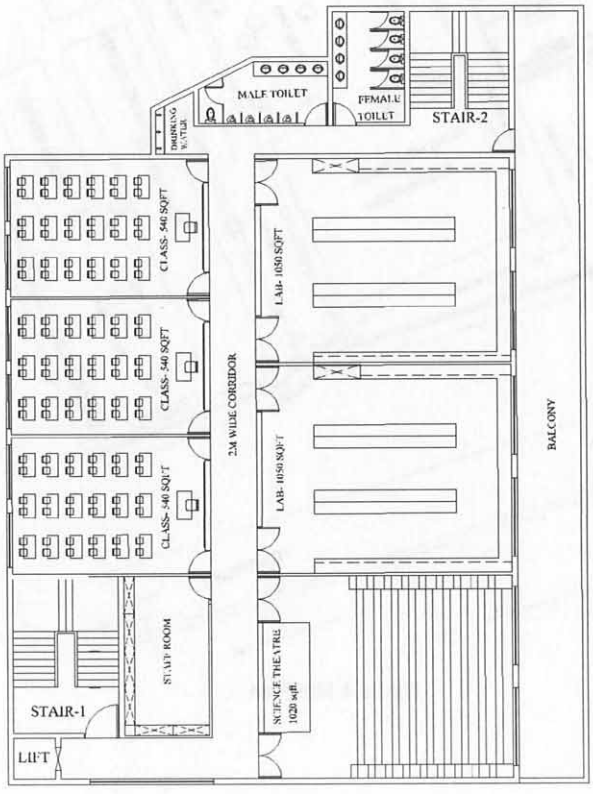


**Figure 3 FF Plan**

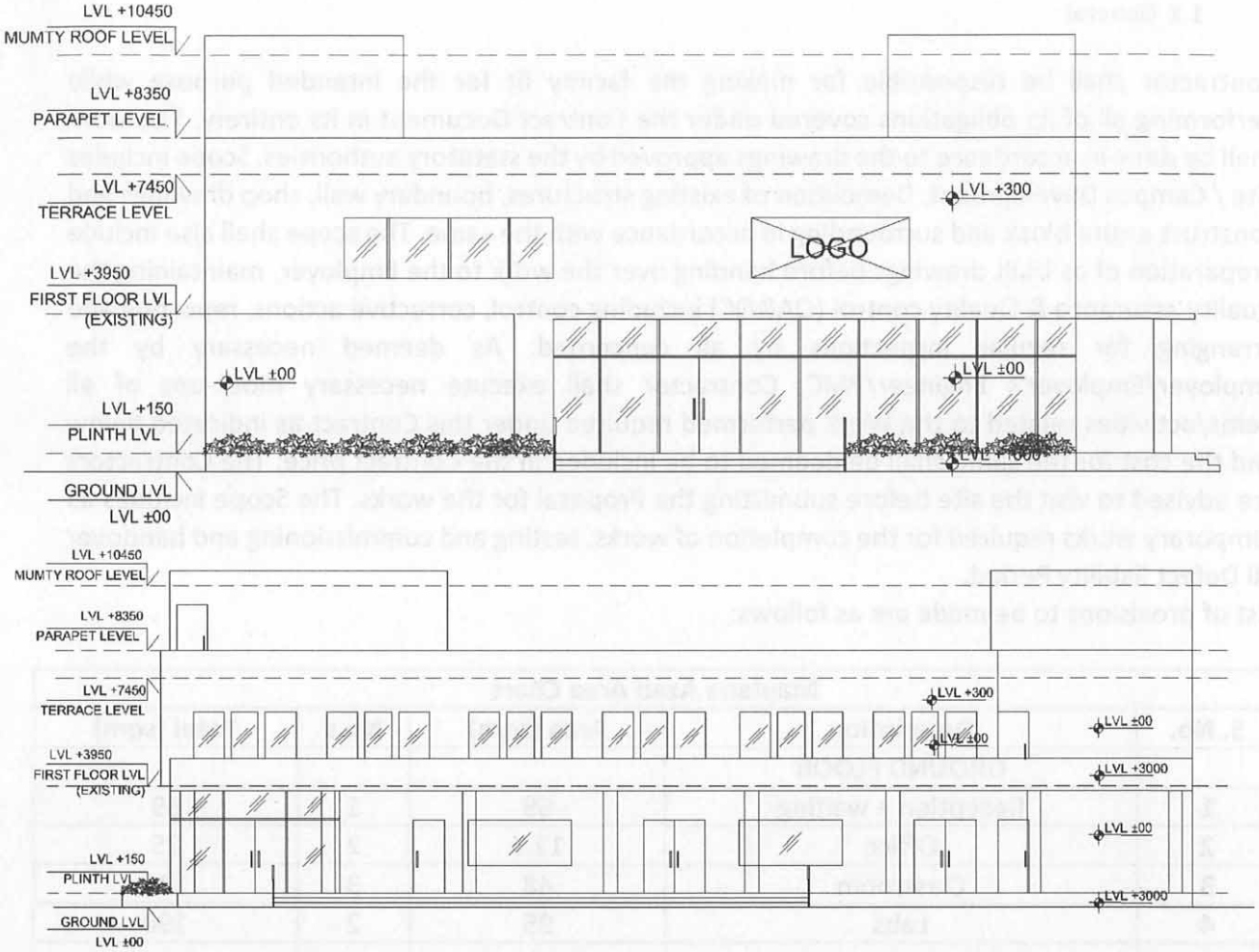


Figure 4 Elevations


Figure 5 3D View

1. **Detail Scope of Works**

**1.1 General**

Contractor shall be responsible for making the facility fit for the intended purpose while performing all of its obligations covered under the Contract Document in its entirety. The work shall be done in accordance to the drawings approved by the statutory authorities. Scope includes Site / Campus Development, Demolition of existing structures, boundary wall, shop drawings and construct entire block and surrounding in accordance with the same. The scope shall also include preparation of as-built drawings before handing over the work to the Employer, maintaining the Quality assurance & Quality control (QA&QC) including control, corrective actions, reporting and arranging for regular inspections by all concerned. As deemed necessary by the Employer/Employer's Engineer/PMC, Contractor shall execute necessary mock-ups of all items/activities related to the Work performed required under this Contract as indicated below and the cost for the same shall be deemed to be included in the Contract price. The Contractors are advised to visit the site before submitting the Proposal for the works. The Scope includes all temporary works required for the completion of works, testing and commissioning and handover till Defect liability Period.

List of provisions to be made are as follows:

| Maulana Azad Area Chart | | | | |
|---|---|---|---|---|
| **S. No.** | **Description** | **Area (sqm)** | **No.s** | **Total (sqm)** |
| | **GROUND FLOOR** | | | |
| **1** | Reception + waiting | 69 | 1 | 69 |
| **2** | Office | 12.5 | 2 | 25 |
| **3** | Classroom | 48 | 3 | 144 |
| **4** | Labs | 95 | 2 | 190 |
| **5** | Drinking Water Point | 4 | 1 | 4 |
| **6** | Male Toilet | 13 | 1 | 13 |
| **7** | Female Toilet | 15 | 1 | 15 |
| **8** | Electrical Room | 18 | 1 | 18 |
| **9** | Utility Store | 18 | 1 | 18 |
| **10** | Circulation | 177 | 1 | 177 |
| | **Total Ground Floor Area** | | | **673** |
| | **FIRST FLOOR** | | | |
| **11** | Science Theatre | 95 | 1 | 95 |
| **12** | Staff Room | 25 | 1 | 25 |
| **13** | Classroom | 48 | 3 | 144 |
| **14** | Labs | 95 | 2 | 190 |
| **15** | Drinking Water Point | 4 | 1 | 4 |
| **16** | Male Toilet | 13 | 1 | 13 |
| **17** | Female Toilet | 15 | 1 | 15 |
| **18** | Balcony | 100 | 1 | 100 |
| **19** | Circulation | 187 | 1 | 187 |
| | **Total First Floor Area** | | | **773** |
| | **Total Built up area** | | | **1446** |

**Civil and Structure Works**

**Scope**

The Contractor shall carry out, and be responsible for the execution of School building complex that includes structure, Electrical, Plumbing, Landscape, compound wall, pavements, hardscape, drains, etc. The Scope of Work includes but is not limited to the following in relation to the construction of the Works:

- Setting out the works: Site Topographic Survey and Geotechnical Investigations as deemed necessary by the Contractor. Site Clearing, Site Grading, and Excavation including excavation for sump pits / lift pits.
- foundation & substructure works.
- Implement Anti termite treatment / Water proofing / Insulation works.
- Superstructure RCC works.
- Masonry.
- Plastering.
- Structural Steel work and steel shed works.
- Ancillary PCC / RCC works including equipment foundations / pedestals, etc.

**Electrical Works**

**Scope**

The scope of work shall cover unloading, storing at site of all equipment, erection and commissioning, test at site, performance guarantee test run, training of Employer's personnel and handing over of the complete electrical system along with mandatory spares as per the terms & conditions.

The scope of work shall comprise of, but not limited to the following:

- Power Supply system from nearest CSS to RMU.
- High Side and Low Side equipment such as Transformers and Switchgear.
- Non-segregated phase Busduct and sandwich Busduct with all associated accessories.
- Main Power Control Centers (PCC), Sub-Power Control Centers (Sub-PCC) and Motor Control Centers (MCC).
- Power Distribution boards.
- Automatic Power Factor Correction Panel with capacitors.
- Metering system.
- All HT/LT Power, control cables.
- Cable carrier system with necessary cabling accessories such as cable glands, lugs, termination and jointing kits etc.
- Fire proof sealing system comprising of fire stops and fire breaks.
- Lighting system including Fittings and fixtures.
- Common area lighting, Office space lighting and outdoor Lighting system comprising of lighting distribution boards, lighting transformers, light fittings, lighting poles, Power socket, associate lighting switches/sockets, associated cable, conduit and wiring.
- 100% DG Backup System with Diesel Storage Capacity
- DG synchronizing panel.
- Earthing system comprising of Earthing Electrodes, Earthing strips/ conductors and

associated accessories.

- Miscellaneous items such as Local control push buttons, Welding Receptacles
- Safety Equipment's such as rubber mats, sign boards

**System Design Requirements**

The following design criteria shall be considered by the Contractor for the equipment and services supplied under this contract:

- Safety to personnel and equipment during the maintenance.
- Reliability of service.
- Minimum fire risk.
- Ease of maintenance and convenience of operation.
- Automatic protection of all electrical equipment through selective relaying system.
- Electrical supply to equipment within the design operation limits.
- Adequate provision for future extension and modifications.
- Fail safe features.
- Suitability for applicable environmental factors.
- Maximum interchangeability of equipment.
- The design and equipment shall ensure satisfactory operation under variations of voltage ±10%, frequency (+) 5% to (-) 5%, combined voltage and frequency 10% for A.C., -15% to +10% for DC as may be met under operating conditions, including those due to starting loads and short circuit and other fault conditions.

**Specific requirements for Electrical Equipment's**

The following additional design requirements shall be considered.

**HT and RMU Panel**

- RMU panel shall be metal clad, self-standing dust proof construction, outdoor cubicle type fitted with incoming load break isolators and outgoing feeders as vacuum circuit breakers with aluminium bus bar, fully draw out type. Degree of protection of RMU panel shall be IP65 or better.
- Required margin of (20%) shall be considered while sizing the bus bars and breakers for switchgear
- The relays in the 11kV RMU and 11kV HT panel shall be numerical type with IEC 61850 compatibility.

**Bus duct and Rising Main**

- Non-segregated phase Bus duct shall be TPN, Bus bar material shall be of high conductivity electrolytic Aluminum conductor. Bus duct shall have degree of protection better than or equal to IP- 54.
- 415V rising main bus bar shall be of sandwich construction and made up of high conductivity electrolytic aluminum conductor, non-ventilated design and the degree of enclosure protection shall be IP 52.
- Each Rising Main shall be equipped with an end feed unit / MCCB panel, at both ends.

**Main LT Panel and Sub-Distribution panels**

- Main LT panels shall be metal clad, self-standing dust proof construction, fully draw out type and IP 54.
- For feeders rated more than 400A, ACB with Numerical protection/built in microprocessor release, discrete multi-function meters or metering as part of ACB shall be provided. For all other rating feeders Microprocessor based MCCB shall be used. All ACB feeders shall be compatible for remote control, metering and monitoring.
- Incomer and bus bar shall be rated for full load current of the total load connected plus a margin of 20%, rounded off to the next standard rating. All outgoing feeder modules from each PCC shall be rated for the full load current plus 10% margin, rounded off to the next standard rating. All PCC shall be provided with 20% spare feeders.
- Incoming feeders shall be provided with ACB breaker with Numerical protection relay compatible with IEC 61850.

**APFC Panel**

- Automatic Power Factor Correction (APFC) capacitor panels with capacitor bank of adequate kVAR rating to maintain the power factor of 0.98 lag at main LT panels.
- All Poly Propylene (APP) type Capacitor banks shall be housed in APFC Panel cabinet.

**Motors**

- Motors shall be energy efficient (IE2) squirrel cage induction type, TEFC, IP-55 enclosure (including terminal boxes and bearing housing) with Class-F insulation (and temperature rise limited to Class B).
- Lockable Stop Push Button (press to stop and key to release) shall be provided near to the each equipment. The enclosure shall be engineering plastic (scratch resistant), weather proof, corrosion resistant, dust and vermin-proof, suitable for mounting on wall or structures. The enclosure shall have degree of protection not less than IP55.

**DC System**

- The DC system shall be designed to cater the loads for control, protection and indication of 11kV switchgear, 415V breaker controlled feeder, control panel, DG AMF panel, RTCC panel shall be designed for 110V DC battery with 2 hours back-up time.
- 110V, 2 x 100%, float cum boost charger with a common 100% tubular lead acid / or better battery shall be provided which shall be located at ground floor level.

**DG Set**

- Emergency DG set shall be designed for complete 100% Building load redundancy. The Prime rated DG set shall be an Indoor type open construction mounted on base frame through anti vibration mounts. The cooling system for DG set is radiator type. The DG room shall be acoustically insulated along with panels to limit the noise in line with the norms as set by pollution control board.

**Power, Control Cables and Cable carriers system**

- The cables shall be 11000V un-earthed grade, single / multicore, stranded aluminum, XLPE insulated with PVC inner sheath, armored and overall sheathed with specially formulated Fire Retardant Low Smoke (FRLS) PVC. Single core cables shall have aluminum wire / formed wire armor, whereas multicore cables shall have galvanized steel strip armor.
- LT power cables shall be 1100V grade, single / multicore, stranded aluminum conductor,

XLPE insulated, with PVC inner sheath, armored and outer sheath made of specially formulated FRLS PVC compound.

- The overall voltage drop shall be limited to 5% and the voltage dip shall be limited to 15%.
- The LT control cables shall be 1100V grade, multicore, 2.5 sq.mm cross section, stranded copper conductor having 7 strands, PVC insulated, inner PVC sheathed, galvanized steel wire/formed wire armored and outer sheath made of FRLS PVC compound conforming to the performance requirements outlined above shall be used . The cables shall conform to IS:1554 (Part-I) - 1988 / IEC-502 (1983) in all other respects.
- Cable carrier system shall be designed for 70% loading.
- Power cables and control cables shall run in different shafts. Separate riser and trays shall be provided for the LV system.
- All cabling/wiring works shall be concealed wiring except for risers and in other areas where public or tenants do not have access or approved areas by the Employer.

**Lighting system**

- LED Light fittings should be installed with effective reflectors. Mercury light fittings should not be used, instead Metal halide fittings shall be used.
- The luminaries shall be selected to suit architectural, functional and aesthetic requirements.

**Plumbing**

The Scope of works shall cover the complete Plumbing system including Internal and External Water Supply, Internal and External drainage including Sewerage, Storm water drainage, and Rain water harvesting system of School building. The scope includes all the related things like procurement, manufacture, testing at manufacturers' works, packaging, transportation, shipping, unloading at port, transportation to site, unloading, storage, insurance, transportation from stores to erection site etc.

**System Design Requirements**

- All the transfer pumps, connection between tanks and transfer pumps, related piping, valves and accessories etc.
- Auto level sensors with required controls like solenoid valve for each tanks (both underground tanks and overhead tanks) for automatic operation of transfer pumps.
- Transfer pumps (1w + 1s) for each potable water & non-potable water system Water supply pipes in building
- Separate piping from building to each overhead tank through trench with required supports.

- Complete distribution of potable and non-potable water distribution for proposed block.
- There are three piping outlet to be taken from each potable and non-potable OHT. Water supply for top levels shall be supplied through booster pumps with pressure sensors. Individual piping connections shall be taken for next levels respectively to maintain the

uniform pressure.

- Works to include for air vents, PRV, water meters, valves, pressure gauges, water hammer arrestors, Nahni traps, Floor gratings, Gully trap, grease trap, man holes, inspection chambers, required piping connections etc.
- Required capacity booster pumps with pressure sensor system with required controls and instruments at terrace level for each drinking water system and flushing water system with standby for each building.
- Cabling & earthling from MCC panels to various plumbing/ sanitary system, control wiring & interlocking.
- Field instruments like pressure gauge & pressure switch and control cabling including junction box, erection hardware, etc., to MCC
- Instrumentation and Control equipment included in the package unit shall be complete with primary elements, initiating contacts for alarms, instrument impulse lines, fittings, power and control cables with suitable glands and terminations and instrument installation hardware.
- Supply & Installation of following complete Sanitary Fixtures and Fittings as per the model and make mentioned in the tender specifications.

**Associated Works**

- The complete electrical work related to Plumbing works including, but not limited to cabling and earthing of various fixtures and control wiring shall be carried out by Contractor.
- The Scope includes the associated works like Structural works for pipe supports for above ground pipes, wall supports, hose cabinet supports, etc., Civil works like wall opening, chipping of foundation, grouting of foundations, sand filling and compacting for underground pipes, etc.,
- Painting of equipment, piping, supports etc. with 2 coats of primer & 2 coats of synthetic enamel as per relevant IS codes.
- Start up and Essential spares.
- Recommended spares for 5 years operation
- Anchor fasteners required for pipe supports of all the systems which are engineered by vendor and all anchor bolts, nuts, washers and inserts to be embedded in concrete for the equipment and piping.
- Supply of One set of special erection and maintenance tools and tackles.
- Cutting holes, chases & like through all types of walls /floors and finishing for all services crossings, including sealing, frame works, fire proofing, providing sleeve, cover plates, making good structure and finishes to an approved standard.

**3. Relevant IS Codes**

Standards and Specifications of following project components are given in this section;

- Structure design works should follow the latest applicable IS codes and the updates thereof.

  The Structure works design shall comply with the all the specified minimum requirements of the Authorities Structures analysis, design and detailing works shall be done by the latest software's.

- The Structural design shall be vetted by a Accredited Structural Engineer approved by the Employer This approved design shall form the basis of Construction.

### 3.1 Code For structures

| | |
|---|---|
| IS-875 (Part 1) – 1987 | Code of Practice for Design Loads (other than earthquake) for buildings and structures – Unit weights of buildings materials and stored material. |
| IS-875 (Part 2) – 1987 | Code of Practice for Design Loads (other than earthquake) for buildings and structures – Imposed loads. |
| IS-875 (Part 3) – 1987 | Code of Practice for Design Loads (other than earthquake) for buildings and structures – Wind loads. |
| IS-875 (Part 4) – 1987 | Code of Practice for Design Loads (other than earthquake) for buildings and structures – Snow loads. |
| IS-875 (Part 5) – 1987 | Code of Practice for Design Loads (other than earthquake) for buildings and structures – Special loads and load combinations. |
| IS: 456 – 2000 | Code of Practice for Plain and Reinforced Concrete. |
| IS: 1786 - 1985 | Specification for High Strength Deformed Bars and Wires for Concrete Reinforcement |
| IS: 432 (Part 2) - 1982 | Specification for Mild Steel and Medium Tensile Steel Bars and Hard Drawn Steel Wire for Concrete Reinforcement – Hard Drawn Steel Wire. |
| IS: 1343 – 1980 | Code of Practice for Pre-stressed Concrete |
| IS: 13920 - 1993 | Ductile detailing of reinforced concrete structures subjected to seismic forces - Code of practice |
| IS: 14268 - 1995 | Uncoated Stress Relieved low relaxation seven-ply strand for Pre stressed Concrete – Specification |
| IS: 2062 – 1999 | Steel for General Structural Purposes. Specification. |
| IS: 1161 – 1998 | Specification for Steel tubes for Structural Purposes. |
| IS: 800 – 1984 | Code of Practice for General Construction in Steel. |
| IS: 1893 – 2002 | Criteria for Earthquake resistant design of structures. |
| IS: 2210 – 1998 | Criteria for Design of Reinforced Concrete structures and Folded plates. |
| IS : 269 – 1989 | Specification for Ordinary, rapid hardening and low heat Portland cement. |
| IS : 455 - 1989 | Specification for Portland blast furnace slag cement. |
| IS : 1489 -1991 | Specification for Portland pozzolana cement |
| IS : 383 - 1970 | Specification for coarse and fine aggregates from natural sources for concrete. |
| IS : 516 -1959 | Method of test for strength of concrete. |
| IS : 432 -1982 | Specification for mild steel and medium tensile steel bars and hard drawn steel wire for concrete reinforcement. |
| IS : 4990 -1993 | Specification for plywood for concrete shuttering works |

| | |
|---|---|
| IS : 2645 -1975 | Specification for integral cement water proofing compounds. |

### 3.2 ARHITECTURE & FINIHING WORKS

- The Codes, Standards and Technical Specifications applicable for the design and construction of project components are:
- The following list is included for guidance only and the omission from the list does not relieve the contractor from compliance there with:

| Code | Description |
|---|---|
| IS 1200 | Mode of measurement. |
| IS 269 | Ordinary Portland cement. |
| IS 3812, 1981 | Flyash for use as pozzolana and admixtures, |
| IS 2386 | Method of test for aggregate for concrete. |
| IS 516 | Method of test for strength of concrete |
| | Coarse and fine aggregate from natural sources for concrete. |
| IS 1077, 1970 | Method of test for Bricks. |
| IS 456 | Code of practice for plain and reinforced concrete. |
| IS 1597 | Code of practice for construction of stone masonry. |
| IS 1597 PART 1 | Code of practice for construction of rubble stone masonry. |
| IS 1130 | Marble (blocks, slabs and tiles) |
| IS 287 | Recommendation for maximum permissible moisture contents of Timber used for different purposes. |
| IS 1141 | Code of practice for seasoning of timber. |
| IS 6313 PART 2 | Anti-termite measures in buildings, pre-constructional chemical treatment measures. |
| IS 2571 | Code of practice for laying in situ cement concrete flooring |
| IS : 226 | Structural Steel (Standard Quality) |
| IS : 451 | Technical Supply Conditions for Wood Screws |
| IS : 800 | Code of Practice for Use of Structural Steel in General Building Construction |
| IS : 806 | Code of Practice for Use of Steel Tubes in General Building Construction |
| IS : 813 | Scheme of Symbols for Welding |
| IS : 814 | Covered Electrodes for Metal Arc Welding of (part I & II) Structural Steel |
| IS : 816 | Code of Practice for Use of Metal Arc Welding for General Construction in Mild Steel |
| IS : 822 | Code of Practice for Inspection of Welds |
| IS : 961 | Structural Steel (High Tensile) |
| IS 73 | Paving bitumen. |

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|---|---|
| IS 702 | Industrial Bitumen |
| IS 1322 | Bitumen felts for waterproofing and damp proofing. |
| IS 1609 | Code of practice for laying damp proof treatment using bitumen felts. |
| IS 13711 & 13712 | Ceramic tiles |
| IS 13630 Part 1 to 13 | Testing for Ceramic tiles |
| IS 104 | Specification for ready mixed painted, brushing, zinc chrome, priming. |
| IS 137 | Ready mixed paint, brushing, matt or eggshell flat, finishing, interior to Ind standard color as required. |
| IS 5410 | Cement paint, color as required. |
| IS 6241 | Method of test for determination of stripping value of road aggregate. |
| IS 2720 | Density test of aggregate. |

### 3.3 ELECTIRCAL WORKS

The contractor shall comply with all the minimum requirements of the Design and Construction of Electrical works as per the Latest Standards, Statutory requirements, National Building codes and all other relevant regulations

**CODES AND STANDARDS**

The system, design, materials, equipment, installation, testing and commissioning shall, in addition to all other applicable codes and standards, comply with the latest requirements of the following standards, codes, principles and specifications issued by Indian standards or IEC codes :-

| Codes | Description |
|---|---|
| IS 335 | Insulating oil |
| IS 2026 | Power transformers (part I - V) |
| IS 10028 | Code of practice for selection, installation and maintenance of transformers |
| IS 2099 | Bushing for alternating voltages above 1000 V |
| IS 4257 | Porcelain bushings for transformers |
| IS 3639 | Power transformer fittings and accessories |
| IS 2705 | Current transformers |
| IS 8468 | On load tap changer |
| IS 8478 | Application guide for tap changers |
| IS 6600 | Guide of loading of oil immersed transformer |
| IEC 2544 | Creepage distance for insulators & bushing congenial |
| IEC 76 | Power transformers |
| IEC 214 | On load tap changers |
| IEC 616 | Terminal and tapping markings for power transformers |
| IEC 551 | Determination of transformer and reactor sound levels. |

| | |
|---|---|
| IEC 137 | Bushings for alternative voltage above 1000V. |
| IEC 354 | Loading guide for oil immersed transformer |
| IS: 3043 | Code of practice for earthing. |
| IEEE: 32 | Neutral Grounding Devices, standard requirements, Terminology & procedure. |
| IS 1271 | Classification of Insulating Materials. |
| IS 2099 | Bushing for alternating voltages above 1000 V |
| IS 2705 | Current transformers |
| IS 3202 | Code of practice for climate proofing |
| IS 3639 | Power transformer fittings and accessories |
| IS 4257 | Porcelain bushings for transformers |
| IS 11171 | Dry type Transformer |
| IS 8478 | Application guide for tap changers |
| IS10028 | Code of practice for selection, installation and maintenance of Transformers |
| IS 1248 & 3107 | Direct acting Electrical indicating instruments |
| IS 2099 | Bushings for alternating voltages above 1000V |
| IS 2516 | AC Circuit Breakers |
| IS 2705 | Current Transformers |
| IS 3156 | Voltage Transformers. |
| IS 3427 | Metal enclosed switchgear and control gear for voltages Above 1000V but not exceeding 11000 V |
| IS 6875 | Control switches for voltages up to and Including 1000V AC and 1200 V DC |
| IEC 56 | HV alternating current circuit breakers. |
| IEC 137 | Bushings for alternating voltages above 1000V |
| IEC 298 | AC metal enclosed switchgear and control gear for rated voltages above 1kV and up to and including 72.5 kV. |
| IS 2147 | Degree of protection for enclosure |
| IS 3842 | Specification for electrical relays for AC system |
| IS 2208 | Specification for HRC cartridge fuse links up to 650 Volts. |
| IS 5082 | Wrought Al. And aluminum alloys, bars, rods, tube and Sections for electrical purposes. |
| IEC 694 | Common clauses for high voltage switchgear and control gear standards |
| IS 1248 & 3107 | Direct acting Electrical indicating instruments |
| IS 2959 | AC contactors up to 1000V |
| IS 13947 | AC Circuit Breakers |

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|---|---|
| IS 2705 | Current Transformers |
| IS 3156 & 4146 | Potential Transformers. |
| IS 4047 | Specification for air break switches and combination fuse switch units for voltage not exceeding 1000V. |
| IS 6875 | Control switches for voltages upto and including 1000V AC and 1200V DC. |
| IS 1822 | Motor duty Switches |
| IS 12021 | Specification for control transformer. |
| IS 8623 | Factory built assembly of switchgear & control gear for voltage not exceeding 1000V |
| IS 13947 (Part I) | Degree of protection for enclosure |
| IS 3842 | Specification for electrical relays for AC system |
| IS 2208 & 9224 | Specification for HRC fuses. |
| IS 5082 | Wrought Al. and aluminum alloys, bars, rods, tube and sections for electrical purposes. |
| IS 4237 | General requirement for switchgear & control gear for voltage not exceeding 1000V. |
| IS 3231 | Electrical relays for power system protection |
| IS 375 | Marking and arrangement for switchgear bus bars, main connection and control aux. wiring. |
| IS 5578 | Guide for marking of insulated conductors. |
| IS 3618 | Pre-treatment of MS sheets for phosphatizing. |
| IS: 4722 | Specification for rotating machinery |
| BS: 649 | Performance and testing of diesel engines for general purposes. |
| IS 4729 | Measurement and evaluation of vibration of rotating electrical machines. |
| IS 1950 (1962) | Code of Practice for Sound insulation of Non Industrial Buildings. |
| IS 8084-1976 | Interconnecting bus bars for AC voltages above 1kV |
| IS 8623 (part-2) | Factory built assemblies-particular requirements of bus bar trunking systems. |
| IEC 439 (part-2) | Particular requirements of bus bar trunking systems |
| IS 13925 | Shunt capacitors for power system |
| IS 3231 | Electrical relays for power system Protection |
| IS 2705 | Current Transformers |
| IS 1248 | Direct acting electrical indicating instruments |
| IS 2147 | Degree of protection |
| IS 5578 | Marking & arrangement of switchgear, bus bars, main connection and auxiliary wiring |

| | |
|---|---|
| IS: 1554 (PART-I)- | PVC insulated (heavy duty) electric cables working voltage up to and including 1100V |
| IS: 7098 (PART-II) | Cross-linked polyethylene insulated PVC sheathed cables for working voltages from 3.3 kV up to and including 33 kV |
| IS: 8130 | Conductors for insulated electric cables and flexible cords. |
| IS: 5831 | PVC insulation and sheath of electric cables. |
| IS:3975 | Mild steel wires, strips and tapes for armoring of cables. |
| IS:2633 | Methods of testing weight, thickness and uniformity Of coating on hot dipped galvanized articles. |
| IS: 209 | Specification of zinc. |
| IS: 3961(PART-II) | Recommended current ratings for PVC insulated And PVC sheathed heavy duty cables. |
| IS: 10418 | Wooden drums for electric cables. |
| IEC: 540 & 540A | Test methods for insulation and sheaths of electric cables and cords. |
| IS: 10462 (PART I) | Fictitious calculation method for determination of dimensions of protective coverings of electrometric and thermoplastic insulated cables. |
| IS: 10810 (PART 58) | Oxygen Index test |
| IEC 146 | Semiconductor Converters |
| IEC 1131-2 | Programmable Controllers |
| IEC Publication 947, 1988 | |
| IEC Publication 439, 1985 | |
| IS 13947, 1993 | Specifications of Low Voltage Switchgear & Control Gear |
| IS 8623, 1993 | Specifications of Low Voltage Switchgear & Control Gear assemblies. |
| Indian Electricity Act, 1910 | |
| Indian Electricity Rules, 1956 | |
| National Electrical Code 1985 | |
| EN50081-1 | EMI Emissions standard |
| EN50082-1 | EMI Immunity standard |
| Electrical safety | EC730-1and CE directives effective from 1 January 1996. |
| IEC 146-4 | Method of specifying the performance and test requirements |
| IEC 146-5 | Switches for UPS |
| IEC 439 | Low Voltage switch gear and control gear assemblies |
| IEC 801 | Electromagnetic compatibility for industrial process Measurement |
| IEC 950 | Safety of IT equipment's including electrical business equipment's |
| 1000-2-2 | Electromagnetic compatibility – Compatible levels for low frequency conducted disturbances and signaling in public low voltage power supply systems |

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|---|---|
| IS 3043 | Code of practice's for earthing in Electrical installation. |
| IEEE 1100 | Recommended practice for powering and grounding of sensitive Electronic equipment. |

### 3.4 PLUMBING WORKS SYSTEM

### i. WATER SUPPLY SYSTEM

**CODES AND STANDARADS**

Unless specifically mentioned otherwise, all the applicable codes and standards published by the Bureau of Indian Standards and their subsequent revision shall govern in respect of design, workmanship, quality and properties of materials and method of testing.

The material supplied shall comply with the latest applicable Indian and / or British Standards. Other National Standards are acceptable, if they are established to be equal or superior.

**Following codes and standards are made part of this specification:**

| | |
|---|---|
| IS 10446 – 1983 | Glossary of terms relating to water supply and sanitation. |
| IS 7558-1974 | Code of practice for domestic hot water piping installations |
| IS 2692-1989 | Specification for Ferrules For Water Services. |
| IS 1239 | Mild steel tubular and other wrought steel pipes and fittings (Part-I) |
| IS 1239 | Mild steel tubular and other wrought steel pipes and fittings (Part-II) |
| IS 779 -1978 | Specifications for Water Meters - Domestic Type |
| IS 2104 – 1981 | Specification for water meter boxes (Domestic type). |
| IS 2401–1973 | Code of practice for selection, installation, and maintenance of domestic water meters. |
| IS 7413-1981 | Insulation Material |
| IS 2065 –1983 | Code of practice for Water Supply In Buildings (Second Revision) |
| IS 778- 1984 | Specifications for copper alloy Gate, Globe And Check Valves for water supply purposes. |
| IS 1703 – 1977 | Specification for ball valves (horizontal plunger type) including floats for water supply purposes. |
| IS 3004 – 1979 | Specification for plug for water supply purposes. |
| IS 3950 – 1979 | Specifications for surface boxes for sluice valves. |
| IS 9338 – 1984 | Specification for cast iron screw-down stop valves and stop and check valves for water works. |
| IS 4346 – 1982 | Specification for washers for use with fittings for water services. |
| IS 5219 – Part 1 | Specification for cast copper alloy traps – Part1 1982 |
| IS 5312 – part 1 | Specification for swing check type reflux (Non-return) 1969 valve for water works purposes part 1 single door pattern |

| | |
|---|---|
| IS 13049 – 1919 | Diaphragm type (plastic body) float operated valve for cold water services – specification. |
| IS 13114 – 1991 | Forged brass gate, globe and check valves for water works purposes – specification. |
| IS 14399 – part 1 | Hot press moulded thermosetting glass fibre reinforced & Part 1 – 1996 |
| | Polyester (GRP) resin sectional water storage tanks. |
| IS 310 –1965 | Code of Practice for Water Supply |
| SP –35 | Handbook of water supply and drainage (with special emphasis on |
| IS 1172-1983 | Code of Basic Requirement For Water Supply, Drainage & Sanitation (Third Revision) |
| IS 12183 | Code of practice for Plumbing In Multi- Storey buildings Part I) – 1987 (Part 1 water supply) |
| IS 1200 - 1992 | Method of Measurement Of Building And Civil Engg. Works.(Part 1 earthwork) |
| IS 2379 –1963 | Specification of colour code for the identification of pipes. |
| SP 7 – 1983 | National building code of India (Part IX– Plumbing services) |
| IS 2401 – 1973 | Code of practice for selection, Installation and maintenance of domestic water meters. |
| IS 780-1984 | Specification for Sluice valves for water works purposes (50 to 300mm size) (Sixth Revision) |
| | The Contractor shall comply with the water requirement, water supply lines and sewer lines as per the following manuals and Standards. |
| CPHEEO | Manual on water supply and treatment |
| CPHEEO | Manual on sewerage and sewage treatment |

### i. SANITARY AND SEWERAGE SYSTEMS CODES AND STANDARDS

Unless specifically mentioned otherwise, all the applicable codes and standards published by the Bureau of Indian Standards and their subsequent revision shall govern in respect of design, workmanship, quality and properties of materials and method of testing.

| Codes | Description |
|---|---|
| IS 10446 – 1983 | Glossary of terms relating to water supply and sanitation. |
| IS 11208 –1985 | Guidelines for registration of Plumbers |
| IS 5382 – 1985 | Specification for rubber sealing rings for gas mains, water mains and sewers. |
| SP – 35 | Handbooks of water supply and drainage (with special emphasis on plumbing) |
| IS 1172-1983 | Code of Basic Requirement For Water Supply, Drainage &Sanitation (Third Revision) |
| IS 1200 - 1992 | Method of Measurement Of Building and Civil Engg. Works.(Part 1 earthwork) |
| IS 2379 –1963 | Specification of colour code for the identification of pipes. |
| SP 7 – 1983 | National building code of India (Part IX– Plumbing services) |

| | |
|---|---|
| IS 1742 – 1983 | Code Of Practice For Building Drainage (Second Revision) |
| IS 301 – 1971 | Code of practice for Building Drainage |
| IS12251- 1987 | Code Of Practice For Drainage In Basement |
| BS 5572 -1978 (Amendment No.2) | Sanitary pipe Works |
| BS 4660- 1973 (Amendment No.1) | PVC Underground Drain Pipes & Fittings. |
| IS 5329 – 1983 | Code of practice for sanitary pipe work above ground for buildings First Revision) |
| IS 2527 – 1984 | Code of practice for fixing rain water gutters and down take pipes for roof drainage. (First Revision) I |
| IS 5961 – 1970 | Specification for cast iron gratings for drainage purposes. |
| IS 2527 – 1984 | Code of practice for fixing rain water gutters and down take pipes for roof drainage. (First Revision) |
| CPHEEO | Manual on sewerage and sewage treatment |
| IS 1626 (Part 1) | Specification for asbestos cement building pipes and pipe –1980 fittings, gutter and gutter fittings, and roof fittings |

**4. Maintenance Requirements**

- The Contractor shall, at all times maintain the Project Components in accordance with the provisions of this Agreement, Applicable Laws and Applicable Permits.
- The Contractor shall repair or rectify any Defect or deficiency set forth in this section within the time limit specified therein and any failure in this behalf shall constitute non-fulfilment of the Maintenance obligations by the Contractor.
- All materials and works for maintenance of roads and pavements shall conform to the Specifications for Road and Bridge Works issued by the Ministry of Road Transport & Highways (MoRT&H) and the relevant IRC publications.
- All materials and works for maintenance of Potable water supply rising mains and distribution networks, Elevated Service Reservoirs (ESR), Recycled water supply rising mains and distribution networks including valves, flow meters etc. shall confirm to CPHEEO Manual on Operation and Maintenance of water supply systems, 2005, MoUD, GOI.
- Where the Standards and Specifications for any of the above work are not given, Good Industry Practice shall be adopted to the satisfaction of the Employer's Engineer.

**5. Repair/Rectification of Defects and Deficiencies**

The obligations of the Contractor in respect of Maintenance Requirements shall include repair and rectification of the Defects and deficiencies specified within the time limit set forth in the RFP.

**Other Defects and Deficiencies**

In respect of any Defect or deficiency not specified in RFP, the Employer's Engineer may, in conformity with Good Industry Practice, specify the permissible limit of deviation or deterioration with reference to the Standards and Specifications, and any deviation or deterioration beyond the permissible limit shall be repaired or rectified by the Contractor within the time limit specified by the Employer's Engineer.

**Extension of Time Limit**

Notwithstanding anything to the contrary specified in this Schedule, if the nature and extent of any Defect or deficiency justifies more time for its repair or rectification than the time specified below, the Contractor shall be entitled to additional time in conformity with Good Industry Practice. Such additional time shall be determined by the Employer's Engineer and conveyed to the Contractor and the Employer with reasons thereof.

**Emergency R e p a i r s /Restoration**

Notwithstanding anything to the contrary contained in this Schedule, if any Defect, deficiency or deterioration in the Project Components (Administrative and Business Centre) poses a hazard to safety or risk of damage to property, the Contractor shall promptly take all reasonable measures for eliminating or minimizing such danger.

**Daily Inspection by the Contractor**

The Contractor shall, through its engineer, undertake a daily visual inspection of the Project Components and maintain a record thereof in a register to be kept in such form and manner as the Employer's Engineer may specify. Such record shall be kept in safe custody of the Contractor and shall be open to inspection by the Employer and the Employer's Engineer at any time during office hours.

**Repairs on Account of Natural Calamities**

All damages occurring to the Project Components on account of a Force Majeure Event or default or neglect of the Employer shall be undertaken by the Employer at its own cost. The Employer may instruct the Contractor to undertake the repairs at the rates agreed between the Parties.

6. **Repair / Rectification of Defects and Deficiencies**

The Contractor shall repair and rectify the Defects and deficiencies specified here

**Architectural, Civil maintenance**

- Any break down of door / window / hatch accessories should be replaced / rectified within 24 hours.
- Any breakage of flooring, false ceiling, and peeling of paint should be rectified in 48 hours.
- Any damage to External stone/ brick cladding, flooring, paving, hardscape, façade etc. shall be rectified within 48 hours.
- Any crack / peeling of Plaster shall be repaired within 48 hrs.
- Any water leak in building shall be stopped with 2 hrs. And suitable rectification process undertaken.

**Landscape**

- Any non-surviving/ unhealthy saplings should be replaced within 48 hours.
- Trees uprooted / damaged should be removed within 8 hours and replaced in one week time.
- Blockages/ leakages / damages in Irrigation System, Water Features Including Filtration System should be made good in 24 hours.
- Any Hardscape / signage damage shall be repaired within 24 hrs.

**Electrical**

- Any Electrical equipment / Apparatus/ cables, etc. shall be restored within two hours in case of minor faults and within eight hours in case of major faults.
- Faulty lighting fixtures should be rectified within six hours.
- Essential spares to be available for immediate repairs.

**Plumbing**

- Pumps - Minor repair shall be rectified within 4 hrs. and major repair (motor/bearing failure) shall be rectified within 8 hours.
- Fans - Minor repair shall be rectified within 4 hrs. and major repair (motor/bearing failure) shall be rectified within 8 hours.
- Piping/valve/ traps/ fittings / Taps leakages - Shall be rectified/replaced within 2 hrs.
- Instruments like gauges/sensors - Shall be rectified / replaced within 2 hrs.
- Any damage to sanitary ceramic fixtures or CP fittings shall be replaced or rectified within 24 hours.
- Essential spares to be available for immediate repair.

**Manpower required during Execution**

| Sr. No. | Position | Qualification | Experience of execution of similar works |
|---|---|---|---|
| 1 | Project Manager (1 Nos) | B.E/B.Tech. Civil + MBA/ Construction Management | 7 Years |
| 2 | Site Engineer (1 Nos) | B.E./B.tech. Civil | 5 Years |
| 3 | Site Engineer (1 Nos) | B.E./B.tech. Electrical | 5 Years |
| 6 | Site Supervisor (1 Nos) | ITI or Diploma Civil | 3 years |

**MONITORING SYSTEM: - A Project Monitoring Unit (PMU)** will be setup in the BSCL for monitoring of the Project to make it successful and sustainable and to ensure that the Construction of Maulana Azad School Block is in good condition.

a) Chief Executive Officer, BSCL shall appoint a Nodal officer for the project for the purpose of overall monitoring of the project.

b) Concerned Nodal Officer appointed by BSCL has to ensure that the Construction of Maulana Azad School Block with 1 year of Defect liability period is working properly and check the functional status of all hardware and allied accessories during the contract period, ensure that the complaints regarding the defects has been logged in the complaint register and penalty has been imposed.

# RFP PART-1: SECTION-VI

## SPECIAL CONDITIONS OF THE RFP/CONTRACT

1. The stipulated date of commencement of the work shall be the date on which the agreement is signed/ executed/ drawn between BSCL & the contractor.

2. The contractor shall not be entitled to any compensation on account of delay in locating the sites by BSCL or due to any natural calamity or labor unrest or non- availability of labor, theft of materials or any kind off or majeure situation, etc.

3. Items left blank will be deemed to have included in another item. Bidder will have to execute that item at ZERO rate.

4. If the contractor could not achieve proportionate progress with respect to time, then BSCL shall have the right to take any action deemed fit against the contractor as per the agreement including rescind of contract, levy of penalty, etc. In case of non-cooperation/deliberate delay either required quality and progress/unnecessary or uncalled for correspondence(s) embedded with condition(s)/instruction(s) not commensurate with the explicit condition(s) of the agreement by the contractor for the work, BSCL shall not only have the right to rescind the contract but also to execute either the whole or balance portion of the work through any other mode, as deemed fit by BSCL and the excess expenditure incurred, if any, for execution of the same, shall be recovered from the contractor resorting to the procedures deemed fit by BSCL. **The employer (BSCL) also reserves the right whether to respond or not to the correspondence(s)/queries of the contractor or any other organization/entity regarding this work and/or the conditions/instructions associated with this work.**

5. The decision of BSCL regarding the reasons for delay, if any, in completion of the work shall be final and binding on the contractor. If the CHIEF EXECUTIVE OFFICER, BSCL is not satisfied regarding the genuineness of delay for progress and/or completion of the work, then he/she may impose penalty upon the contractor Rs. 10000 (Ten Thousand Rupees) per day for delay of the work not exceeding 10% of the total project cost.

6. BSCL reserves the right, to make such increase or decrease in the quantities and/or items of the work which are considered necessary during the course of execution. Such increase or decrease shall be at the discretion of BSCL and in no case, shall validate the contract except the corresponding financial involvement admissible by/acceptable to BSCL.

7. Extra item and/or quantities of the work, if found essential for the project, shall be covered under supplementary agreement to be drawn between the contractor and BSCL. The rate(s) for such item(s) and quantity(s) shall be the prevailing Govt. of Uttar Pradesh Schedule of Rates (SOR) of PHEO & Works Dept. or local market rate(s) or DSR, as applicable for the items/components not covered under SOR subject to approval of CHIEF EXECUTIVE OFFICER, Bareilly Smart City Limited, Bareilly.

8. The contractor shall put his/her/there signature in the measurement book(s) and bill(s) (before payment) as a token of acceptance of the quantities, specifications, rates and amounts of the bill(s) and no further claim in this regard shall be entertained by the BSCL.

9. The actual date of completion of the original work covering all the sites and corresponding date of commencement and completion of defect liability period shall be noted/declared/notified/intimated by BSCL from time to time and the same shall be binding upon the contractor.

10. The EMD, & Security Deposit(s) (SD) retained by BSCL from the contractor's bill shall be considered for release subject to fulfillment of all the conditions of the RFP/ Agreement and after checking/scrutiny of the files and expenditures by Local Finance Audit and shall be subject to deductions/recovery of any amount(s) pointed out by Audit.

a) No interest will be paid by BSCL on the EMD furnished by any bidder, on the Security Deposit of the contractor and on the amount(s) to be withheld/deducted by BSCL from the bill amount(s) if the contractor or upon delay in release of payment(s) or release of deposit(s) of the bidder(s)/contractor.

**No claim in this regard in any manner by the contractor or any organization/entity shall be entertained/ accepted by CHIEF EXECUTIVE OFFICER, BAREILLY SMART CITY LIMITED, BAREILLY.**

## RFP PART- 1: SECTION-VII

## ANNEXURE-I: FORMATS FOR PROPOSAL

### CERTIFICATE OF NO RELATIONSHIP

I/We hereby certify that I/We* am/are* **related /not related** (*) to any officer of Bareilly Smart City Limited, Bareilly of the rank of Assistant Engineer & above. I/We*am/are*aware that, if the facts subsequently proved to be false, my/our*contract will be rescinded with forfeiture of EMD and security deposit and I/We* shall be liable to make good the loss or damage resulting from such cancellation.

I/We also note that, non-submission of this certificate will render my/our tender liable for rejections.

(*) – Strike out which is not applicable

**SIGNATURE OF THE BIDDER**

## ANNEXURE-II

## DECLARATION CERTIFICATE

1. I/We have visited the site(s) and have fully acquainted with the local situation regarding the materials, labor and factors pertaining to the work for completion in all respect before submitting the tender.

2. I/We have carefully studied the conditions of the construction, specifications, contract condition and all other document relating to this work and agree to execute the same accordingly.

3. I/We solemnly pledge that I/We shall be sincere in discharging my/our duties as responsible contractor and complete the work within the prescribed time limit. In case there are deviation from the construction program, I/We shall abide by the decision of Engineer-in-charge for revision of the program and arrange for the labors, materials, equipment etc. accordingly.

4. In the event of award of the work to me/us, I/We under the entire responsibility for the structural stability to reconstruct/replace the whole or part of the component of the structure in the event of failure or improper functioning/improper constructions within a period of one year from the date of completion without asking for extra payment from any account to the department.

5. I/We undertake that I/We shall not claim any escalation of cost on account of materials, laborer's, taxes, natural calamities, public nuisance, miscreants or any account in connections with work within execution of the work till the project completion period and shall not be entertained by the department (BSCL, Bareilly).

6. In case of violation of contents of department's tender documents in conditions or in any form, my /our offer / tender shall be rejected by the department without any intimation to me/us.

(*) – strike out which is not applicable **SIGNATURE OF THE BIDDER**

## ANNEXURE-III:

## AFFIDAVIT

**(Applicable for All Bidders)**

**(On Non – judicial stamp paper of Rs 100 duly attested by notary public)**

1. I, Shri/Smt./Ms....., Son/daughter/Wife of ..... ,
   Hereby declare as the contractor/as the authorized signatory on behalf of the contractor,"
   ....." (***Strike out whichever is not applicable***).

2. It is hereby declared that I/We are currently not deprived from tendering in any govt. organization including BSCL and I/We have furnished the required eligibility documents as a valid tenderer for the above-mentioned work.

3. The undersigned also hereby certifies that neither our firm M/s_____nor any of its Directors have abandoned any contract/work or blacklisted by any State/Central Govt. agencies in participating from any bidding/ tendering process.

4. The undersigned understands and agrees that further qualifying information may be requested, and agrees to furnish any such information at the request of the BSCL.

5. The undersigned hereby authorize(s) and request(s) any bank, person, firm or Corporation to furnish pertinent information deemed necessary and requested by BSCL to verify this statement or regarding my (our) competence and general reputation.

6. I/We hereby declare that all the information and documents furnished herewith by me/us in connection with my/our tender for the work "**Construction of Maulana Azad School Block with 1 year of Defect liability period**" in Bareilly Smart City Limited, Bareilly vide Bid Reference.....DT.....are true and correct.

7. My/Our present .....address for correspondence is.....and .....my/our telephone/contact number are.....and e-mail ID for correspondence is ..... I/We shall promptly intimate the Tender inviting Officer (Chief Executive Office, BSCL) for subsequent changes, if any, of my /our telephone number, email ID and address for correspondence within a week from the date of occurrence of such incident falling which, I/ We will be held responsible for any eventual delay/gap in communication(s) between me/us and BSCL and subsequent situation may arise due to such delay/gap.

**(Deponent)**
**(Signature of the Tenderer/Company with Seal of the Firm/Company)**

## ANNEXURE-IV:

## BID SUBMISSION LETTER FORMAT

**Date: .....**

To,

Chief Executive Officer

**Bareilly Smart City Limited,**

Nagar Nigam, Bareilly-243001,

Uttar Pradesh,

**Subject: Construction of Maulana Azad School Block with 1 year of Defect liability period**

Sir,

I/We, the undersigned Bidders, having read and examined in detail the specifications and other conditions in tender document in respect to **Construction of Maulana Azad School Block with 1 year of Defect liability period**, and submit the following information/undertaking/declaration for consideration of the BSCL.

**2. Price and Validity**

2.1All the prices mentioned in our financial bid are in accordance with the terms as specified in tender document. All the prices and other terms and conditions of this proposal are valid for a period of Days from the last date of submission of bids.

2.2 We do hereby confirm that our bid prices include all taxes and cess.

**3. Earnest Money Deposit**

The transaction slip of Amount of Earnest Money deposited (EMD): 7,00,000/- online should be enclosed in the bid submitted to Chief Executive Officer as per the details mentioned in the RFP PART 1 , SECTION II.

**4. Bid Pricing**

We further declare that the RATES stated in our proposal are in accordance with your terms & conditions in the tender document.

**5. Qualifying Data**

We confirm having submitted in qualifying data as required by you in your tender document. In case, you require any further information/ documentary proof in this regard before evaluation of our bid, we agree to furnish the same in time to your satisfaction.

**6. Declarations**

I/We have also carefully read the terms and conditions of the tender document and undertake that I/we shall abide.

I/We accept to the conditions mentioned in the tender document for **Construction of Maulana Azad School Block with 1 year of Defect liability period** as per the scope of work.

I/ We possess the necessary professional, technical, financial and managerial resources and competence required by the tender document issued by the Bareilly Smart City Limited, Bareilly.

I/ We have fulfilled obligation to pay such of the taxes payable to the Union and the State Government or any local authority as specified in the tender document.

I/We are not insolvent, in receivership, bankrupt or being wound up, not have my/ our affairs administered by a court or a judicial officer, not have my/ our business activities suspended and not the subject of legal proceedings for any of the forgoing reasons.

I/We hereby declare that our proposal is made in good faith, without collusion or fraud and the information contained in the proposal are true to the best of our knowledge and belief and nothing has been concealed there from.

I / We ..... hereby confirm that our firm has not been banned or blacklisted by any government organization/Financial institution/Court /Public sector URFP /Central Government.

I/We hereby confirm to the Design, Build and Operation of **Construction of Maulana Azad School Block with 1 year of Defect liability period** and further technical specification given and other terms & conditions mentioned in the tender document.

Bid submitted by us, online and prepared so as to prevent any subsequent alteration and replacement.

We understand that you are not bound to accept the lowest or any bid you may receive.

Thanking you,

Yours faithfully,

Place:.....

Name: .....

Designation: .....

Business Address: .....

## ANNEXURE-V: BANK GUARANTEE

Ref:_____ Date_____

Bank Guarantee No. _____

<Name>
<Designation>
<Address><Phone Nos.><Fax Nos.><Email id>

Whereas, <<name of the firm and address>> (hereinafter called "Implementing Agency") has undertaken, in pursuance of contract no. <Insert Contract No.> dated. <Date> to provide Implementation services for <<name of the assignment>> to Bareilly Smart City Limited (hereinafter called "the Authority")

And whereas it has been stipulated by in the said contract that the bidder shall furnish you with a bank guarantee by a recognized bank for the sum specified therein as security for compliance with its obligations in accordance with the contract;

And whereas we, <Name of Bank> a banking company incorporated and having its head/registered office at <Address of Registered Office> and having one of its office at
<Address of Local Office> have agreed to give the supplier such a bank guarantee.

Now, therefore, we hereby affirm that we are guarantors and responsible to you, on behalf of the supplier, up to a total of Indian Rupees<Insert Value> (Rupees <Insert Value in Words> only) and we undertake to pay you, upon your first written demand declaring the supplier to be in default under the contract and without cavil or argument, any sum or sums within the limits of Indian Rupees<Insert Value> (Rupees <Insert Value in Words> only) as aforesaid, without your needing to prove or to show grounds or reasons for your demand or the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the bidder before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the contract to be performed there under or of any of the contract documents which may be made between you and the Implementing Agency shall in any way release us from any liability under this guarantee and we hereby waive notice of any such change, addition or modification.

This Guarantee shall be valid until <<Insert Date>>) Not withstanding anything contained herein:

I. Our liability under this bank guarantee shall not exceed India Rupees<Insert Value> (Rupees <Insert Value in Words> only).

II. This bank guarantee shall be valid up to <Insert Expiry Date>)

III. It is condition of our liability for payment of the guaranteed amount or any part thereof arising under this bank guarantee that we receive a valid written claim or demand for payment under this bank guarantee on or before <Insert Expiry Date>) failing which our liability under the guarantee will automatically cease.

Date _____

Place _____ Signature _____

Witness _____ Printed name _____

**(Bank's common seal)**

## RFP PART- II

## FINANCIAL BID FORMAT

**PROPOSAL FOR Construction of Maulana Azad School Block with 1 year of Defect liability period**
**(On the letterhead of the Bidder)**

To,
**The Chief Executive Officer,**
**Bareilly Smart City Limited,**
**Bareilly**

Sub: **Financial Bid for Construction of Maulana Azad School Block with 1 year of Defect liability period.**

Dear Sir,

I/we hereby tender to execute the whole of the works as described in the scope of services indicated in called works:

a) Name of the Work: **"Construction of Maulana Azad School Block with 1 year of Defect liability period"**

b) Plan and Specifications: The plan and specifications as detailed in bid document and DPR.

c) Scope as defined in NIT part I under Section V
The BSCL reserves the right to increase and decrease the number of locations. The payment shall be made as per the unit Item rate quoted for the locations based on the number of equipment's installed.

The Financial quote shall be submitted as per the format given below.

I/We have visited the site of work and am/are fully aware of all the difficulties and conditions likely to affect carrying out the work. I/We have fully acquainted myself/ourselves about the conditions in regard to accessibility of site and quarries/kilns, nature and the extent of ground, working conditions including stacking of materials, installation of tools and plant conditions effecting accommodation and movement of labor etc. required for the satisfactory execution of contract.

And should this tender be accepted, I/we do here by agree and bind myself/ ourselves to abide by and fulfill all the conditions of this Tender Document, in default thereof to forfeit and pay to the Chief Executive Officer, Bareilly Smart City Limited the penalties of sum of money mentioned in the said condition.
Dated:

Bidder's Name.....
Address .....

The above tender is hereby accepted by me on behalf of the Bareilly Smart City Limited, Bareilly.

## FORMAT OF THE BID

The Financial quote shall be submitted as per the format given below:

**Civil Specification:**

| Description of Items | Unit | Rate | Qty | Amount |
|---|---|---|---|---|
| **SCHEDULE-1 EARTH WORK & DISMANTLING** | | | | |
| Demolishing cement concrete manually/by mechanical means including disposal of material within 50 metres lead asper direction of Engineer-in-charge. | | | | |
| Nominal concrete 1:4:8 or leaner mix (i/c equivalent design mix) | cum | | 60 | |
| Demolishing R.C.C. work manually/ by mechanical means including stacking of steel bars and disposal of unserviceable material within 50 metres lead as per direction of Engineer - in- charge. | cum | | 97.5 | |
| Extra for cutting reinforcement bars manually / by mechanical means in R.C.C.or R.B.work (Payment shall be made on the cross sectional area of R.C.C.or R.B. work) as per direction of Engineer-in-charge. | cum | | 20 | |
| Demolishing brick work manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge. | | | | |
| In cement mortar | cum | | 80 | |
| 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 | each | | 35 | |
| Taking out doors, windows and clerestory window shutters (steel or wood) including stacking within 50 metres lead: | | | | |
| Of area 3 sq. metres and below | each | | 30 | |
| Dismantling wood work in frames, trusses, purlins and rafters upto 10 metres span and 5 metres height including stacking the material within 50 metres lead: | | | | |
| Of sectional area 40 square centimetres and above. | cum | | 20 | |
| Dismantling steel work in built up sections in angles, tees, flats and channels including all gusset plates, bolts, nuts, cutting rivets, welding etc. including dismembering and stacking within 50metres lead. | kg | | 100 | |
| Dismantling tile work in floors and roofs laid in cement mortar including stacking material within 50 metres lead. | | | | |
| For thickness of tiles 10 mm to 25 mm. | sqm | | 700 | |
| For thickness of tiles above 25 mm and upto 40 mm. | sqm | | 600 | |
| Demolishing dry brick pitching in floors, drains etc. including stacking serviceable material and disposal of unserviceable material within 50 metres lead. | | | | |

| | | | | |
|---|---|---|---|---|
| Dismantling stone slab flooring laid in cement mortar including stacking of serviceable material and disposal of unserviceable material within 50 metres lead. | sqm | | 300 | |
| Dismantling old plaster or skirting raking out joints and cleaning the surface for plaster including disposal of rubbish to the dumping ground within 50 metres lead. | sqm | | 2000 | |
| Dismantling aluminum/Gypsum partitions, doors, windows, fixed glazing and false ceiling including disposal of unserviceable surplus materials and stacking of serviceable material with in 50 meters lead as directed by Engineer-in-charge. | sqm | | 50 | |
| 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 loads including all lifts involved. | cum | | 500 | |
| Excavation in foundation in ordinary soil, loame, clay or sand including lift upto 1.5 m and lead upto 30 m including filling watering and rammming of excavated earth in to the trenches or in to the space between the building & the side of foundation trenches or in to the plinth , removal & disposal of surplus earth as directed by the engineer in charge upto a distance of 30 m from the foundation trenches . ( Excluding royalty ) | per cum | | 788.00 | 106380 |
| **SCHEDULE-2 CONCRETE WORK** | | | | |
| Providing and laying in Cement concrete 1:4:8 (1 Cement: 4 approved Coarse sand: 8 Coarse aggregate) size of aggregate shall be 4cm gauge or as approved including supply of all material labor, T&P etc. required for proper completion of the work. | per cum | | 128.00 | 834560.00 |
| Design mix M-25 grade cement concrete for reinforced cement concrete work, using cement content as per approved design mix, including pumping of concrete to site of laying but excluding the cost of centering, shuttering, finishing and reinforcement, including admixtures in recommended proportions as per IS: 9103 to accelerate, retard setting of concrete, improve workability without impairing strength and durability as per direction of Engineer-in-charge.<br>(Note :- Cement content considered in this item is @ 330 kg/cum. Excess/ less cement used as per design mix is payable/recoverable separately). | | | | |
| All works upto plinth level | cum | | 195 | |
| All works above plinth level upto floor level | cum | | 366 | |
| Centering and shuttering including strutting, propping etc. and removal of form for : | | | | |
| Foundations, footings, bases of columns, etc. for mass concrete | Sqm | | 208.00 | |
| Lintels, beams, plinth beams, girders, bressumers and cantilevers | sqm | | 1253.00 | |
| Columns, Pillars, Piers, Abutments, Posts and Struts sqm | sqm | | 512.00 | |
| Suspended floors, roofs, landings, balconies and access platform | sqm | | 1334.00 | |
| **SCHEDULE-3 STEEL** | | | | |
| Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level/ above | | | | |
| Thermo-Mechanically Treated bars of grade Fe-500D or more ( Approved makes: Jindal, TATA steel, JSW, vizag). | per qtl | | 504.90 | |

| | | | | |
|---|---|---|---|---|
| Providing and fixing hand rail of approved size by welding etc. to steel ladder railing, balcony railing, staircase railing and similar works, including applying priming coat of approved steel primer. | | | | |
| M.S. tube | Kg | | 1250 | |
| **SCHEDULE-4 Masonary work** | | | | |
| First class brickwork in 1:6 cement and coarse sand mortar in foundation and plinth including supply of all materials, labour and T&P etc. required for proper completion of the work | | | | |
| As in item No.303 but in the proportion of 1:5 cement and coarse sand | per cum | | 371.00 | |
| As in item no 303&304 above but in superstructure, including necessary cutting and moulding of bricks as required and including honey comb brick work, thickness of wall not to be less 1 brick thick. Add extra labour to above items | per cum | | 228.00 | |
| As in item no. 309 above but for wall of half brick (4½") thick. Add for extra item over item 309 | per cum | | 143.00 | |
| **SCHEDULE-5 Painting and Distempering** | | | | |
| 12 mm Thick plaster with kankar lime over brick minimum thickness not to be less than 3/8" (10mm) thick including supply of all materials, labour and T&P etc. required for proper completion of the work | | | | |
| As in item 579 above but with cement and coarse sand mortar(1:6) | per sqm | | 4630.00 | |
| Add for extra labour and material for plaster over rough face of brick walls | per sqm | | 990.00 | |
| Finishing with Deluxe Multi surface paint system for interiors and exteriors using Primer as per manufacturers specifications : | | | | |
| Two or more coats applied on walls @ 1.25 ltr/10 sqm over and including one coat of Special primer applied @ 0.75 ltr /10 sqm (Approved makes: Berger,Asian paints, Nerolac) | Sqm | | 4630.00 | |
| Neat cement Punning | sqm | | 4630.00 | |
| 6 mm cement plaster of mix : | | | | |
| 1:3 (1 cement : 3 fine sand) | sqm | | 1406 | |
| **SCHEDULE-6 Flooring** | | | | |
| 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), jointing with grey cement slurry @ 3.3kg/sqm including grouting the joints with white cement and matching pigments etc., complete. | | | | |
| Size of Tile 600x600 mm (Approved makes: Kajaria, Nitco, Somany) | per sqm | | 1242.00 | |
| Providing and fixing Ist quality ceramic glazed wall tiles conforming to IS: 15622 (thickness to be specified by the manufacturer), of approved make, in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge, in skirting, risers of steps and dados, over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm, including pointing in white cement mixed with pigment of matching shade complete. | per sqm | | 135 | |

| | | | | |
|---|---|---|---|---|
| Providing and laying Ceramic glazed floor tiles of size 300x300 mm (thickness to be specified by the manufacturer) of 1st quality conforming to IS : 15622 of approved make in colours such as White, Ivory, Grey, Fume Red Brown, laid on 20 mm thick cement mortar 1:4 (1 Cement : 4 Coarse sand), jointing with grey cement slurry @ 3.3kg/sqm including pointing the joints with white cement and matching pigment etc., complete. | sqm | | 63 | |
| Granite of any colour and shade | | | | |
| Area of slab up to 0.50 sqm | sqm | | 25 | |
| Area of slab over 0.50 sqm | sqm | | 447 | |
| **SCHEDULE - 7 FALSE 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,<br>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 channels 0.5 mm thick 27 mm high having flanges of 20 mm and 30 mm long, the perimeter of ceiling fixed to wall/partition with the help of rawl plugs at 450 mm centre, with 25mm long dry wall screws @ 230 mm interval, including fixing of gypsum board to ceiling section and perimeter channel with the help of dry wall screws of size 3.5 x 25 mm at 230 mm c/c, including jointing and finishing to a flush finish of tapered and square edges of the board with recommended jointing compound , jointing tapes , finishing with jointing compound in 3 layers covering up to 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 moisture resistant board | sqm | | 481 | |
| Providing and fixing mineral fibre false ceiling tiles at all heights of size 595X595mm 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 Performanceas per (BS 476 pt - 6 &7)in true horizontal level suspended on interlocking T-Grid of hot dipped all round 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 size24x24X3000 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 per specifications, drawings and as per directions of the engineer-incharge | | | | |
| With 16 mm thick beveled tegular mineral fiber false ceiling tile (NRC 0.55 to 0.6) | sqm | | 515 | |
| **SCHEDULE-7 DOOR WINDOW** | | | | |
| Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately) : | | | | |
| Powder coated aluminium (minimum thickness of powder coating 50 micron) | KG | | 35.72 | |
| Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of Engineer-in-charge . (Cost of aluminium snap beading shall be paid in basic item) | | | | |
| With float glass panes of 5. mm thickness | sqm | | 44.66 | |
| For shutters of doors, windows & ventilators including providing and fixing hinges/ pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber / neoprene gasket required (Fittings shall be paid for separately) | | | | |
| Powder coated aluminium (minimum thickness of powder coating 50 micron) | kg | | 35.72 | |
| Supply and fixing of flush doors commercial quality conforming to I.S. 2202 Part-1 (1983) including fixing of wooden cleats and stoppers and including fixing and adjustment of hinges bolt locks handles springs fitting with necessary screws to be supplied departmently. | | | | |
| 35mm thick | Sq.m. | | 127.2 | 180624 |
| Providing and fixing IS : 12817 marked stainless steel butt hinges (heavy weight) with stainless steel screws etc. complete : | | | | |
| 125x64x2.50 mm | each | | 48 | |
| 100x60x2.50 mm | each | | 72 | |
| providing and fixing ISI marked aluminium butt hinges anodised (anodic coating not less than grade AC 10 as per IS: 1868) transparent or dyed to required colour or shade with necessary screws etc. complete: | | | | |
| 75x45x3.2mm | each | | 50 | |
| Extra for providing vision panel not exceeding 0.1 sqm in all type of flush doors (cost of glass excluded) (overall area of door shutter to be measured): | | | | |
| Rectangular or square | sqm | | 24 | |

| | | | | |
|---|---|---|---|---|
| Providing and fixing bright finished brass tower bolts (barrel type) with necessary screws etc. complete : | | | | |
| 250x10 mm | each | | 40 | |
| 150x10 mm | each | | 28 | |
| providing and fixing bright finished brass handles with screws etc complete | | | | |
| 125 mm | each | | 40 | |
| Providing and fixing bright finished brass hanging type floor door stopper with necessary screws, etc. complete. | each | | 40 | |
| **SCHEDULE-8 Water proofing & ATT** | | | | |
| Providing and injecting chemical emulsion for preconstructional antitermite treatment and creating and chemical barrier under and around the column pits, wall and floor along the external per meter of binding expension joints surrouding of pipes and conduits etc. complete (plinth area of the building at ground floor only shall be measured as per I.S.6313 (part ii 1981) . Aldrine emulsificable concentrate of any other approved materials such as hepthachior or chlordance will be used. te rates of application of chemical emulsion shall be as follows | | | | |
| Treatment for masonry and foundation 5 litres per sqm | | | | |
| Back fill in immediate contact with foundation 7.5 liters/sqm. | | | | |
| Treatment of top surface of plinth filling 5 liters per sqm | | | | |
| Treatment junction of soil along external per meter building 7.50 liter per sqm | sqm | | 756 | 96768 |
| | | | | |
| Providing and laying in situ seven course water proofing treatment with APP (Atactic Polypropylene) modified Polymeric memberane over roof consisting of first coat of bitumen primer @ 0.40 Kg per sqm, 2nd, 4th & 6th courses of bonding material @ 1.20 kg/sqm, which shall consist of blown type bitumen of grade 85/25 conforming to IS : 702, 3rd and 5th layers of roofing membrane APP modified Polymeric membrane 2.0 mm thick of 3.00 Kg/sqm weight consistingof five layers prefabricated with centre core as 100 micron HMHDPE film sandwiched on both sides with polymeric mix and the polymeric mix is protected on both side with 20 micron HMHDPE film. 7th, the top most layer shall be finished with brick tiles of class designation 10 grouted with cement mortar 1:3 (1 cement : 3 fine sand) mixed with 2% integral water proofing compound by weight of cement over a 12 mm layer of cement mortar 1:3 ( 1 cement : 3 fine sand) and finished neat (item of laying brick tiles shall be paid for separately). | sqm | | 836 | |
| **Total** | | | | |

**Furniture Specification:**

| Sl. No | Description | Qty | Rate | Amount |
|---|---|---|---|---|
| 1 | Teachers table (made with 25mm square MS powder coated frame and particle board top. With 3 drawer) Size – 4ft x 2ft Image is only for reference | 6 | | |
| 2 | Teacher's chair | 10 | | |

| | | | | |
|---|---|---|---|---|
| 3 | Student bench (Made with MS powder coated frame with particle board seat and top)Length : 42" | 48 | | |
| 4 | Green board | 10 | | |
| 5 | Computer desktop -hp Intel Core i5 9500 4 GB/ 1000 GB HDD/ DOS | 2 | | |
| 6 | KASHISH FURNISHING Rectangular Wooden Lab Stools 460 mm X 300 mm 100 Kgs | 80 | | |
| 8 | Reception table | 1 | | |
| 9 | Reception chair | 2 | | |
| 10 | STEEL TABLE WITH STORAGE ON one side 1500 mm x750 mm | 4 | | |
| 11 | Executive Table of Three layer prelaminated particle board | 2 | | |
| 12 | Computer chair | 4 | | |
| | **Total** | | | |

**Plumbing Specification**

| S. No. | Item of Work | Unit | Rate | Qty | Amount (Rs.) |
|---|---|---|---|---|---|
| **A** | **SH - 1 PLUMBING WORKS (INTERNAL & EXTERNAL)** | | | | |
| | **STORM WATER (SCHEDULED ITEMS)** | | | | |
| | | | | | |
| 1 | Excavating trenches of required width for pipes, cables, etc, including excavation for sockets, depth upto 1.5 m, including getting out the excavated materials, returning the soil as required in layers not exceeding 20 cm in depth, including consolidating each deposited layers by ramming, watering etc., stacking serviceable material for measurements and disposal of unserviceable material as directed, within a lead of 50 m : All kinds of soil | | | | |
| | Pipes, cables etc. exceeding 80 mm dia. but not exceeding 300 mm dia | Metre | | 100 | |
| 4 | Providing and laying non-pressure NP2 class (light duty) R.C.C. pipes with collers jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement :2 fine sand) including testing of joints etc. complete : | | | | |
| | 150 mm dia. R.C.C. pipe | Metre | | 80 | |
| | 250 mm dia. R.C.C. pipe | Metre | | 30 | |
| | 300 mm dia. R.C.C. pipe | Metre | | 15 | |
| | | | | | |
| | **SANITARY WORK (SCHEDULE ITEM)** | | | | |
| 5 | Providing, fixing, jointing, testing and commissioning of **UPVC pipe with fittings** (for waste pipe from individual fixtures to floor trap / floor drain & vent pipe& rain water) IS : 4985 (Pipe | | | | |

| | | | | | |
|---|---|---|---|---|---|
| | Class III - 6 kg / sq.cm) cut to required lengths including all necessary fittings and specials such as bends, junctions offsets, access pieces . Fixing at wall / ceiling level supported by G.I. clamps, hangers etc. duly epoxy coated. Cost shall be inclusive of providing and laying 1:2:4 cement concrete all around the pipe including pillers, supports, shuttering & centering. | | | | |
| | 110 mm dia | Metre | | 50.00 | |
| | 90 mm dia | Metre | | 50.00 | |
| 6 | Providing and fixing MS holder-batclamps of approved design to Upvc pipe embedded in and including cement concrete blocks 10 x 10 x 10cm of 1:2:4 (1 cement:2 coarse sand: 4 graded stone aggregate 20mm nominal size) including cost of cutting holes and making good the wads etc. | | | | |
| | 110 mm dia | Each | | 20.00 | |
| | 90 mm dia | Each | | 30.00 | |
| 7 | Providing and fixing uPVC bend of required degree with access door, insertion rubber washer 3mm thick, bolts and nuts complete. | | | | |
| | 110 mm dia | Each | | 20.00 | |
| | 90 mm dia | Each | | 10.00 | |
| 8 | Providing and fixing uPVC plain bend of required degree | | | | |
| | 100 mm dia | Each | | 15.00 | |
| | 75 mm dia | Each | | 10.00 | |
| 9 | Providing and fixing uPVC double equal junction of required degree with access door, insertion rubber washer 3mm thick, bolts and nuts complete. | | | | |
| | 100 x 100x100x100 mm | Each | | 10.00 | |
| | 75 x 75 x 75 x 75mm | Each | | 5.00 | |
| 10 | Providing and fixing uPVC double equal plain junction of required degree | | | | |
| | 100 x 100x100x100 mm | Each | | 10.00 | |
| | 75 x 75 x 75 x 75mm | Each | | 5.00 | |
| 11 | Providing and fixing uPVC single equal plain junction of required degree with access door, insertion rubber washer 3mm thick, bolts and nuts complete | | | | |
| | 100 x 100x100x100 mm | Each | | 10.00 | |
| | 75 x 75 x 75 X 75mm | Each | | 5.00 | |
| 12 | Providing and fixing uPVC single equal plain junction of required degree | | | | |
| | 100x100x100 mm | Each | | 10.00 | |
| | 75x75x 75mm | Each | | 5.00 | |
| 13 | Providing and fixing uPVC door piece, insertion rubber washer 3mm thick, bolts and nuts complete - 100mm | | | | |

| | | | | | |
|---|---|---|---|---|---|
| | 110 mm dia | Each | | 10.00 | |
| | 90 mm dia | Each | | 5.00 | |
| 14 | Providing and fixing uPVC trap of self cleansing design with screwed down or hinged grating with or without vent ami complete, including cost of cutting and making good the walls and floors | | | | |
| | 100mm inlet and 100mm outlet | Each | | 15.00 | |
| 15 | Providing and fixing G.I. Pipes complete with G.I. fittings and clamps, i/c making good the walls etc. concealed pipe, including painting with anti corrosive bitumastic paint, cutting chases and making good the wall : | | | | |
| 16 | 15 mm dia nominal bore | metre | | 50.00 | |
| | 20 mm dia nominal bore | metre | | 100.00 | |
| 17 | Providing and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc. External work | | | | |
| 18 | 15 mm dia nominal bore | metre | | 10.00 | |
| | 20 mm dia nominal bore | metre | | 80.00 | |
| 19 | 25 mm dia nominal bore | metre | | 20.00 | |
| 20 | Providing and fixing chlorinated Polyvinyl chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings i/c fixing the pipe with clamps at 1.0m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge. | | | | |
| | Internal work- Exposed on wall | | | | |
| 21 | 25mm nominal bore | Metre | | 50.00 | |
| 22 | 32mm nominal bore | Metre | | 30.00 | |
| | 40mm nominal bore | Metre | | 30.00 | |
| 23 | Providing and fixing chlorinated Polyvinyl chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings i/c fixing the pipe with clamps at 1.0m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge. | | | | |
| 24 | Concealed work including cutting chases and making good the walls etc. | | | | |
| | 15mm nominal bore | Metre | | 50.00 | |
| 25 | 20mm nominal bore | Metre | | 100.00 | |
| 26 | 25mm nominal bore | Metre | | 50.00 | |
| | 32mm nominal bore | Metre | | 50.00 | |
| 27 | Providing and fixing brass **stop cock** of approved quality | | | | |
| 28 | 15mm nominal bore | Each | | 15.00 | |
| | 20mm nominal bore | Each | | 15.00 | |

| | | | | | |
|---|---|---|---|---|---|
| 29 | Providing and fixing **gun metal gate valve** with CI wheel of approved quality (screwed end). | | | | |
| 30 | 25 mm nominal bore | Each | | 4.00 | |
| | 50mm nominal bore | Each | | 4.00 | |
| 31 | Providing and fixing unplastcised **PVC connection pipe** with brass unions: | | | | |
| 32 | 30 cm length ( 15mm nominal bore) | Each | | 12.00 | |
| | Providing and fixing C.P . brass stop cock (concealed) of standard design and of approved make conforming to IS:8931. | | | | |
| 33 | 15mm nominal bore | Each | | 12.00 | |
| 34 | Providing and fixing C.I. double acting air valve of approved quality with bolts, nuts, rubber insertions etc. complete (The tail pieces, tapers etc if required will be paid separately) | | | | |
| | 50mm dia | Each | | 4.00 | |
| 35 | Providing and fixing square-mouth S.W. gully trap class SP-1 complete with C.I. grating brick masonry chamber with water tight C.I. cover with frame of 300 x300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design : | | | | |
| 36 | 100x100 mm size P type | | | | |
| | With common burnt clay F.P.S. (non modular) bricks of class designation 7.5 | Each | | 4.00 | |
| 37 | Constructing brick masonry circular type manhole 0.91m internal dia at bottom and 0.56m dia at top in cement motar 1:4 (1 cement :4 coarse sand), in side cement plaster 12 mm thick with cement motar 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement, foundation concrete 1:3:6 mix (1 cement :3 coarse sand sand :6 graded stone aggregate 40mm nominal size), and making necessary channel in cement concrete 1:2:4 ( 1cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) finished with a floating coat of neat cement all complete as per standard design: | | | | |
| 38 | 0.91 m deep with S.F.R.C. cover and frame (heavy duty, HD-20 grade designation) 560mm internal diameter conforming to I.S. 12592, total weight of cover and frame to be not less than 182kg., fixed in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) including centering, shuttering all complete. (Excavation, foot rests and 12mm thick cement plaster at the external surface shall be paid for separately): | | | | |
| | With common burnt clay F.P.S. (non modular) bricks of class designation 7.5 | each | | 4.00 | |
| 39 | Constructing brick masonry chamber for underground C.I. Inspection chamber and bends with common burnt clay F.P.S (non modular) bricks of class designation 7.5 in cement mortar 1:4 (1 cement : 4 coarse sand) C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover with frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg) R.C.C. top slab with 1:2:4 mix (1 cement: 2 coarse sand : 4 graded stone aggregate 20 mm nominal | | | | |

| | | | | | |
|---|---|---|---|---|---|
| | size) foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement: 3 coarse sand) finished smooth with a floating coat of neat cement on walls and bed concrete etc. complete as per standard design: | | | | |
| 40 | Inside dimensions 455 x 610 mm and 45 cm deep for single pipe line | | | | |
| | With common burnt clay F.P.S. (non modular) bricks of class designation 7.5 | Each | | 4.00 | |
| 41 | Extra for depth beyond 45 cm of brick masonry chamber with common burnt clay F.P.S (non modular) bricks of class designation 7.5. | | | | |
| 42 | For 455 x 610 mm size- | | | | |
| | With common burnt clay F.P.S. (non modular) bricks of class designation 7.5 | metre | | 2.00 | |
| 43 | Making connection of drain or sewer line with existing manhole including breaking into and making good the walls, floors with cement concrete 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) cement plastered on both sides with cement mortar 1:3 (1 cement : 3 coarse sand), finished with a floating coat of neat cement and making necessary channels for the drain etc. complete : | | | | |
| 44 | For pipes 100 to 250 mm diameter | Each | | 2.00 | |
| | For pipes 250 to 300 mm diameter | Each | | 2.00 | |
| 45 | Constructing brick masonry road gully chamber 50x45x60 cm with bricks in cement mortar 1:4 (1 cement : 4 coarse sand) including 500x450 mm pre-cast R.C.C. horizontal grating with frame complete as per standard design : | | | | |
| 46 | With common burnt clay F .P .S. (non modular) bricks of class designation 7.5 | Each | | 4.00 | |
| | Providing and fixing on wall face unplasticised Rigid PVC rain water pipes conforming to IS : 13592 Type A including jointing with seal ring conforming to IS : 5382 leaving 10 mm gap for thermal expansion.<br><br>(i) Single socketed pipes. | | | | |
| 47 | 110mm diameter single socketed pipes | metre | | 200 | |
| 48 | Providing and fixing on wall face unplasticised-PVC moulded fittings/accessories for unplasticised-Rigid PVC rain water pipes conforming to IS:13592 Type A including jointing with seal ring conforming IS: 5382 leaving 10mm gap for thermal expansion. | | | | |
| | Single pushfit Coupler : | | | | |
| 49 | 110mm Single Pushfit Coupler | each | | 40 | |
| 50 | Bend 87.5° | | | | |
| | 110mm bend Bend 87.5 degree | each | | 25.00 | |
| 51 | Shoe (Plain) | | | | |
| 52 | 110mm Shoe (Plain) | each | | 25.00 | |

| | | | | | |
|---|---|---|---|---|---|
| 54 | Providing and fixing to the inlet mouth of rain water pipe cast iron grating 25cm diametre and weighing not less than 440 grams. | each | | 25.00 | |
| | **SH - 1 SANITARY WORK (NON SCHEDULE ITEM)** | | | | |
| | Providing and fixing Stainless Steel A ISI 304 (18/8) **kitchen sink** as per IS: 13983 with CI brackets and stainless steel waste with plug 40mm including painting of fittings and brackets, cutting and making good the walls wherever required. | | | | |
| 55 | Kitchen sink without drain board, 610x510 mm bowl depth 200 mm | Each | | 1.00 | |
| 58 | Providing and fixing uPVC floor drain of following size inlet and outlet including cutting and making good the walls and floors wherever required complete in all respects. | Each | | 20.00 | |
| 59 | Providing and fixing uPVC **cleanout plug** with openable cap for uPVC pipes | | | | |
| 60 | For 110 mm OD pipes | Each | | 20.00 | |
| 61 | Making khurras 600x600mm with average minimum thickness of 5 cms cement concrete 1:2:4 (1 cement : 2 coarse sand: 4 graded stone aggregate 20mm nominal size) over PVC sheet 1m x 1m x 400 micron, finished with 12mm plaster in cement mortar 1:3(1 cement :3 coarse sand) finished with floating coat of neat cement induding rounding of edges and finishing of outlet, complete in all respects. | Nos | | 8.00 | |
| 62 | Providing and fixing in position **uPVC PIPE and fittings** of heavy class (c) conforming to IS:1239 (for waste pipe from individual fixtures to floor trap / floor drain & vent pipe) Including fixing at wall / ceiling level supported by galvanized clamps and hangers etc. | | | | |
| | **For waste pipes** | | | | |
| A | 40mm OD | Metre | | 50.00 | |
| B | 50mm OD | Metre | | 40.00 | |
| 63 | Providing and fixing PTMT **liquid soap** container 109mm wide, 125mm high and 112mm distance from wall of standard shape with bracket of the same materials with snap fittings of approved quality colour and make, weighing not less that 105gms.(Make:Jaquar/Varmora/Essel) | Each | | 8.00 | |
| 64 | Providing and fixing Division plate for the partition of urinals ( Make Hindware/Vermora/Essex ) | Each | | 6.00 | |
| 65 | Providing & fixing electric operated hand dryer with photovoltic control of reputed manufacturer complete as per specification & instructions of engineer. | Each | | 5.00 | |
| 66 | Providing and fixing **toilet paper** holder . (Make: Jaquar/Varmora/Essex) | | | | |
| | C.P. brass | Each | | 14.00 | |
| 67 | Providing and fixing towel ring trapezoidal shape 215 mm long, 200 mm wide with minimum distances of 37 mm from wall face with concealed fittings arrangement of approved quality and colour, weighing not less than 88 gms.(Make:Jaquar/Varmora/Essex) | Each | | 5.00 | |
| 68 | Providing and fixing water closet squatting pan (indian type W.C. pan) with 100mm sand cast iron P or Strap, 10 litre low | | | | |

| | | | | | |
|---|---|---|---|---|---|
| | level white P.V.C. flushing cistern with manually controlled device (handle lever) conforming to IS: 7231, with all fitting and fixture complete including cutting and making good the walls and floors wherever required : | | | | |
| 69 | White vitreous china orissa pattern W.C. pan of size 580X440mm with intergal type foot rests | each | | 2.00 | |
| | | | | | |
| 70 | Providing and fixing white vertreous china pedastal type water closet (European type) with seal and lid, 10 litre low level white vitreous china flusing cistern & C.P flush bend with fitting & C.I. brackets, 40mm flush bend, overflow arrangement with special of standard make and mosquito proof coupling of approved municipal design complete including painting of fitting and brackets cutting and making good the walls and floors wherever required : | | | | |
| 71 | W.C. pan with ISI marked white solid seat and lid. | each | | 10.00 | |
| | | | | | |
| 72 | Provinding and fixing white vetreous china flat back or wall corner type lipped front urinal basin of 430 X 260 X 350mm and 340 X 410 X 265mm sizes respectively with automatic flushing cistern with standard flush pipe and C.P. brass spreaders with brass unions and G.I. clamps complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required : | | | | |
| 73 | One urinal basin wit 5 litre white P.V.C automatic flushing cistern | each | | 8.00 | |
| | | | | | |
| 74 | Providing and fixing P.V.low level flushing cistern with manually controlled device (handle lever) conforming to IS : 7231, with all fitting and fixture complete | | | | |
| 75 | 10 litre (full flush) capacity-white | each | | 8.00 | |
| | | | | | |
| 76 | Providing and fixing white vitreous china wash basin including making all connection but excluding the cost of fitting | | | | |
| 77 | Flat back wash basin of size 630 X 450mm | each | | 20.00 | |
| 78 | Providing and fixing P.V.C. waste pipe for sink or wash basin including P.V.C waste fitting complete | | | | |
| 79 | 40mm dia (flexible pipe) | each | | 20.00 | |
| | | | | | |
| 80 | Providing and fixing 600 X 450mm bevelled edge mirror of superior glass (of approved quality) complete with 6mm thick hard board ground fixed to wooden cleats wiyh C.P. brass screws and washers complete. | each | | 20.00 | |
| | | | | | |
| 81 | Providing and fixing toilet paper holder : | | | | |
| | C.P. brass | each | | 10.00 | |

| | | | | | |
|---|---|---|---|---|---|
| 82 | 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 pipe but without fittings and base support for tank. | per ltr. | | 10000.00 | |
| 83 | Providing and fixing C.P. brass long nose bib cock of approved quality conforming to IS standards and weighing not less than 810gms. | | | | |
| 84 | 20mm dia, nominal bore | each | | 20.00 | |
| | | | | | |
| 85 | Providing and fixing C.P. brass long body bib cock of approved quality conforming to IS standard and weighing not less than 690gms. | | | | |
| 86 | 15mm dia, nominal bore | each | | 20.00 | |
| | | | | | |
| 87 | Providing and fixing C.P. brass stop cock (concealed) of standard design and of approved make conforming to IS : 8931. | | | | |
| 88 | 15mm dia, nominal bore | each | | 16.00 | |
| | | | | | |
| 89 | Providing and fixing C.P. brass angle valve for basin mixer and geyser points of approved quality conforming to IS:8931 | | | | |
| 90 | 15mm dia, nominal bore | each | | 24.00 | |
| | | | | | |
| 91 | Providing laying and jointing glazed stoneware pipes grade 'A' with stif mixture of cement mortar in the of 1:1 (1 cement: 1 fine sand) including testing of joints etc complete. | | | | |
| 92 | 100mm diameter | RM | | 50.00 | |
| 93 | 150mm diameter | RM | | 50.00 | |
| | | **Total** | | | |

**Fire Fighting Specification**

| S.No. | Description | Unit | Qty | Rate | Amount |
|---|---|---|---|---|---|
| **D)** | **PORTABLE FIRE EXTINGUISHERS :** | | | | |
| | | | | | |
| 1.0 | Providing & fixing of ISI marked (IS:940) portable chemical Fire Extinguisher, water (gas pressure) type capacity 9 ltrs with gun-metal cap. and nozzle and complete in all respects including initial fill and wall suspension bracket. | Each | 12 | | |
| | | | | | |
| 2.0 | Providing & fixing of ISI marked (IS:2878) portable fire extinguisher, carbondioxide type flat base including valve, discharge hose of not less than 10 mm dia. 1 M long & complete in all respects including initial fill with $CO_2$ gas confirming to IS:307-1966 filled to a filling ratio of not more than 0.667 of not more than 0.667 and wall suspension bracket. | | | | |
| | | | | | |
| a) | Capacity 4.5 kg | Each | 12 | | |
| | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| 3.0 | Providing & fixing of ISI marked (IS: 13386-1992) mechanical foam type fire extinguishers 50 kg consisting of welded M.S. trolley mounted cylindrical body, squeeze lever discharge valve fitted with pressure discharge hose, discharge nozzle, trolley etc., finished externally with red enamel paint and fixed to wall with brackets complete with internal charges. | Each | 4 | | |
| | | | | | |
| 4.0 | Providing and fixing of carbon-di-oxide fire extinguishers (22.5 kg) trolley mounted with all accessories internal discharge tube, high pressure discharge hose, discharge nozzle, ISI marked as per IS:2878 finished externally with red enamel paint and fixed to wall with brackets complete with internal charge. | Each | 2 | | |
| 5.0 | Providing and fixing of self-illuminated / auto glow **"EXIT" signs** printed on photo luminescent sheet containing self-illuminated base chemical, of appropriate size not less than 400 x 150 mm, suspended from ceiling or fixed to the walls with accessories as required and as directed at site. | Nos | 24 | | |
| | **SUB HEAD-B (FIRE HYDRANT ACCESSORIES)** | | | | |
| 1 | Providing and fixing SS304 Single headed **landing valve** conforming to IS -5290 (Type-A) with 63 mm dia. single instantaneous female coupling on the outlet SS304 metal blank cap and chain, necessary companion flanges, nuts, bolts, washer and gasket complete as per specification. (ISI marked). All parts and body shall be of SS304 as per IS:5290. | | | | |
| a. | Single outlet | Nos | 8 | | |
| 2 | Providing and fixing first aid **fire hose reel** drum wall mounting, swinging type(Powder coated finish in fire red) fitted with 20 mm dia. 30 m long high pressure hose(IS:444, Type-2) with 5 mm outlet SS nozzle with shut off valve (IS:8090). Name of Manufacturer should be embossed on the drum and complete hose reel drum shall be conforming to IS:884) | Nos | 6 | | |
| 3 | Providing and fixing **63 mm dia**. 15m long rubberized lined hose including SS304 male and female instantaneous type coupling approved by fire authority, machine wound with copper wire complete in all respects. Hose shall conform to IS 636 Type-A and coupling to IS 903 - 1975 ( ISI marked) | Nos | 12 | | |
| 4 | Providing and fixing standard short size SS304 **branch pipe with gunmetal nozzle 16 mm dia**. outlet with standard instantaneous type 63 mm dia. coupling. (ISI marked, IS:903) | Nos | 8 | | |
| 5 | Providing and fixing door with frame for all internal fire hydrants fabricated from 20x20x3 mm and 40x20x3 mm aluminium hollow box sections mounted with 3 no. of 100 mm Aluminium butt hinge on Aluminium angle frame of 45x45x5 mm size with hold fasts fixed to wall with P.C.C. (1:2:4) blocks 100x100x100 mm including 2 nos allen key lock for locking along with padlock arrangement & fully glazed with 4 mm thick float glass approved by local Fire Authority, powder coated fire red finish with " fire hose' written on front suitable to house 15 mm long two length of canvas hose with couplings, one no of branch pipe, one fire mans axe and two numbers of portable extinguishers, first aid fire hose and supports for hoses, branch pipes, Axe and hose reel. Size 2100x 900 mm complete as per approved design including necessary fixing arrangement for hoses & axe and branch pipe.) | Nos | 6 | | |

| | | | | | |
|---|---|---|---|---|---|
| 6 | Providing and fixing **fire hose cabinet** fabricated from 16 gauge M.S. Sheet with single or double glazed front door and locking arrangement, painted "Fire Red" with powder coated paint "Fire Hose" written on front including suitable supports to place 900 mm above ground level, approximately size 750x600x250 mm deep (to house two lengths of canvas hose with couplings, branch pipe and nozzle for external hydrants) | Nos. | 4 | | |
| 7 | Providing and fixing gunmetal **fire brigade inlet** head as per IS:904 Specification tested for 20 Kg/cm2 with 63 mm dia. instantaneous type inlet and 100/150mm dia.. flanged outlet with built-in check valve for fire brigade connection to under ground tanks and fire risers including companion flanges as portable " E" including nuts, bolts & washers etc. | | | | |
| a. | Three way | Nos | 1 | | |
| 8 | Providing and fixing gunmetal **fire brigade suction 150 mm dia. for fire tank** complete with PVC Cap companion flange as per table "E" nuts, bolts, gasket etc | | | | |
| a. | 150 mm | Nos. | 1 | | |
| 9 | Supplying and fixing of Fire Man's Axe with heavy insulated rubber tested upto 20 KV and confirming to IS :926. | Nos. | 6 | | |
| 10 | Air Cushion Tank for Risers<br>Providing and fixing of air vessel of the following specifications fabricated with MS Pipe of thickness specified.<br>specifications<br>a. Diameter : 200 mm<br>b. Shell Thickness: 6.35 mm<br>c. Dish Ends : 10 mm<br>d. Height : 1000 mm<br>e. Finishing: Two coats of red enamal paint over primer out side and two coats of epoxy coating inside.<br>f. Material of construction: M.S<br>g. Test Pressure: 20 Kg/Sq.Cm.<br>i. Height of supporting legs: 400 mm<br>j. Quantity<br>Note: Contractor should submit general arrangement drawings before fabrication of vessel and ultrosonic test report to be submitted on supply of vessel and test to be conducted at the presence of Plumbing-In-Charge. Also cost shall include two nos. Gunmetal NRV(ISI Marked) | Each | 1 | | |
| | | | | | |
| | **SUB HEAD-C (SPRINKLERS ACCESSORIES)** | | | | |
| 11 | Providing and fixing 15 mm gunmetal **sprinkler head** with quartz bulb and set to operate at specified temperature pendent/ upright/ side wall /quick response as per instruction fixed with **loctite.** Temperature of operation 68 deg.C K-80 | | | | |
| a. | Normal response Pendent type/ upright type | Nos | 100 | | |
| a. | Normal response Pendent type | Nos | 100 | | |
| b. | Normal response Side wall type | Nos | 50 | | |
| c. | Extended throw normal response Side wall type. | Nos | 10 | | |

| | | | | | |
|---|---|---|---|---|---|
| 12 | Providing & fixing 25mm dia. UL listed gunmetal inspector test and drain valve with integral sight glass connected to drain line complete in all respects. | Nos | 5 | | |
| 13 | Providing and fixing electrically operated **flow indicating switches** model System Sensor in sprinkler branch line on each floor with necessary junction box installed in accessible place (Wiring from switches to panel and stair case pressurization not included) | | | | |
| a. | 100/65/50 mm dia. | Nos | 5 | | |
| 14 | Providing and fixing **gunmetal installation valve** with turbine type automatic alarm to be connected with control valve, drain valve, test valve and piping as per manufacturer's specifications complete in all respects. | | | | |
| a. | 150 mm dia. | Nos | 1 | | |
| 15 | Providing and fixing UL/Fm listed powder coated finish Escutcheon plate complete including fixing in position on pipe and ceiling complete in all respects. (Size=15NB) | Each | 100 | | |
| 16 | Providing and fixing UL/Fm listed SS braided flexible pipe with accessories complete with all accessories specified in technical specifications(Size=15B) | | | | |
| | a. 780mm long | Each | 12 | | |
| | b. 1000mm long | Each | 12 | | |
| | **TOTAL** | | | | |

**Intelligent FAC & PA System:**

| | | | | |
|---|---|---|---|---|
| **INTELLIGENT FIRE ALARM SYSTEM** | | | | |
| Supplying, installation, testing and commissioning of micro | | | | |
| processor based intelligent addressable main fire alarm | | | | |
| panel, central processing unit with the following loop modules and | | | | |
| capable of supporting not less than 240 devices (including detectors) | | | | |
| and minimum 120 detectors per loop and loop length up to 2 km, | | | | |
| network communication card, minimum 320 character graphics/ LCD | | | | |
| display with touch screen or other keypad and minimum 4000 events | | | | |
| history log in the non volatile memory (EPROM), power supply unit | | | | |
| (230± 5% V, 50 hz), 48 hrs back-up with 24 volt sealed maintenance free | | | | |
| | | | | |
| batteries with automatic charger. The panel shall have facility to | | | | |
| connect printer to printout log and facility to have seamless integration | | | | |
| with analog/digital voice evacuation system (which is part of the | | | | |
| schedule of work under SH: PA System) and shall be complete with all | | | | |
| accessories . The panel shall be compatible for IBMS system with | | | | |
| open protocol BACnet/ Modbus over IP complete as per | | | | |
| specifications. | | | | |
| | | | | |
| Two Loop Panel. | Each | 1 | | |
| Supplying, installation, testing & commissioning of central | | | | |
| graphical fire alarm management system to centrally monitor and | | | | |
| operate the fire alarm system complete as required. | Each | | | |
| Supplying, installation, testing & commissioning of repeater | | | | |

| | | | | |
|---|---|---|---|---|
| panel wih 320 character/ Touch screen LCD display with inbuilt | | | | |
| reset, acknowledge and silence switches complete as required. | Each | | | |
| Supplying, installation, testing & commissioning of intelligent | | | | |
| analog addressable photothermal detector complete with | | | | |
| mounting base complete as required. | Each | 12 | | |
| Supplying, installation, testing & commissioning of response | | | | |
| indicator on surface/recessed MS Box having two LED, | | | | |
| metallic cover complete with all connections etc as required. | Each | 10 | | |
| Supplying, Supplying, installation, testing & commissioning | | | | |
| of intelligent addressable programmable sounder complete as | | | | |
| required. | Each | 8 | | |
| Supplying, installation, testing & commissioning of fault | | | | |
| isolator complete with base as required. | Each | 2 | | |
| Supplying, installation, testing & commissioning of intelligent | | | | |
| aspiration detector for area coverage of minimum 5000 sq. | | | | |
| ft. complete as required. | Each | | | |
| Supplying, installation, testing & commissioning of intelligent | | | | |
| addressable thermal detector with rate of rise cum fixed | | | | |
| tempreature thermistor complete with base as required. | Each | 2 | | |
| Supplying, installation, testing & Commissioning of | | | | |
| addressable fire control module complete as required. | Each | | | |
| Supplying, Supplying, installation, testing & commissioning | | | | |
| of addressable phone control module as required. | Each | | | |
| Supplying, installation, testing & commissioning of addressable | | | | |
| beam detector with short circuit isolator (inbuilt or seperate) | | | | |
| complete with emitter and receiver including connections with | | | | |
| remote test features etc complete as | | | | |
| required. | Each | | | |
| Supplying, installation, testing & commissioning of intelligent | | | | |
| addressable duct detector including suitable Photo detector | | | | |
| complete with base as required. | Each | | | |
| Supplying,Supplying, installation, testing & commissioning of addressable | | | | |
| mannual call point complete as required. | Each | 8 | | |
| Supplying,Supplying, installation, testing & commissioning of addressable | | | | |
| horn cum strobe as required | Each | 2 | | |
| Supplying,Supplying, installation, testing & commissioning | | | | |
| strobe complete as required. | Each | | | |
| Supplying, installation, testing & commissioning of fire fighter | | | | |
| telephone handset complete as required. | Each | 2 | | |
| Supplying, installation, testing & commissioning of intelligent | | | | |
| interface unit BACnet/ Modbus protocol i.e. supplying | | | | |
| communication links between building management system | | | | |
| and fire alarm control panel complete as required. | Each | | | |
| Supplying, installation, testing & commissioning of fire fighter | | | | |
| phone jack complete as required. | Each | 2 | | |

| | | | | |
|---|---|---|---|---|
| PUBLIC ADDRESS SYSTEM | | | | |
| Supplying, installation, testing & commissioning of 6 zone, | | | | |
| voice alarm controller with USB, MP3 player (including 6 zone | | | | |
| button paging station) with seamless integration facility with | | | | |
| main fire alarm panel for voice evacuation complete as | | | | |
| required. | Each | 1 | | |
| Supplying, installation, testing & commissioning of 1.5/3/6W | | | | |
| ceiling speaker complete as required. | Each | 4 | | |
| Supplying, installation, testing & commissioning of 1.5/3/6W | | | | |
| metal box ceiling/wall speakers complete as required. | Each | 4 | | |
| Supplying,Supplying, installation, testing & commissioning ceiling of /wall | | | | |
| mounted loud speaker, 3/1.5 Watt in ABS enclosure as required. | Each | 2 | | |
| Supplying, installation, testing & commissioning of 6 inches | | | | |
| dia, 2 watts, 70/100 volts ceiling speaker complete as | | | | |
| required. | Each | 10 | | |
| Supplying, installation, testing & commissioning of digital | | | | |
| audio amplifier 50 Watt, 25V rms operating at 240 volt AC | | | | |
| supply complete as required. | Each | 1 | | |
| Supplying, installation, testing & commissioning of digital | | | | |
| audio amplifier 75 Watt, 25V rms operating at 240 Volt AC | | | | |
| supply complete as required. | Each | | | |
| Supplying, installation, testing & commissioning of exit point | | | | |
| directional sound speaker with voice and integral audio | | | | |
| amplifier with selectable sound pulse patterns complete as | | | | |
| required. | Each | | | |
| Supplying, installation, testing & commissioning of Voice | | | | |
| command keypad 6 zone, with microphone assembly | | | | |
| complete as required. | Each | | | |
| ASPIRATION DETECTOR ACCESSORIES | | | | |
| Supply, installation, testing and commissioning of 25 mm Outer | | | | |
| dia CPVC Pipe with end caps including making air sampling opening of | | | | |
| appropriate dia on appropriate interval and all accessories as required. | Sq mtr | 20 | | |
| **Total of Intelligent Fire Detection & Public Address (PA) system(in Rs/-)** | | | | |

**Hi Side Electrical Specification**

**Maulana Azad School - Bareilly HI-SIDE (substation)**

**NON DSR ITEMS:-**

| S.No. | Description of Item | Qty. | Rate | Unit | Amount |
|---|---|---|---|---|---|
| | **Sub Head-I : Equipments-HT Panel Board, Transformers & H.T. / &DG Sets.** | | | | |
| **1.00** | **DIESEL GENERATOR SETS :** | | | | |
| | | | | | |
| | Supply of following rating, 415 V, 3 Phase, 4-wire, 50 Hz at 0.8 p.f. silent type diesel generator set with | | | | |

| | | | | | |
|---|---|---|---|---|---|
| | acoustically treated cannopy suitable for AMF/Manual operation with **Radiator cooling**, alternator, of suitable rating 415 Volts at 1500 RPM, 3 phase, 50Hz AC supply with 0.80 lagging power factor at 40°C 50% RH & at 1000 Mtrs. MSL, 24 Volts batteries, charger with battery leads,one day fuel Tank (Capacity as per manufacturer standard),Residential silencer and AVM Pads, all accessories as specified in the specifications, including first fill of lube oil providing common base plate, anti vibration isolators, cable termination adopter box, drip trays, foundation bolts, glands, nuts etc. as required for a complete installation. | | | | |
| | DG Sets shall include one day fuel tank (800 liters for 600 kVA DG Set & 350 litres for 250 kVA DG Set / as per design) for each D.G. set. The day fuel tank shall be fabricated out of 2 mm thick MS sheets and shall include the cost of removable cover with locking arrangement, the cost of painting, the cost of providing all the required appurtenances like inlet & outlet connection, float valves, drain connection, mechanical oil level indicator and low level/high level alarms and the cost of support arrangement etc. complete as per specification and as required. The Alternator overload capacity shall not be less than 110% of rated capacity for 1 hour in every continuous running of 12 hours. The DG Set shall be mounted on a fabricated rigid common base frame with anti-vibration mountings to provide at least 98% vibration isolation. The DG set shall include all accessories, fittings, instruments and standard tool kit complete as per specification and as required including control cabling. | | | | |
| a) | Radiator cooling system. | | | | |
| b) | Fly Wheel to suit flexible/rigid coupling with guard. | | | | |
| c) | Fly wheel housing complete with starter gear ring and coupling. | | | | |
| d) | Fuel hoses. | | | | |
| e) | Electronic Governor. | | | | |
| f) | Air Cleaner with Vacuum Indicator. | | | | |
| g) | Fuel and Lub Oil Filter. | | | | |
| h) | By pass filter | | | | |
| i) | Corrosion inhibitor coolant. | | | | |
| j) | Fuel Pump PT Type. | | | | |
| k) | Lub Oil Pump. | | | | |
| l) | Electric Starter 24 Volts DC. | | | | |
| m) | Battery Charging Alternator with Built-in-regulator - 24 Volts, 30 Amps. With MS battery stand complete with insulated mattings and instrument panel comprising of switch with key & battery charging voltmeter. | | | | |
| n) | Residential Silencer (as per latest CPCB norms including baffle plates and 75mm thick glass/mineral wool insulation complete with wire mesh chicken mesh and 26 gauge aluminium cladding from engine upto silencer, supporting arrangement complete as required). with dry exhaust manifold. | | | | |

| | | | | | |
|---|---|---|---|---|---|
| o) | i) Expansion below fabricated out of SS sheet. | | | | |
| p) | ii) Fuel pipe of required size from DG set flue outlet up to Silencer. | | | | |
| q) | Lube oil pressure gauge | | | | |
| r) | Water temperature gauge | | | | |
| s) | Safety control for low lube oil pressure | | | | |
| t) | Over speed and high cooling temperature with indication and tripping etc. | | | | |
| u) | Alternator insulation Class "H" suitable to withstand tropical conditions. | | | | |
| v) | Fabricated rigid common base frame with anti-vibration mountings. | | | | |
| w) | Vibration Isolator | | | | |
| x) | Adaptor box and extension of busbars for aluminium cable termination/bus duct insulation as required. | | | | |
| y) | Lube Oil Cooler. | | | | |
| z) | Flexible Pipe joints for Silencer. | | | | |
| za) | Anti Vibration Pads. | | | | |
| zb) | Droop setting for the synchronization. | | | | |
| zc) | Exhaust pipe of suitable dia with MS support | | | | |
| zd) | Naturally aspirated turbocharger as per manufacturer's specifications. | | | | |
| ze) | suitable Acoustic Enclosure Radiator cooled diesel engine. | | | | |
| zf) | Chimney stack supply and installation and commissioning | | | | |
| | **Rating of DG Sets as Follows :-** | | | | |
| B) | **125 kVA**, 415 Volts DG Set | 1 | sets | | |
| | | | | | |
| | | | | | |
| | | | | | |
| 2 | **EARTHING** | | | | |
| | Earthing with coper Earth Plate 600 mm x 600 | | | | |
| | mm x 3 mm thick i/c accessories and providing | | | | |
| | masonary enclosure with cover plate having | | | | |
| | locking arrangement and watering pipe etc. with salt & Charcoal. | 6 | set | | |
| | Earthing with GI earth place 600 mm x600 | | | | |
| | mm x 6 mm thick i/c accessories and providing | | | | |
| | masonary enclosure with cover plate having | | | | |
| | locking arrangement and watering pipe etc. (but | | | | |
| | without charcoal or coke and salt) complete as required. | 6 | set | | |
| | Providing and fixing 25mm x 5 mm ~~Copper~~ | | | | |
| | strip in 40 mm dia GI pipe from earth electrode | | | | |
| | as required. | 40 | mtr | | |
| | Providing and fixing 25mm x 5 mm GI strip in 40 mm dia GI Pipe | | | | |
| | step on surface or in recess for connection etc. as required. | 40 | mtr | | |
| | providing and fixing 25x5 MM copper strip on surface | 20 | mtr | | |

| | | | | | |
|---|---|---|---|---|---|
| | Providing and fixing 25x5MM GI strip on surface | 80 | mtr | | |
| 3 | **GRID CONNECTED SOLAR POWER** | | | | |
| | Design, Supply, Erection, Testing, Commissioning, of Grid Connected Rooftop Solar Photovoltaic Power Projects on the building under "EPC" Model Type: 20kW with Grid-tied Inverter with Net-Metering with Remote Monitoring. Work includes all Equipment n Providing, installing, cabling, connecting and commissioning 20KW Rooftop Solar power plant with all approvals, Net metering activation complete | 1 | nos | | |
| | **Total** | | | | |
| | GST @ 12% | | | | |
| | **Sub total** | | | | |
| | CESS @ 1% | | | | |
| | **TOTAL** | | | | |

**Internal Electrical:**

| Item No. | Description | Unit | Quantity | Rate | Amount |
|---|---|---|---|---|---|
| | **DSR Items** | | | | |
| **1.0** | **WIRING IN PVC CONDUIT** | | | | |
| 1.10 | 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. | | | | |
| 1.10.1 | Group A | Point | 26 | | |
| 1.10.2 | Group B | Point | 50 | | |
| 1.10.3 | Group C | Point | 180 | | |
| | | | | | |
| 1.11 | Wiring for twin control light point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, 2 way 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. | Point | 10 | | |
| | | | | | |
| 1.12 | Wiring for light/ power plug with 2X4 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. | Meter | 600 | | |
| | | | | | |
| 1.13 | Wiring for light/ power plug with 4X4 sq. mm FRLS PVC insulated copper conductor single core cable in surface/ recessed medium class PVC conduit along with 2 Nos. 4 sq. mm FRLS PVC insulated copper conductor single core cable for loop earthing as required. | Meter | 30 | | |
| | | | | | |
| 1.14 | Wiring for circuit/ sub main wiring along with earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required. | | | | |
| 1.14.1 | 2 X 1.5 sq. mm + 1 X 1.5 sq. mm earth wire Light Circuit | Meter | 200 | | |
| 1.14.2 | 2 X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire UPS Power points | Meter | 150 | | |

| | | | | | |
|---|---|---|---|---|---|
| 1.14.4 | 2 X 6 sq. mm + 1 X 6 sq. mm earth wire AC Power points | Meter | 200 | | |
| 1.14.5 | 2 X 10 sq. mm +1 X6 Sq. mm earth Submain Wiring | Meter | 10 | | |
| 1.14.10 | 4 X 10 sq. mm +2 X6 Sq. mm earth Submain Wiring | Meter | 40 | | |
| 1.14.11 | 4 X 16 sq. mm +2 X6 Sq. mm earth Submain Wiring | Meter | 20 | | |
| | | | | | |
| 1.19 | 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/ PVC conduit as required. | Meter | 200 | | |
| | | | | | |
| 1.21 | Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required. 20 mm | | | | |
| 1.21.2 | 25 mm | Meter | 800 | | |
| 1.21.3 | 32 mm | Meter | 10 | | |
| 1.21.4 | 40 mm | Meter | 40 | | |
| 1.21.5 | 50 mm | Meter | 20 | | |
| | | | | | |
| 1.24 | Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required. | | | | |
| 1.24.1 | 5/6 A switch | Each | 250 | | |
| 1.24.2 | 2 way 5/6 A switch | Each | 10 | | |
| 1.24.3 | 15/16 A switch | Each | 78 | | |
| 1.24.4 | 3 pin 5/6 A socket outlet | Each | | | |
| 1.24.5 | 6 pin 15/16 A socket outlet | Each | 78 | | |
| 1.24.6 | Telephone socket outlet | Each | 10 | | |
| 1.24.7 | TV antenna socket outlet | Each | 10 | | |
| 1.24.8 | Bell push | Each | 6 | | |
| | | | | | |
| 1.25 | Supplying and fixing two module stepped type electronic fan regulator on the existing modular plate switch box including connections but excluding modular plate etc. as required. | Each | 57 | | |
| | | | | | |
| 1.26 | Supplying and fixing modular blanking plate on the existing modular plate & switch box excluding modular plate as required. | Each | 20 | | |
| | | | | | |
| 1.27 | Supplying and fixing following size/ modules, GI box along with modular base & cover plate for modular switches in recess etc. as required. | | | | |
| 1.27.1 | 1 or 2 Module (75mmX75mm) | Each | 10 | | |
| 1.27.2 | 3 Module (100mmX75mm) | Each | 78 | | |
| 1.27.3 | 4 Module (125mmX75mm) | Each | 30 | | |
| 1.27.4 | 6 Module (200mmX75mm) | Each | 10 | | |
| 1.27.5 | 8 Module (125mmX125mm) | Each | 30 | | |
| 1.27.6 | 12 Module (200mmX150mm) | Each | 20 | | |
| | | | | | |
| 1.28 | Supplying and fixing following Modular base & cover plate on existing modular metal boxes etc. as required. | | | | |
| 1.28.1 | 1 or 2 Module | Each | 10 | | |

| | | | | | |
|---|---|---|---|---|---|
| 1.28.2 | 3 Module | Each | 78 | | |
| 1.28.3 | 4 Module | Each | 30 | | |
| 1.28.4 | 6 Module | Each | 10 | | |
| 1.28.5 | 8 Module | Each | 30 | | |
| 1.28.6 | 12 Module | Each | 20 | | |
| | | | | | |
| 1.31 | 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 A modular socket outlet and 5/6 A modular switch, connections etc. as required. | Each | 10 | | |
| | | | | | |
| 1.32 | 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 A modular socket outlet and 15/16 A modular switch, connections etc. as required. | Each | 10 | | |
| | | | | | |
| 1.33 | Supplying and fixing 3 pin, 5 A ceiling rose on the existing junction box/ wooden block including connections etc. as required. | Each | 57 | | |
| | | | | | |
| | **INSTALLATION OF FIXTURES & FANS** | | | | |
| 1.35 | Installation ,Testing, Commissioning of wall bracket /ceiling fittings of all sizes and shapes containing up to two GLS/CFL/LED lamps per fitting, complete with all accessories including connections etc. as required. | Each | 180 | | |
| | | | | | |
| 1.38 | Supplying and fixing call bell/ buzzer suitable for single phase, 230 V, complete as required. | Each | 6 | | |
| | | | | | |
| 1.39 | 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 | 100 | | |
| | | | | | |
| 1.45 | Installation, testing and commissioning of ceiling fan, including wiring the down rods of standard length (up to 30 cm) with 1.5 sq. mm FRLS PVC insulated, copper conductor, single core cable, including providing and fixing phenolic laminated sheet cover on the fan box etc. as required. | Each | 57 | | |
| | | | | | |
| | **CONDUITING & WIRING OF T.V. , TELEPHONE and LAN SYSTEM** | | | | |
| 1.18 | Supplying and drawing following pair 0.5 sq. mm FR PVC insulated annealed copper conductor, unarmored telephone cable in the existing surface/ recessed steel/ PVC conduit as required. | | | | |
| 1.18.2 | 2 Pair (4 core) From LV box to different point | Meter | 400.00 | | |
| | | | | | |
| 1.53 | Supplying and drawing of UTP 4 pair CAT 6 LAN Cable in the existing surface/ recessed Steel/ PVC conduit as required. | | | | |
| 1.53.1 | 1 run of cable | Meter | 200.00 | | |
| | | | | | |
| | Providing, laying connecting and testing of multi-core telephone armored/ unarmored cable of conductor size 0.5mm dia annealed copper conductor PVC insulated PVC sheathed jelly filled (as per DOT | | | | |

| | | | | | |
|---|---|---|---|---|---|
| | specification) cable as required | | | | |
| MR | 100 Pair telephone armored cable | Meter | | | |
| MR | 20 Pair telephone armored cable | Meter | 100.00 | | |
| | | | | | |
| | Providing, fixing connecting and testing of under noted size of solder less telephone tag block Krone make in surface/recess in wall required size of M.S. box with hinged lockable cover duly stove enamel painted. | | | | |
| MR | 100 pair tag block | Each | 1.00 | | |
| | | | | | |
| | | | | | |
| 1.21 | Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required. | | | | |
| 1.21.1 | 20mm dia conduit pipe | Meter | 20.00 | | |
| 1.21.2 | 25mm dia conduit pipe | Meter | 100.00 | | |
| 1.21.3 | 32mm dia conduit pipe | Meter | 50.00 | | |
| | | | | | |
| 1.24 | Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required. | | | | |
| 1.24.6 | Supplying and fixing M.S. box with modular type telephone (RJ-11) outlet complete as required. | Each | 95.00 | | |
| MR | Modular Type DATA ( RJ-45) outlet complete as required | Each | 95.00 | | |
| | | | | | |
| MR | Supplying & Fixing of UTP Jack Panel, loaded with 48 no's UTP ports for Non-PCB based IO Jacks (RJ45, TIA-568C Category-6, Shall have integrated bonding bar or other mechanism for grounding, Shall be loaded with individually replaceable 24 nos. Category-6 certification by Jacks complying with TIA-568.C.2 , Shall be having a 6 port module construction for better cable dressing at the rear, the jacks shall have RJ-45 type connector with bend limiting and strain relief boot for securing IDC contacts from external forces and for maintaining the bend radius of the cable complete in all respect. | Each | 1.00 | | |
| | | | | | |
| MR | Supplying & Fixing of Floor Standing Network/Server Rack - 42U / 800w / 800d, with Heavy Duty Extruded Aluminum Frame for rigidity. Top cover with FHU provision. Top & Bottom cover with cable entry gland plates. Two pairs of 19" mounting angles with 'U' marking. Depth support channels - 3 pairs. With a Overall Weight Carrying Capacity of 500Kgs. Side Panels - 42U/800d Front MS Door Perforated honeycomb 42U/800w Rear MS Door Split Perforated honeycomb 42U/800wFan 90CFM 230V AC, 4" dia Castors with Brake (set of 4) Vertical Cable manager 80mmW 42U Shelf, Stationery 700mm N/W PDU 12Sockets 5/15Amps with MCB Mounting Hardware (Pkt. Of 20) earthing Kit 150mmH Cable manager 1U MS with Loops complete in all respect | Each | 1.00 | | |
| | | | | | |
| MR | Supplying Installation testing and Commissioning of 48 port 10/100/1000BASE-T ports POE switch and four GbE/10GbE SFP/SFP+ uplink ports, layer 3 from day1 having static & RIP ,stackable up to 10 switches, should support external redundant power supply, certified , | Each | 1.00 | | |

| | | | | | |
|---|---|---|---|---|---|
| | each switch should be provided with stacking port/cable complete in all respect | | | | |
| | | | | | |
| | **MODULAR BOXES & SWITCH/SOCKETS** | | | | |
| 1.56 | Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 2 nos. 3 pin 5/6 A modular socket outlet and 2 nos. 5/6 A modular switch, connections etc. as required. (For light plugs to be used in non residential buildings). | Each | 10 | | |
| | | | | | |
| | **CHAPTER-2-MCCB, MCB & DB'S** | | | | |
| 2.2 | Providing and fixing following rating and breaking capacity and pole MCCB with THERMOMAGNETIC RELASE AND TERMINAL spreaders in existing cubicle panel board including drilling holes in cubicle panel, making connections, etc. as required. | | | | |
| 2.2.14 | 125 A,36KA,FPMCCB | Each | 4 | | |
| | 63 A,36KA,FPMCCB | Each | 2 | | |
| | 63 A,16KA,FPMCB | Each | 2 | | |
| 2.4 | Supplying and fixing following way, horizontal type three pole and neutral, sheet steel, MCB distribution board, 415 V, 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) | | | | |
| 2.4.1 | 4 way (4 + 12), Double door | Each | 2 | | |
| 2.4.3 | 8 way (4 + 24), Double door | Each | 2 | | |
| | 12way (4 + 36), Double door | Each | 4 | | |
| | | | | | |
| 2.5 | Supplying and fixing of following ways surface/ recess mounting, vertical type, 415 V, TPN MCB distribution board of sheet steel, dust protected, duly powder painted, inclusive of 200 A tinned copper bus bar, common neutral link, earth bar, din bar for mounting MCBs (but without MCBs and incomer ) as required . (Note : Vertical type MCB TPDB is normally used where 3 phase outlets are required.) | | | | |
| 2.5.1 | 4 way (4 + 12), Double door | Each | | | |
| 2.5.2 | 8 way (4 + 24), Double door | Each | | | |
| 2.5.3 | 12 way (4 + 36), Double door | Each | | | |
| | | | | | |
| 2.10 | Supplying and fixing 5 A to 32 A rating, 240/415 V, 10 kA, "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. | | | | |
| 2.10.1 | Single pole | Each | 216 | | |
| 2.10.4 | Triple pole | Each | 2 | | |
| | Double pole | Each | 2 | | |
| 2.11 | Supplying and fixing single pole blanking plate in the existing MCB DB complete etc. as required. | Each | 10 | | |
| | | | | | |
| 2.15 | Supplying and fixing following rating, four pole, (three phase and neutral), 415 volts, 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. | | | | |

| | | | | | |
|---|---|---|---|---|---|
| 2.15.2 | 40 A | Each | | | |
| 2.15.3 | 63 A | Each | | | |
| | | | | | |
| 2.24 | Supplying and fixing Cable End Box (Loose Wire Box) suitable for following triple pole and neutral, sheet steel, MCB distribution board, 415 Volts, on surface/ recess, complete with testing and commissioning etc.as required. | | | | |
| 2.24.1 | For 4 way, Double door TPN MCBDB | Each | 2 | | |
| 2.24.2 | For 8 way, Double door TPN MCBDB | Each | 2 | | |
| 2.24.3 | For 12 way, Double door TPN MCBDB | Each | 4 | | |
| | | | | | |
| 2.25 | Supplying and fixing Cable End Box (Loose Wire Box) suitable for triple pole and neutral, sheet steel, Vertical MCB distribution board, 415 Volts, on surface/ recess, complete with testing and commissioning etc. as required. | Each | 8 | | |
| | | | | | |
| | **Laying of LT Cables :** | | | | |
| 7.1 | Laying of One number PVC Insulated ,PVC Sheathed/XLPE Power Cables | | | | |
| | 1.1KV Grade of Following Size direct in Ground including exacavation, | | | | |
| | Sand Cushioning and protective covering and refilling the trench etc. | | | | |
| 7.1.1 | Upto 35 sqmm | mtr | | | |
| 7.1.2 | Above 35 & upto 95 sqmm. | mtr | | | |
| 7.1.3 | Above 95 & upto 185 Sqmm. | mtr | | | |
| 7.1.4 | Above 185 & upto 400 Sqmm | mtr | | | |
| 7.2 | Laying of One number ADDITIONALPVC Insulated ,PVC Sheathed/XLPE | | | | |
| | Power Cable 1.1KV Grade of Following Size direct in Ground in the same | | | | |
| | Trench including excavation,Sand Cushioning and protective covering | | | | |
| | and Refilling the trench etc as reqd. | | | | |
| | Upto 35 sqmm | mtr | | | |
| | Above 35 & upto 95 sqmm. | | | | |
| | Above 95 & upto 185 Sqmm. | | | | |
| | Above 185 & upto 400 Sqmm | | | | |
| | | | | | |
| | Laying of 1 No. PVC insulated and PVC | | | | |
| | sheathed/ XLPE power cable of 1.1 KV | | | | |
| | grade of following size in the existing RCC/HDPE/Metal pipe/Open Trench/Cable Trays etc. as required. | | | | |
| | Upto 35 sqmm | mtr | 400 | | |
| | Above 35 & upto 95 sqmm. | mtr | | | |
| (i) | Above 95 and upto 185 sqmm | mtr | | | |
| (ii) | Above 185 sqmm and upto 400 sqmm | mtr | 100 | | |
| | | | | | |
| | **TERMINATION OF LT CABLES** | | | | |
| 5 | Supplying and making end termination with brass | | | | |
| | compression gland and Al. lugs for following | | | | |
| | size of PVC insulated and PVC sheathed/XLPE | | | | |
| | Al. conductor cable of 1.1 KV grade as required. | | | | |
| (ii) | 3.5x300sq. mm | set | 2 | | |
| | 3.5 Core X 35 Sqmm. | set | 12 | | |

| | | | | | |
|---|---|---|---|---|---|
| | 4 Core X 16 Sqmm. | set | 4 | | |
| | 4 Core X 10 Sqmm. | set | 4 | | |
| | **EARTHING** | | | | |
| (i) | Earthing with coper Earth Plate 600 mm x 600 | | | | |
| | mm x 3 mm thick i/c accessories and providing | | | | |
| | masonary enclosure with cover plate having | | | | |
| | locking arrangement and watering pipe etc. with salt & Charcoal. | set | 2 | | |
| (ii) | Earthing with GI earth place 600 mm x600 | | | | |
| | mm x 6 mm thick i/c accessories and providing | | | | |
| | masonary enclosure with cover plate having | | | | |
| | locking arrangement and watering pipe etc. (but | | | | |
| | without charcoal or coke and salt) complete as required. | set | 2 | | |
| (iii) | Providing and fixing 25mm x 5 mm ~~Copper~~ | | | | |
| | strip in 40 mm dia GI pipe from earth electrode | | | | |
| | as required. | mtr | 20 | | |
| (iv) | Providing and fixing 25mm x 5 mm GI strip in 40 mm dia GI Pipe | | | | |
| | step on surface or in recess for connection etc. as required. | mtr | 20 | | |
| (v) | providing and fixing 25x5 MM copper strip on surface | mtr | 10 | | |
| (vi) | Providing and fixing 25x5MM GI strip on surface | mtr | 50 | | |
| | | | | | |
| | **Total of DSR ITEMS** | | | | |
| | **NON DSR ITEMS** | | | | |
| 1 | **MAIN LT PANEL :-** | | | | |
| | Supplying, installation, testing &commissioning of Indoor cubical type LT panel suitable for 415 V, 3 Phase, 4 Wire 50 Hz AC supply system fabricated in compartmentalized (preferably) design from CRCA sheet steel of 2 mm thick for frame work and covers, 3 mm thick for gland, plates i/c cleaning & finishing complete with 7 tank process for powder coating in approved shade, having 2500 Amp capacity extensible type TPN aluminium alloy bus bars of high conductivity, DMC / SMC bus bars of high conductivity,DMC/ SMC bus bar supports, with short circuit withstand capacity of 31 MVA for 1 Sec.,bottom base channel of MS section not less than 100 mm x 50 mm x 5 mm thick, fabrication shall be done in transportable sections, entire panel shall have a common COPPER earth bar of size 25 mm x 5 mm at the rear with 2 Nos. earth stud, solid connections from main bus bar to switch gears with required size of Al. bus bars and control wiring with sq. mm. PVC insulated copper conductor S/C cable, cable alleys, cable gland plates in two half. The Panel shall have suitable rating of Ammeter, Voltmeter with selector switches and Phase indicating lights. The Panel shall be installed on suitable foundations with provision of incomin and outgoing LT Cables i/c providing following switch gears :- | | | | |
| | | | | | |
| | **MAIN INCOMER (FROM 250 KVA TRANSFORMER)** | | | | |
| | 1 Nos.MCCB, 400A, FP, 50KA MICRO PROCESSOR BASED RELEASE, O/L & S/C PROTECTION | | | | |
| | UNDER VOLTAGE RELEASE, 415V AC FOR ACB | | | | |
| | **METERING & INDICATION** | | | | |
| | RYB PHASE INDICATING LIGHT, 230V AC | | | | |

| | | | | | |
|---|---|---|---|---|---|
| | ON/OFF/TRIP INDICATING LIGHT, 230V AC | | | | |
| | CT FOR METERING, 400/5A , CL-1.0, 15VA | | | | |
| | CT FOR APFCR, 400/5A , CL-1.0, 15VA | | | | |
| | DIGITAL MULTIFUCTION METER with RS-485 | | | | |
| | TNC SWITCH, 25A | | | | |
| | A/M SELECTOR SWITCH | | | | |
| | AUXILIARY CONTACTOR, 230V AC 2NO+2NC | | | | |
| | VOLTAGE MONITORING RELAY (VMR) | | | | |
| | MCB, 63A, FP, 10KA | | | | |
| | 25 KVAR CAPACITOR BANK, 440V AC | | | | |
| | CONTROL MCB, 6A SP, 10KA | | | | |
| | ELECTRICAL INTERLOCKING | | | | |
| | **DG INCOMER - (FROM 125 KVA DG SET)** | | | | |
| | 1 Nos.MCCB, 400A, FP, 50KA MICRO PROCESSOR BASED RELEASE, O/L & S/C PROTECTION | | | | |
| | UNDER VOLTAGE RELEASE, 415V AC FOR ACB | | | | |
| | **METERING & INDICATION** | | | | |
| | RYB PHASE INDICATING LIGHT, 230V AC | | | | |
| | ON/OFF/TRIP INDICATING LIGHT, 230V AC | | | | |
| | CT FOR METERING, 400/5A, CL-1.0, 15VA | | | | |
| | DIGITAL MULTIFUCTION METER with RS-485 | | | | |
| | TNC SWITCH, 25A | | | | |
| | A/M SELECTOR SWITCH | | | | |
| | AUXILIARY CONTACTOR, 230V AC 2NO+2NC | | | | |
| | CONTROL MCB, 6A SP, 10KA | | | | |
| | ELECTRICAL & MECHANICAL INTERLOCKING | | | | |
| | **SOLAR POWER INCOMER - (FROM 20 KW SOLAR POWER)** | | | | |
| | 1 Nos.MCCB, 125A, FP, 36KA MICRO PROCESSOR BASED RELEASE, O/L & S/C PROTECTION | | | | |
| | UNDER VOLTAGE RELEASE, 415V AC FOR ACB | | | | |
| | **METERING & INDICATION** | | | | |
| | RYB PHASE INDICATING LIGHT, 230V AC | | | | |
| | ON/OFF/TRIP INDICATING LIGHT, 230V AC | | | | |
| | CT FOR METERING, 125/5A, CL-1.0, 15VA | | | | |
| | DIGITAL MULTIFUCTION METER with RS-485 | | | | |
| | TNC SWITCH, 25A | | | | |
| | A/M SELECTOR SWITCH | | | | |
| | AUXILIARY CONTACTOR, 230V AC 2NO+2NC | | | | |
| | CONTROL MCB, 6A SP, 10KA | | | | |
| | ELECTRICAL & MECHANICAL INTERLOCKING | | | | |
| | | | | | |
| | **BUS-COUPLER** | | | | |
| | 1 Nos.MCCB, 400A, FP, 50KA MICRO PROCESSOR BASED RELEASE, O/L & S/C PROTECTION | | | | |
| | UNDER VOLTAGE RELEASE, 415V AC FOR ACB | | | | |
| | ON/OFF INDICATING LIGHT, 230V AC | | | | |
| | TNC SWITCH, 25A | | | | |
| | A/M SELECTOR SWITCH | | | | |
| | AUXILIARY CONTACTOR, 230V AC 2NO+2NC | | | | |

| | | | | | |
|---|---|---|---|---|---|
| | CONTROL MCB, 6A SP, 10KA | | | | |
| | ELECTRICAL & MECHANICAL INTERLOCKING | | | | |
| | **OUTGOINGS** | | | | |
| | 1 Nos.MCCB, 400A, FP, 36KA THERMAL MAGNETIC BASED RELEASE, O/L & S/C PROTECTION | | | | |
| | 7 Nos.MCCB, 125A, FP, 36KA THERMAL MAGNETIC BASED RELEASE, O/L & S/C PROTECTION | | | | |
| | 6 Nos.MCCB, 63A, FP, 36KA THERMAL MAGNETIC BASED RELEASE, O/L & S/C PROTECTION | | | | |
| | 1 NO MCB,32 AMP, 4P,16KA | | | | |
| | **PLC INTERLOCKING WITH LOAD MANAGEMENT** | | | | |
| | PLC WITH SOFTWARE DELOPMENT | | | | |
| | HUMAN MACHINE INTERFACE (HMI) | | | | |
| | CONNECTING CABLE & CONNECTORS | | | | |
| | AUXILIARY RELAY, 24V DC 2 C/O | | | | |
| | UPS 30 MINUTES BACKUP | | | | |
| | CONTROL MCB, 16A TP, 10KA | | | | |
| | CONTROL MCB, 16A DP, 10KA | | | | |
| | CONTROL MCB, 6A SP, 10KA | | | | |
| | BATTERY CHARGER, 24V | | | | |
| | DC AMMETER, 0-30A | | | | |
| | DC VOLTMETER, 0-30V | | | | |
| | HOOTER, 24V DC | | | | |
| | 6 WINDOW ANNUNCIATOR | | | | |
| | CONTROL SUPPLY ON/DG NC ON INDICATING LIGHT | | | | |
| | START/STOP PUSH BUTTON FOR DG SET | | | | |
| | EMG. STOP PUSH BUTTON | | | | |
| | | | | | |
| | **75 KVAR CAPACITOR SECTION** | | | | |
| | 1 Nos.MCCB, 400A, FP, 36KA THERMAL MAGNETIC BASED RELEASE, O/L & S/C PROTECTION | | | | |
| | RYB PHASE INDICATING LIGHT, 230V AC | | | | |
| | 6 STAGE APFC RELAY | | | | |
| | CONTROL MCB, 6A SP, 10KA | | | | |
| | EXHAUST FAN WITH FILTER | | | | |
| | **10 KVAR CAPACITOR BANK (1 NOS.)** | | | | |
| | MCB, 32A, TP, 10KA | | | | |
| | 10 KVAR CAPACITOR DUTY CONTACTOR | | | | |
| | 10 KVAR CAPACITOR BANK, 440V | | | | |
| | ON INDICATING LIGHT, 230V AC | | | | |
| | A/M SELECTOR SWITCH | | | | |
| | **15 KVAR CAPACITOR BANK (1 NOS.)** | | | | |
| | MCB, 32A, TP, 10KA | | | | |
| | 15 KVAR CAPACITOR DUTY CONTACTOR | | | | |
| | 15 KVAR CAPACITOR BANK, 440V | | | | |
| | ON INDICATING LIGHT, 230V AC | | | | |
| | A/M SELECTOR SWITCH | | | | |
| | **25 KVAR CAPACITOR BANK (2 NOS.)** | | | | |
| | MCB, 63A, TP, 10KA | | | | |

| | | | | | |
|---|---|---|---|---|---|
| | 25 KVAR CAPACITOR DUTY CONTACTOR | | | | |
| | 25 KVAR CAPACITOR BANK, 440V | | | | |
| | ON INDICATING LIGHT, 230V AC | | | | |
| | A/M SELECTOR SWITCH | | | | |
| | **PANEL ENCLOSURE & ALU. BUS BAR** | | | | |
| | ALUMINIUM BUS BAR, TPN, 1250/500 AMP, WITH HEAT SHRINAKBLE SLEEVE & SMC/DMC SUPPORT | | | | |
| | 14/16SWG, PANEL WITH POWDER COATING & WIRING WITH ALL PANEL ACCESSORIES, COMPARTMENTLIZED | 1 | Set | | |
| 2 | **SUPPLY OF LT CABLES** | | | | |
| | **Supply of LT XLPE Cables:** | | | | |
| | Supply of LT XLPE Cables of 1.1 KV Grade,Aluminium Armoured,of following sizes as per latest IS Code. | | | | |
| | 3.5 Core X 300 Sqmm. | 100 | mtr | | |
| | 3.5 Core X 35 Sqmm. | 200 | mtr | | |
| | 4 Core X 16 Sqmm. | 100 | mtr | | |
| | 4 Core X 10 Sqmm. | 100 | mtr | | |
| | | | | | |
| 3 | **THREE PHASE METERING FOR COMMON UTILITIES** | | | | |
| | Metering & Indication:- 1 set of KWH METER AS PER DESIGN OF STATE ELECTRICITY BOARD, Phase Indicating Lights, CT for Metering, Digital Multifunction Meter with RS485,TNC switch, A/V selector Switch, etc. The Metering Box should be of suiatable Rating of Copper Bus Bars &size to Accommodate the size of the METER supplied & Installed by State Electricity Board.. | 1 | Set | | |
| | **Total** | | | | |
| | GST @ 12% | | | | |
| | **Sub total** | | | | |
| | CESS @ 1% | | | | |
| | **TOTAL** | | | | |

**Street Lighting:**

**BOQ FOR LANDSCAPE & EXTERNAL ELECTRICAL WORKS**

| S.N | DESCRIPTION OF ITEMS | UNIT | QTY. | RATE | AMOUNT |
|---|---|---|---|---|---|
| 1 | **SUB LT PANEL (Landscaping & External Lights)** | | | | |
| | Supplying, installation, testing & commissioning of cubical type LT panel suitable for 415 V, 3 Phase, 4 Wire 50 Hz AC supply system having fabricated in compartmentalized design from CRCA sheet steel of 2 mm thick for frame work and covers, 3 mm thick for gland, plates i/c cleaning & finishing complete with 7 tank process for powder coating in approved shade, having suitable Amp capacity extensible type TPN aluminium alloy bus bars of light conductivity, DMC / SMC bus bars of high conductivity, DMC/ SMC bus bar supports, with short circuit withstand capacity of 31 MVA for 1 Sec., bottom base channel of MS section not less than 100 mm x 50 mm x 5 mm thick, fabrication shall be done in transportable sections, entire panel shall have a common Aluminium/GI earth bar of size 25 mm x 5 | | | | |

| | | | | | |
|---|---|---|---|---|---|
| | mm at the rear with 2 Nos. earth stud, solid connections from main bus bar to switch gears with required size of Al. bus bars and control wiring with sq. mm. PVC insulated copper conductor S/C cable, cable alleys, cable gland plates in two half, i/c providing following switch gears :- | | | | |
| | | | | | |
| A). | **INCOMING SUPPLY FROM NEW GATE HOUSE PANEL:** | | | | |
| | 1 No. 63 A, 4P (100% Neutral) MCCB (36 kA) with Microprocessor based O/L, S/C and E/F releases. | | | | |
| B) | **METERING & INDICATING LIGHTS** | | | | |
| | 1 Nos MFM Meters | | | | |
| | 1 Set of 100/5A, CL-1, 15VA CTs for measuring. | | | | |
| | Sets of phase indicating ,ON/OFF,TRIP Indicating lamps with 2A control MCBs. | | | | |
| C) | **BUSBAR:** | | | | |
| | Electrolytic high conductivity TPN (100% Neutral) Aluminium busbars rated at 100 amps (25 kA) with heat shrinkable PVC sleeves. | | | | |
| D) | **OUTGOING FEEDER:** | | | | |
| i | 2Nos.32 A DP MCB . | | | | |
| ii | 2Nos.32 A TPN MCB with Timer for LANDSCAPING & COMPOUND LIGHTS . | | | | |
| iv | 2Nos.63 A TPN MCB with Timer for LANDSCAPING & EXT. POLE LIGHTS . | Set | | | |
| | | | | | |
| **2** | **CABLING WORK (SUPPLY)** | | | | |
| i). | Supply of following size of XLPE / PVC insulated,PVC Sheathed, Aluminium Conductor armoured power cable of 1.1kV grade etc. as required. | | | | |
| a) | 4x16 sqmm 1.1kv Al.Arm Cable | MTR | 20 | | |
| c) | 4C x 10sq.mm 1.1kV Al. Arm.Cable | MTR | 20 | | |
| d) | 4C x 6sq.mm 1.1kV Al.Arm. Cable | MTR | 50 | | |
| 3A | **LAYING OF CABLES :** | | | | |
| i). | Laying of one number XLPE / PVC insulated,PVC Shethed armoured power cable of 1.1kV grade of following sizes on perforated cable trays and dressed using cable ties and identified at regular intervals as required./in Existing RCC/HDPE Pipe/Masonary/Trusses etc | | | | |
| a) | 4C x 16sq.mm 1.1kV Al Arm.Cable | MTR | 20 | | |
| c) | 4C x 10sq.mm 1.1kV Al. Arm.Cable | MTR | 20 | | |
| d) | 4C x 6sq.mm 1.1kV Al.Arm. Cable | MTR | 50 | | |
| 3B | Laying of one numberXLPE / PVC insulated, PVC sheathed Aluminium Conductor Armoured power cable of 1.1kV grade of following sizes in ground including excavation and backfilling and identified at regular intervals as required. | | | | |

| | | | | | |
|---|---|---|---|---|---|
| a) | 4C x 16 sq.mm 1.1kV AlArm. Cable | MTR | | | |
| c) | 4C x 10sq.mm 1.1kV Al. Arm.Cable | MTR | | | |
| d) | 4C x 6sq.mm 1.1kV Al. Arm.Cable | MTR | | | |
| | | | | | |
| 4 | **LT CABLE TERMINATION** | | | | |
| | End termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required. | | | | |
| a) | 4C x 16sq.mm 1.1kV Al Cable | Nos | 2 | | |
| c) | 4C x 10sq.mm 1.1kV Al. Cable | Nos | 6 | | |
| d) | 4C x 6sq.mm 1.1kV Al. Cable | Nos | 10 | | |
| | | | | | |
| 5 | **LANDSCAPING & STREET LIGHT :** | | | | |
| | **STREET LIGHT POLES 7 MTR Galvanised:** | | | | |
| | Supply , fixing, Testing & Commissioning of 7 mtr long,3mm thick sheet,hot dip galvanised poles of bottomdia 130mm/70mm respectively with base plate diamensions 220X220X14 mm with galvanised Single Arm Bracket of 1.00 mtr length. The pole shall be Errected on a suitable size of Cement Concreate 1:2:4 foundation as per Manufacturers standards along with Grouting the Foundation Bolts,nuts and 1.5 mtr long,50 mm dia suitably bend ,GI ,Medium Class Pipe for cable entry, suitable size Inbuilt Cable End Box opening approx.600 mm above the Pole Base with 2 Nos. 6Way 15 Amp, Bakelite Connectors,1 No 6 Amp, SP MCB C Curve etc as required. The door shall be vandal resistant and shall be weather proof to ensure safety of inside connections. The door shall be flush with the exterior surface and shall have suitable locking arrangement. There shall also be suitable arrangement for the purpose of earthing. The poles shall be complete with integral terminal boxes, MCB cut-outs, pole foundation bolts, lightning arrestor, earthing, etc. as required. The poles shall have provisions for mounting and connecting an additional 250 Watt MH -type outdoor light fitting | nos. | | | |
| a). | POST TOP LANTERNS: | | | | |
| | Supplying , Fixing, Testing & Commissioning of Post Top Lanterns of 40 Watt LED Light Fixtures,IP-65 Housing,made of single piece Die Cast Aluminium alloy,as per Manufacturers design.on a suitable length & Dia of GI Pipe | nos. | 4 | | |
| b). | BOLLARDS Along Path Ways: | | | | |
| | Philips,LED Bollards,BCP-1510, 8Watts,IP-65,Warm White Colour,temp.3000K on 500mm high Rotomoulded LLDPE Pillars duly grouted on a concreate base by means of 4 Nos. M8X75 mm studs with necessary base rings (CatIII) | Nos. | 4 | | |
| c). | SPIKE LIGHTS,Garden Tree/Planter Illumination: | | | | |

| | | | | | |
|---|---|---|---|---|---|
| | Philips make smart,Bright spot light BGP-150,LED 250/WW,6 watt,20 D,corr. Colour Temp.3000K | No. | | | |
| d) | Wall LightS: | | | | |
| | Philips make,Tempo LED, wall ligths, system wattage (10-16),IP-65,Colour Temp.5700K on a suitable height as per Designer/Consultants. | No. | | | |
| e) | STRIP LIGHTS for Street Furniture: | | | | |
| | Philips LED Strip light ,12 Watt,Warm White, Colour Temp.3000K,Operating Voltage 220/24 Volts on wall surface/floor etc as reqd. as per drawings etc | nos. | | | |
| d) | FLOOR LIGHTS: | | | | |
| | Philips make,Floor lights LED, 1Watt,IP-67,40 lumen output,warm white,Colour Temp.3000K operating voltage 220/24 volts. Designer/Consultants. | No. | | | |
| e) | pole Lights for 7 mtr Poles: | | | | |
| | 45 Watt,LED type Outdoor,Wall mounted/ pole light fixtures complete in all respect , including 45 Watt LED Lamp,etc as required. | Nos. | 10 | | |
| | | | | | |
| 6 | **EARTHING SYSTEM** | | | | |
| i | Supply, installation and connecting a **Copper CHEMICAL EARTHING** SAFE EARTH ELECTRODE 50MM DIA 3 Mtrs earthing electrode with non corrosive hygroscopic Backfill compound The cost of digging and back filling earth electrode as per IS 3043-1987.at a depth of 2000 mm. A masonary strucutre shall be constructed to a depth of 750mm. and a heavy duty CI Cover shall be used to cover the pit. Earth resistance with in 1 ohm. as per requirements of local authorities, With15 years warranty including Masonary chamber with locking arrangements. | | | | |
| a | for Low Voltage & Data Network | Set | | | |
| ii | Supply, installation and connecting a **GI CHEMICAL EARTHING** SAFE EARTH ELECTRODE 50MM DIA 3 Mtrs earthing electrode with non corrosive hygroscopic Backfill compound The cost of digging and back filling earth electrode as per IS 3043-1987.at a depth of 2000 mm. A masonary strucutre shall be constructed to a depth of 750mm. and a heavy duty CI Cover shall be used to cover the pit. Earth resistance with in 1 ohm. as per requirements of local authorities, With 15 years warranty including masonary chamber | | | | |
| a | for Body Earthing | Set | | | |
| iii | Supplying and installation of following sizes of earth strip & wires by using spacer clamp for main earth flat,suitable clamping with M.S / Cu. flats for earthwires etc.,including terminal crimping type sockets,bolts & washers, etc required for the complete job. | | | | |
| b | 25x 6 mm CU strip.on surface or as required. | Rmt | | | |
| c | 25 x 6 mm GI strip on surface or as required. | Rmt | | | |

| | | | | | |
|---|---|---|---|---|---|
| d | Provinding and fixing 6 SWG GI wire on surface are in recaes for loop earthing long with existing conduit / cable as required | MTR | 100 | | |
| | **Total** | | | | |
| | GST @ 12% | | | | |
| | **Sub total** | | | | |
| | CESS @ 1% | | | | |
| | **TOTAL** | | | | |
| | | | | | |

| SUMMARY- ELECTRICAL WORKS MAULANA AZAAD SCHOOL | |
|---|---|
| 11KV SS Equpments/HI-SIDE | |
| Internal Electrical Works | |
| Street Lights & Compound Lighting | |
| Supply of Light Fixtures & Fans | |
| Intelligent Fire Alarm & P.A.System | |
| | |
| **GRAND TOTAL** | |

**Light Fixture and Fans etc. Specification:**

| Supply & Installation of Light Fixtures & Fans | Unit | Qty. | Rate | Amount |
|---|---|---|---|---|
| Supply of Following type of Fans & Fixtures of all sizes and shapes LED lamps per fitting, complete with all accessories. | | | | |
| 36 W LED 2'X2' Light Fixtures as marked L1 | Each | 59 | | |
| 18 watt LED Down Lighters as marked L2. | Each | 44 | | |
| 6 Watt LED Down Lighters as Marked L3 | Each | 40 | | |
| 12 watt LED Down Lighters as marked L4. | Each | 39 | | |
| 6 watt LED Down Lighters as marked L5. | Each | 8 | | |
| 14 watt/mtr LED Strip Light warm white as marked DF. | mtr | 17 | | |
| | | | | |
| Ceiling Fans 48" dia on ceiling without Regulator .Including GI Down Rod as required. | Each | 28 | | |
| Exhaust fans.med.duty for Toilets | Each | 8 | | |
| | | | | |
| Receiving, Storing, Installation, testing and commissioning of Following type of Fans & Fixtures on wall bracket /ceiling fittings of all sizes and shapes LED lamps per fitting, complete with all accessories including connections with 3x1.5 sqmm copper conductor wire etc. as required. | | | | |
| 36 W LED 2'X2' Light Fixtures as marked L1 | Each | 59 | | |
| 18 watt LED Down Lighters as marked L2. | Each | 44 | | |
| 6 Watt LED Down Lighters as Marked L3 | Each | 40 | | |
| 12 watt LED Down Lighters as marked L4. | Each | 39 | | |
| 6 watt LED Down Lighters as marked L5. | Each | 8 | | |
| 14 watt/mtr LED Strip Light warm white as marked DF. | mtr | 17 | | |
| | | | | |
| Ceiling Fans 54" dia on ceiling without Regulator .Including GI Down Rod as required. | Each | 28 | | |
| Exhaust fans. | Each | 8 | | |

| | | | | |
|---|---|---|---|---|
| **Total** | | | | |

| Maulana Azad- Bareilly smart city | | |
|---|---|---|
| Summary of Estimated Cost | | |
| **Sr. No.** | **Description** | **Amount (Rs.)** |
| 1 | Civil works | |
| 2 | Plumbing | |
| 3 | Fire fighting | |
| 4 | Electrical works | |
| 5 | Furniture | |
| | **Total Building Cost (A) including Tax** | |

**Quoted Amount = Rs. (Amount to be filled in Financial Bid)**

Total sum of (In Figures as in C) ₹ **(Amount to be filled in Financial Bid)** (In Words)
Rupees... **(To be filled in Financial Bid)**

And should this tender be accepted, I/we do here by agree and bind myself/ ourselves to abide by and fulfill all the conditions of this Tender Document, in default thereof to forfeit and pay to the Chief Executive Officer, Bareilly Smart City Limited the penalties of sums of money mentioned in the said condition.

Dated:

**Bidder's Signature**

Seal
Address .....
Witness: .....
Address: .....
The above tender is hereby accepted by me on behalf of the Bareilly Smart City Limited.

(Designation)
SIGNATURE OF AUTHORITY BY WHOM the TENDER IS ACCEPTED

## Format of Letter of Intent

To,
XXXXXXXXX,
XXXXX ,

Ph: .....

**Subject: -** Letter of Intent (LOI) for "**Construction of Maulana Azad School Block with 1 year of Defect liability period**".
**Tender ID:** 2020_....._....._..
Dear Sir,

We refer to the tender published on XX/XX/2020 on e-tender website and technical bid opened on XX/XX/2020 in response to the invitation for Bids for "**Construction of Maulana Azad School Block with 1 year of Defect liability period**"

Bareilly Smart City Limited, Bareilly (BSCL) is pleased to inform you that your Bid has been accepted by the BSCL.

You have been selected as the Preferred Bidder for the captioned project at the Contract Price of (inclusive of GST) **Rs. X/- + GST (Rs.X) = Rs X /-** [IN WORDS] (hereinafter referred to as the "**Contract Price**").

This Contract price is subject to fulfilment of all terms and conditions specified in the bid document. The Contract Price will be inclusive of all applicable taxes, duties, statutory charges, levy and any other charges as applicable from time to time. The payment will be made as per the payment conditions mentioned in the bid document.

As per the bid document, you have to submit 10% as Security Deposit of the basic Bid amount (exclusive of GST), i.e. **RsX/-.** The amount of Rs.X/- has already been received in the form of EMD vide slip no ..... Hence, you are requested to pay the remaining security deposit amount of **Rs.X/-,** within 10 (Ten) days of the receipt of this Letter of Intent in the form of FDR (to be retained by the BSCL till the project completion) in favor of **CEO, Bareilly Smart City Ltd, Bareilly** or Amount can be deposited through online payment in the name of **Bareilly Smart City Limited, A/C No. : 0294001100000836, Name of Bank: Punjab National Bank, Branch: Pilibhit By-Pass Road, Bareilly, IFSC Code: PUNB0613400**.

The bidder shall execute an agreement/contract for the fulfilment of the contract on non-judicial stamp paper of Rs.100/- within 10 (Ten) days from the date of issuance of letter of intent.

The Bidder shall furnish an affidavit on a stamp paper of Rs.10/- stating that if there is any change in the govt. guidelines regarding the company contracts or increase in stamp duty to be paid then the bidder needs to submit the stamp papers of appropriate value. In the event of failure, the BSCL shall have full rights to recover the balance stamp duty from the Bid Security deposit.

Kindly acknowledge the acceptance of this **"Letter of Intent"** by signing duplicate copy by your authorized Representative and deliver the same to us.

**Chief Executive Officers**
**Bareilly Smart City Limited,**
**Bareilly**

**Agreed and Accepted**

Signature of the Authorized Representative of the Agency (i.e._____)
Name:
Designation:

Address:

Place:
Date:

Company Seal

# DRAFT CONTRACT AGREEMENT

(To be signed by the Owner and the Successful Bidder within the period specified in the Bidding Documents after the issue of Letter of Intent)
(To be stamped in accordance with the Stamp Act, of the State)

THIS AGREEMENT is made on ..... day of ....., 2019 between **Bareilly Smart City Limited**, a company incorporated under the Companies Act, 2013 having its CIN No. as U93000UP2018SGC102746 and its Registered Office at "C/O Executive Engineer, Municipal Board, Nagar Nigam, Bareilly UP-243001", (hereinafter referred to as "Owner', which expression shall, unless repugnant to the context or meaning thereof, include its successors, administrators and assigns) of the **ONE PART**

and

....., having its office at ..... (hereinafter referred to as the "Contractor", which expression shall, unless repugnant to the context or meaning thereof, include its successors, administrators and assigns) of the **OTHER PART**.

WHEREAS the Owner, desirous of associating with the Contractor for "**Construction of Maulana Azad School Block with 1 year of Defect liability period**" (the Project) on the terms and conditions contained in the Bidding Documents and amendments of the clarifications in respect there of issued by the Owner in response to Invitation for Bid (IFB) dated .....

AND WHEREAS the Contractor had submitted its Bid for the said Project under its Letter dated ..... (as hereinafter referred to as the "Bid").

AND WHEREAS the Owner has accepted the Bid, as conveyed to the Contractor vide Letter of Intent No. .....**dated** ..... (hereinafter referred to as the "Letter of Intent"), on the terms and conditions brought out in the said Letter of Intent and the Documents referred to therein, resulting into a Contract.

AND WHEREAS the Contractor has accepted the Letter of Intent, as conveyed to the Owner vide dated ..... (hereinafter referred to as the "Letter of Acceptance"), resulting into this Contract.

NOW THEREFORE THIS AGREEMENT WITNESSETH AS UNDER:

**Article -1.0 - Definition**

In this Agreement the words and expressions shall have the same meaning as are respectively assigned to them in the Contract Documents specified hereunder attached herewith which form an integral part of this Contract Agreement. This Agreement together with all the Documents attached therewith is referred to as the Contract for all intent and purposes of the aforesaid Project.

**Article - 2.0 - Date of commencement of Contract**

This Contract has come into force with effect from ..... i.e. from the date of the signing of Contract Agreement.

**Article - 3.0 - Contract Documents**

The Contract shall be performed strictly as per the terms and conditions stipulated herein and in the following documents attached hereto (hereinafter referred to as Contract Documents):

(i) The Contract Agreement between the Owner and the Contractor and the attachments thereto. (This Contract Agreement).

(ii) Accepted Letter of Intent till the execution of Contract Agreement between the Owner and the Contractor. (Annexure 1)

(iii) Bid submitted by the Successful Bidder (Annexure 2)

(iv) RFP issued to the Bidder (comprising Instruction to Bidders, General Conditions of Contract, Special Conditions of Contract and Technical Specification) and Corrigendum (Annexure 3)

(v) Designs and Drawings. (As per DPR - Annexure 4)

The above Contract Documents shall form an integral part of this Agreement. If there is an ambiguity or discrepancy or conflict within the Contract Documents, the priority of the Documents shall be in the order in which the Contract Documents are listed above. All Documents forming part of the Contract Documents are intended to be correlative, complementary and mutually explanatory. The Contract shall be read as a whole.

Subject to the provisions relating to Arbitration specified in General Conditions of Contract of the Contract Document, in case of any conflict amongst Contract Documents, the decision of the Owner shall be final & binding on the Contractor.

**Article - 4.0 - Scope of Work**

The detailed scope of work of the Contractor, under the Contract, has been brought out in the RFP Documents. However, the above scope of work of the Contractor shall also include such items of work as may not have been specifically brought out in the said Contract Documents but as may be necessary for the safe and successful completion of the various items of work, envisaged, as per good engineering practice and recognized principles.

**Article - 5.0 - Contract Price**

The Total Contract Price under the Contract shall be **Rs. ...../-** (Rupees .....only) inclusive of all the GST, taxes, duties, levies, fees etc. as specified in General Conditions of Contract and the Price Bid Schedules forming part of this Contract. The price shall remain fixed and firm and shall not change on any account whatsoever, for the duration of the Contract. All the matters relating to the payments to the Contractor shall be as per the Terms and Conditions and subject to the requirements as specified in the said General Conditions of Contract.

**Article - 6.0 - Contract Schedule**

Time is the essence of Contract and shall be strictly adhered to. The Contractor shall so organize its resources and perform its work as to complete the work in **6 months and (Operate) it for a period of 36 (Thirty Six) months** from the date of Signing of Contract and as per the Projects Completion Schedule forming part of the Bid submitted by the Contractor subject to further modifications/ changes as may be mutually agreed to between the Owner and the Contractor.

**Article – 7.0 – Owner's Engineer Functions**

The Owner's Engineer in relation to the Contractor shall have such functions as are delegated to it by the Owner from time to time and intimated to the Contractor. The Contractor shall carry out the instructions issued by the Owner's Engineer as if they were the instructions issued by the Owner. If there is any difference between the Contractor and Owner's Engineer, on any matter about the implementation of this Contract/Project, the matter shall be referred to the Owner whose decision shall be final and binding on the
Contractor and the Owner's Engineer. This Contract is executed in English Language in two originals, each Party receiving one set and both the sets will be authentic. M/s ..... has furnished an Amount of **Rs...../-** through NEFT/RTGS?FDR on ..... vide Txn No. ..... along with the EMD Deposited of **Rs...../-**in the account of Bareilly Smart City Limited, A/C No. : 0294001100000836, Name of Bank: Punjab National Bank, Branch: Pilibhit By-Pass Road, Bareilly, IFSC Code: PUNB0613400 vide Txn No. ..... as Security Deposit for the **Tender ID No : .....**
Hence the total requisite amount for the agreement is **Rs...../-** has been furnished by **M/s .....**

IN WITNESS WHEREOF the Parties through their duly authorized representatives have executed these presents on the day, month and year first above mentioned, at Bareilly.

| | |
|---|---|
| **(.....)** | **(.....)** |
| Chief Executive Officer | For M/S ..... |
| Bareilly Smart City Limited | (CONTRACTOR) |

Witness:

1.
2.