

APPROVAL OF NIT

Notice Inviting Tender No. -	02/2025-26/SE/CCU/CED-II/Dehradun (Recall)
Name of work	: Renovation of 06 Nos. Type-III qtrs., 12 Nos. Type-II qtrs. & 04 Nos. Type-I qtrs of FSI Colony, Kaulagarh Road, FSI, Dehradun.
Estimate cost	: Rs. 1,82,38,943/-
Earnest Money	: Rs. 3,64,779/-
Performance Guarantee	: @ 5% of Tendered Amount
Security Deposit	: @ 2.5% of Tendered Amount
Time Allowed	: 10 (Ten) Months

This NIT amounting to Rs. **1,82,38,943/- (Rupees One Crore Eighty Two Lakhs Thirty Eight Thousand Nine Hundred Forty-Three Only)** is hereby approved.

Certified that this NIT contains Pages 1 to 85.

Assistant Engineer (E) (P)-II
CCU, MoEF&CC, New Delhi

Assistant Engineer (C) (P)-II
CCU, MoEF&CC, New Delhi

Executive Engineer (E) (P)
CCU, MoEF&CC, New Delhi

Executive Engineer (C) (P)
CCU, MoEF&CC, New Delhi

Superintending Engineer
CCU, MoEF&CC, New Delhi

CIVIL CONSTRUCTION UNIT
MINISTRY OF ENVIRONMENT, FOREST & CLIMATE CHANGE

NOTICE INVITING TENDER

Name of Work: Renovation of 06 Nos. Type-III qtrs., 12 Nos. Type-II qtrs. & 04 Nos. Type-I qtrs of FSI Colony, Kaulagarh Road, FSI, Dehradun.

NIT NO. : 02/2025-26/SE/CCU/CED-II/Dehradun (Recall)

Superintending Engineer
CCU, MoEF&CC, New Delhi

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Name of work: Renovation of 06 Nos. Type-III qtrs., 12 Nos. Type-II qtrs. & 04 Nos. Type-I qtrs of FSI Colony, Kaulagarh Road, FSI, Dehradun.

NIT No.: 02/2025-26/SE/CCU/CED-II/Dehradun (Recall)

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Executive Engineer, CED-II, CCU
(For and on behalf of the President of India)

PART-A

**INFORMATION AND INSTRUCTIONS FOR BIDDERS FOR E-TENDERING
FORMING PART OF BID DOCUMENT**

The Executive Engineer, CED-II, Civil Construction Unit (CCU), Ministry of Environment, Forest & Climate Change (MoEF&CC), PO- New Forest, FRI Campus, Dehradun -248006 ([email-eeecd2ccu-mef@nic.in](mailto:eeecd2ccu-mef@nic.in)) on behalf of President of India invites online Percentage rate bids from CPWD enlisted contractors of appropriate class in Buildings & Roads (erstwhile composite /Building/ Infrastructure) category for the following work: -

NIT No.	02/2025-26/SE/CCU/CED-II/Dehradun (Recall)
Name of Work	Renovation of 06 Nos. Type-III qtrs., 12 Nos. Type-II qtrs. & 04 Nos. Type-I qtrs of FSI Colony, Kaulagarh Road, FSI, Dehradun.
Location	Dehradun
Estimated cost put to tender	Rs. 1,82,38,943/-
Earnest Money	Rs. 3,64,779/-
Period of Completion	10 Months
Last time & date of submission of online bid, copy of receipt of deposition of original EMD and other documents as specified in Notice Inviting e-Tender.	03:00 PM on 24.09.2025
Time date of opening of bid	03:30 PM on 24.09.2025

****To be filled by Executive Engineer, CED-II**

Enlistment of the contractors should be valid on the last date of submission of bids. In case, the last date of submission of bids is extended, the enlistment of contractor should be valid on the original date of submission of bids.

- 1) The intending bidder must read the terms and conditions of CPWD-6 carefully. He should only submit his bid if he considers himself eligible and he is in possession of all the documents required.
- 2) Information and Instructions for bidders posted on websites shall form part of bid document.
- 3) The enlistment of the contractors should be valid on the last date of submission of bids. In case the last date of opening of bid is extended, the enlistment of contractor should be valid on the original date of opening of tender.

- 4) The bid document consisting of plans, specifications, the schedule of quantities of various types of items to be executed and the set of terms and conditions of the contract to be complied with and other necessary documents can be seen and downloaded from website <https://etender.cpwd.gov.in> free of cost.
- 5) But the bid can only be submitted after deposition of original EMD either in the office of Executive Engineer inviting bids or division office of any Executive Engineer, CPWD/CCU within the period of bid submission and uploading the mandatory scanned documents such as Insurance Surety Bonds, Account Payee Demand draft or Banker's Cheque or Fixed Deposit Receipts or/ and Bank Guarantee including e-Bank Guarantee (for balance amount as prescribed) from any of the Commercial Bank towards EMD in favour of Executive Engineer as mentioned in NIT, receipt for deposition of original EMD to division office of any Executive Engineer (including NIT issuing EE/ AE), CPWD/CCU and other documents as specified.
- 6) Those contractors who are not registered or have not updated their profile on the website mentioned above, are required to get registered / update their profile beforehand. The necessary training materials including the videos with step-to-step process are available on download section of <https://etender.cpwd.gov.in>.
- 7) The intending bidder must have valid Class-III digital signature certificate with encryption key (combo type) to perform any operations / transactions on the e-tendering portal / website and the bidder should download and install the eMsigner on their system as per instructions available on download section of <https://etender.cpwd.gov.in>.
- 8) On opening date, the contractor can login and see the bid opening process. After opening of bids he will receive the competitor bid sheets.
- 9) Contractor can upload documents in the form of JPG format and PDF format.
- 10) Contractor must ensure to quote rate of each item. The column meant for quoting rate in figures appears in yellow colour and the moment rate is entered, it turns sky blue. In addition to this, while selecting any of the cells a warning appears that if any cell is left blank the same shall be treated as "0". Therefore, if any cell is left blank and no rate is quoted by the bidder, rate of such item shall be treated as "0" (ZERO). However, if a tenderer quotes nil rates against each item in item rate tender or does not quote any percentage above/below on the total amount of the tender or any section / sub head in percentage rate tender, the tender shall be treated as invalid and will not be considered as lowest tenderer.
- 11) The department reserves the right to reject any prospective application without assigning any reason and to restrict the list of qualified contractors to any number deemed suitable by it, if too many bids are received satisfying the laid down criterion.
- 12) Copy of enlistment order and certificate of work experience and other documents as specified in the tender documents for eligibility shall be scanned and uploaded to the e-tendering website within the period of bid submission.
- 13) Online bid documents submitted by intending bidders shall be opened only of those bidders, whose deposited EMD and other documents scanned and uploaded are found in order.
- 14) If any information furnished by the applicant is found incorrect at a later stage, he shall be liable to be debarred from tendering/taking up of works in department. The department reserves the right to verify the particulars furnished by the applicant independently.

List of Documents to be scanned and uploaded within the period of tender submission

- 1) Copy of Enlistment Order of the Contractor.
- 2) Copy of EMD in proper Form
- 3) Copy of receipt of deposition of original bank guarantee including e-Bank Guarantee in any divisions of CPWD/CCU, MoEF&CC.
- 4) GST Registration Certificate, if already obtained by the bidder.

If the bidder has not obtained GST registration as applicable, then he shall scan and upload following under taking along with bid documents.

"If work is awarded to me, I/we shall obtain GST registration certificate, as applicable, within one month from the date of receipt of award letter or before release of any payment by CCU, whichever is earlier, failing which I/we shall be responsible for any delay in payments which will be due towards me/us on account of the work executed and/or for any action taken by CCU or GST department in this regard".

- 5) Any other Document as specified in the NIT.

Executive Engineer, CED-II, CCU
(For and on behalf of the President of India)

CPWD 6 FOR E- TENDERING

1. Percentage rate bids are invited on behalf of President of India from approved and eligible contractors of CPWD in appropriate class in Buildings & Roads (erstwhile composite /Building/ Infrastructure) category for the work **“Renovation of 06 Nos. Type-III qtrs., 12 Nos. Type-II qtrs. & 04 Nos. Type-I qtrs of FSI Colony, Kaulagarh Road, FSI, Dehradun”**.

The enlistment of the contractors should be valid on the last date of submission of bids.

In case the last date of submission of bid is extended, the enlistment of contractor should be valid on the original date of submission of bids.

- 1.1 The work is estimated to cost of **Rs. 1,82,38,943/-**. This estimate, however, is given merely as a rough guide.
2. Agreement shall be drawn with the successful bidders on prescribed Form No. **CPWD 7** which is available as a Govt. of India Publication and also available on website **www.cpwd.gov.in**. Bidders shall quote his rates as per various terms and conditions of the said form which will form part of the agreement.
3. The time allowed for carrying out the work will be **10 (Ten) months** from the date of start as defined in schedule ‘F’ or from the first date of handing over of the site, whichever is later, in accordance with the phasing, if any, indicated in the bid documents.
4. The site for the work is available on as it is where it is basis and will be made available in phases. **The bidders have to quote their rates in view of the site conditions and other parameters.**
5. The architectural drawings shall be made available in phased manner, as per requirement of the same and as per approved programme of completion submitted by the contractor after award of work.
6. The bid document consisting of Plans, specifications, the schedule of quantities of various types of items to be executed and the set of terms and conditions of the contract to be complied with and other necessary documents except Standard General Conditions of Contract (GCC) Form can be seen on website <https://etender.cpwd.gov.in> or www.cpwd.gov.in free of cost.
7. After submission of the bid the contractor can re-submit revised bid any number of times **or withdraw it** before last date and time of submission of bid as notified. **No post-tender modification is allowed by the tenderers except through negotiations, if required. In case, any tenderer does so, the tender will be rejected and the tenderer will be debarred for future tendering in CCU/CPWD for two years by the concerned enlisting authority (in case of CPWD enlisted contractor) and by the concerned CE/SE (in case of non-enlisted contractor)..**
8. While submitting the revised bid, contractor can revise the rate of one or more item(s) any number of times (he need not re-enter rate of all the items) but before last time and date of submission of bid as notified.

9. Earnest Money in the form of Insurance Surety Bonds, Account Payee Demand Draft, Fixed Deposit Receipt, Banker's Cheque or Bank Guarantee including e- Bank Guarantee (for balance amount as prescribed) from any of the Commercial Banks (drawn in favour of **Executive Engineer, CED-II, CCU, MoEF&CC, New Delhi**) shall be scanned and uploaded to the e-Tendering website within the period of bid submission. The original EMD should be deposited either in the office of Executive Engineer inviting bids or division office of any Executive Engineer, CCU/CPWD within the period of bid submission. The EMD receiving Executive Engineer (including NIT issuing EE/AE) shall issue a receipt of deposition of earnest money deposit to the bidder in a prescribed format (enclosed) uploaded by tender inviting EE in the NIT.

A part of earnest money is acceptable in the form of bank guarantee also. In such case, minimum 50% of earnest money or Rs. 20 lac, whichever is less, shall have to be deposited in shape prescribed above, and balance may be deposited in shape of Bank Guarantee including e- Bank Guarantee of any Commercial bank having validity for a period of **180 days** or more from the last date of receipt of bids which is to be scanned and uploaded by the intending bidders.

Copy of Enlistment Order and certificate of work experience and other documents as specified in the notice inviting e- tender shall be scanned and uploaded on the e-Tendering website within the period of bid submission. However, certified copy of all the scanned and uploaded documents as specified in e- tender notice shall have to be submitted by the lowest bidder within a week physically in the office of tender opening authority. Online bid documents submitted by intending bidders shall be opened only of those bidders, whose original EMD deposited with any division of CPWD/CCU and other document scanned and uploaded are found in order.

10. The bid submitted shall become invalid and e-Tender processing fee (if applicable) shall not be refunded if:
- (i) The bidder is found ineligible.
 - (ii) The bidder does not upload scanned copies of all the documents stipulated in the bid document.
 - (iii) If any discrepancy is noticed between the documents as uploaded at the time of submission of bid and hard copies as submitted physically by the lowest bidder in the office of bid opening authority.
 - (iv) If a tenderer quotes nil rates against each item in item rate tender or does not quote any percentage above/below on the total amount of the tender or any section / sub head in percentage rate tender, the tender shall be treated as invalid and will not be considered as lowest tenderer
11. The contractor whose bid is accepted will be required to furnish performance guarantee at specified percentage of the tendered amount as mentioned in schedule E and within the period specified in Schedule F. This guarantee shall be in the form of Insurance Surety Bonds, Account Payee Demand Draft, Fixed Deposit Receipt or Bank Guarantee from any of the Commercial Banks in accordance with the prescribed form. In case the contractor fails to deposit the said performance guarantee within the period as indicated in Schedule 'F', including the extended period if any, the Earnest Money deposited by the contractor shall be forfeited automatically without any notice to the contractor. The

earnest money deposited along with bid shall be returned after receiving the aforesaid performance guarantee. The contractor whose bid is accepted will also be required to furnish either copy of applicable licenses/ registrations or proof of applying for obtaining labour licenses, registration with EPFO, ESIC and BOCW Welfare Board including Provident Fund Code No. If applicable and also ensure the compliance of aforesaid provisions by the subcontractors, if any engaged by the contractor for the said work within the period specified in Schedule F.

12. Intending Bidders are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their bids as to the nature of the ground and sub-soil (so far as is practicable), the form and nature of the site, the means of access to the site, the accommodation they may require and in general shall themselves obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their bid. A bidder shall be deemed to have full knowledge of the site whether he inspects it or not and no extra charge consequent on any misunderstanding or otherwise shall be allowed. The bidders shall be responsible for arranging and maintaining at his own cost all materials, tools & plants, water, electricity access, facilities for workers and all other services required for executing the work unless otherwise specifically provided for in the contract documents. Submission of a bid by a bidder implies that he has read this notice and all other contract documents and has made himself aware of the scope and specifications of the work to be done and of conditions and rates at which stores, tools and plant, etc. will be issued to him by the Government and local conditions and other factors having a bearing on the execution of the work.
13. The competent authority on behalf of the President of India does not bind itself to accept the lowest or any other bid and reserves to itself the authority to reject any or all the bids received without the assignment of any reason. All bids in which any of the prescribed condition is not fulfilled or any condition including that of conditional rebate is put forth by the bidders shall be summarily rejected.
14. Canvassing whether directly or indirectly, in connection with bidders is strictly prohibited and the bids submitted by the contractors who resort to canvassing will be liable for rejection.
15. The competent authority on behalf of President of India reserves to himself the right of accepting the whole or any part of the bid and the bidders shall be bound to perform the same at the rate quoted.
16. The contractor (enlisted or non-enlisted in CPWD) shall not be allowed to participate in the tender for work(s) in the CPWD/CCU Zonal/Circle /Division/Sub-division responsible for award and/or execution of contract(s) in which his near relative is posted as Divisional Accountant or as an officer in any capacity between the grades of the Chief Engineer and Junior Engineer (both inclusive). He shall also intimate the names of persons who are working or are subsequently employed by him and who are near relatives to any Officer working in the CPWD/CCU. Any breach of this condition by the contractor would render him liable to be debarred for a period up to two years from tendering in CPWD/CCU as decided by the accepting authority mentioned in Schedule F and his decision will be excepted from clause 25.
17. No Engineer of Gazetted Rank or other Gazetted Officer employed in Engineering or Administrative duties in an Engineering Department of the Government of India is allowed to work as a contractor for a period of one year after his retirement from Government service, without the prior permission of the Government of India in writing. This contract is liable to be cancelled if either the contractor or any of his employees is

found any time to be such a person who had not obtained the permission of the Government of India as aforesaid before submission of the bid or engagement in the contractor's service.

18. The bid for the work shall remain open for acceptance for a period of **30 (Thirty)** days from the date of opening of tenders.
- i) If any tenderer withdraws his tender within 7 days after last date **and time (24 hours basis)** of submission of bids, then the Government shall without prejudice to any other right or remedy, be at liberty to forfeit 50% of the earnest money absolutely irrespective of letter of acceptance for the work is issued or not.
 - ii) If any tenderer withdraws his tender or makes any modification in the terms & conditions of the tender which is not acceptable to the department after expiry of 7 days after last date **and time (24 hours basis)** of submission of bids, then the Government shall without prejudice to any other right or remedy, be at liberty to forfeit 100% of the earnest money absolutely irrespective of letter of acceptance for the work is issued or not.
 - iii) **Withdrawal of the tender, by the tenderer, shall only be made through e-tender portal. Any other method i.e. through letter/ e-mail etc. shall not be considered.**
 - iv) In case of forfeiture of earnest money as prescribed in para (i) and (ii) above, the bidders shall not be allowed to participate in the rebidding process of the same work.
19. This notice inviting Bid shall form a part of the contract document. The successful bidders/contractor, on acceptance of his bid by the Accepting Authority shall within 15 days from the stipulated date of start of the work, sign the contract consisting of: -
- i) The Notice Inviting Bid, all the documents including additional conditions, specifications and drawings, if any, forming part of the bid as uploaded at the time of invitation of bid and the rates quoted online at the time of submission of bid and acceptance thereof together with any correspondence leading thereto.
 - ii) Standard C.P.W.D. Form 7 or other Standard C.P.W.D. Form as applicable.
 - iii) General Conditions of Contract 2023 for Construction works, Central Public Works Department, as corrected up to last date of submission of bids.
20. Specialized Agencies for E&M services: The tenderer must associate himself with agencies of the appropriate eligibility for each of specialized nature of items / work as per part- 'C' of NIT. Such works shall be got executed only through associated agencies specialized in these fields. Separate MOU has to be signed with each of the specialized works with either OEMS (Authorised channel partners) or with specialized agencies who have the credentials of executing either one work of 80% value or two work of 60% value or three works of 40% value of the corresponding component of the specialized work in last seven years. It shall be the responsibility of main contractor to sort out any dispute / litigation with the Specialized Agencies without any time & cost overrun to the Department. The main contractor shall be solely responsible for settling any dispute / litigation arising out of his agreement with the Specialized Agencies. The contractor shall ensure that the work shall not suffer on account of litigation/ dispute between him and the specialized agencies / sub-contractor(s). No claim of hindrance in the work shall

be entertained from the Contractor on this account. No extension of time shall be granted and no claim what so ever, of any kind, shall be entertained from the Contractor on account of delay attributable to the selection/rejection of the Specialized Agency. The main contractor has to associate agency(s) for specialized component(s) conforming to eligibility criteria as defined in the bid document and has to submit detail of such agency(s) to Engineer-in-charge within prescribed time. Name of the agency(s) to be associated shall be approved by Engineer –in-Charge.

21. The proposal for all specialized agencies (for Civil works and E& M works as specified in part 'B' and Part 'C' of notice inviting tender respectively) shall be submitted by the contractor within 7 days of the date of start/commencement. MOU should be submitted within 15 days of the date of start/commencement. In case of non-submission or incomplete or part submission of the proposals, deduction @ Rs. 10000/- per day per proposal of specialised agency shall be made from any amount payable to the contractor.
22. In case the main contractor intends to change any of the above agency/agencies during the operation of the contract, he shall obtain prior approval of Engineer-in- Charge. The new agency/agencies shall also have to satisfy the laid down eligibility criteria. In case Engineer-in-Charge is not satisfied with the performance of any agency, he can direct the contractor to change the agency executing such items of work and this shall be binding on the contractor.
23. The main contractor has to enter into MoU with agency(s) associated by him/ Copy of such MoU shall be submitted to Engineer in charge. In case of change of associate contractor, the main agency(s) has to enter into MoU/agreement with the new contractor associated by him.
24. The intending bidders are required to update their profile in CPWD e- tender portal and to upload their bids well in advance of last date of submission of tender. Any issue related to updating profile/uploading tender can be resolved through ERP helpline no. 18001803286 or e-mail ID: cpwd.support@techmahindra.com. The e-tendering bidders are also advised not to wait to raise any issues till the last date of submission of bid in their own interest

Executive Engineer, CED-II
(For and on behalf of the President of India)

**GOVERNMENT OF INDIA
MINISTRY OF ENVIRONMENT, FORESTS & CLIMATE CHANGE**

PERCENTAGE RATE BID AND CONTRACT FOR WORKS

Tender for the work of “**Renovation of 06 Nos. Type-III qtrs., 12 Nos. Type-II qtrs. & 04 Nos. Type-I qtrs of FSI Colony, Kaulagarh Road, FSI, Dehradun.**”

- i) To be uploaded by 15:00 hours on 24.09.2025 to/upload at
- ii) To be opened in presence of tenderers who may be present at 15:30 hours on 24.09.2025 in the office of in the office of the Executive Engineer, CED-II, CCU, Dehradun.

** To be filled by EE, CED-II

TENDER

I/We have read and examined the notice inviting tender, schedule, A, B, C, D, E & F Specifications applicable, Drawings & Designs, General Rules and Directions, Conditions of Contract, clauses of contract, Special conditions, Schedule of Rate & other documents and Rules referred to in the conditions of contract and all other contents in the tender document for the work.

I/We hereby tender for the execution of the work specified for the President of India within the time specified in Schedule ‘F’ viz., schedule of quantities and in accordance in all respect with the specifications, designs, drawing and instructions in writing referred to in Rule-1 of General Rules and Directions and in Clause 11 of the Conditions of contract and with such materials as are provided for, by, and in respect of accordance with, such conditions so far as applicable.

We agree to keep the tender open for acceptance for **Thirty (30)** days from the due date of its opening of bid and not to make any modifications in its terms and conditions.

A copy of earnest money deposit receipt of prescribed amount deposited in the form of Insurance Surety Bonds, Account Payee Demand Draft, Fixed Deposit Receipt, Banker's Cheque or Bank Guarantee (as prescribed) issued by a Commercial Bank, is scanned and uploaded. If I/We, fail to furnish the prescribed performance guarantee within prescribed period, I/We agree that the said President of India or his successors, in office shall without prejudice to any other right or remedy, be at liberty to forfeit the said earnest money absolutely. Further, if I/We fail to commence work as specified, I/ We agree that President of India or the successors in office shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the said performance guarantee absolutely. The said Performance Guarantee shall be a guarantee to execute all the works referred to in the tender documents upon the terms and conditions contained or referred to those in excess of that limit at the rates to be determined in accordance with the provision contained in Clause 12.2 (c) of the tender form. I/We hereby declare that I/we shall treat the tender documents drawings and other records connected with the work as secret/confidential documents and shall not communicate information derived there from to any person other than a person to whom I/we am/are authorized to communicate the same or use the information in any manner prejudicial to the safety and integrity of the State.

Further, I/We agree that in case of forfeiture of Earnest Money or Performance Guarantee as aforesaid, I/We shall be debarred for participation in the re-tendering process of the work.

I/We undertake and confirm that eligible similar work(s) has/have not been got executed through another contractor on back-to-back basis. Further that, if such a violation comes to the notice of Department, then I/We shall be debarred for tendering in CCU, MoEF&CC in future forever. Also, if such a violation comes to the notice of Department before date of start of work, the Engineer-in-Charge shall be free to forfeit the entire amount of Earnest Money Deposit/Performance Guarantee.

I/We hereby declare that I/We shall treat the tender documents drawings and other records connected with the work as secret/confidential documents and shall not communicate information/derived there from to any person other than a person to whom I/We am/are authorized to communicate the same or use the information in any manner prejudicial to the safety & integrity of the State.

Signature of contractor

Postal Address -----**

Telephone No. -----**

Fax -----**

E-MAIL -----**

Witness:

Address:

Occupation:

** To be filled by Bidder

ACCEPTANCE

The above tender (as modified by you as provided in the letters mentioned hereunder) is accepted by me for and on behalf of the President of India for a sum of Rs.....

(Rupees.....
.....
....)

The letters referred to below shall form part of this contract agreement: -

(a) -----*

(b) -----*

(c) -----*

For & on behalf of President of India

Signature.....*

Dated: -----*

.....*

Designation

* To be filled by Executive Engineer

SCHEDULE – ‘A’, ‘B’, ‘C’, ‘D’, ‘E’ & ‘F’ FOR THE WORK

SCHEDULE ‘A’

Schedule of Quantities -

As per separate sheets attached

SCHEDULE ‘D’

Extra schedule for specific requirements/document for the work, if any:	As per tender documents
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SCHEDULE ‘E’

Reference to General Conditions of contract	General Conditions of Contract 2023 for Construction works, Central Public Works Department, as amended up to last date of submission of bids.
Name of Work	Renovation of 06 Nos. Type-III qtrs., 12 Nos. Type-II qtrs. & 04 Nos. Type-I qtrs of FSI Colony, Kaulagarh Road, FSI, Dehradun.
Estimated cost of the work	Rs. 1,82,38,943/-
Earnest money	Rs. 3,64,779/-
Performance Guarantee	5.00% of tendered amount
Security Deposit	2.50% of tendered amount.

SCHEDULE ‘F’

GENERAL RULES AND DIRECTION

Officer inviting tender	Executive Engineer, CED-II, Civil Construction Unit (CCU), Ministry of Environment, Forest & Climate Change (MoEF&CC), PO- New Forest, FRI Campus, Dehradun -248006.
Maximum percentage of quantity of items of work to be executed beyond which rates are to be determined in accordance with Clause 12.2 (c)	See at appropriate clause

Definitions:

2(vi)	Engineer-in-Charge	Executive Engineer, CED-II, CCU, MoEF&CC or his or his legal successor or Assignee thereof.
2(viii)	Accepting Authority	Superintending Engineer, CCU, MoEF&CC or his or his legal successor or Assignee thereof
2(x)	Percentage on cost of materials and labour to cover all overheads and profits	7.5% for items of supply of materials and 15% for execution of items
2(xi)	Standard Schedule of Rates	
	Civil Works	DSR-2023 with correction slips issued upto last date of submission of bids and Market Rates.

	Electrical & Mechanical Works	DSR-2022 with correction slips issued upto last date of submission of bids & Market rates
2(xi)	Department:	Civil Construction Unit, MoEF&CC
9(ii)	Standard CPWD Contract Form	CPWD Form 7 of General Conditions of Contract 2023 for Construction works, Central Public Works Department, as modified and corrected up to last date of submission of bids.

Clause 1		
i)	Time allowed for submission of Performance Guarantee, Programme Chart (Time and Progress) and applicable labour licenses, registration with EPFO, ESIC and BOCW Welfare Board or proof of applying thereof from the date of issue of letter of acceptance.	07 Days
ii)	Maximum allowable extension with late fee @0.1% per day of Performance Guarantee amount beyond the period as provided in i) above	03 Days
Clause 2		
i)	Authority for fixing Compensation under Clause 2	Superintending Engineer, CCU, MoEF&CC or his legal successor or Assignee thereof
Clause 5		
i)	Number of days from the date of issue of letter of acceptance for reckoning date of start.	07 Days

Mile stones as per table given below

Sl. No.	Description of mile stone (s)	Time allowed (From date of start)	Amount to be withheld in case of Non-achievement of each Mile stone(s)
1	Work done amounting to 20% of accepted tender amount.	02 Months	1.00 % of accepted tendered amount.
2	Work done amounting to 40% of accepted tender amount.	04 Months	1.00 % of accepted tendered amount.
3	Work done amounting to 60% of accepted tender amount.	06 Months	1.00 % of accepted tendered amount.
4	Work done amounting to 80% of accepted tender amount.	08 Months	1.00 % of accepted tendered amount.
4	Work done amounting to 100% of accepted tender amount.	10 Months	1.00 % of accepted tendered amount.

Time allowed for execution of work:

10 (Ten) Months

Note:- Withheld amount shall be released if and when subsequent milestone is achieved within respective time specified. However, in case milestones are not achieved by the Bidder for the work, the amount shown against milestone shall be withheld.

Monthly recovery for delay in submission of the monthly progress report within specified period - not exceeding Rs. 2000/- per month for each month default.

Schedule of handing over of site

Part	Portion of site	Time period for handing over reckoned from date of issue of letter of intent
Part A	First part of site	On date of commencement
Part B	Remaining part of site	In phases as per progress of work and approved programme chart

Authority to decide:

i)	Authority to convey the decision of shifting of milestone and extension of time:	Executive Engineer, CED-II, CCU, MoEF&CC or his legal successor or Assignee thereof
ii)	Authority to decide rescheduling of milestones and extension of time.	Superintending Engineer, CCU, MoEF&CC or his legal successor or Assignee thereof
iii)	Shifting of date of start in case of delay in handing over of site	Superintending Engineer, CCU, MoEF&CC or his legal successor or Assignee thereof

Clause 5.4: Schedule of rate of recovery for delay in submission of the modified programme in terms of delay days

S.N.	Contract Value	Recovery Rs / Per day
1.	More than Rs. 1 Crore but less than or equal to Rs. 5 Crore	2000

Clause 6

i)	Mode of measurement	CMB
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Clause 7

Gross work to be done together with net payment/ adjustment of advances for material collected, if any, since the last such payment for being eligible to interim payment	Rs. 16 Lakhs for Civil Works and 1.75 lakhs for Electrical & Mechanical works
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Clause 7A

No Running Account Bill shall be paid for the work till the applicable labour licenses, registration with EPFO, ESIC and BOCW Welfare Board, whatever applicable as submitted by the Bidder to the Engineer-in-Charge.	Yes
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Clause 8 A: Completion plans to be submitted by the contractor

Authority to decide compensation on account if contractor fails to submit completion plans	Superintending Engineer, CCU, MoEF&CC or his legal successor or Assignee thereof.
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Clause 10 A

List of testing equipment to be provided by the contractor at site lab.

As per details attached in the relevant pages of this bid document

Clause 10 B

Clause 10B (ii)	
Whether Clause 10 B (ii) shall be applicable	No

Clause 10 C

Whether Clause 10 C shall be applicable	Yes
Component of labour expressed as percent of value of work	25%

Clause 10CC – Not Applicable

Clause 11:

Specifications to be followed for execution of civil work	:	CPWD Specifications 2019 Volume-I and II with correction slips issued upto last date of submission of bids.
Specifications to be followed for execution of Electrical & Mechanical Works	:	CPWD Specifications for Electrical Work. Part-I (Internal) 2023, Part- II (External) 2023, Part-IV (Substation) 2013, Part-VI Fire detection and alarm System-2018, HVAC 2017 and as amended up to date.

Clause 12 : Construction work

12.2 (c)	Deviation limit beyond which clause 12.2 (c) shall apply for building work.	:	100%
	i) Deviation limit beyond which clause 12.2 (c) shall apply for foundation work (except items mentioned in earth work sub head in DSR and related items)	:	100%
	ii) Deviation limit for items mentioned in earth work sub head of DSR and related items	:	100%

Clause 16 :

Competent authority for deciding reduced rates	:	Superintending Engineer, CCU, MoEF&CC or his legal successor or Assignee thereof
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Clause 18 :

List of Mandatory Machinery, tools & plants to be deployed by the contractor at site: -

As per details attached in the relevant pages of this bid document

Clause 19

Clause 19 C	Authority to decide penalty for each default	Executive Engineer, CED-II, CCU, MoEF&CC or his legal successor or Assignee thereof
Clause 19 D	Authority to decide penalty for each default	Executive Engineer, CED-II, CCU, MoEF&CC or his legal successor or Assignee thereof
Clause 19 G	Authority to decide penalty for each default	Executive Engineer, CED-II, CCU, MoEF&CC or his legal successor or Assignee thereof
Clause 19 K	Authority to decide penalty for each default	Executive Engineer, CED-II, CCU, MoEF&CC or his legal successor or Assignee thereof

Clause 25: Settlement of disputes by Conciliation and Arbitration

Conciliator:	:	SE, CCU or his legal successor or Assignee thereof
Arbitrator Appointing Authority	:	Chief Engineer, CCU, MoEF&CC or his legal successor or Assignee thereof
Place of Arbitration	:	New Delhi

Clause 32 : Requirement of Technical Representative(s) and Recovery Rate

Sl. No.	Minimum Qualification of Technical Representative	Discipline	Designation	Minimum experience	Number	Rate at which recovery shall be made from the contractor in the event of not fulfilling provision of Clause 32
1	Graduate Engineer	Civil	Project Manager	5 (and having experience of one similar nature of work)	1	Rs. 50,000/- per month per person
2	Graduate Engineer Or Diploma Engineer	Civil + Electrical	Project planning/ quality/billing Engineer	2 or 5 years respectively	1+1	Rs. 30,000/- per month per person

- 1) Assistant Engineers retired from Government services that are holding Diploma will be treated at par with Graduate Engineers.
- 2) Diploma holder with minimum 10-year relevant experience with a reputed construction co. can be treated at par with Graduate Engineers for the purpose of such deployment

subject to the condition that such diploma holders should not exceed 50 % of requirement of degree engineers.

Clause 38

(i)	(a)	Schedule/statement for determining theoretical quantity of cement & bitumen on the basis of Delhi Schedule of Rates	DSR 2023 with Amendments/ Correction slips up to last date of submission of bids
(ii)		Variations permissible on theoretical quantities:	
	(a)	Cement	
		For works with estimated cost put to tender more than Rs. 25 lakh.	3% (Three percent) plus/minus.
		Bitumen for all works	2.5% (Two-point five percent) plus only and nil on minus side.
	(b)	Steel Reinforcement and structural steel sections for each diameter, section and category	2% (Two percent) plus / minus
	(c)	All other materials	Nil

RECOVERY RATES FOR QUANTITIES BEYOND PERMISSIBLE VARIATION

S. No.	Description of item	Rates in figures and words at which recovery shall be made from the Contractor	
		Excess beyond permissible variation	Less use beyond permissible variation not permitted
1.	Cement OPC 43 grade /PCC	-	-
2.	Steel reinforcement bars	-	-
3.	Structural steel	-	-

- Nothing extra shall be paid for excess use of materials beyond the theoretical consumption.
- Less use of materials from the theoretical consumption is not permitted.

Executive Engineer,
CED-I, CCU, MoEF&CC,
CGO Complex, New Delhi

**PROFORMA FOR THE RECEIPT TO BE ISSUED BY THE EXECUTIVE ENGINEER
RECEIVING THE EMD**

<p style="text-align: center;">Receipt of deposition of original EMD (drawn in favour of Executive Engineer, CED-II, CCU, MoEF&CC, New Delhi) (Receipt No. / date.....)</p>		
Name of work	:	Renovation of 06 Nos. Type-III qtrs., 12 Nos. Type-II qtrs. & 04 Nos. Type-I qtrs of FSI Colony, Kaulagarh Road, FSI, Dehradun.
NIT No	:	02/2025-26/SE/CCU/CED-II/Dehradun (Recall)
Estimated Cost	:	Rs. 1,82,38,943/-
Amount of Earnest Money Deposit	:	Rs. 3,64,779/-
Last date of submission of bid	:	24.09.2025
To be filled by EMD receiving Executive Engineer		
Name of contractor	:	
Form of EMD	:	
Amount of Earnest Money Deposit	:	
Date of Submission of EMD	:	
		(Signature) Name and Designation of EMD receiving officer (EE/AE(P)/AO/AAO) along with office stamp

(On non-judicial stamp paper of minimum Rs. 100)**(Guarantee offered by Bank to CCU in connection with the execution of contracts)****Form of Bank Guarantee for Earnest Money Deposit /Performance Guarantee/Security Deposit**

1. Whereas the Executive Engineer (name of division), CCU on behalf of the President of India (hereinafter called "The Government") has invited bids under(NIT number)..... dated for (name of work) The Government has further agreed to accept irrevocable Bank Guarantee for Rs. (Rupees only) valid upto (date)*..... as Earnest Money Deposit from (name and address of contractor)(hereinafter called "the contractor") for compliance of his obligations in accordance with the terms and conditions of the said NIT.

OR**

Whereas the Executive Engineer (name of division), CCU on behalf of the President of India (hereinafter called "The Government") has entered into an agreement bearing number with(name and address of the contractor) (hereinafter called "the Contractor") for execution of work(Name of work) The Government has further agreed to accept an irrevocable Bank Guarantee for Rs. (Rupees only) valid upto (date)..... as Performance Guarantee/Security Deposit from the said Contractor for compliance of his obligations in accordance with the terms and conditions of the agreement.

2. We, (indicate the name of the bank) (herein after referred to as "the Bank"), hereby undertake to pay to the Government an amount not exceeding Rs. (Rupees..... only) on demand by the Government within 10 days of the demand.
3. We,(indicate the name of the Bank), do hereby undertake to pay the amount due and payable under this guarantee without any demur, merely on a demand from the Government stating that the amount claimed is required to meet the recoveries due or likely to be due from the said Contractor. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this Guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs.(Rupeesonly).
4. We, (indicate the name of the Bank), further undertake to pay the Government any money so demanded notwithstanding any dispute or disputes raised by the contractor in any suit or proceeding pending before any Court or Tribunal, our liability under this Bank Guarantee being absolute and unequivocal. The payment so made by us under this Bank Guarantee shall be a valid discharge of our liability for payment there under and the Contractor shall have no claim against us for making such payment.

5. We, (indicate the name of the Bank), further agree that the Government shall have the fullest liberty without our consent and without affecting in any manner our obligation here under to vary any of the terms and conditions of the said agreement or to extend time of performance by the said Contractor from time to time or to postpone for any time or from time to time any of the powers exercisable by the Government against the said contractor and to forbear or enforce any of the terms and conditions relating to the said agreement and we shall not be relieved from our liability by reason of any such variation or extension being granted to the said Contractor or for any forbearance, act of omission on the part of the Government or any indulgence by the Government to the said Contractor or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.
6. We, (indicate the name of the Bank)....., further agree that the Government at its option shall be entitled to enforce this Guarantee against the Bank as a principal debtor at the first instance without proceeding against the Contractor and notwithstanding any security or other guarantee the Government may have in relation to the Contractor's liabilities.
7. This guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor.
8. We, (indicate the name of the Bank), undertake not to revoke this guarantee except with the consent of the Government in writing.
9. This Bank Guarantee shall be valid up to unless extended on demand by the Government. Notwithstanding anything mentioned above, our liability against this guarantee is restricted to Rs. (Rupees only) and unless a claim in writing is lodged with us within the date of expiry or extended date of expiry of this guarantee, all our liabilities under this guarantee shall stand discharged.

Date

Witnesses:

- | | |
|--|--|
| 1. Signature.....
Name and address
Designation | Authorized signatory
Name
Staff code no. |
| 2. Signature
Name and address | Bank seal |

*Date to be worked out on the basis of validity period of 90 days where only financial bids are invited and 180 days for two/three bid system from the date of submission of tender.

**In paragraph 1, strike out the portion not applicable. Bank Guarantee will be made either for earnest money or for performance guarantee/security deposit/mobilization advance, as the case may be.

LIST OF EQUIPMENTS FOR TESTING OF MATERIALS&CONCRETE AT SITE

LABORATORY

All necessary equipment for conducting all necessary tests shall be provided at the site in the well-furnished site laboratory by the contractor at his own cost The following minimum laboratory equipment's shall be set up at site office laboratory:

Sl. No.	Equipment	Numbers (Minimum)
1	Compressing testing machine	As per Requirement of work
2	Cube mould	
3	Slump cone, steel plate, tamping rod, steel scale, scoop	
4	Graduated glass measuring cylinder	
5	Sets of sieves of 450mm internal dia for coarse aggregate [100mm, 80mm, 40mm; 20mm;12.5mm, 10mm;4.75mm complete with lid and	
8	Sets of sieves of 200mm internal dia for fine aggregate [4.75mm;2.36mm;1.18mm; 600 microns;300 microns& 150micron ,	
9	Sieve Brushes and sieve shaker capable of 200mm and 300mm dia sieves, manually operated with timing switch assembly	
10	Electronic balance 600gx0.1g., 10kg and 50kg	
11	Physical balance weight upto 5 kg	
12	Measuring jars100ml, 200ml,500ml	
13	Gauging trowels 100mm & 200mm with wooden Handle	
14	Spatula 100mm & 200mm with long blade wooden Handle	
15	Vernier callipers12" & 6" size	
16	GI tray 600x450x50mm, 450x300x40mm,300x250x40mm	
17	Screw gauge 0.1mm-10mm, least count 0.05	
18	Set of box spanner	
19	Hammer1lb & 2lb	
20	Rubber Hammer	
21	Hacksaw with 6 blades	
22	Measuring tape 5mtr	
23	Depth gauge 20cm	
24	Shovels &Spade	

Note: The above list is only indicative and not exhaustive. The contractor may be required to provide more equipment's as per the requirement of work and as per the direction of the engineer- in- charge.

**LIST OF MANDATORY MACHINERY, TOOLS & PLANTS TO BE DEPLOYED BY
THE CONTRACTOR AT SITE**

S. No.	Equipment	Numbers (Minimum)
1.	Needle Vibrators.	As per Requirement of work
2.	Plate Vibrator	
3.	JCB, Excavator, Dumper, Tipper	
4.	Reinforcement cutting & Bending machines	
5.	Total station.	
6.	Auto level & staff.	
7.	Water tanker (Minimum capacity of 5000 litres)	
8.	Welding machine 400 Ampere	
9.	Screener for coarse sand and fine sand	
10.	Centrifugal mono block water pump minimum capacity 2 HP	
11.	Steel Shuttering with necessary steel props	
12.	Steel scaffolding and staging materials	
13.	Plain Concrete/Mortar Mixer	
14.	Semi-Automatic Pavement Concrete Paver	
15.	Screed Vibrator	
16.	Any other machinery required for completion of the work as per decision of Engineer-in-charge.	

PART-B

ADDITIONAL CONDITIONS, SPECIFICATIONS APPLICABLE TO CIVIL WORK AND SCHEDULE OF QUANTITIES

ADDITIONAL CONDITIONS

1. GENERAL

- 1.1.** The Contractors are advised to inspect and examine the site and its surroundings and satisfy themselves with the nature of site, the means of access to the site, the constraints of space for stacking material / machinery, labour etc., constraints put by local regulations (if any), weather conditions at site (rainfall, snowfall, winter/summer temperatures etc.), general ground / subsoil conditions etc. or any other circumstances which may affect or influence their tenders. No claims, whatsoever, shall be entertained at a later date for any errors found, on plea that the information supplied by the Department in the tender is insufficient or is at variance with the actual site conditions.
- 1.2.** The work shall generally be carried out in accordance with the “CPWD Specifications 2019 Vol. I & II” with correction slips up to last date of submission of bid (including any extension in last date of bid submission), additional/Particular Specifications, Architectural/Structural drawings and as per instructions of Engineer-in-Charge. Any additional item of work, if taken up subsequently, shall also conform to the relevant specifications mentioned above.
- 1.3.** The several documents forming the tender are to be taken as mutually complementary to each other. Detailed drawings shall be followed in preference to small scale drawings and figured dimensions in preference to scale dimensions. Between two or more Clauses of this Contract, the provisions of a specific Clause relevant to the issue under consideration shall prevail over those in other Clauses.
- 1.4.** Should there be any difference or discrepancy between the description of items as given in the particular specifications for individual items of work, special conditions and I.S. Codes, drawings etc., the following order of preference shall be observed-
 - (i) Nomenclature of items as per Schedule of Quantities
 - (ii) Special/Additional Conditions
 - (iii) Particular Specifications
 - (iv) Architectural/Structural drawings
 - (v) CPWD Specifications including upto date correction slips.
 - (vi) CPWD General Conditions of Contract (2023) for Construction works including correction slips issued up to last date of submission of bid including extensions if any.
 - (vii) Indian Standards Specifications of B.I.S.
 - (viii) ASTM, BS, or other foreign origin code mentioned in tender document.
 - (ix) Manufacturer’s specifications and as decided by the Engineer-in-Charge.
 - (x) Sound Engineering practices or well-established local construction practices.
- 1.5.** A reference made to any Indian Standard Specifications in these documents, shall imply to the latest version of that standard, including such revisions / amendments as issued by the Bureau of Indian Standards up to last date of receipt of tenders. The Contractor shall keep at his own cost all such publications of relevant Indian Standard applicable to the work at site.
- 1.6.** The tenderer shall acquaint himself with the proposed site of work, its approach roads, working space available etc. before quoting his rates and no claim on this account shall be entertained by the department.

- 1.7.** The contractor will not be allowed to construct labour huts in the Campus. The contractor has to make arrangement for labour huts outside Campus at his own cost. Nothing extra shall be paid on this account.
- 1.8.** The contractor shall keep the site neat & clean during execution of the work and cover the building materials with cloths.
- 1.9.** In case of any fine imposed by authorities due to scattered malba / building materials or any harm due to malba / materials or by worker of the contractor the same shall be paid by contractor within prescribed period otherwise same shall be recovered from the bills or securities / performance guarantee of the contractor.
- 1.10.** The contractor(s) shall get himself acquainted with nature and extent of the work and satisfy himself about the availability of materials from kiln or approved quarries for collection and conveyance of materials required for construction.
- 1.11.** Any legal or financial implications resulting out of disposal of earth shall be sole responsibility of the contractor. Nothing extra shall be paid on this account.
- 1.12.** The tenderer shall see the approaches to the site. In case any approach from main road is required at site or existing approach is to be improved and maintained for cartage of materials by the contractor, the same shall be provided, improved and maintained by the contractor at his own cost. No payment shall be made on this account and the quoted rates shall be deemed to be inclusive of all such activities.
- 1.13.** The contractor(s) shall give to the local body, police and other authorities all necessary notices etc. that may be required by law and obtain all requisite licenses for temporary obstructions, enclosures etc. and pay all fee, taxes and charges which may be levied on account of these operations in executing the contract. The building work shall be carried out in the manner complying in all respects with the requirements of the relevant bylaws and regulations of the local body under the jurisdiction of which the work is to be executed and nothing extra shall be paid on this account.
- 1.14.** The contractor shall ensure that there is no damage to adjoining property. If any such untoward incident happens, he shall be entirely responsible for any consequences besides making good any damages to the adjoining property whether public or private. He shall supply and maintain lights either for illumination or for cautioning the public at night.
- 1.15.** The work shall be carried out in the manner complying in all respects with the requirements of the relevant bylaws and regulations of the local body under the jurisdiction of which the work is to be executed or as directed by the Engineer-in-charge and nothing extra shall be paid on this account.
- 1.16.** The contractor shall take all necessary precautions to prevent any nuisance or inconvenience to the owners, tenants or occupiers of adjacent properties and to the public in general and to prevent any damage to such properties and any pollution of smoke, streams and water-ways. He shall make good at his cost and to the satisfaction of the Engineer-in-Charge, any damage to roads, paths, cross drainage works or public or private property whatsoever caused thereon by the contractor. All waste or superfluous materials shall be carried away by the contractor without any reservation entirely to the satisfaction of the Engineer-in-Charge.

- 1.17.** Utmost care shall be taken to keep the noise level to the barest minimum so that no disturbance as far as possible is caused to the occupants / users of building/adjacent properties.
- 1.18.** Other agencies may also simultaneously execute and install the works of other civil and E&M services for the work. The contractor shall afford necessary facilities for the same. The contractor shall leave such recesses, holes, openings, trenches etc. as may be required for such related works and the contractor shall fix the same at time of casting of concrete, stone work and brick work, if required, and nothing extra shall be payable on this account.
- 1.19.** The contractor shall conduct work so as not to interfere with or hinder the progress or completion of the work being performed by other contractor(s) or by the Engineer-in-Charge and shall as far as possible arrange his work and shall place and dispose of the materials being used or removed so as not to interfere with the operations of other contractor or he shall arrange his work with that of the others in an acceptable and coordinated manner and shall perform it in proper sequence to the complete satisfaction of others.
- 1.20.** Royalty at the prevailing rates wherever payable shall have to be paid by the contractor on the boulders, metal, shingle, sand, local earth/soil and bajri etc. or any other material collected by him for the work direct to revenue authorities and nothing extra shall be paid by the department for the same.
- 1.21.** Permission for the Excavation of the Basement and/or any Mining Approval along with carriage and disposal of surplus excavated earth shall be obtained by the contractor at his own expenses from Local Administration / Revenue Authority. Department / Client Department shall only forward the case to the concerned Authority. Moreover, all the fee including royalty for surplus excavated earth is to be paid by the contractor to the concerned department. Nothing extra shall be paid on account of this to the contractor.
- 1.22.** No payment shall be made for any damage caused by rain, snowfall, flood or any other natural calamity, whatsoever during the execution of the work. The contractor shall be fully responsible for any damage to the govt. property and work for which the payment has been advanced to him under the contract and he shall make good the same at his risk and cost. The contractor shall be fully responsible for safety and security of his material, T&P, Machinery brought to the site by him.
- 1.23.** The contractor shall deploy adequate resources e.g. manpower, labour, T&P, Plant & Equipment etc. as per actual requirement of work.
- 1.24.** The rates for all items of work shall, unless clearly specified otherwise, include cost of all labour, material, tools and plants and other inputs including all heights/depths, leads and carriages involved in the execution of the item.
- 1.25.** The Contractor shall keep himself fully informed of all acts/laws of the Central/State/Local Governments, orders of central/state/local government, decrees of statutory bodies, tribunals having any jurisdiction or authority, which in any manner may affect those engaged or employed and anything related to carrying out the work. All the rules & regulations and bye-laws laid down by Collector / Municipal Corporation of area (where site is located) and

any other statutory bodies shall be adhered to, by the contractor, during the execution of work. The Contractor shall also adhere to all traffic restrictions notified by the national/state/local authorities. The contractor shall abide and ensure compliances to terms and conditions of various approvals obtained for the project. He shall protect and indemnify the Department and its officials & employees against any claim and /or liability arising out of violations of any such laws, ordinances, orders, decrees, by himself or by his employees or his authorized representatives. The Contractor shall indemnify the Department against all claims in respect of patent rights, royalties, design, trademarks- of name or other protected rights, damages to adjacent buildings, roads or members of public, in course of execution of work or any other reasons whatsoever, and shall himself defend all actions arising from such claims and shall indemnify the Department in all respect from such actions, costs and expenses. Nothing extra shall be payable on this account.

- 1.26.** The fee payable to statutory authorities for obtaining the various permanent service connections and occupancy certificate for the building shall be borne by the Department.
- 1.27.** The rates for all items shall be considered as inclusive of pumping/baling out water, if necessary, for which no extra payment shall be made. The conditions shall be considered to include water from any source such as inflow of flood, rain water, surface drainage, sewerage or due to any other reason including surface and sub-soil water etc. and shall apply to the execution in any season.
- 1.28.** Unless otherwise specified in the schedule of quantities, the rates tendered by the contractor shall be inclusive of all costs & taxes and shall apply to all leads, lifts, depth and height and nothing extra shall be payable on this account.
- 1.29.** For completing the work in time, the Contractor might be required to work in two or more shifts (including night shifts). Normally contractors shall not be allowed to execute the RCC, electrical and finishing work at night. Work at night shall, however, be allowed if the site conditions/circumstances so demand. No claim whatsoever shall be entertained on this account, notwithstanding the fact that the contractor may have to pay extra amounts for any reason, to the labours and other staff engaged directly or indirectly on the work according to the provisions of the labour Act and other statutory bodies regulations and the agreement entered upon by the contractor with them.
- 1.30.** The contractor shall maintain in perfect condition, all portions executed till completion of the entire work allotted to him. Where however phased delivery of work is contemplated these provisions shall apply separately to each phase.
- 1.31.** All material shall only be brought at site as per program finalized with the Engineer-in-Charge. Any pre-delivery of the material not required for immediate consumption shall not be accepted and thus not paid for.
- 1.32.** The contractor(s) shall take instructions from the Engineer-in-Charge regarding collection and stacking of materials at any place. No excavated earth or building rubbish shall be stacked on areas where other buildings, roads, services and compound walls are to be constructed. The stacking shall take place as per stacking plan however, if any change is required, the same shall be done with the approval of Engineer-in-Charge.
- 1.33.** The Contractor shall bear all incidental charges for all type of cartage/carriage upto execution site, storage and safe custody of materials issued by department/arranged by the contractor.

- 1.34. The terms machine batched, machine mixed and machine vibrated concrete used elsewhere in agreement shall mean the concrete produced in concrete batching and mixing plant and if necessary, transported by transit concrete mixers, placed in position by the concrete pumps, tower crane and vibrated by surface vibrator /needle vibrator / plate vibrator, as the case may be to achieve required strength and durability.
- 1.35. The work should be planned in a systematic manner so that chase cuttings in the walls, ceilings and floors are minimized. Wherever absolutely essential, the chase shall be cut using chase cutting machines. Chases will not be allowed to be cut using hammer / chisel. The electrical boxes should be fixed in walls simultaneously while raising the brick work. The contractor shall ensure proper coordination of various disciplines viz. sanitary & water supply, electrical, fire- fighting and any other services.
- 1.36. Any cement slurry added over base surface for continuation of concreting for better bond is deemed to have been built in the items and nothing extra shall be payable and no extra cement considered in consumption on this account.
- 1.37. Existing drains, pipes, cables, over-head wires, sewer lines, water lines and similar service encountered in the course of the execution of work shall be protected against the damage by the contractor at his own expense. In case the same are to be removed and diverted. The same shall be payable to the contractor. The contractor shall work out the cost and the same shall be approved by Engineer-in-Charge. The contractor shall not store materials or otherwise occupy any part of the site in a manner likely to hinder the operation of such services.
- 1.38. The contractor shall be responsible for the watch and ward / guard of the buildings safety, fittings and fixtures provided by him against pilferage and breakage during the period of installations and thereafter till the building is physically handed over to the department. No extra payment shall be made on this account.

1.39. SAFETY PRECAUTIONS

- (i) Contractor shall within two weeks of award of work, submit to the Engineer-in-Charge for his approval, list of measures for maintaining safety of manpower deployed for construction.
- (ii) The contractor(s) shall erect the barricading of required height with Precoated galvanized iron profile sheet/MS sheets with proper structural support for enclosing the full area of constructions as per direction of Engineer-in-charge.
- (iii) *Entry to the site shall be controlled for proper security of man and materials and to avoid accidents.*
- (iv) Necessary personal protective and safety equipment's such as helmet, safety shoes & harness, gloves etc. shall be provided to the all-site Engineers, Supervisory staff, labour and technical staff of the contractor by the Contractor at his own cost and to be used at site.
- (v) The Contractor(s) shall take all precautions to avoid accidents by exhibiting

necessary caution boards, day & night speed limit boards, red flags, red lights and providing barriers. He shall be responsible for all damages and accidents caused to existing/new work due to negligence on his part. No hindrances shall be caused to traffic during the execution of the work.

- (vi) In case of any accident of labours/ contractual staff's the entire responsibility will rest on the part of the contractor and any compensation under such circumstances if becomes payable the same shall be entirely borne by the contractor and department shall have no role on this account.
- (vii) It shall be ensured by the contractor that no electric live wire is left exposed or unattended to avoid any accidents in this regard.
- (viii) Any trenching and digging for laying sewer lines/water lines/cables etc. shall be commenced by the contractor only when all men, machineries and materials have been arranged and closing of the trench(s) thereafter shall be ensured within the least possible time.
- (ix) *The contractor shall have to work in pandemic / epidemic conditions such as **COVID 19** for which he has to make safety arrangement / measures for the workers / staff and for the premises meant for them, as per guidelines issued by Government and directions issued by Engineer-in-charge from time to time and nothing extra shall be paid on this account.*

1.40. QUALITY ASSURANCE

- (i) The contractor shall ensure quality construction in a planned and time bound manner. Any sub-standard material/work beyond set out tolerance limit shall be summarily rejected by the Engineer-in-charge & contractor shall be bound to replace / remove such sub-standard / defective work immediately. If any material, even though approved by Engineer-In-Charge is found defective or not conforming to specifications shall be replaced / removed by the contractor at his own risk & cost.
- (ii) All materials and fittings brought by the contractor to the site for use shall conform to the samples approved by the Engineer-in-charge which shall be preserved till the completion of the work. If a particular brand of material is specified in the particular specification, the same shall be used after getting the same approved from Engineer-In-Charge. Wherever brand / quality of material are not specified in the particular specifications; the contractor shall submit the sample as per list of preferred make given in tender documents. For all other items, materials and fittings of ISI Marked shall be used with the approval of Engineer-In-Charge. Wherever ISI Marked material / fittings are not available, the contractor shall submit samples of materials / fittings manufactured by firms of repute conforming to relevant specifications or IS codes and use the same only after getting the approval of Engineer-In-Charge.
- (iii) The Contractor shall procure and provide all the materials from the manufacturers / suppliers as per the item description in schedule of quantity and particular specifications for the work. The equivalent brand other than brand / make mentioned in particular specification for any item, shall be permitted to be used in the work, only when the specified make is not available. This is, however, subject to documentary evidence produced by the contractor for non-availability of the brand

specified and also subject to independent verification by the Engineer-in-Charge. In exceptional cases, where such approval is required, the decision of Engineer-in-Charge as regards equivalent make of the material shall be final and binding on the Contractor. No claim, whatsoever, of any kind shall be entertained from the Contractor on this account. Nothing extra shall be payable on this account. Also, the material shall be procured only after written approval of the Engineer-in-Charge.

- (iv) Water tanks, taps, sanitary, water supply and drainage pipes, fittings and accessories should conform to byelaws and municipal body / corporation where CPWD Specifications are not available. The contractor should engage licensed plumbers for the work and get the materials (fixtures/fittings) tested by the Municipal Body/Corporation authorities wherever required at his own cost. Nothing extra shall be paid on this account.
- (v) The tests, as necessary, shall be conducted in the laboratory approved by the Engineer-in-Charge. The samples shall be taken for carrying out all or any of the tests stipulated in the particular specifications and as directed by the Engineer-in-Charge or his authorized representative.
- (vi) All the registers of tests (carried out at Construction Site or in outside laboratories) and all material at site (MAS) registers including cement register shall be maintained by the contractor which shall be issued to the contractor by Engineer-in-charge. All the entries in the registers will be made by the designated Engineering Staff of the contractor and same should be regularly reviewed by JE/AE/AEE/EE. Contractor shall be responsible for safe custody of all the registers.
- (vii) The Contractor shall at his own risk and cost make all arrangements and shall provide all such facilities including material and labour, the Engineer-in-Charge may require for collecting, preparing, forwarding the required number of samples for testing as per the frequency of test stipulated in the contract specifications or as considered necessary by the Engineer-in-Charge, at such time and to such places, as directed by the Engineer-in-Charge. Nothing extra shall be payable for the above.
- (viii) The Contractor or his authorized representative shall associate in collection, preparation, forwarding and testing of such samples. In case he or his authorized representative is not present or does not associate him, the result of such tests and consequences thereon shall be binding on the Contractor. The Contractor or his authorized representative shall remain in contact with the Engineer-in-Charge or his authorized representative associated for all such operations. No claim of payment or claim of any other kind, whatsoever, shall be entertained from the Contractor.
- (ix) Unless specified otherwise, all the testing charges shall be borne by contractor.
- (x) All the hidden items such as water supply lines, drainage pipes, electrical conduits, sewers etc. are to be properly tested as per the design conditions before covering.
- (xi) The contractor shall give performance test of the entire installation(s) as per the standing specifications before the work is finally accepted and nothing extra whatsoever shall be payable to the contractor for the test.
- (xii) The Contractor shall make available, on request from the Department, the copies of challan, cash memos, receipts and other certificates, if any, vouchers towards the quantity and quality of various materials procured for the work. The Contractor

shall also provide information and necessary documentation on the name of the manufacturer, manufacturer's product identification, manufacturer's instructions, warning, date of manufacturing and test certificates (from manufacturers for the product for each consignment delivered at site), shelf life, if any etc., for the department to ensure that the material have been procured from the approved source and is of the approved quality, as directed by the Engineer-in-Charge. Wherever specified, day-to-day account of receipt of such material shall be maintained at site of work.

- (xiii) If the Contractor does not provide adequate supporting staff or labour or both for carrying out field tests or collecting and forwarding samples to outside laboratory or for maintaining test records, Engineer in charge may carry out field tests or collect and forward sample to outside laboratory or appoint any person to maintain the registers at risk and cost of Contractor. The charges so incurred shall be entirely borne by contractor and shall be deducted from Running or final bill of contractor. Further, ***recovery of Rs. 1000/- for each default shall be levied to contractor.***

1.41. CLEANLINESS OF SITE

- (i) The Contractor shall not stack building material / malba / muck on the land or road of the local development authority or on the land owned by the others, as the case may be. So, the muck, rubbish etc. shall be removed periodically, from the site of work to the approved dumping grounds as per the local byelaws and regulations of the concerned authorities and all necessary permissions in this regard from the local bodies shall be obtained by the Contractor. Nothing extra shall be payable on this account. In case, the Contractor is found stacking the building material / malba as stated above, the Contractor shall be liable to pay the stacking charges / penalty as may be levied by the local body or any other authority and also to face penal action as per the rules, regulations and bye-laws of such body or authority. The Engineer –in-Charge shall be at liberty to recover, such sums due but not paid to the concerned authorities on the above counts, from any sums due to the Contractor including amount of the Security Deposit and performance guarantee in respect of this contract agreement.
- (ii) The contractor shall take instructions from the Engineer-In-Charge regarding collection and stacking of materials at any place. No excavated earth or building rubbish shall be stacked on areas where other buildings, roads, services and compound walls are to be constructed.
- (iii) The site of work shall be always kept clean due to constraints of space and to avoid any nuisance to the users of buildings in the adjacent plots. The Contractor shall take all care to prevent any water- logging at site. The wastewater, slush etc. shall not be allowed to be collected at site. For discharge into public drainage system, necessary permission shall be obtained from relevant authorities after paying the necessary charges, if any, directly to the authorities. The work shall be carried out in such a way that the area is kept clean and tidy. All the fees/charges in this regard shall be borne by the Contractor. Nothing extra shall be payable on this account.
- (iv) It is the responsibility of contractor to keep building neat and clean. The contractor shall spray the chemicals fumigate site area to check the mosquitoes at frequent interval or as directed by the Engineer in charge. The contractor shall also make lighting and temporary ventilation arrangement in basement.

- (v) The contractor shall not wash the drum of TM (transit mixture) at site and shall avoid the spread of leachate / cement slurry to be spread at the site of work and all care shall be taken to keep the site neat and clean at his own cost.
- 1.42. Employ measures to segregate the waste on-site into inert, chemical or hazardous wastes. Recycle the unused chemical/hazardous wastes such as oil, paint, batteries and asbestos. The inert waste is to be disposed off to Municipal Corporation/local bodies dump yard and landfill sites.
- 1.43. The contractor shall provide potable water for all workers. The contractor shall provide the minimum level of sanitation and safety facilities for the workers at site. The contractor shall ensure cleanliness of workplace with regard to the disposal of waste and effluent; provide clean drinking water and latrines and urinals as per applicable standard.

2. Special condition for Cement

- 2.1. Agency shall procure OPC conforming to IS : 8112 / PPC conforming to IS : 1489 (Part 1) as required in the work from cement manufacturers mentioned in the list of Preferred makes for civil works.
- 2.2. Supply of cement shall be made in 50 kg. bags bearing manufacturer's name and ISI marking. Samples of cement arranged by the contractor shall be taken by the Engineer-in-Charge and got tested in accordance with provisions of the relevant BIS codes. In case the test results indicate that the cement arranged by the contractor does not conform to the relevant BIS code the same shall stand rejected and shall be removed from the site by the contractor at his own cost within a week's time of written order from the Engineer-in-charge to do so.
- 2.3. The cement shall be brought at site in bulk supply of approximately **05 tonnes** or as decided by the Engineer-in-Charge.
- 2.4. The cement godown of the capacity to store a minimum of **100 bags** of cement shall be constructed by the contractor at site of work for which no extra payment shall be made.
- 2.5. Double lock provision shall be made to the door of the cement godown. The keys of one lock shall remain with the Engineer-in-charge or his authorized representative and the key of the other lock shall remain with the contractor. The contractor shall be responsible for the watch and ward and safety of the cement godown. The contractor shall facilitate the inspection of the cement godown by the Engineer-in-Charge at any time.
- 2.6. The cement shall be got tested by the Engineer-in-Charge and shall be used on the work only after satisfactory test results have been received. The contractor shall supply free of charge the cement required for testing including its transportation cost to test laboratories.
- 2.7. The actual issue and consumption of cement on work shall be regulated and proper accounts maintained. The theoretical consumption of cement shall be worked out as per procedure prescribed in clause 38 of the contract and shall be governed by conditions laid therein. In case the cement consumption is less than theoretical consumption including permissible variation, recovery at the rate so prescribed shall be made after ensuring structural soundness and stability on the basis of testing. In case of excess consumption, no adjustment need to made.

- 2.8.** The cement brought to site and the cement remaining unused after completion of the work shall not be removed from site without the written permission of the Engineer-in-Charge.
- 2.9.** The damaged cement shall be removed from the site immediately by the contractor on receipt of a notice in writing from the Engineer-in-Charge. If he does not do so within three days of receipt of such notice, the Engineer-in-Charge shall get it removed at the cost of the contractor.
- 2.10.** Separate cement registers showing the receipt of the OPC and PPC shall be maintained at site. The contractor shall construct separate godowns for storage of OPC & PPC at site and nothing extra on this account shall be payable.

LIST OF PREFERRED MAKE / MANUFACTURERS FOR DIFFERENT MATERIALS TO BE USED IN THIS PROJECT FOR CIVIL WORKS

S. NO.	DETAILS OF MATERIALS	MANUFACTURERS NAME
1	ANTI TERMITE PESTICIDES	BAYER, FMC INDIA, HINDUSTAN INSECTICIDES
2	STEEL (TMT FE-500D)	TATA., RINL, JINDAL STEEL & POWER LTD, JSW STEEL LTD., SAIL
3	STRUCTURAL STEEL SECTIONS	TATA, JINDAL, SAIL, RINL
4	CEMENT [OPC/PPC]	ACC, AMBUJA, ULTRATECH, WONDER
5	READY MIXED CEMENT CONCRETE	ACC, ULTRA TECH, AFCON
6	WHITE CEMENT	BIRLA WHITE, J.K. WHITE, ULTRATECH
7	VITRIFIED TILES (DOUBLE CHARGED / FULL BODY/ULTRA SLIM /ANTISKID / ACID-ALKALI RESISTANT)- (ALL TILES SHALL BE PROCURED FROM FULLY OWNED FACTORY OF THE MANUFACTURER AND NOT FROM JV / OUTSOURCED)	SOMANY, KAJARIA, NITCO, QUTONE
8	CERAMIC GLAZED TILES	SOMANY, KAJARIA, NITCO, QUTONE
9	WATER-PROOF CEMENT PAINT, SYNTHETIC ENAMEL PAINT, PLASTIC EMULSION PAINT, DISTEMPER/ACRYLIC EMULSION PAINT, TEXTURED PAINT, STEEL PRIMER, WOOD PRIMER, EXTERIOR WATERPROOFING PAINT, WOOD FINISH (MELAMINE & PU POLISH)	ASIAN PAINT, NEROLAC, ICICI, BERGER
10	PLY BOARD, PLYWOOD (PINE BOARD), LAMINATE, FLUSH DOOR (ALL FLUSH DOORS SHALL BE PROCURED FROM FULLY OWNED FACTORY OF THE MANUFACTURER AND NOT FROM JV / OUTSOURCED), PRELAMINATED PARTICLE BOARD	GREEN, MERINO, CENTURY, DURO
11	SELF LEVELLING COMPOUND	MAPAI, ARDEX ENDURA, BIZZAR
12	EPDM GASKET	HANU, ANAND, VICTOR
13	WOOD ADHESIVE	FEVICOL, 3M, ARA LDITE, SIKA
14	FIRE SEALANT	HILTI, 3M, MCCOY
15	TILE ADHESIVE, STONE ADHESIVE, EPOXY GROUTING COMPOUND	PIDILITE, ARDEX ENDURA, WEBER,
16	DASH, ANCHORING FASTENERS	HILTI, FISCHER, CANON

S. NO.	DETAILS OF MATERIALS	MANUFACTURERS NAME
17	ALUMINIUM COMPOSITE PANEL	ALUCOBOND, REYNOBOND
18	READY MIX GYPSUM PLASTER	SAINT GOBAIN, USG BORAL, ULTRATECH
19	READY MIX CEMENT PLASTER	WEBER, ULTRATECH, BIRLA WHILTE
20	SILICON SEALANT	GE, DOW CORNING, PIDILITE
21	GYPSUM BOARD	USG BORAL, LAFAGE, SAINT GOBAIN, KNAUF DANOLINE
22	FLOAT GLASS, REFLECTIVE GLASS, TINTED GLASS, HIGH PERFORMANCE GLASS, LOOKING GLASS / MIRROR LACQUERED GLASS, HIGH PERFORMANCE GLASS, FIRE RESISTANT GLASS	MODI GLASS, SAINT GOBAIN GLASS
23	MECHANICAL COUPERS	USHA MARTIN, DEXTRA, HALFEN
24	CRYSTALLIANE CEMENTITIOUS WATERPROOFING COMPOUND	XYPEX CONSTRUCTION CHEMICAL, KRYTONE,
25	BITUMEN MEMBRANE FOR WATERPROOFING, HDPE MEMBRANE FOR WATERPROOFING, POLYUREA MEMBRANE FOR WATERPROOFING	SIKA, SAINT GOBAIN, SOPREMA, FOSROC PIDILITE
26	HOLLOW METAL PRESSED DOORS (METAL DOORS)	NAVAIR, TATA PRAVESH, SHAKTI HORMANN
27	ROLLER BLIND	VISTA, MAC, HUNTER DOUGLUS
28	HYDRAULIC DOOR CLOSER, FLOOR SPRING, DOOR AUTOMATION, HARDWARES FOR FIRE RATED DOORS, STAINLESS STEEL FITTINGS/HARDWARE FOR WOODEN/METAL/GLAZED/STEEL DOOR & WINDOWS, FRICTION STAY HINGES, HARDWARE FITTINGS FOR ALUMINIUM WINDOWS & DOORS	DORMA, GEZE, EBCO, HAFELE, HORMANN
29	ADHESIVE TAPE	3M, NORTON, TESA
30	HIGH PERFORMANCE EPOXY BASED RESIN ANCHOR SYSTEM	HILTI, FOSROC, CICO, SIKA
31	EPOXY MORTAR	FOSROC, SIKA, MYK LATICRETE, CICO
32	ALUMINIUM SECTIONS FOR DOORS & WINDOWS ETC.	JINDAL, HINDALCO, BHORUKA
33	FABRICATOR FOR ALUMINUM WORK AND STRUCTURAL GLAZING WORK	SAPA, KALCO, TECHNAL

S. NO.	DETAILS OF MATERIALS	MANUFACTURERS NAME
34	MS SECTIONS (PIPES, BOXES CHANNELS)	JINDAL HISAR, TATA,
35	S.S. MATERIAL/HADRAILS/RAILINGS	JINDAL STAINLESS STEEL LTD., TATA STEEL, SAIL
36	WALL PUTTY	JK, BIRLA, ASAIN PAINT
37	FLOOR HARDENER, POLYSULPHIDE SEALANT, WATERPROOFING COMPOUND, ADMIXTURES/CURING COUMPOUND	SIKA, FORSROC, PIDILITE, SOPREMA, DR FIXIT
38	EXPANSION JOINT	MIGUA, CS, CAMEO
39	METAL/ALUMINUM FALSE CEILING	SAINT GOBAIN, HUNTER DOUGLUS, ARMSTRONG
40	WPC (WOOD POLYMER COMPOSITE)	GREENPLY, CENTURY, RAJSHREE
41	AAC BLOCK ADHESIVE	ARDEX ENDURA, PIDILITE, WEBER
42	UPVC WINDOWS	FENESTA, ALUPLAST, KOENMERLING
43	VINYL / CONDUCTIVE FLOORING, DADO SKIRTING	FORBO, TARAKETT, ARMSTRONG, GERFLOOR
44	CALCIUM SILICATE TILES FALSE CEILING	AEROLITE, RAMCO, HILUX
45	FIRE CHECK DOORS (METAL/ROLLING/GLAZED)	NAVAIR, TATA PRAVESH, SHAKTI HORMANN, 4C FIRE PROTECTION PVT LTD
46	ACOUSTIC SEAL / DOOR SEAL	LORIENT, RAVEN, DORMA, 3M, HAFELE
47	INTUMESCENT FIRE / SMOKESEAL	ASTRO FLAME, RAVEN, SEALZ, LORIENT
48	CALCIUM SILICATE BOARD FOR FIRE DOOR	PROMOTECH, PROMINA, RAMCO
49	POLYCARBONATE SHEET	DANPALON, SOLALITE, DPI SYSTEM, EVERLITE, CPI
50	GI PIPES	JINDAL HISAR, TATA
51	GI FITTINGS	UNIK, TATA
52	CPVC PIPES	ASTRAL, PRINCE, SFMC
53	HDPE PIPES	SUPREME, FINOLEX, ASTRAL, RELIANCE,
54	SOIL, WASTE, VENT PIPES & FITTINGS	ASTRAL, PRINCE, SFMC
55	C.P. BRASS FITTING AND ACESSORIES	JAQUAR, ROCA, KOHLER, KEROVIT
56	SS SINK	NILKANTH, NIRALI, JAYNA
57	SANITARY WARE (URINAL, WASH BASIN, WC ETC.)	JAQUAR, GROHE, KOHLER, KEROVIT

S. NO.	DETAILS OF MATERIALS	MANUFACTURERS NAME
58	GLASS MOSAIC TILE	ITALIA, CORAL, KAJARIA
59	FAÇADE AND WINDOW SYSTEM	SCHUCO, ALUK, REYNAERS, GUTMANN
60	FIRE STOP IN CURTAIN WALL SYSTEM	HILTI, 3M, FISCHER, LORIENT
61	POP OUT VENT FOR FAÇADE AND SYSTEM WINDOW HARDWARE	COTSWOLD, SCHUCO, ALUK, REYNAERS
62	ALUMINIUM OPERABLE LOUVER	TECHNAL, DOMAL, YOGI GLAZE, SCHUCO
63	AIR TRANSFER GRILL	RUSKIN, SYSTEM AIR, TROX, TREMCO
64	ENGINEERED WOODEN FLOORING AND SKIRTING	MIKASA (GREENLAM), TARKETT, HAVWOODS, PARADOR (HIL), PERGO, KAHRS
65	ENGINEERED MARBLE	HR JOHNSON, KALINGA STONE, NITCO, ASIAN
66	SS TACTILE	EMINENT, FERROTECH, SUNDARAM, JINDAL
67	BAMBOO DECKING, ROOFING & CLADDING	ECO GREEN FLOORING, EPITOME BAMBOOWOOD, LAMIWOOD
68	OUTDOOR SIGNAGES	3M, AVERY DENNISON, VEDAAANSHI SIGNS
69	ACOUSTIC PANELS	ARMSTRONG, USG BORAL, ANUTONE
70	WEATHER/STRUCTURE SILICON SEALANT	WACKER, MCCOY, DOW CORNING
71	BACKER ROD	SUPREME/SYSTRANS
72	POLYSTRENE BOARD	SUPREME, DOW CORNING, TEXAS, PIDILITE
73	DUCTILE IRON PIPES	ELECTROSTEEL, KESORAM, TISCO
74	STAINLESS STEEL PIPES AND FITTINGS	JINDAL STAINLESS STEEL, J-PRESS ALFA PRESS
75	SLUICE VALVES, GATE / BALL VALVES	ZOLOTO, KIRLOSKAR, LEADER
76	FURNITURE	HERMAN-MILLER, HAYWORTH, STTEL CASE, ROCKWORTH, GODREJ, DURIAN

Note: - The articles / materials which are not mentioned in the above said list shall be approved by the Engineer-in-Charge before execution of work.

SCHEDULE OF QUANTITY
FOR CIVIL WORK

SCHEDULE OF QUANTITY

Name of work: Renovation of 06 Nos. Type-III qtrs., 12 Nos. Type-II qtrs. & 04 Nos. Type-I qtrs of FSI Colony, Kaulagarh Road, FSI, Dehradun.

S. No.	Particulars	Qty	Unit	Rate	Amount
1	Supplying chemical emulsion in sealed containers including delivery as specified.				
1.1	Chlorpyrifos emulsifiable concentrate of 20%	220.00	Litre	234.75	51645.00
2	Diluting and injecting chemical emulsion for POST-CONSTRUCTIONAL anti-termite treatment (excluding the cost of chemical emulsion) :				
2.1	Treatment of soil under existing floors using chemical emulsion @ one litre per hole, 300 mm apart including drilling 12 mm diameter holes and plugging with cement mortar 1 : 2 (1 cement : 2 Coarse sand) to match the existing floor:				
2.1.1	With Chlorpyrifos/Lindane E.C. 20% with 1% concentration	390.00	Sqm	310.05	120920.00
3	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :				
3.1	1:5:10 (1 cement : 5 coarse sand (zone-III) derived from natural sources : 10 graded stone aggregate 40 mm nominal size derived from natural sources)	15.00	cum	6518.60	97779.00
4	Half brick masonry with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level.				
4.1	Cement mortar 1:4 (1 cement :4 coarse sand)	16.00	Sqm	1123.80	17981.00
5	Providing and fixing 18 mm thick gang saw cut, mirror polished, pre-moulded and pre-polished, machine cut for kitchen platforms, vanity counters, window sills, facias and similar locations of required size, approved shade, colour and texture laid over 20 mm thick base cement mortar 1:4 (1 cement : 4 coarse sand),				

	joints treated with white cement, mixed with matching pigment, epoxy touch ups, including rubbing, curing, moulding and polishing to edges to give high gloss finish etc. complete at all levels.				
5.1	Granite stone slab of colour black, Cherry/Ruby red				
5.1.1	Area of slab upto 0.50 sqm.	26.00	Sqm	5413.50	140751.00
5.1.2	Area of slab over 0.50 sqm.	45.00	Sqm	5136.30	231134.00
6	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.	738.00	Sqm	1267.95	935747.00
7	Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with hold fast lugs or with dash fasteners of required dia & length (hold fast lugs or dash fastener shall be paid for separately).				
7.1	Kiln seasoned and chemically treated hollock wood	8.00	cum	83378.05	667024.00
8	Providing and fixing ISI marked flush door shutters conforming to IS : 2202 (Part I) decorative type, core of block board construction with frame of 1st class hard wood and well matched teak 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters.				
8.1	35 mm thick including ISI marked Stainless Steel butt hinges with necessary screws	193.00	Sqm	3473.85	670453.00
9	Providing and fixing wire gauge shutters using galvanized M.S. wire gauge of average width of aperture 1.4 mm in both directions with wire				

	of dia 0.63 mm, for doors, windows and clerestory windows with hinges and necessary screws :				
9.1	35 mm thick shutters				
9.1.1	With ISI marked stainless steel butt hinges of required size				
9.1.1.1	Kiln seasoned and chemically treated hollock wood	158.00	Sqm	3792.75	599255.00
10	Providing and fixing chromium plated brass curtain rod having wall thickness of 1.25mm with two chromium plated brass brackets fixed with C.P. brass screws and PVC sleeves etc., wherever necessary complete :				
10.1	25 mm dia	280.00	mtr	525.55	147154.00
11	Providing and fixing M.S. grills of required pattern in frames of windows etc. with M.S. flats, square or round bars etc. including priming coat with approved steel primer all complete				
11.1	Fixed to steel windows by welding	1800.00	kg	219.10	394380.00
12	Providing and fixing ISI marked 1S:1341 M.S. pressed butt hinges bright finished with necessary screws etc. complete :				
12.1	100X58X1.90 mm	348.00	Each	45.00	15660.00
13	Providing and fixing IS : 12817 marked stainless steel butt hinges with stainless steel screws etc. complete				
13.1	100X58X1.90 mm	132.00	Each	107.10	14137.00
14	Providing and fixing aluminium sliding door bolts, ISI marked anodised (anodic coating not less than grade AC 10 as per IS : 1868), transparent or dyed to required colour or shade, with nuts and screws etc. complete :				
14.1	250x16 mm	166.00	Each	260.60	43260.00
15	Providing and fixing aluminium tower bolts ISI marked 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 :				
15.1	200x10 mm	604.00	Each	99.70	60219.00
15.2	150x10 mm	320.00	Each	82.55	26416.00

16	Providing and fixing aluminium handles ISI marked, 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 :				
16.1	125 mm	460.00	Each	66.25	30475.00
17	Providing and fixing fly proof stainless steel grade 304 wire gauge, to windows and clerestory windows using wire gauge with average width of aperture 1.4 mm in both directions with wire of dia. 0.50 mm all complete.				
17.1	With 2nd class teak wood beading 62x19 mm	52.00	Sqm	1597.15	83052.00
18	Providing and fixing factory made uPVC glazed/wire mesh windows/doors comprising of lead free uPVC multi-chambered frame, sash and mullion/coupler (where ever required) extruded profiles having minimum wall thickness of 1.70 mm for Series R1 and R2 profiles and 2.10 mm for Series R3 and R4 profiles conforming to EN: 12608 in any shape, colour and design duly reinforced with galvanized mild steel section made of required shape & size as per CPWD Specification, uPVC extruded glazing beads, interlocks and Inline sash adaptor (where ever required) of appropriate dimension, EPDM gasket, hardware, SS 304 grade fasteners of minimum 8 mm dia with countersunk head, comprising of matching polyamide PA6 grade sleeve for fixing frame to finished wall as per IS 1367 : Part 1 to 14, plastic packers, plastic caps and necessary stainless steel screws etc. Profile of frame, sash & mullion (if required) shall be mitred cut and fusion welded/mechanically jointed duly sealed at all corners, including drilling of holes for fixing hardware and drainage of water etc. After fixing frame the gap between frame and adjacent finished wall shall be filled with weather proof silicon sealant over backer rod of approved size and quality, all complete as per approved drawing conforming to CPWD specification & direction of Engineer-in-Charge. Section of steel reinforcement and cross sections of uPVC profiles to be as per design approved by Engineer-in-Charge.				

	Wire mesh / Glazing of plain/ toughened/ laminated/ double glass unit with / without high performance coatings as per design requirements and conforming to IS: 3548 & IS: 16231 shall be paid separately. Note:- Structural design proof checked from a Government Engineering Institute, to be provided by the manufacturer for : (i) Sites with basic wind speed > 45 m/sec as per IS 875 – Part 3 (ii) Sites with structure height more than 20m for all wind speeds				
18.1	Three track three panels sliding window with two glazed & one wire mesh panels with Aluminium channel for roller track, wool pile, nylon rollers with SS 304 body.				
18.1.1	Using R2 series with frame (70mm & above) x (40mm & above) & both glazed and fly screen sash (25mm & above) x (50mm & above) with zinc alloy (zamak) powder coated touch locks with hook. (Height upto 1.2 m).	104.00	sqm	10993.55	1143329.00
19	Fixed window / ventilator without mullion / transom.				
19.1	Using R1 series with frame (33mm & above) x (35mm & above). (Height upto 0.90 metre)	15.00	sqm	8247.25	123709.00
20	Casement window single panel with S.S. 304 friction hinges as per size and weight of sash, multi-point locking system, zinc alloy (zamak) powder coated handles.				
20.1	Using R2 series with frame (39mm & above) x (39mm & above) & sash (39mm & above) x (60mm & above). (Height upto 1.2 metre)	16.00	Sqm	14449.25	231188.00
21	Providing and fixing stainless steel fancy handle of approved make fixed with SS screws etc. complete as per direction of Engineer-in-charge.				
21.1	200 mm	520.00	Each	186.65	97058.00
22	Providing and fixing stainless steel soft closing spring hinges at 0-degree hinges (hydraulic type) of approved make/brand to cupboard shutters with full threaded steel screws including making necessary recess in board and finished etc. complete as per direction of Engineer-in-charge.	1040.00	Each	272.00	282880.00

23	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.	230.00	Sqm	1096.55	252207.00
24	Providing and laying Vitrified tiles in floor in different sizes (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS:15622, of approved brand & manufacturer, in all colours and shade, laid on 20 mm thick cement mortar 1:4 (1 cement: 4 coarse sand) jointing with grey cement slurry @3.3 kg/sqm including grouting the joints with white cement and matching pigments etc. The tiles must be cut with the zero chipping diamond cutter only . Laying of tiles will be done with the notch trowel, plier, wedge, clips of required thickness, levelling system and rubber mallet for placing the tiles gently and easily.				
24.1	Glazed vitrified floor tiles polished finish of size				
24.1.1	Size of Tile 600 x 600 mm	656.00	Sqm	1502.75	985804.00
25	Providing and laying Vitrified tiles in different sizes (thickness to be specified by manufacturer), with water absorption less than 0.08 % and conforming to I.S. 15622, of approved make, in all colours & shade, in skirting, riser of steps, over 12 mm thick bed of cement mortar 1:3 (1 cement: 3 coarse sand), jointing with grey cement slurry @ 3.3 kg/ sqm including grouting the joint with white cement & matching pigments etc. complete				
25.1	Size of Tile 600 x 600 mm	142.00	Sqm	1623.05	230473.00

26	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, (i) Single socketed pipes.				
26.1	110 mm diameter	144.00	mtr	377.40	54346.00
27	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 to IS : 5382, leaving 10 mm gap for thermal expansion.				
27.1	Bend 87.5°				
27.1.1	110 mm bend	24.00	each	150.35	3608.00
27.2	Shoe (Plain)				
27.2.1	110 mm Shoe	24.00	each	131.85	3164.00
28	6 mm cement plaster of mix :				
28.1	1:3 (1 cement: 3 fine sand)	900.00	Sqm	300.45	270405.00
29	12 mm cement plaster of mix :				
29.1	1:6 (1 cement: 6 coarse sand)	2985.00	Sqm	343.65	1025795.00
30	Providing and applying white cement-based putty of average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete.	3885.00	Sqm	156.05	606254.00
31	Wall painting with premium acrylic emulsion paint of interior grade, having VOC (Volatile Organic Compound) content less than 50 grams/ litre of approved brand and manufacture, including applying additional coats wherever required to achieve even shade and colour.				
31.1	Two coats	3885.00	Sqm	142.80	554778.00
32	Applying priming coats with primer of approved brand and manufacture, having low VOC (Volatile Organic Compound) content.				
32.1	With water thinnable cement primer on wall surface having VOC content less than 50 grams/litre.	3885.00	Sqm	73.95	287296.00
33	Demolishing cement concrete manually/ by mechanical means including disposal of material within 50 metres lead as per direction of				

	Engineer - in - charge.				
33.1	Nominal concrete 1:3:6 or richer mix (i/c equivalent design mix)	18.00	Cum	2434.35	43818.00
34	Dismantling doors, windows and clerestory windows (steel or wood) shutter including chowkhats, architrave, holdfasts etc. complete and stacking within 50 metres lead :				
34.1	Of area 3 sq. metres and below	300.00	Each	367.20	110160.00
35	Dismantling tile work in floors and roofs laid in cement mortar including stacking material within 50 metres lead.				
35.1	For thickness of tiles 10 mm to 25 mm	141.00	sqm	73.40	10349.00
36	Dismantling stone slab flooring laid in cement mortar including stacking of serviceable material and disposal of unserviceable material within 50 metres lead.	39.00	sqm	266.45	10392.00
37	Dismantling C.I. or asbestos rain water pipe with fittings and clamps including stacking the material within 50 metres lead :				
37.1	75 to 80 mm dia pipe	275.00	mtr	75.70	20818.00
37.2	100 mm dia pipe	88.00	mtr	78.00	6864.00
38	Dismantling G.I. pipes (external work) including excavation and refilling trenches after taking out the pipes, manually/ by mechanical means including stacking of pipes within 50 metres lead as per direction of Engineer-in-charge :				
38.1	15 mm to 40 mm nominal bore	550.00	mtr	149.80	82390.00
39	Dismantling of flushing cistern of all types (C.I./PVC/Vitrious China) including stacking of useful materials near the site and disposal of unserviceable materials within 50 metres lead.	22.00	Each	112.05	2465.00
40	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.	4623.00	Sqm	54.65	252647.00

41	Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means, including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all leads including all lifts involved.	160.00	Cum	263.95	42232.00
42	Providing and fixing white vitreous china pedestal type water closet (European type) with seat and lid, 10 litre low level white vitreous china flushing cistern & C.P. flush bend with fittings & C.I. brackets, 40 mm flush bend, overflow arrangement with specials of standard make and mosquito proof coupling of approved municipal design complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required :				
42.1	W.C. pan with ISI marked white solid plastic seat and lid	22.00	Each	8006.60	176145.00
43	Providing and fixing wash basin with C.I. brackets, 15 mm dia CP Brass single hole basin mixer of approved quality and make, including painting of fittings and brackets, cutting and making good the walls wherever required:-				
43.1	White Vitreous China Wash basin size 550x400 mm with a 15 mm CP Brass single hole basin mixer	22.00	Each	3960.55	87132.00
44	Providing and fixing Stainless Steel A ISI 304 (18/8) kitchen sink as per IS: 13983 with C.I. brackets and stainless steel plug 40 mm, including painting of fittings and brackets, cutting and making good the walls wherever required :				
44.1	Kitchen sink without drain board				
42.1.1	610x460 mm bowl depth 200 mm	22.00	Each	3873.80	85224.00
45	Providing and fixing 8 mm dia C.P. / S.S. Jet with flexible tube upto 1 metre long with S.S. triangular plate to European type W.C. of quality and make as approved by Engineer - in - charge.	22.00	Each	349.15	7681.00

46	Providing and fixing CP Brass Single lever telephonic wall mixer of quality & make as approved by Engineer in charge.				
46.1	15 mm nominal dia	22.00	Each	6940.75	152697.00
47	Providing and fixing P.V.C. waste pipe for sink or wash basin including P.V.C. waste fittings complete.				
47.1	Flexible pipe				
47.1.1	32 mm dia	22.00	Each	119.55	2630.00
47.1.2	40 mm dia	22.00	Each	119.55	2630.00
48	Providing and fixing mirror of superior glass (of approved quality) and of required shape and size with plastic moulded frame of approved make and shade with 6 mm thick hard board backing :				
48.1	Rectangular shape 453x357 mm	22.00	Each	1361.80	29960.00
49	Providing and fixing 600x120x5 mm glass shelf with edges round off, supported on anodised aluminium angle frame with C.P. brass brackets and guard rail complete fixed with 40 mm long screws, rawl plugs etc., complete.	22.00	Each	1083.50	23837.00
50	Providing and fixing toilet paper holder :				
50.1	C.P. brass	22.00	Each	803.70	17681.00
51	Providing and fixing soil, waste and vent pipes :				
51.1	100 mm dia				
51.1.1	Hubless centrifugally cast (spun) iron pipes epoxy coated inside & outside IS:15905	550.00	mtr	1169.30	643115.00
52	Providing and fixing plain bend of required degree.				
52.1	100 mm dia				
52.1.1	Hubless centrifugally cast (spun) iron pipes epoxy coated inside & outside IS:15905	88.00	Each	368.00	32384.00
53	Providing and fixing single equal plain junction of required degree:				
53.1	100x100x100 mm				
53.1.1	Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	110.00	Each	581.45	63960.00
54	Providing and fixing shielded coupling for Hubless centrifugally cast iron pipe				

54.1	100 mm dia				
54.1.1	SS 304 grade coupling with EPDM rubber gasket	594.00	Each	432.05	256638.00
55	Providing and fixing trap of self cleansing design with screwed down or hinged grating with or without vent arm complete, including cost of cutting and making good the walls and floors :				
55.1	100 mm inlet and 100 mm outlet				
55.1.1	Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	88.00	Each	854.55	75200.00
56	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold-water supply, including all CPVC plain & brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge.: Internal work - Exposed on wall				
56.1	25 mm nominal dia Pipes	220.00	mtr	401.55	88341.00
57	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 1.00 m 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. : Concealed work, including cutting chases and making good the walls etc.				
57.1	15 mm dia nominal bore	550.00	mtr	497.80	273790.00
58	Providing and fixing uplasticised PVC connection pipe with brass unions:				
58.1	30 cm length				
58.1.1	15 mm nominal bore	110.00	Each	85.00	9350.00
59	Providing and fixing C.P. brass shower rose with 15 or 20 mm inlet :				
59.1	100 mm diameter	22.00	Each	193.95	4267.00

60	Providing and placing on terrace (at all floor levels) polyethylene water storage tank, IS : 12701 marked, with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fittings and the base support for tank.	11000.00	Litre	11.00	121000.00
61	Providing and fixing C.P. brass long body bib cock of approved quality conforming to IS standards and weighing not less than 690 gms.				
61.1	15 mm nominal bore	110.00	Each	798.95	87885.00
62	Providing and fixing C.P. brass angle valve for basin mixer and geyser points of approved quality conforming to IS:8931				
62.1	15 mm nominal bore	198.00	Each	574.30	113711.00
63	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):				
63.1	With float glass panes of 5 mm thickness (weight not less than 12.50 kg/sqm)	121.00	Sqm	1505.25	182135.00
64	Providing and laying water proofing treatment in sunken portion of WCs, bathroom etc., by applying cement slurry mixed with water proofing cement compound consisting of applying : (a) First layer of slurry of cement @ 0.488 kg/sqm mixed with water proofing cement compound @ 0.253 kg/ sqm. This layer will be allowed to air cure for 4 hours. (b) Second layer of slurry of cement @ 0.242 kg/sqm mixed with water proofing cement compound @ 0.126 kg/sqm. This layer will be allowed to air cure for 4 hours followed with water curing for 48 hours. The rate includes preparation of surface, treatment and sealing of all joints, corners, junctions of pipes and masonry with polymer mixed slurry.	60.00	sqm	617.05	37023.00

65	Grading roof for water proofing treatment with				
65.1	Cement concrete 1:2:4 (1 cement: 2 coarse sand: 4 graded stone aggregate 20mm nominal size)	49.20	cum	8042.30	395681.00
66	Providing and applying fibre reinforced elastomeric liquid water proofing membrane with resilient acrylic polymers having Sun Reflectivity Index (SRI) of 105 on top of concrete roof in three coats @10.76 litre/ 10 sqm. One coat of self-priming of elastomeric waterproofing liquid (dilution with water in the ratio of 3:1) and two coats of undiluted elastomeric waterproofing liquid (dry film thickness of complete application/system not less than 500 microns). The operation shall be carried out after scrapping and properly cleaning the surface to remove loose particles with wire brushes, complete in all respect as per the direction of Engineer-in-Charge.	656.20	sqm	563.10	369506.00
67	Providing and fixing factory made single extruded WPC (Wood Polymer Composite) solid door/window/ Ceosetory windows & other Frames/ Chowkhat comprising of virgin PVC polymer of K value 58- 60 (Suspension Grade), calcium carbonate and natural fibers (wood powder/ rice husk/wheat husk) and non toxic additives (maximum toxicity index of 12 for 100 gms) fabricated with miter joints after applying PVC solvent cement and screwed with full body threaded star headed SS screws having minimum frame density of 750 kg/ cum, screw withdrawal strength of 2200 N (Face) & 1100 N (Edge), minimum compressive strength of 58 N/mm ² , modulus of elasticity 900 N/mm ² and resistance to spread of flame of Class A category with property of being termite/borer proof, water/moisture proof and fire retardant and fixed in position with M.S hold fast/lugs/SS dash fasteners of required dia and				

	length complete as per direction of Engineer-In- Charge. (M.S hold fast/lugs or SS dash fasteners shall be paid for separately). Note: For WPC solid door/window frames, minus 5mm tolerance in dimensions i.e depth and width of profile shall be acceptable. Variation in profile dimensions on plus side shall be acceptable but no extra payment on this account shall be made.				
67.1	Frame size 50 x 100 mm	216.00	mtr	947.70	204703.00
68	Providing and fixing factory made single extruded WPC (Wood Polymer Composite) solid plain flush door shutter of required size comprising of virgin polymer of K value 58-60 (Suspension Grade), calcium carbonate and natural fibers (wood powder/ rice husk/wheat husk) and non toxic additives (maximum toxicity index of 12 for 100 gms) having minimum density of 650 kg/cum and screw withdrawal strength of 1800 N (Face) & 900 N (Edge), minimum compressive strength 50 N/mm ² , modulus of elasticity 850 N/mm ² and resistance to spread of flame of Class A category with property of being termite/borer proof, water/moisture proof and fire retardant and fixing with stainless steel butt hinges of required size with necessary full body threaded star headed counter sunk S.S screws, all as per direction of Engineer-In- Charge. (Note: stainless steel butt hinges and necessary S.S screws shall be paid separately)				
68.1	30 mm thick	155.00	Sqm	4346.70	673739.00
69	Providing and fixing factory made single extruded WPC (Wood Polymer Composite) solid board one side white color and other side of board laminated with PVC foil of minimum 14 micron thickness of approved design pasted with hot melt adhesive for cup boards, work stations and bathroom/kitchen cabinet etc. of required sizes comprising of virgin polymer of K value 58-60 (Suspension Grade), calcium carbonate and natural fibers (wood powder/ rice husk/wheat husk) and non toxic additives (maximum toxicity index of 12 for 100 gms) having minimum density of 650				

	kg/cum and screw withdrawal strength of 1800 N (Face) & 900 N (Edge), minimum compressive strength 50 N/mm ² , modulus of elasticity 850 N/mm ² and resistance to spread of flame of Class A category with property of being termite/ borer proof, water/moisture proof and fire retardant and fixing with stainless steel piano hinges/soft close clip on concealed hinges of required size with necessary full body threaded star headed counter sunk S.S screws, all as per direction of Engineer-In- Charge. (Note: stainless steel piano hinges/soft close clip on concealed hinges and necessary S.S screws shall be paid separately)				
69.1	18 mm thick	466.00	Sqm	2992.90	1394691.00
70	Providing and fixing factory made single extruded WPC (Wood Polymer Composite) solid plain white color board for backing of cup boards and bathroom/kitchen cabinets etc. of required size comprising of virgin polymer of K value 58-60 (Suspension Grade), calcium carbonate and natural fibers (wood powder/ rice husk/wheat husk) and non toxic additives (maximum toxicity index of 12 for 100 gms) having minimum density of 650 kg/cum and screw withdrawal strength of 1800 N (Face) & 900 N (Edge), minimum compressive strength 50 N/mm ² , modulus of elasticity 850 N/mm ² and resistance to spread of flame of Class A category with property of being termite/borer proof, water/moisture proof and fire retardant and fixing with stainless steel screws etc. all as per direction of Engineer-In- Charge. (Note: stainless steel screws shall be paid separately)				
70.1	6 mm thick	115.00	Sqm	1099.35	126425.00
70.2	12 mm thick	32.00	Sqm	1711.10	54755.00
	Total				16875787.00
	Modified Estimated cost after using correction factor on DSR 2023 on account of GST @0.973				16420141.00

71	Providing and fixing CP Brass towel rail fixed with CP brass screws with concealed fittings arrangement of approved quality and colour. Etc complete as per direction of Engineer-in-charge				
71.1	600 mm long towel rail	22.00	Each	1597.00	35134.00
72	Providing and fixing SS grating of approved quality and colour, complete as per direction of Engineer-in-charge				
72.1	Circular type 125 mm nominal dia	88.00	Each	304.00	26752.00
	Total				61886.00
	Total (A+B)				16482027.00

PART-C

ADDITIONAL CONDITIONS, SPECIFICATIONS AND SCHEDULE OF QUANTITIES APPLICABLE TO ELECTRICAL AND MECHANICAL COMPONENT OF THE WORK

ADDITIONAL CONDITIONS

1. The scope includes Planning, Designing & preparation of shop Drawings for E&M services, obtaining approvals from the department, supplying, Installation, testing and commissioning of Internal Electrical Installations, Point Wiring, Power wiring, LT Cabling Work, LED light Fittings, Ceiling fans, Switch boards, MCB/MCCBDBs, etc. as per CPWD specifications and relevant BIS standards, as amended upto last date of submission of bid including extensions if any, good engineering practice.
2. The work shall be carried out strictly in accordance with CPWD specification for electrical works CPWD general specification Part-I (Internal) 2023, Part- II (External) 2023, Part -IV (Substation) 2013, Part-VI Fire detection and alarm System-2018, Part-V (Wet riser & Sprinkler System) 2020 & HVAC 2024 and amended up to date and in accordance with Indian Electricity Rules, 1956, Indian Electricity Act, 2003, ECSBC 2024 as amended up to date and NBC 2016 as amended up to date and as per instructions of the Engineer-in-Charge i/c as below and nothing extra will be paid.
3. The scope of works & specification is given in general but they are not exhaustive i.e. does not mention all the incidental works required to be carried out for complete execution of the item of work. The work shall be carried out, all in accordance with true intent and meaning of the specifications and the drawings taken together, regardless of whether the same may or may not be particularly shown on the drawings and/ or described in the specifications, provided that the same can be reasonably inferred there from. There may be several incidental works, which are not mentioned in the contract document/specifications but will be necessary to complete the item in all respect.
4. All these incidental works/ costs which are not mentioned, but are necessary to complete the work shall be deemed to have been included in the overall amount quoted by the contractor for various components of work. No adjustment of rates shall be made for any variation in quantum of incidental works due to variation/change in actual working drawings.
5. Adjustment of rates shall not be made due to any change in incidental works or any other deviation in such element of work (which is incidental to the items of work and are necessary to complete such items in all respects) on account of the directions of Engineer-in-charge. Nothing extra shall be payable on this account.
6. Agency will get the scheme approved from the local bodies wherever required before start of the work and if required after completion of the work also.
7. Three final copies of the documents prepared shall be submitted to Engineer-in-charge for record. All the documents created out of the assignment will become the sole property of the Department. The contractor shall obtain completion certificate after completion of the project from statutory local bodies, if applicable, before handing over.
8. Stage Payment for E&M packages: The following percentage of contract rates shall be payable against the stages of work shown herein:

S.No.	Stage of Work	Payment terms in %
1	On initial inspection of materials and delivery at site in good condition on basis	50%
2	On completion of installation	25%
3	On completion of testing and commissioning	20%
4	On Handing Over	5%
	Total	100%

9. **ELIGIBILITY CRITERIA FOR ASSOCIATE AGENCY:** The Composite category contractor is also eligible to carry out electrical and mechanical services works himself/herself without associating any specialized agency provided he fulfils the prescribed eligibility criteria respectively for these work(s) as mentioned below:

Estimated cost shall mean total amount of all the items in schedule of quantity related to respective specialised work. The value of executed works shall be brought to current costing level by enhancing the actual value of work at simple rate of 7% per annum, calculated from the date of completion to the previous day of last date of submission of bids. Copy of completion certificate(s) issued by the officer of the user department, not below the rank of Executive Engineer of equivalent. The completion certificate must clearly indicate: -

- (a) Name of Work
 - (b) Stipulated date of start and actual date of completion.
 - (c) Tendered amount, Gross value of work done.
 - (d) Copy of TDS certificate in case of works are executed for private sector.
 - (e) That the work has been completed satisfactorily.
 - (f) Full address of the client, officer issuing certificate and location where work is executed.
 - (g) Schedule of work/Agreement copy.
10. The contractor has to submit MOU with associated contractor (in case electrical contractor is associated), engineers name, credential, email address & mobile no. before start of work. The main agency should possess a valid electrical contractor licence for executing EI works otherwise he has to associates contractor having valid electrical contractor licence.
11. All the material to be used by the contractor on this work and their Technical Data Sheet shall be got approved from the Engineer-in-Charge in advance before installation at the site.
12. The work shall be carried out according to instructions of the Engineer-in-Charge.
13. All damages done to the building during the execution of electrical work shall be the responsibility of the contractor and the same will be made good immediately at his own

cost to the satisfaction of the Engineer-in-Charge. In case, the repair is not satisfactory, the department will get it rectified & any expenditure incurred by the department in this connection shall be recovered from the contractor and decision of the Engineer-in-charge about recovery shall be final & binding on the contractor.

14. The bad workmanship will not be accepted and defects shall be rectified at contractor's cost to the satisfaction of the Engineer-in-Charge. The program of electrical works is to be coordinated in accordance with the civil work.
15. All the debris of the electrical works should be removed and the site should be cleared by the contractor immediately after the accruing of debris daily. Similarly rejected material if any should be immediately cleared off from the site by the contractor.
16. Cement for work is to be arranged and used by the contractor himself and nothing extra will be paid on this account.
17. The size of conduit and wiring layout shall be got approved from the Engineer-in-Charge before the execution of work.
18. The contractor shall make his own arrangement at his own cost for Electrical/ General tools and plants required for the work. In case, proper tools are not available, the department will purchase the tools for bonafide use of work at the risk & cost of the contractor.
19. Main board and main distribution board: The work shall be carried out according to the drawing/details as approved by the Engineer-in-Charge. The contractor shall have to get the sample approved before the whole lot is brought to site. The main board, distribution board shall be properly labelled.
20. The connection, inter connection, earthing and inter earthing shall be done by the contractor wherever required and nothing extra shall be paid on this account.
21. Nothing extra shall be paid for inter connections with thimbles/Wires/Tapes strips etc. used on the work.
22. The contractor shall make his own arrangements for electrical power supply for the construction activities. No extra payments for the same will be made.
23. The contractor shall furnish the proof to the satisfaction of Engineer-in-charge regarding purchase of Wires, Modular switches & accessories, MCBs MCBDB fan & fixture and accessories and other items, from the manufactures authorized outlets.
24. All PVC/MS conduits accessories shall be ISI marked. The conduits shall be terminated as switch boxes/metallic junction boxes with suitable glands/check nuts.
25. Cutting of brick walls shall be done with due care. All repairs and patch works shall be neatly carried out to match the original finish and to the entire satisfaction of the Engineer in Charge.

26. All the sub main and circuits wiring includes loose wire for connections inside switch boxes and MCB DBs. No payment for these loose wires shall be made.
27. To facilitate drawing of wires, 18 SWG GI fish wire shall be provided along with laying of recessed conduit for which no extra payment shall be made. Conduits laid for other services, like TV, Telephone etc., where wiring is not done along with IEI work, fish wire shall be invariably drawn.
28. The connection between incoming switch/isolator and bus bar shall be made with suitable size of thimble and cable at no extra cost.
29. Copper conductor of insulated cables of size 1.5 Sq.mm and above shall be stranded and terminals provided with crimped lugs.
30. All hardware items such as screws, thimbles, GI wire etc. which are essentially required for completing an item as per specification will be deemed to be included in the item even when the same have not been specifically mentioned.
31. All hardware items such as nuts/bolts/screws/washers etc. to be used in work shall be of zinc/cadmium plated iron.
32. While laying conduit, suitable size junction boxes shall be provided for pulling the wire as per the decision of the Engineer-in-charge.
33. Where switches / sockets / regulator / telephone / TV / internet outlets are to be provided, the same shall be of only one make. Modular accessories for UPS outlets shall be of distinguishable colour.
34. Any conduit which is not to be wired by the contractor shall be provided with GI fish wire for wiring for some other agency subsequently. Nothing extra shall be paid for the same.
35. The tenderer should either himself meet the eligibility conditions for the respective E&M components or otherwise he will have to associate with agencies, fulfilling the eligibility requirements and hence consent letter from eligible Associate Agency of the respective components of E&M work shall also be submitted as per attached **Proforma in Form "A"**.
36. In case the main contractor is himself eligible (as per eligibility criteria) for executing any specific minor component and intends doing the job himself, he may not be required to associate with another agency for that minor component of work. In such cases the main contractor also has to submit the documents as per eligibility criteria mentioned for associated agency of individual E&M component.
37. In support of the eligibility conditions of the proposed associated contractor, copy of their registration documents, electrical license, GST Documents, PAN no., work experience certificate duly attested by the applicants (Main Contractor) shall be submitted to the **Executive Engineer, CED-II, CCU, Dehradun** for approval. Each such Associated Contractor will certify that they are not debarred as on the day of application for tender participation. Proposal for associating agency for minor components of work shall be

submitted in **Form ‘B’** of this tender document from each associate independently for all electrical and mechanical components.

38. The main contractor should submit an affidavit of MoU signed with eligible associated contractor. The MoU in the enclosed **Form ‘C’** shall be signed by both the parties, main contractor as 1st party and associated contractor as 2nd party independently for all electrical and mechanical components.
39. In the event of the concerned E&M agency not performing satisfactorily or failure of associate contractor to complete the E&M work, the main contractor on written directions of the department, shall remove the Associate contractor deployed on the work and shall submit name of new associate agency who fulfil the conditions mentioned in the NIT to execute the leftover work without any loss of time or variation in cost to the department. **Such associates shall also give an undertaking along with the main tenderer but both of them together will stand guarantee for the equipment’s already supplied for which payment has been released by the department in part.** If any equipment supplied for the work, during the currency of the earlier Associate contractor and paid partly by the Department, becomes redundant / not in a position to be installed and commissioned and put to beneficial use due to change in agency for execution of E&M work, the main contractor shall be liable for replacement of the equipment(s) at no cost to Department. No change of Associated Contractor will be allowed without prior approval of the Engineer-in-charge of the work.
40. In respect of all works i.e., Electrical installation., the materials shall be procured only from the original equipment manufacturers / authorized dealers of OEM. The contractor shall submit all documentary details in fulfilment of these conditions regarding procurement of materials including relevant test certificates.
41. The contractor shall execute the whole work in the most substantial and workman like manner in strict accordance with the specifications, approved design, drawings, particular specifications, special conditions, additional conditions and instructions of the Engineer-in-Charge.
42. Materials used on work without prior inspection and testing (where testing is necessary) and without approval of the Engineer-in-Charge are liable to be considered unauthorized, defective and not acceptable. The Engineer-in-Charge shall have full powers to require the removal of any or all of the materials brought to site by contractor which are not in accordance with the contract specifications or do not conform, in character or quality to the samples approved by the Engineer-in-Charge. In case of default on the part of the contractor in removing rejected materials, the Engineer-in-Charge shall be at liberty to have them removed at the risk and cost of the contractor.
43. The contractor shall make his own arrangement of water required for execution of work and get the water tested at his own cost with regard to its suitability for use in the works and get written approval from the Engineer-in-Charge before he proceeds with the use of same for execution of work.

44. The work shall be carried out in such a manner so as not to interfere or adversely affect or disturb other works being executed by other agencies, if any.
45. Any damage done by the contractor to any existing works or work being executed by other agencies shall be made good by him at his own cost.
46. The work shall be carried out in the manner complying in all respects with the requirement of relevant rules and regulations of the local bodies under the jurisdiction of which the work is to be executed and nothing extra shall be paid on this account.
47. For completing the work in time, the contractor may have to work in two or more shifts and no claims whatsoever shall be entertained on this account, notwithstanding the fact that the contractor will have to pay to the labourers and other staff engaged directly or indirectly on the work according to the provisions of the labour regulations and the agreement entered upon and/or extra amount for any other reasons.
48. The contractor shall take all precautions to avoid all accidents by exhibiting necessary caution boards and by providing red flags, red lights and barriers. The contractor shall be responsible for any accident at the site of work and consequences thereof.
- 49. Quality Assurance Manual (Quality Assurance Plan & Checklist for E &M Service).**
- (a) Main contractor/Associate shall submit the required quantity of materials as sample for Testing from Govt. / approved private Laboratory.
 - (b) The decision on testing shall be as per E&M quality checklist of CPWD vide OM No. 51(4)/CE(E)/CSQ/2016/293 (H) dated 31.03.2016 as applicable or as per direction of Engineer in charge and shall be binding on contractor. Contractor shall submit the required size and quantity of samples for the testing.
 - (c) Department shall send the samples to the testing laboratory & the test results shall directly come to department.
50. All the equipment shall be delivered with (i) Manufacturer's test certificate, (ii) Manufacturer's technical catalogues and Installation/ Instruction(O&M) manuals. For LED luminaries, the contractor shall also submit the LM-79 test report of LED luminaries from NABL accredited laboratory.
51. Models of the fittings other than that mentioned in list of preferred make may be accepted provided the performance parameters are at par or higher than the model mentioned therein. Nothing extra shall be paid on this account.
52. Scaffoldings & any other T & P required for execution, testing and commissioning of work shall be arranged by the contractor and is included in the cost of work tendered by the contractor.
- 53. Inspection before Dispatch:** All routine tests shall be conducted before dispatch of equipment. No equipment shall be dispatched out from the manufactures premises before such tests are conducted and test result recorded. These test certificates shall be given along the supply of equipment. The Engineer-In-charge shall, if he so desires inspect and

witness the pre-delivery tests. For this purpose, the agency shall give 15 days advance notice. Agency shall arrange for inspection of the department. Department shall bear expenses of its officials for inspection as far as travelling, boarding and / lodging is concerned. However, the inspection shall be done at the discretion of the department without any cost implication but **ROUTINE TEST & TYPE TEST Certificates** shall have to be submitted for all the equipment.

- 54.** Prior to dispatch, all equipment shall be adequately protected & insured for the whole period of transit, storage and erection against corrosion and incidental damages etc. from the effect of vermin, sunlight, rain, heat, humid climate and accidents etc.
- 55. APPROVAL OF MATERIALS, SHOP FLOOR DRAWINGS AND COMMENCEMENT OF WORK:** The contract or shall submit list of makes & Model numbers of all items of equipment and accessories for each Sub Head of work. Catalogues of the equipment to be supplied. Shop floor drawings of each packages/ Sub work shall be submitted separately for approval. It is the responsibility of the tenderer to get the makes, models and shop floor drawings approved by the department before placing of order.
- 56. Insurance:** The agency shall include storage cum erection insurance including third party insurance right from the storage to commissioning and handing over of various equipment. In insurance, the beneficiary shall be Engineer-In-charge at the cost of the agency. All insurance which the agency is required to enter into under the contract shall be affected any authorized general insurance company and the agency shall produce the policies of insurance. In case of any delay in handing over, the insurance cover will be suitably extended by the contract or at his own cost.
- 57. Remedy of failure to insure:** If the agency fails to effect and keep in force the insurance referred to in the preceding sub-clause and in case of unforeseen eventuality of theft/damage etc. to any material, the contractor only shall be held responsible and necessary rectification/replacement has to be done by contractor himself.
- 58. Quality of material and workmanship:** All parts of the equipment shall be of such design, size and material so as to function satisfactorily under all rated conditions of operation. All components of the equipment shall have adequate factor of safety. The work of fabrication and assembly shall conform to sound engineering practice and on the basis of "Fail Safe Design". The mechanical parts subject to wear and tear shall be easily replaceable type. The construction of the equipment shall be such as to facilitate easy operation, inspection, maintenance and repairs. All connections and contacts shall be designed to minimize risk of accidental short circuits caused by animals, birds and vermin etc. All identical items and their component parts should be completely interchangeable including spare parts.
- 59. Inspection and testing at Factory and site:** The department reserves the right to inspect the equipment and get it tested at factory itself for which the Contractor has to give 15 day's notice for inspection. The travelling cost of Officers will be borne by the Department. The installation shall be subject to necessary inspection during every stage of erection, by the Engineer In-charge or his authorized representative. The successful bidder

shall provide all facilities and assistance for the purpose. The completed installation shall be inspected and tested by the Engineer-in charge in the manner as will be laid down by department. All instruments and facilities necessary for the tests shall be provided by the agency.

- 60.** All electrical & mechanical fittings / fixture / appliances, to be provided for the work, where BEE certification is available should have **5-star rating (of BEE)**.
- 61. QUALITY ASSURANCE:** The Contractor shall make available, on request from the Department, for record, copies of challans, cash memos, receipts and other certificates, if any, vouchers towards the quantity and quality of various materials procured and the same shall be kept in record. These shall also provide information on the name of the manufacturer, manufacturer's product identification, manufacturer's instructions, warning, date of manufacturing and test certificates from manufacturers for the product for each consignment delivered at site, shelf life, if any, for the department to ensure that the material have been procured from the approved source and of the approved quality, as directed by the Engineer-in-Charge.

**CONSENT LETTER FROM ELIGIBLE ASSOCIATE AGENCY OF MINOR
COMPONENT OF WORK**

Name of work: .

I / We hereby give my consent to associate with M/s.....,
for Executing the minor component of work of
.....
(Mention category).

I / We will execute the work as per specifications and conditions of the agreement and as per directions of the Engineer –in-Charge for the corresponding minor work till the completion of the work.

I / We will be responsible for necessary action to handover the installations and for rectification of defects and repair during the maintenance / warranty period.

Also, I / We will employ full time technically qualified Engineer / supervisor for the minor component of the work as required for the work. I / We will attend inspection of officers of the department as and when required.

Date:

Signature with date of Major component
Contractor
Address

Signature with date of Associate/Minor Component
Contractor
Address

Witness with address
(From major component contractor side)

Witness with address
(From minor component contractor side)

**PROPOSAL FOR ELIGIBLE ASSOCIATING AGENCIES FOR MINOR
COMPONENTS OF WORK**

I/we hereby propose the following agencies as mentioned against each for executing corresponding minor components of work. Their consent letters are also attached.

Sl. No	Name of Associated Contractor	Category and class of registration	Enlistment copy / Completion Certificates attached	Monetary Limit of work	Validity of registration	Consent Letter Attached (Yes/No)
1)						

Note: Self-Attested photocopies of enlistment order, valid electrical contractor license, work experience certificates of each agency for each component of E&M work shall be submitted.

Signature of contractor

AFFIDAVIT OF MEMORANDUM OF UNDERSTANDING (MOU)

(to be submitted for each and every E&M component)

M/s. (Name of the firm with full address)Enlistment Status (Valid Upto)
.....(Henceforth called the main Contractor)

M/s. (Name of the firm with full address)..... Enlistment Status (Valid
Upto).....(Henceforth called Associated Contractor)

For the execution of E &M component Works

Name of work:

We state that M.O.U between us will be treated as an agreement and has legality as per Indian Contract Act (amended up to date) and the department (CCU) can enforce all the terms and conditions of the agreement for execution of the above work. Both of us shall be responsible for the execution of work as per the agreement to the extent this MOU allows. Both the parties shall be paid consequent to the execution as per agreement to the extent this MOU permits. In case of any dispute, either of us will go for mediation by the Engineer In charge. Any of us may appeal against the mediation to the Chief Engineer, CCU. His decision shall be final and binding on both of us.

We have agreed as under:

The Associated Contractor will execute all E & M works in the wholesome manner as per terms and conditions of the agreement.

The Associated Contractor shall be liable for disciplinary action if he fails to discharge the action(s) and other legal action as per agreement.

All the machinery and equipments, tools and tackles required for execution of the E & M works, as per agreement, shall be the responsibility of the Associated Contractor.

The site staff required for the E & M work shall be arranged by the Associated Contractor as per terms and conditions of the agreement.

SIGNATURE OF MAIN CONTRACTOR

Date:

Place:

SIGNATURE OF ASSOCIATED CONTRACTOR

Date :

Place:

Witness with address
(From major component contractor side)

Witness with address
(From minor component contractor side)

**UNDERTAKING LETTER FROM MANUFACTURERS OF LED FITTINGS
(ON THEIR LETTER HEAD)**

We hereby agree that:

1. All the LED fittings supplied by us are guaranteed for five years including drivers from the date of handing over.
2. In case of discontinuation of model and non-availability of spares, we will replace the fittings with equivalent/ high end model in case of manufacturing defect during the warranty period of 5 years.

For M/S,

.....

(Authorized signatory of manufacturer of LED luminaries)

Counter Signature,

Major contractor

LIST OF PREFERRED MAKES OF MATERIALS

Acceptable makes of materials to be used in the work are enclosed. In case of non-availability of these makes, the Superintending Engineer, CCU may allow use of alternative makes on the recommendations of Engineer-in-charge. Only BIS marked materials in the list shall be used in the work. Non-BIS marked materials may be permitted by the Engineer-in-charge only when BIS marked materials are not manufactured. If approved make/brand of any material is not given in the list, the same will be approved by the Superintending Engineer, CCU on the recommendations of Engineer-in-charge.

SL.NO.	ITEMS	MAKES
	ELECTRICAL INSTALLATIONS & GENERAL	
1	WIRES AND CABLES PVC INSULATED FRLS COPPER CONDUCTOR SINGLE CORE CABLE 1.1 KV GRADE XLPE POWER CABLE AND CONTROL CABLE FIRE SURVIVAL CABLE 11 KV GRADE XLPE POWER CABLE COMMUNICATION/ TELEPHONE CABLE	POLYCAB/ KEI/ HAVELLS/ RR KABEL/ FINOLEX
2	MS CONDUIT/ PVC CONDUIT AND ITS ACCESSORIES GI PERFORATED CABLE TRAY GI RACEWAY	AKG / BEC / NIC/ MEM
3	MODULAR SWITCH & SOCKET/ GI BOX	MK -ORNA/ HAVELLS (CRABTREE MURANO) / SCHNEIDER (UNICA PURE)
4	ANCHOR FASTENER	HILTI/ 3M/ FISCHER
5	CABLE LUGS AND BRASS GLAND	GRIPWEL / DOWELL/ COMET
6	CAT-6 UTP CAT-6A, UTP UTP PATCH CORD FIBRE OPTICS CABLE	PANDUIT/ BELDEN / 3C3 / DERWISER
8	UPVC / HDPE PIPE/DWC	DURALINE/ REX/ TIRUPATI
9	RACK FOR ALL (EPABX / AUDIO VIDEO / CCTV etc.)	PANDUIT/ APC INDIA / 3C3 / IMPULSE / NEXXUX / BELDEN/ APW PRESIDENT / VALRACK/RITTAL
10	PAINT, PRIMER	ASIAN PAINT/ NEROLAC / BERGER/ ICICI
11	MS PIPE, GI PIPE	SAIL/ TATA/ JINDAL

		(HISSAR)/JINDAL STAR
12	SERVER / DESKTOP	DELL / HP/ IBM / LENOVO / PANASONIC
13	WI- FI SYSTEM & NETWORK SWITCHES	CISCO/ JUNIPER/ NEXXUUS / IMPLUSE / BELDEN
14	STRUCTURAL STEEL	TATA/ SAIL/ JINDAL HISSAR / APL-APOLLO
15	WATER SUPPLY, STP, DRAINAGE, SUBMERSIBLE PUMPS	KIRLOSKAR/KSB/ GRUNDFOSS/ WILO/ XYLEM/ ARMSTRONG/LUVI
16	DLP TRUNKING	LEGRAND/ HONEYWELL/ PRECISION
	DG SET	
1	DIESEL ENGINE	CUMMINS/ CATERPILLER/ PERKINS/ KIRLOSKAR OIL ENGINE LTD.
2	ALTERNATOR	STAMFORD/ KIRLOSKAR ELECTRIC
3	PROTECTION RELAYS & CT'S	L&T/ SIEMENS/ SCHNEIDER ELECTRIC
4	BATTERY	EXIDE / AMARON/ AMARAJA
5	DG SET- ACOUSTIC ENCLOSURE& ASSEMBLER	KIRLOSKAR(JACKSON)/ SUDHIR/CUMMINS INDIA
6	AMF CONTROLLER	AS PER OEM
7	POWER/ AUXILLARY CONTACTOR/ CAPACITOR DUTY CONTACTOR / METERS INCLUDING DIGITAL METERS / INDICATING LAMP (LED TYPE) / PUSH BUTTON / STARTERS /OVERLOAD RELAY / TIMER	L&T/ SIEMENS/ SCHNIEDER ELECTRIC/ ABB
	SUB-STATION	
1	11 KV VCB PANEL	ABB / SCHNEIDER ELECTRIC/ SIEMENS/TRICOLITE
2	a) DRY TYPE (11KV/433 VOLT)	KIRLOSKAR/ VOLTAMP/ ABB/CROMPTON GREEVES
	b) OIL TYPE TRANSFORMER (11KV/433VOLT)	KIRLOSKAR/ VOLTAMP/ ABB/CROMPTON GREEVES
3	ACB	SCHNEIDER ELECTRIC – MASTERPACT NW (6.0A)/ L&T - U POWER OMEGA (MTX3.5)/ SIEMENS 3WL (ETU 45B)/ ABB EMAX (PR122)

4	MCCB	SCHNEIDER – COMPACT NSX/ L&T DU/ ABBTMAX
5	MCB/ RCCB/ ISOLATOR	SCHNEIDER - ACTI9/ HAGER-H3/ SIEMENS/BETA GUARD 10KA/ ABB SB200M
6	MCB DB	HAGER (H3) / SIEMENS (BETAGARD) /SCHNEIDER (ACTI-9)/ABB (ITUS)
7	MAIN LT PANEL/ SUB LT PANELS/ CAPACITOR PANEL/ SYNCHRONIZING PANEL WITH ACCESSORIES/ STARTER PANEL	NEPTUNE/ ADVANCE PANELS & SWITCHGEAR (P) LTD / ADLEC / TRICOLITE/ASPL
8	BUS DUCT, AIR INSULATED COMPACT RISING MAINS, END FEED UNIT, TAP-OFF BOX (PLUG- IN TYPE)	SCHNEIDER ELECTRIC/ LEGRAND / L&T/RR
9	HT, LT JOINTING KIT & TERMINATION KIT	REYCHEM / 3M / ABB
10	SOFT STARTERS	SIEMENS/ SCHNEIDER/ ABB / L&T
11	CT, PT	ADVANCE / KAPPA / AE
	UPS	
1	UPS	SCHNEIDER (APC)/EATON/ EMERSON (VERTIV)/ PEGASUS/ ABB / NUMERIC
	LIGHTING, FIXTURES & FANS	
1	CEILING FAN / EXHAUST FAN / KITCHEN FRESH AIR/ WALL FAN	HAVELLS/ CROMPTON/ USHA /BAJAJ/ ORIENT
2	LED EXIT SIGNAGE	MR. LITE/ PROLITE
3	LED INDOOR LUMINAIRES LED DECORATIVE LIGHT LUMINAIRES LED STREET LIGHT BOLLARDS & OUTDOOR FITTINGS	PHILIPS/ REGENT/ LIGHTING TECHNOLOGY
4	BULK HEAD, MIRROR LIGHT	HAVELLS/ PHILLIPS/ BAJAJ
4	MS DECORATIVE POLE	PHILIPS/ BAJAJ / HILITE/ TWINKLE LUXMAX/ HAVELLS/ LUSTER
5	POLYCARBONATE JUNCTION BOX WITH CONNECTOR	HENSEL / RITTAL/ SCHNIEDER
6	SENSORS & TIMER FOR LIGHT CONTROL	PHILIPS/ HONEYWELL/ SCHNEIDER ELECTRIC / HAVELLS

	EPABX	
1	IP-PBX SYSTEM / IP PHONE	CISCO / CORAL / TADIRAN
2	PATCH PANEL	D-LINK/ PANDUIT/ RAPINK/ MX
	FIRE ALARM SYSTEM	
1	ADDRESSABLE FIRE ALARM CONTROL PANEL ADDRESSABLE DETECTORS GRAPHIC USER INTERFACE SOFTWARE MONITOR & CONTROL MODULE RESPONSE INDICATORS MANUAL CALL BOXES & HOOTERS INPUT /OUTPUT DEVICES	EDWARDS / NOTIFIER (HONEYWELL) / SIEMENS / BOSCH
	PUBLIC ADDRESS SYSTEM	
1	PUBLIC ADDRESS SYSTEM CONSOLE AND ALL ACCESSORIES P.A. SPEAKERS AMPLIFIERS	BOSCH/ BIAMP/ HONEYWELL
	FIRE FIGHTING SYSTEM	
1	2-WAY/4-WAY FIRE BRIGADE CONNECTION AIR RELEASE VALVE LANDING VALVE BRANCH PIPE FIRST AID HOSE REEL AND DRUM RRL HOSE PIPE FIRE MAN AXE	SAFEX/ NEWAGE/ LIFE GUARD / EXFLAME
2	DIESEL ENGINE (FIRE-FIGHTING)	CUMMINS/ KIRLOSKAR / CATER PILLER
3	FIRE EXTINGUISHERS	CEASEFIRE/ MINIMAX/ NEWAGE / SAFEX / KANEX / EXFLAME
4	FLEXIBLE DROP & FLEXIBLE COUPLINGS	LIFE GUARDS / VICTAULIC/ TYCO
5	INSTALLATION CONTROL VALVE DELUGE VALVE SPRINKLER HEADS	TYCO / VICTAULIC / HD / HONEYWELL
6	SPRINKLER PANEL, CURTAIN SYSTEM PANEL PRESSURE RELEASE VALVE ZONE CONTROL VALVE (ZCV)	TYCO / HONEYWELL / HD
7	ALL FIRE FIGHTING PUMPS	GRUNDFOSS / WILO / MATHER PLATT /KIRLOSKAR

8	ELECTRICAL MOTOR	ABB/ KIRLOSKAR ELECTRIC CO./ SIEMENS INDIA LTD
9	THERMAL INSULATION FOR EXHAUST PIPE	UPTWIGA/ LLOYD INSULATION/ OWENS CORNING/ KIMMCO
10	M.S. FITTINGS	VS / DRP / VICTAULIC / UNIK
11	WELDING RODS	ADORE / ESAB/ MARGLAM
12	BUTTERFLY (MANUAL, GEAR OPERATED) VALVES, NON-RETURN VALVES, SLUICE VALVES Y-TYPE STRAINER, FOOT VALVE WITH STRAINER AIR RELEASE VALVE BALL VALVES	AUDCO/ ZOLOTO/ SANT/ HONEYWELL
13	TAMPER SWITCH FOR BUTTERFLY VALVE	HONEYWELL/ POTTER/ RAPID CONTROL/ SYSTEM SENSOR/ PACIFIC FIRE
14	PRESSURE SWITCH FLOW TEST METER	DANFOSS/ INDFOS/ VIKING/ DELTA CONTROL
15	PRESSURE GAUGE LIQUID FILLED	FEIBIG/ H. GURU/ EMERALD/ WAAREE
	HVAC	
1	SPLIT TYPE AC	HITACHI/ MITUSBISHI/ O-GENERAL
2	REFRIGERANT PIPING	MANDEV / MEXFLOW / RR SHRAMIK
3	CLOSED CELL NITRILE RUBBER INSULATION/ EPDM INSULATION	ARMAFLEX /AEROCCELL / ALP
4	INLINE FANS	SYSTEMAIR/ KRUGER/ GREENHECK/ HUMIDIN/ NICOTRAAIR
5	CHILLER	TRAIN/ TROX/ YORK/DAIKEN
6	CHILLER PUMP	ARMSTRONG/ GROUND FOSS/XYLEM
7	AIR HANDLING UNITS/ TREATED FRESH AIR UNITS/ FCU	SYSTEMAIR/ EDGETECH/ TRANE/ VTS/BALANCE AIR/ ZECO / WAVES
8	AIR WASHER	SYSTEMAIR/ EDGETECH / TRANE/ VTS/BALANCE AIR/ ZECOW/ WAVES
9	AIR SEPARATOR	XYLEM/ EMERALD/ ANERGY/ KD AGENCIES
10	COOLING TOWERS (CTI/ CERTIFIED)	ADVANCE/ MARLEY/ PAHARPUR/ BELL
11	GI SHEETS DUCTING ETC	SAIL/ TATA/ JINDAL

12	CO2 SENSOR	SCHNEIDER/ HONEYWELL/ SIEMENS
13	PPR PIPE	JINDAL HISSAR / ASTRAL / FUSION
14	CENTRIFUGAL & AXIAL FANS VANE AXIAL IN-LINE FANS AND THEIR MOTORS	KRUGER/ GREENHECK/ NICOTRA/ WITH MOTOR FROM THEIR APPROVED OEM
15	VIBRATION ISOLATOR RUBBED PAD DUCT SUPPORT ARRANGEMENT	DUNLOP/ RESISTOFLEX/ GERB
16	GRILL DIFFUSER FIRE DAMPERS LOUVERS VOLUME CONTROL DAMPER	SYSTEM AIR/ CARRYAIRE/ COSMOS/ TRISTER / GREENHECK/ BALANCE
17	FLEXIBLE GROOVED FITTINGS COUPLINGS	VICTAULIC/ TYCOGRINNEL/ VIKING
18	PRE FABRICATED DUCT DUCT FLANGE (WITH GI SHEETS OF MAKES)	ZECO/ ROLLASTAR/ DUCTOFAB/ WAVES
19	VARIABLE FREQUENCY DRIVE	DANFOSS/ ABB / HONEYWELL/ SIEMENS / SCHNEIDER
20	ALUMINUM TAPE	JOHNSON/ BIRLA-3M/ NIPPON INDUSTRIES
	LIFT	
1	LIFT	KONE ELEVATORS INDIA PVT. LTD./ MITSUBISHI / SCHINDLER/ OTIS ELEVATOR/ JHONSON / THYSENKRUPP
	SOLAR POWER	
1	POWER CONDITIONING UNIT (PCU)	SMA(GERMANY)/DELTA/SCHNEIDER/ELECTRIC/ABB/PANASONIC
2	SOLAR PV PANEL	TATA SOLAR/ WAAREE ENERGY/ADANI SOLAR
3	SOLAR INVERTERS	DELTA / ABB / SMA
	STP	
1	PLANT MANUFACTURER	GRANNUS WATER AND ENVIRONMENTAL SOLUTIONS PVT. LTD./ CIMERA ENGINEERS/ SPECTRUM ENGINEERING TECH PVT. LTD. / ION EXCHANGE / ZETA4/ WATERNEER
2	AIR BLOWER	EVEREST / BETA / ROBUSCHI
3	AIR DIFFUSERS	REHAU / SSI AERATION / MM AQUA

4	RAW SEWERAGE TRANSFER PUMP / SLUDGE RECYCLE PUMP / FILTER FEED PUMP / NON CLOG HORIZONTAL CENTRIFUGAL PUMP/ DE WATERING PUMP / DOSING PUMP/ SBR FEED PUMP/ FILTER FEED PUMP/ SLUDGE PUMP/ CHLORINE DOSING PUMP	ARMSTRONG / XYLEM/ GRUNDFOS/ / WILO
5	FILTER PRESS	SACHINFILTECH / PHARMATECH / HITECH
6	TUBE SETTLER MEDIA /MBBR MEDIA	WELBRICK / PHARMATECH / MM AQUA
7	M.S. FILTER	WELBRICK / ION EXCHANGE / ASTHA / THERMAX / ZETA4
8	OZONATOR	CREATIVE/ OZONICS/ ORAPL/ CHEMTRONICS / FARADAY
9	NON CLOGGHORIZONTAL SCREW TYPE FILTER PRESS PUMP	ROTO/ POSITIVE/ ROTAMAC/ TUSHACO
10	CENTRIFUGE	APOLLO/ WELBRICK/ GWSPL/ PHARMATECH / GEA
11	PRESSURE GAUGE	H GURU / FEIBIG / GLUCK / BAUMER
12	BUTTERFLY / DUAL PLATE CHECK VALVES	AUDCO / ZOLOTO / ADVANCE / CASTLE / SANT
13	PLC	DELTA/ SIEMENS/ SCHNEIDER
	AUDIO-VIDEO	
1	LED VIDEO WALL	SAMSUNG/LG/PANASONIC/CHIR STIE/ BARCO
2	VIDEO WALL PROCESSOR	ANALOGWAY/tV-ONE/RGB- SPECTRUM
3	LEDDISPLAY	SAMSUNG/LG/PANASONIC/SONY
4	SPEAKERS/WOOFERS/LOUD SPEAKERS	QSC/BOSE/QUEST/ MARTIN AUDIO
5	AMPLIFIER	QSC/QUEST/BOSE/ POWERSOFT OCTA CANALI
6	DIGITALSIGNALPROCESSOR	QSC/ SYMETRIX/ ALLEN&HEATH/ BOSE/QUEST/ BIAMP
7	AUDIO MIXER	QSC/DIGICO/ALLEN & HEATH
8	MICROPHONE/RECEIVER/ ANTENNA/ ANTENNA SPLITTER/ANI/CHARGING STATION,BATTERIES)	BOSCH/SHURE/ SENNHEISER/QSC

9	TRANSMITTER/RECEIVER	QSC/LIGHTWARE/CRESTRON
10	CAPTURE CARD	CRESTRON/INOGENIE/CYPRESS
11	PODIUM	UNI/AHA/VAC
12	IPAD	APPLE/QSC/CRESTRON
13	TABLEMOUNT ENCLOSURE	CRESTRON/LEGRAND/ LOGIC/LIGHTWARE
14	WIRELESS PRESENTATION SYSTEM	CRESTRON/BARCO/ ZOAPI/ PANASONIC
15	ENCODER/DECODER	QSC/CRESTRON/ LIGHTWARE
16	PTZCAMERAS	SONY/LUMENS/VADDIO/ QSC
17	JOYSTIC	SONY/LUMENS/VADDIO/QSC
18	VIDEOCONFERENCE SYSTEM	CISCO/AVAYA/ POLYCOM
19	RECORDER & STREAMING SYSEM	LUMENS/REACH/AREC/VADDIO
20	CONTROL TOUCH PANEL AND CONTROL SYSTEM	CRESTRON/ QSC/ SYMETRIX
21	NETWORK SWITCH	HPE/CISCO/NETGEAR/JUNIPER/ QSC
22	ROOM SCHEDULAR	CRESTRON/PANASONIC/ZOAPI/ ELHITECH
23	SPEAKER & MICROPHONE CABLE	KLOTZ/BELDEN/ KRAMER/LOGIC/ LIGHTWARE
24	HDMI CABLE/VGA CABLE, PATCH CABLES, CONTROL CABLE	KLOTZ/BELDEN/KRAMER/LOGIC / LIGHTWARE
	CCTV	
1	PTZ, BULLET, DOOM CCTV CAMERA NVR	AXIS / HONEYWELL ENTERPRISES/ MOBOTIX IMPULS
	BOOM BARRIER	
1	BOOM BARRIER	DESIGNA / NEPTUNE / GODREJ
	FIRE SUPPRESSION SYSTEM	
1	FIRE SUPPRESSION SYSTEM	SVS BUILDWELL/ SAFEX / LIFEGUARD
	WTP	
1	WTP	ZETA4 / WATERNEER/ ION EXCHANGE

SCHEDULE OF QUANTITY FOR ELECTRICAL WORK

Schedule of Work (E&M)

Name of Work: - Renovation of Type-I, Type-II and Type -III/ qtrs and other misc work in FSI colony, Kaulagarh Road Dehradun. (SH: - Electrical work)

Sr. No.	Description of Item	Qty	Unit	Net Rate	Amount
1	Rewiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable and 1.5 sq.mm FRLS PVC insulated copper conductor single core cable as earth wire in existing surface/ recessed steel/PVC conduit including dismantling as required.				
a	Group A	444	Points	600.00	266400.00
2	Wiring for light/ power plug with 2 x 4 sq. mm FR PVC insulated copper conductor single core cable in surface/ recessed steel conduit alongwith 1 No 4 sq. mm FR PVC insulated copper conductor single core cable for loop earthing as required.	350	Metre	452.00	158200.00
3	Wiring for light/ power plug with 4 x 4 sq. mm FR PVC insulated copper conductor single core cable in surface/ recessed steel conduit alongwith 2 No 4 sq. mm FR PVC insulated copper conductor single core cable for loop earthing as required.	200	Metre	692.00	138400.00
4	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 steel conduit as required.				
a	2 x 1.5 sq mm + 1 x 1.5 sq. mm earth wire	350	Metre	342.00	119700.00
b	2 x 6 sq mm + 1 x 6 sq. mm earth wire	200	Metre	615.00	123000.00
c	2 x 10 sq mm + 1 x 6 sq. mm earth wire	180	Metre	742.00	133560.00
5	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.				
a	5/6 amp switch	444	Each	108.00	47952.00

6	Supplying and fixing of following size/modules, GI box along with modular base & cover plate for modular switches in recess etc. as required.				
a	1 or 2 module (75 mm x 75 mm)	120	Each	311.00	37320.00
b	3 Module (100mmX75mm)	24	Each	342.00	8208.00
c	6 Module (200mmX75mm)	68	Each	420.00	28560.00
7	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).	92	Each	706.00	64952.00
8	Supplying and fixing Two Module stepped type electronic fan regulator on the existing modular plate witch box including connections but excluding modular plate etc. as required.	68	Each	386.00	26248.00
9	Supplying and fixing of modular blanking plate on the existing modular plate & switch box including connections but excluding modular plate etc. as required.	48	Each	42.00	2016.00
10	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 3 pin 5/6 amps modular socket outlet and 5/6 amps modular switch, connection, painting etc as required.	92	Each	498.00	45816.00
11	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 15/16 amps & 5/6 amp modular socket outlet and 15/16 amps modular switch, connection, painting etc as required.	92	Each	612.00	56304.00
12	Supplying & fixing following way, single pole and neutral sheet steel, MCB distribution board consumer unit 240 volts, on surface/ recess, complete with tinned copper bus bar, neutral busbar, earth bar, din bar detachable gland plate, interconnections, phosphatized and powder painted including earthing etc. as required (But without MCB/RCCB/Isolator)				

a	12 way, Double Door,	24	Each	2419.00	58056.00
13	Supplying and fixing 5 amps to 32 amps rating 240 volts 'C' curve miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required.				
a	Single pole	240	Each	268.00	64320.00
14	Supplying & fixing following rating, double pole, 240 volts, MCB in the existing MCB DB complete with connections, testing and commissioning etc as required.				
a	63 amps	24	Each	551.00	13224.00
15	Supplying and fixing call bell/ buzzer suitable for single phase, 230 V, complete as required.	24	Each	103.00	2472.00
16	Supplying and fixing PVC batten/ angle holder including connections etc. as required.	188	Each	115.00	21620.00
17	Brush Less Direct Current (BLDC) Motor SITC of ceiling fan with Brush Less Direct Current (BLDC) Motor, class of insulation: B, 3 nos. metal (Aluminum alloy) blades, 30 cm long down rod, 2 nos. canopies, shackle kit, safety rope, copper winding, steel/Al body Power Factor not less than 0.9, Service Value (CM/M/W) minimum as below, 350 RPM (tolerance as per IS : 374-2019), THD (Total Harmonic Distortion) less than 10%, suitable for operation with regulator for speed control and all remaining accessories including safety pin, nut bolts, washers, temperature rise=75 degree C (max.), insulation resistance more than 2 mega ohm, suitable for 230 V, 50 Hz, single phase AC Ceiling Fan compliant to IS 374:2019 fan Supply, earthing etc. complete as req (i) 1200mm, service value \geq 6.0 CM/Min/Watt, air delivery 210 CM/Min (Minimum)	68	Nos.	2230.00	151640.00

18	<p>LED Batten light (System lumen efficacy ≥ 120 <135 lm/Watt SITC of LED surface mounted Batten light of following body material and construction as per IS : 10322 with driver (Replaceable) as per the requirement with Driver efficiency >85%, Operating voltage AC 140-270 Volt, freq 50/60 hz, Operating temp range - 15 deg to 40 deg centigrade, internal surge protection of 2.5 KV with Short & Open circuit protection ,THD < 10% , P. F.\geq0.95, IP20, CRI >80 , Flicker free (flicker should be below 5 %), life time (LED, Driver & electrical circuitry), of minimum 50000 Burning Hours with , 70% of initial Lumen maintained till life ends, CCT 3000°K / 4000°K / 5700°K /6000°K /6500°K (As per ANSI Bin), SDCM (Standard Deviation Color Matching) <3, Maximum power consumption should not more than the specified rating and Fixture shall be of relevant BIS standard and trade mark certificate (T.C.). Manufactures Word Mark/ Name Engraved/ Embossing/ Screen printing on housing. OEM must have its own in house NABL lab setup for all testing facilities for LED fixtures. complete in all respect i/c connections with 1.5 sq mm FRLS, PVC insulated copper conductor single core cable and earthing etc. as required with Minimum 5 year OEM warranty. System lumen efficacy ≥ 120 <135 lm/Watt output. LM79 & LM80 Test report from NABL lab for all testing required for LED fixtures as per BIS shall be submitted. Shape size and CCT shall be as approved by Engineer-in-Charge as per requirement. (Thermal management: heat sink of aluminium housing such that LED junction temperature shall not rise above 90°C). Powder coated die cast / Extruded aluminium Body (Thickness ≥ 1.20 mm) (i) 18- 22 watt</p>	92	Nos	727.00	66884.00
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19	Supplying, Installation, Testing & Commissioning of ISI Marked heavy duty exhaust fan of 300 mm sweep of 900 RPM, 230V, 50HZ, Maximum 55 W with minimum 1145m3/hr air delivery including fixing it in exiting opening with suitable arrangement, providing and fixing of suitable size GI sheet gravity louvers from outside the existing opening etc connection, testing and commissioning, etc as required.	48	Nos.	4050.00	194400.00
20	Credit items				
a	Old wires assorted size	300.00	Kg	-185.00	-55500.00
b	Old switch sockets assorted size	628	Nos	-2.00	-1256.00
c	Old fittings assorted sizes	116	Nos	-5.00	-580.00
d	Old fans assorted sizes	68	Nos	-90.00	-6120.00
e	Old Exhaust Fans assorted sizes	48	Nos	-135.00	-6480.00
f	Old DB assorted sizes	24	Nos	-45.00	-1080.00
g	Old MCB assorted sizes	264	Nos	-5.00	-1320.00
	Total				1756916.00

FINANCIAL BID

CIVIL CONSTRUCTION UNIT					
NIT No: 02/2025-26/SE/CCU/CED-II/Dehradun (Recall)					
Name of work: Renovation of 06 Nos. Type-III qtrs., 12 Nos. Type-II qtrs. & 04 Nos. Type-I qtrs of FSI Colony, Kaulagarh Road, FSI, Dehradun.					
SCHEDULE OF QUANTITY					
Name of the Contractor					
Sl. No.	Name of component	Estimated cost (Rs.)	Percentage above or below the estimated cost	% in Figures	Total Cost (Rs.)
1	2	3	4	5	6
1	Civil work + Electrical & Mechanical Works	Rs. 1,82,38,943/-	*	*	*

:*- To be filled online in bid document.

- 1) The Column Nos. 4 & 5 are mandatory to be filled by the bidders / tenderers. If these columns are left blank, the tender become invalid.
- 2) The amount in figures in column No.6 shall appear automatically corresponding to the percentage quoted in column No.4 & 5.
- 3) The tenderer is required to quote the percentage only above or below or at par with the estimated cost to cover all the rates of item covered under the respective packages.
- 4) The percentage shall be written in 2 (two) places of decimal.
- 5) If the percentage selection in column No 4 is "At Par", by default the percentage will be considered as "Zero" only. In other words, if "At par" is selected in column No.4, then no need to fill column No. 5