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Name of work: Construction of Souvenir shop Near main gate at WII Dehradun.

NIT No.: 43/EE/CED-II/CCU/2023-24

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This NIT amounting to Rs. 23,80,239/- (Rupees Twenty-Three Lakh Eighty Thousand Two Hundred Thirty-Nine Only) is hereby approved.

Assistant Engineer (P), CED-II

Assistant Engineer (E), CED-II

Executive Engineer, CED-II

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- eced2ccu-mef@nic.in. Mo. 9212201613) on behalf of President of India invites online Percentage rate bids from approved and eligible CPWD registered contractors in composite category for the following work:-

S. No.	NIT No.	Name of work and location	Estimated cost put to tender	Earnest Money	Stipulated Period of Completion	Last date & time of online submission of bid and other Documents as specified in bid document	Time & date of opening of bid
1	2	3	4	5	6	8	9
1	43/EE/CED-II/CCU/2023-24	Construction of Souvenir shop Near main gate at WII Dehradun.	Rs. 23,80,239/- (Civil Rs. 18,44,481/-)Elect. Rs 5,35,758/)	Rs. 47,605/-	04 Months	20.02.2024 upto 15:00 Hours	20.02.2024 upto 15:30 Hours

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

- 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) This information and Instructions for bidders posted on website shall form part of bid document.
- 3) 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.
- 4) The bid can only be submitted after deposition of original EMD either in the office of Executive Engineer, CED-II, CCU, MoEF&CC, inviting bids or division office of any Executive Engineer, CPWD within the period of bid submission and uploading the mandatory scanned documents such as Surety Insurance Bond, Account Payee Demand

draft or Pay order or Bankers Cheque or Deposit at call Receipt or Fixed Deposit Receipts and Bank Guarantee of any scheduled Bank towards EMD issued in favour of “**Executive Engineer, CED-II, CCU, MoEF&CC, New Delhi**” receipt for deposition of original EMD to division office of any Executive Engineer (including NIT issuing EE / AE), CPWD and other documents as specified.

- 5) Those contractors not registered on the website mentioned above, are required to get registered beforehand. If needed they can be imparted training on online bidding process as per details available on the website.
- 6) The intending bidder must have valid Class-III digital signature to submit the bid.
- 7) On opening date, the contractor can login and see the bid opening process. After opening of bids he will receive the competitor bid sheets.
- 8) Contractor can upload documents in the form of JPG format and PDF format.
- 9) Contractor must ensure to quote rate in the prescribed column. The column meant for quoting rate in figures appears in pink 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).
- 10) 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) If the agency is not registered with GST Department as applicable, he has to get registered himself with GST Department as applicable within one month from the date of receipt of award letter.
- 12) After submission of the bid the contractor can re-submit revised bid any number of times but before last time and date of submission of bid as notified.
- 13) 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.
- 14) The bid submitted shall become invalid and e-Tender processing fee 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.

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

- 1) Surety Insurance Bond/ Account Payee Demand Draft /Treasury Challan / Pay order or Banker's Cheque / Deposit at Call Receipt / FDR / Bank Guarantee of any Scheduled Bank against EMD.

The original EMD should be deposited either in the office of Executive Engineer, CED-II, CCU, MoEF&CC, Dehradun inviting bids or division office of any Executive Engineer, CPWD within the period of bid submission. (The EMD document shall only be issued from the place in which the office of receiving division office is situated) The EMD receiving Executive Engineer 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.

This receipt shall also be uploaded to the e-tendering website by the intending bidder upto the specified bid submission date and time.

- 2) Copy of Enlistment order of the Contractor in appropriate Class and Category in CPWD.
- 3) PAN Card issued by Income Tax Department.
- 4) GST Registration Certificate of the state in which the work is to be taken up, if already obtained by the bidder.

If the bidder has not obtained GST registration in the state in which the work is to be taken up, or as required by GST authorities, then in such a case the bidder shall scan and upload following undertaking along with other bid documents.

“If work is awarded to me, I/we shall obtain GST registration Certificate of the state, in which work is to be taken up, within one month from the date of receipt of award letter or before release of any payment by CPWD, 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 CPWD or GST department in this regard”.

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

CPWD 6 FOR E- TENDERING

Percentage rate bids are invited on behalf of President of India from approved and eligible contractors' composite category of CPWD for the work of **Construction of Souvenir shop Near main gate at WII 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. The work is estimated to cost Rs. **23,80,239/- (Civil Rs. 18,44,481/- + Electrical Rs 5,35,758/-)** This estimate, however, is given merely as a rough guide.
2. The General Conditions of Contract (GCC) 2020 for Construction Works, Central Public Works Department will form part of the agreement. The GCC is available as a Govt. of India Publication. The Bidders should go through the various clauses of GCC thoroughly and quote their rates as per various terms and conditions of the GCC.
3. The time allowed for carrying out the work will be **04 (Four) 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.
5. 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 General Conditions of Contract (GCC) can be seen on website <https://etender.cpwd.gov.in> or www.cpwd.gov.in free of cost.
6. After submission of the bid the contractor can re-submit revised bid any number of times but before last time and date of submission of bid as notified.

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.

7. Copy of Enlistment Orders and other documents as specified in the NIT along with Earnest Money Deposit and it's receipt (as per attached Annexure "A") shall be scanned and uploaded to the e-Tendering website within the period of bid submission.
8. (A) The contractors registered prior to 01.04.2015 on e-tendering portal of CPWD shall have to deposit tender processing fee at existing rates, or they have option to switch over to the new registration system without tender processing fee any time.

(B) The bid submitted shall be opened at 3:30 PM on 20.02.2024 to be filled by EE)

9. Earnest Money in the form of Surety Insurance Bond or Account Payee Demand Draft or Treasury Challan or Pay order or Banker's Cheque or Deposit at Call Receipt or Fixed Deposit Receipt (drawn in favour of **Executive Engineer, CED-II, CCU, MoEF&CC, New Delhi.**
10.)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, 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 of any scheduled bank having validity for six months 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 press notice shall be scanned and uploaded to the e-Tendering website within the period of bid submission. However, certified copy of all the scanned and uploaded documents as specified in press notice shall have to be submitted by the lowest bidder only along with physical EMD of the scanned copy of EMD uploaded 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 and other documents scanned and uploaded are found in order.

11. The bid submitted shall become invalid and e-Tender processing fee 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.
12. The bidder whose bid is finally accepted will be required to furnish performance guarantee of 5% (Five Percent) of the bid amount within the period specified in schedule F. This guarantee shall be in the form of cash (in case guarantee amount is less than Rs 10000) or Surety Insurance Bond/ Deposit at Call receipt of any scheduled bank / Banker's cheque of any scheduled bank / Account Payee Demand Draft of any scheduled bank / Pay order of any Scheduled bank (in case guarantee amount is less than Rs 100000) or Government Securities or Fixed Deposit Receipts of a Scheduled bank or an irrevocable bank Guarantee Bonds of any Scheduled Bank or the State Bank of India in accordance with the prescribed form. In case the Bidder fails to deposit the said performance guarantee within the period as indicated in schedule 'F' including the extended period if any, the action against bidder shall be taken as per Declaration given by bidder in Annexure A.

The agency 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 sub-agencies, if any engaged by the agency for the said work Program chart (Time & Progress) within the period specified in Schedule-F.

13. The description of the work is as follows:

Construction of Souvenir shop Near main gate at WII Dehradun.

14. 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.

15. 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.
16. 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.
17. 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.
18. The contractor shall not be permitted to bid for works in the CCU Circle responsible for award and execution of contracts, in which his near relative is posted a Divisional Accountant or as an officer in any capacity between the grades of Superintending Engineer and Junior Engineer (both inclusive). He shall also intimate the names of persons who are working with him in any capacity or are subsequently employed by him and who are near relatives to any Gazetted officer in the Civil Construction Unit or in the Ministry of Environment, Forests and Climate Change. Any breach of this condition by the contractor would render him liable to be removed from the approved list of contractors of the Department.
19. 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.
20. The bid for the work shall remain open for acceptance for a period of 30 (Thirty) days from the date of opening of tenders. Further action against bidder shall be taken as per Declaration given by bidder in Annexure 'A' as attached with the tender document.
21. This notice inviting Bid shall form a part of the contract document. The successful bidder/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 2020 for Construction Works, Central Public Works Department, as corrected up to last date of submission of bids.

22. For Composite Bids

21.1. The Executive Engineer in charge of the major component will call bids for the composite work. The cost of bid document and Earnest Money will be fixed with respect to the combined estimated cost put to tender for the composite bid.

21.1.2 The bid document will include following three components:

Part A: CPWD-6, CPWD-7 including schedule A to F for major and minor component of the work, Standard General Conditions of Contract for CPWD 2020 for construction work as amended/ modified up to last date of submission of bid.

Part B: Additional Conditions, Special Conditions & Particular Specifications applicable to major component of the work

Part C: Additional Conditions for electrical work applicable to minor component of the work.

21.1.3 The bidders must associate with himself, agencies of the appropriate class eligible to bid for each of the minor component individually. The eligible bidders shall quote rates for all items of major component as well as for all items of minor components of work.

21.1.4 After acceptance of the bid by competent authority, the EE in charge of major component of the work shall issue letter of award on behalf of the President of India. After the work is awarded, the main contractor will have to enter into one agreement with EE in-charge of major component and has also to sign two or more copies of agreement depending upon number of EE in-charge of minor components. One such signed set of agreement shall be handed over to EE in-charge of minor component. EE of major component will operate Part-A and Part-B of the agreement. EE in-charge of minor component(s) shall operate Part-C along with Part-A of the agreement.

21.1.5 Entire work under the scope of composite bid including major and all minor components shall be executed under one agreement.

21.1.6 Security Deposit will be worked out separately for each component corresponding to the estimated cost of the respective component of works. The Earnest Money will become part of the security deposit of the major components of work.

21.1.7 The main contractor has to associate agency(s) for minor component(s) conforming to eligibility criteria as defined in the tender document and has to submit detail of such agency(s) to Engineer-in-charge of minor component(s) within prescribed time. Name of the agency(s) to be associated shall be approved by Engineer-in-charge of minor component(s).

21.1.8 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 of minor component. 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.

21.1.9 The main contractor has to enter into agreement with the contractor(s) associated by him for execution of minor component(s). Copy of such agreement shall be submitted to EE/DDH in charge of each minor component as well as to EE in-charge of major component. In case of change of associate contractor, the main contractor has to enter into agreement with the new contractor associated by him.

21.1.10 Running payment for the major component shall be made by EE of major discipline to the main contractor. Running payment for minor components shall be made by the Engineer-in-charge of the discipline of minor component directly to the main contractor

21.1.11 (A) The composite work shall be treated as complete when all the components of the work are complete. The completion certificate of the composite work shall be recorded by Engineer-in-charge of major component after record of completion certificate of all other components.

21.1.12 (B) Final bill of whole work shall be finalized and paid by the EE of major component. Engineer(s) in charge of minor component(s) will prepare and pass the final bill for their component of work and pass on the same to the EE of major component for including in the final bill for composite contract.

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

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

STATE	Uttarakhand	CIRCLE	SE, CCU, MoEF&CC
BRANCH	B&R	DIVISION	CED-II, CCU

PERCENTAGE RATE BID AND CONTRACT FOR WORKS

Tender for the work of **Construction of Souvenir shop Near main gate at WII Dehradun.**
To be submitted online by 3.00 PM on 20.02.2024.

The online Bid shall be opened in presence of tenderers who may be present at 3.30 PM on 20.02.2024 in the office of the Executive Engineer, CED-II, CCU, Dehradun.

* To be filled by EE

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, General Conditions of Contract (GCC), clauses of contract, Special conditions, Schedule of Rates, other documents and rules referred to in the 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 respects with the specifications, designs, drawings 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 respects in 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.

Earnest money in the prescribed form 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 Earnest Money deposited. 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 bid 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 and 12.3 (as modified) of the bid 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.

Dated:

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) ----- *

Dated: -----*

For & on behalf of President of India
Signature.....*.....
Designation*.....

* To be filled by Executive Engineer

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

SCHEDULE ‘A’

Schedule of Quantities

As per separate sheets attached

SCHEDULE ‘B’

Schedule of materials to be issued to the contractor:

S. No.	Description of item	Quantity	Rates in figures & words at which the material will be charged to the contractor	Place of issue
1	2	3	4	5
.....NIL				

SCHEDULE ‘C’

Schedule of Tools and Plants to be hired to the contractor:

S. No.	Description	Hire charges per day	Place of issue
1	2	3	4
.....-NIL			

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, in Central Public Works Department, as amended up to last date of submission of bids.
Name of Work	Construction of Souvenir shop Near main gate at WII Dehradun.
Estimated cost of the work	Rs. 23,80,239/- (Civil work: Rs. 18,44,481/- + Elect: Rs.5,35,758/-)
Earnest money	Rs. 47,605/-
Performance Guarantee	5.00% (Five Point Zero Zero percent) of tendered amount
Security Deposit	2.50% (Two Point Five Zero percent) of tendered amount.

SCHEDULE ‘F’

General rules and direction

Officer inviting tender	Executive Engineer, CED-II CCU, 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 & 12.3	See at appropriate clause

Definitions:

2(i)	(i)	Engineer-in-Charge(for Civil Work)	Executive Engineer, CED-II, CCU, MoEF&CC or his successor-in-charge of work.
	(ii)	Engineer-in-Charge (for Elect. Work)	Assistant Engineer (E), CED-II, CCU, MoEF&CC or his successor-in-charge of work.
2(ii)	Accepting Authority		Executive Engineer, CED-II, CCU, MoEF&CC or his successor in charge of work.
2(iii)	Percentage on cost of materials and labour to cover all overheads and profits		7.5% for items of supply of materials and 15% for other items.
2(iv)	Standard Schedule of Rates		
	Civil Works		DSR-2023 with correction slips issued upto last date of submission of bids & Market rates.
	Electrical & Mechanical Works		DSR-2022 with correction slips issued upto last date of submission of bids & Market rates.
2(v)	Department:		Civil Construction Unit, MoEF&CC
2(vi)	Standard CPWD Contract Form		CPWD form 7 of General Conditions of Contract 2023 for ConstructionWorks, 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	7 Days
ii)	Maximum allowable extension with late fee@0.1% per day of Performance Guarantee amount beyond the period as provided in i)above	3 Days
Clause 2	Authority for fixing Compensation under Clause 2	Superintending Engineer, CCU,MoEF&CC or his successor
Clause 5	Number of days from the date of issue of letter of intent for reckoning date of start	7 Days

Mile stones as per table given below Not Applicable

Time allowed for execution of work: 04 (Four) Months

Authority to decide:

i)	Extension of time	Executive Engineer, CED-II, CCU, MoEF&CC or his successor-in-Charge of work.
ii)	Rescheduling of mile stones	Executive Engineer, CED-II, CCU, MoEF&CC or his successor-in-Charge of work.
iii)	Shifting of date of start in case of delay in handing over of site	Executive Engineer, CED-II, CCU, MoEF&CC or his successor-in-Charge of work.

Clause 5.4

Schedule of rate of recovery for delay in submission of the modified programme in terms of delay days.

Sl. No.	Contract Value	Recovery per day (Rs.)
1	Less than or equal to Rs. 1 crore	500
2	More than Rs. 1 crore but less than or equal to Rs. 5crore	1000
3	More than Rs. 5 crore but less than or equal to Rs. 20crore	2500
4	More than Rs. 20 crore	5000

Clause 6/6A

i)	Clause applicable – 6 or6A	6 A, Applicable
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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	(i)Rs 4.61 lakhs(civil) (ii)Rs 1.34 lakh(Elect.)
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Clause 7A

Regarding applicability of labour laws:-Related to Labour license, registration of contractor with EPFO, ESIC and BOCW welfare board i/c Provident Fund	Yes Applicable
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.	

Clause 8 A: Completion plans to be submitted by the contractor

Authority to decide compensation on account if contractor fails to submit completion plans	Executive Engineer, CED-II, CCU, MoEF&CC or his successor
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Clause 10 A

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

- i. Measuring tape 3 m.- 2 Nos., Steel tape- 30 m, Vernier calipers, plumb bob, spirit level minimum 30 cm long with 3 bubbles, wire gauge (Circular type) disc, steel foot rule, long nylonthread, magnifying glass, screw driver 30 cm long, ball pin hammer 100 gms, plastic bags for taking samples etc.

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	Not Applicable
Component of labour expressed as percent of value of work	Nil

Clause 10 CA: Not applicable**Clause 10 CC: Not applicable****Clause 11 :**

Specifications to be followed for execution of work (Civil)	:	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 work (Elect.)	:	CPWD specifications for Electrical Works Part-1 (internal) 2023 & Part-II (External) 1995, amended up to date.

Clause 12 : Type of Work**Original Work**

12.2. &12.3	Deviation limit beyond which clauses 12.2 & 12.3 shall apply for building work.	:	100%
12.5	i) Deviation limit beyond which clauses 12.2 & 12.3 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 successor-in-charge of work.
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Clause 18 :

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

S No.	Machinery and T & P	Min. Requirement
As per site requirement		

Clause 19

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

Clause 25: Settlement of disputes by Conciliation and Arbitration.

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

Note: No party shall be represented before the Conciliator by an Advocate/ legal council etc.

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 per person	
						Figures (Rs. Per person)	Words (Rs. Per person)
1	Graduate Engineer Or Diploma Engineer	Civil	Project Manager cum planning/ quality/site/billing Engineer	2 or 5 years respectively	1 No	15,000/- Per month Per person	Fifteen Thousand Per Month

- 1) Engineer(s) deployed as per stipulation in the contract looks after only the work under contract and no other work and is available fully during execution of work.
- 2) Even if contractor (or partner in case of firm/company) is himself/herself an Engineer, it is necessary on part of contractor to employ Engineer(s) for the supervision of the work as per stipulation.

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 Tender
		Variations permissible on theoretical quantities.	
(ii)	(a)	Cement	
		for works with estimated cost put to tender is more than 5 Lacs.	3% (Three percent) plus/minus
		Bitumen all works	2.5% (Two- point five percent) plus only & nil on minus side.
	(b)	Steel reinforcement and structural steel section for diameter, section and category.	2% (Two percent) plus/minus.
		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.

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

Receipt of deposition of original EMD (drawn in favour of Executive Engineer, CED-II, CCU, MoEF&CC, New Delhi) (Receipt No. / date)	
Name of work	: Construction of Souvenir shop Near main gate at WII Dehradun.
NIT No	: 43/EE/CED-II/CCU/2023-24
Estimated Cost	: Rs. 23,80,239/-
Amount of Earnest Money Deposit	: Rs. 47,605/-
Last date of submission of bid	: 20.02.2024
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, MoEF&CC in connection with the execution of contracts)

Form of Bank Guarantee for Earnest Money/Performance Guarantee/Security Deposit

Whereas 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- eeced2ccu-mef@nic.in. Mo. 9212201613) on behalf of the President of India (hereinafter called "The Government") has invited bids under(NIT) for(Name of work) The Government has further agreed to accept irrevocable Bank Guarantee for Rs(Rupees only) valid upto..... (date)* as **Earnest Money** 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, CED-II, Civil Construction Unit (CCU), Ministry of Environment, Forest & Climate Change (MoEF&CC), PO- New Forest, FRI Campus, Dehradun- 248006 (email- eeced2ccu-mef@nic.in. Mo. 9212201613) 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/Mobilization Advance** from the said Contractor for compliance of his obligations in accordance with the terms and conditions of the agreement.

- 1) 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.
- 2) We (indicate the name of the Bank) do here by 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..... (Rupees only).
- 3) 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.
- 4) 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.

- 5) 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.
- 6) This guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor.
- 7) We (indicate the name of the Bank) undertake not to revoke this guarantee except with the consent of the Government in writing.
- 8) 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

Authorized signatory
Name
Designation Staff
code no. Bank seal

2. Signature
Name and address

*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.

PART-B

GENERAL CONDITIONS FOR CIVIL WORK

- 1.0 The contractor has to make his own arrangement for all the materials required for the work and get them approved from the Engineer-in-charge before using the same in the work.
- 1.1 The dismantling wherever required shall be done in a manner that no other portions of the building or its fixtures are damaged. If any damage is done to the building it will be made good by the contractor at his own cost and no claim whatsoever will be entertained on the work.
- 1.2 The contractor must get himself acquainted with the proposed site for the works and study specifications and conditions carefully before tendering, no claim whatsoever on this account shall be entertained later on.
- 1.3 All incidental charges of any kind for the materials to be arranged by the contractor whatsoever including cartage, storage, cutting and wastage etc. shall be borne by the contractor himself and nothing extra will be paid to him on this account.
- 1.4 The contractor shall have to carry out the work according to the programme mutually decided between him and the Engineer-in-charge of the work. No claim for idle labour on any account shall be entertained.
- 1.5 Necessary deductions such as income tax, GST, Labour cess etc. shall be recovered from gross amount of contractor's each bill.
- 1.6 Contractor will have to make his own arrangement for tools and plant & machinery required for the work and department will not supply any tools and plants.
- 1.7 The contractor should study the General Conditions of Contract before tendering. This shall be the part of the agreement. It is available in the office of EE/AE & in market.
- 1.8 Samples of various materials required for testing shall be provided free of charges by contractor. All expenditure required to be incurred for taking the sample, conveyance, packing, sealing, loading, unloading etc. shall be borne by the contractor himself. In testing a fresh sample of alternate material will be made available and testing charges shall be deducted from the payment of contractor for such materials, which have failed in testing.
- 1.9 Any damages done to the electric fittings, installations, while using them shall be made good by him at his own cost.
- 1.10 No residential accommodation shall be provided to any of the staff engaged by the contractor.
- 1.11 The rates include all leads, lifts, heights etc. No extra payment shall be made on any account.
- 1.12 The quoted rates should be inclusive of all taxes including GST and nothing extra shall be paid over quoted rates.

2. Directives on Air Pollution from construction and demolition activity (DG/SE/CM/CON/Misc./02 dated 16.03.2016).

- 2.0 The contractor shall not store/dump construction material or debris on metalled road.
- 2.1 The contractor shall get prior approval from Engineer-in-Charge for the area where the construction material or debris can be stored beyond the metalled road. This area shall not cause any obstruction to the free flow of traffic / inconvenience to the pedestrians. It should be ensured by the contractor that no accidents occur on account of such permissible storage.

- 2.2 The contractor shall take appropriate protection measures like raising wind breakers of appropriate height on all sides of the plot/area using CGI sheets or plastic and / or other similar material to ensure that no construction material dust fly outside the plot area.
- 2.3 The contractor shall ensure that all the trucks or vehicles of any kind which are used for construction purposes /or are carrying construction material like cement, sand and other allied material are fully covered. The contractor shall take every necessary precautions that the vehicles are properly cleaned and dust free to ensure that en route their destination, the dust, sand or any other particles are not released in air /contaminate air.
- 2.4 The contractor shall provide mask to every worker working on the construction site and involved in loading, unloading and carriage of construction material and construction debris to prevent inhalation of dust particles.
- 2.5 The contractor shall provide all medical help, investigation and treatment to the workers involved in the construction of building and carry of construction material and debris relating to dust emission.
- 2.6 The contractor shall ensure that C&D waste is transported to the C&D Waste site only and due record shall be maintained by the contractor.
- 2.7 The contractor shall compulsory use of wet jet in grinding and stone cutting.
- 2.8 The contractor shall comply all the preventive and protective environmental steps as stated in the MoEF guidelines, 2010.
- 2.9 The contractor shall carry out on-Road- Inspection for black smoke generating machinery. The contractor shall use cleaner fuel.
- 2.10 The contractor shall ensure that all DG sets to comply with emission norms notified by MoEF&CC.
- 2.11 The contractor shall use vehicles having pollution under control certificate. The emissions can be reduced by a large extent by reducing the speed of a vehicle to 20 kmph. Speed bumps shall be used to ensure speed reduction.
- 2.12 In cases where speed reduction cannot effectively reduce fugitive dust, the contractor shall divert traffic to nearby paved areas.
- 2.13 The contractor shall ensure that the construction material is covered by tarpaulin. The contractor shall take all other precautions to ensure that no dust particles are permitted to pollute air quality as a result of such storage.
- 2.14 The paving of the path for plying of vehicles carrying construction material is more permanent solution to dust control and suitable for longer duration projects.
- 3.0 The provisions of “Construction and Demolition Waste Management Rules 2016 in exercise of powers conferred by Environment (Protection) Act 1986 (available at web address www.moef.gov.in) as notified by Ministry of Environment, Forests & Climate Change vide notification dated 29.03.2016 and incorporated vide OM No. DG/CON/Misc./04 dated 23.01.2017 issued by the Office of DG, CPWD, MoUD is to be complied with.

4.0 Water for construction purpose

- 4.1 For water supply, the contractor shall make his own arrangements including boring of tube well, if necessary and nothing extra shall be paid by the department for arrangement of water or on its treatment. Necessary permission from the concerned authorities for boring of tubewell if required shall be taken by the contractor.
- 4.2 The contractor shall get the water tested with regard to its suitability and conforming to the relevant IS code. The contractor shall obtain the written approval from the Engineer-in-charge before he proceeds for using the same for execution of work. The water testing charges shall be borne by the contractor.

5.0 Conditions for procurement of materials for all items to be executed for the work :-

- 5.1 The procurement of total quantity of materials for all items to be executed for the work shall be made by the contractor along with original Invoice/Voucher/Cash-Memo. The record of all the original Invoice/Voucher/Cash-Memo in chronological order will be maintained by the authorized representative of the Engineer-in-Charge. The Engineer-in-Charge will check therecord periodically to see that it is maintained properly.
- 5.2 Payment to be made only after verification of authenticity/genuineness of materials from concerned firm/Manufacturer.
- 5.3 If materials procured by the contractor are not found genuine/conforming to agreement provisions/specifications, then materials procured shall be removed from store/ site immediately by the contractor.
- 6.0 In case of any discrepancy, the order of preference shall be as under -
1. Nomenclature of the item as per schedule of quantities.
 2. General/Additional conditions attached with the contract document.
 3. Additional Specifications attached with the contract document.
 4. Drawings.
 5. CPWD Specifications 2019 (Vol. I & II) with correction slips upto last date of submissionof bids.
 6. BIS Specifications (latest version).
 7. Manufacturer's specifications.
 8. Decision of the Engineer-in-charge.
 9. Sound Engineering practices.
- 7.0 The contractor shall keep at his own cost all publications of relevant Indian standard (BIS) applicable to the work at site. In case of non-compliance, these standards will be purchasedby the Engineer-in-charge and actual cost of purchase will be recovered from the Bill of the Contractor.
- 8.0 Senior Officers of CCU/Ministry/Client Department may inspect the on-going work at site at any time with or without prior intimation. The contractor shall facilitate them in inspection.
- 9.0 Jurisdiction of Court - Courts at Delhi alone shall have the jurisdiction to decide any dispute arising out of or in respect of this contract.

ADDITIONAL CONDITIONS FOR CIVIL WORK

1. Inspection of materials and work: All the materials brought to the site by the contractor for use in the work as well as fabricated work shall be subject to inspection and approval by the Engineer-in-charge.
2. Removal of rejected materials: In case any materials are rejected by the Engineer-in-Charge, the same shall be removed from the site within 48 hours, failing which the same may be got removed by the Engineer-in-charge at the risk and cost of the contractor.
3. Manufacturer's Test Certificate: The contractor shall, if required by the Engineer in charge produce Manufacturer's Test Certificate for any material of particular batch of materials supplied by him. The test(s) carried out shall be as per relevant specifications/ BIS Code.
4. Contractor should ensure the availability of material at site duly tested as per specifications and approved by the Engineer-in-charge. In no case the dismantling etc. should be carried out before the availability of approved quality of material. If contractor fails to follow this instruction a penalty of Rs.200/- per day delay for this fault shall be recovered. The decision of Engineer-in-Charge shall be final and binding.
5. Wherever the malba / rubbish occurs on account of work at upper floors / roof, the same shall be brought down through stair case or with some mechanical arrangement only and shall not be thrown to the ground directly from upper floors and has to be disposed off at specified dumping point in the area.

In no case malba / rubbish / unserviceable material or Construction material shall be stacked or dumped near the staircase /path /road berms/road/lawn/outside premises even for temporarily purpose.

6. If the contractor fails to comply the above conditions for removal / disposal of malba, a fine of Rs.500/- for each fault per day shall be recovered from the contractor. The department may remove the malba so generated and dumped, by issue of a notice or instruction through site order book, by Junior Engineer/Assistant Engineer/ Engineer-in-charge, concerned and a recovery of Rs.300/- per cum shall be made from the contractor. No claim / dispute shall be entertained on these conditions at any stage either during execution of work or after completion of work and decision of the Engineer-in-charge shall be final and binding.
7. Unless and until specified in the item the contractor shall make his own arrangement for lifting / hoisting / placing of steel girders / steel sections by suitable arrangement either manually or by mechanical crane etc. as approved by the Engineer-in-charge upto all heights in the building at no extra cost.
8. The contractor shall stack the building materials away from the building/site as approved by the Engineer-in-charge and nothing extra for lead / lift of material for bringing the materials manually in the premises shall be paid.
9. Before starting the work the contractor shall chalk out a programme in consultation with the Junior Engineer /Assistant Engineer/ Engineer-In-charge as to inform the occupants at least one week ahead. The contractor shall have to adhere to this programme failing which contractor shall be responsible for any inconvenience caused to the occupants. In order to ensure that the work is carried out according to the programme drawn up the contractor shall ensure adequate supply of the material and employ required labour strength for execution of work. In case contractor fails to arrange / employ adequate labour to stick the programme, the Engineer-in-charge may supplement the labour and cost of the labour shall be recovered from the contractor after issue of one day's notice to the contractor. No claim for idle labour shall be entertained. The contractor shall depute his representatives daily at site of work for the record of the department.

10. The contractor shall prepare sample(s) of all items which should be got approved from the Engineer-in-charge. Only on acceptance of sample work, contractor will be allowed to commence the work and sample is to be preserved by contractor till the whole work is completed. The quality of work should confirm to the approved samples.
11. The contractor and/or his authorized representative should see the site order book everyday and get the compliance noted by the J.E. /A.E. / Engineer-in-charge.
12. The substandard work shall be rejected out-rightly and nothing shall be paid for it. The decision of the Engineer-in-charge shall be final and binding in this regard.
13. Nothing extra shall be paid to the contractor for excess consumption of materials in case of material arranged by him.
14. Any damage done to the existing structure shall be made good by the contractor at his own risk and cost.
15. The rates of all items of work shall unless clearly specified include the cost of all labour, material and other aspects involved in the execution of work.
16. The contractor shall make his own arrangement for getting the permission to ply the trucks from the traffic police.
17. The contractor shall be responsible for behavior and conduct of his workers. No worker with doubtful integrity or having a bad record shall be engaged by the contractor.
18. The contractor shall have to remove all splashes after completing the work. In case the splashes are not removed by the contractor, the same shall be got removed by the Engineer-in-charge and necessary recovery for the cost of removal of splashes shall be made from the contractor.

19. COMPLIANCE WITH LOCAL BYE-LAWS, RULES AND REGULATIONS

The work shall be carried out in the manner complying in all respects with the requirements of relevant bye-laws 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. The contractor shall give due notices to the Municipality, Gram Panchayat, Police and /or other authorities as may be required under the law / rules under force and obtain all requisite licenses / permissions to carry out the work and pay all charges which may be leviable on account of his execution of the work under the agreement. Nothing extra shall be payable on this account.

In the event of any restrictions being imposed by security and traffic agencies or any other authority having jurisdiction in the area on the working or movement of labour / material, the contractor shall strictly follow such restrictions and nothing extra shall be payable to the contractor on this account. The loss of time on this account, if any, shall have to be made up by generating additional resources etc.

20. PROTECTION OF EXISTING STRUCTURES / SERVICES AND INTERFERENCE WITH OTHER WORKS

The contractor shall protect existing drains, pipes, cables, overhead wires, sewer lines, water lines and other services encountered in the course of execution of the work and shall repair any damage caused by him at his own expense. 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.

The contractor shall carry out his 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 contractors. 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 Engineer-in-charge.

21. RECESSES, HOLES, OPENINGS, ETC.

The contractor shall leave such recesses, holes, openings, etc. as may be required for the water supply, drainage, electric, air-conditioning and other related works and the contractor shall fix the same at the time of casting of concrete, stone work, brick work etc.

22 TEMPORARY ELECTRICITY CONNECTION FOR EXECUTION OF WORK

The contractor shall make his own arrangements for temporary electric connection, if required and make necessary payment including electric charges for its use direct to the authority concerned. The Engineer-in-charge will provide all possible assistance by way of reasonable recommendation for obtaining electricity connection to the concerned authorities but bears no responsibility for the same.

23 CONDITIONS FOR WATER SUPPLY, SANITARY INSTALLATIONS AND DRAINAGE WORK

23.1 The contractor shall only employ experienced and specialized workmen for carrying out the Water supply, sanitary installations and Drainage work.

23.2 Five years Guarantee bond in prescribed proforma attached with NIT shall be submitted by the contractor to meet his liabilities under the Guarantee Bond. The sole responsibility about quality of Water supply, Sanitary installations and Drainage work shall rest with the contractor.

23.3 Ten percent of the cost of Water supply, Sanitary installations and Drainage work shall be retained as security deposit and the amount so withheld would be released after five years from the date of completion of the entire work under the agreement, if the performance of the work done is found satisfactory. If any defect is noticed during the guarantee period, it shall be rectified by the contractor within seven days of receipt of intimation of defects in the work. If the defects pointed out are not attended to within the specified period, the same will be got done by the Engineer-in-charge at the risk and cost of contractor.

However, the security deposit deducted may be released in full against Bank Guarantee of equivalent amount in favour of Engineer-in-charge, if so decided by the Engineer-in-charge. The security deposit against this work shall be in addition to the security deposit mentioned elsewhere in contract form.

24. Protection of existing service lines during excavations of trenches:-

The contractor shall protect existing service lines of water supply, sewer, electrical and telephone conduits during excavation of trenches. In case of damaged to these service lines during excavations the same shall be restored by agency at his own cost.

25. For some of the specific nature of work such as anti-termite treatment and waterproofing work contractors who associate specialized agencies / specialized firm executing the work give a specific guarantee that they are responsible for removal of any defects cropping up in these works executed by them during the guarantee period.

The form of the guarantee to be executed by the contractors is given as per annexure attached.

10% of the amount pertaining to anti-termite treatment and waterproofing work as security deducted from the bills of the contractors will be refunded after expiry of guarantee period in accordance with the terms of the contract in this behalf.

26. ELIGIBILITY CONDITIONS FOR APPROVAL OF SPECIALIZED AGENCIES:

The Contractor(s) shall submit his proposal for the approval of the Engineer-in-Charge, the names of specialized agencies of repute along with their technical capability/Experience proposed to be engaged by him. The agency must be currently actively engaged in execution of the said specialized item and must have who have satisfactorily executed similar work during last 7 (Seven) years as below:

a) Three works each of value not less than 40% of corresponding cost of the specialized items.

Or

b) Two works each of value not less than 60% of corresponding cost of the specialized items.

Or

c) One work each of value not less than 80% of corresponding cost of the specialized items.

For Calculation purpose only, cost of the specialized item as per accepted tendered value of the all the items corresponding to the specialized item under consideration.

27. The Contractor has to submit programme/Presentation for execution of repair and retrofitting work and getting approval before start of the work.

ADDITIONAL SPECIFICATIONS FOR CIVIL WORK

1.0 Cement

- 1.1** The contractor shall procure 43 grade Ordinary Portland Cement (conforming to IS 8112) or Portland Pozzolana Cement (PPC) [conforming to IS:1489 (Part-I)] as required in the work, from reputed manufacturers of cement having a production capacity not less than one million tonnes per annum, such as ACC, Ultra tech, Vikram, Shree Cement, Ambuja, Jaypee Cement, Century Cement & J. K. Cement. Cement as approved by the Ministry of Industry, Government of India, and holding license to use ISI certification mark for their product.
- 1.2** The supply of cement shall be taken 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 relevant BIS codes. In case the test results indicate that the cement arranged by the contractor does not conform to the relevant BIS codes, the same shall stand rejected, and it 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.
- 1.3** The cement shall be brought at site in bulk supply of approximately 10tonnes or as decided by the Engineer- in- charge. The cement godown of the capacity to store a minimum of 400 bags of cement shall be constructed by the contractor at site of work for which no extra payment shall be made.
- 1.4** 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 keys 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.
- 1.5** 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 to testing laboratories. The cost of tests shall be borne by the contractor/Department in the manner indicated below:
 - (a) By the contractor, if the results show that the cement does not conform to relevant BIS codes.
 - (b) By the Department, if the results show that the cement conforms to relevant BIS codes.
- 1.6** The actual issue and consumption of cement on work shall be regulated and proper accounts maintained as provided in clause 10 of the contract. The theoretical consumption of cement shall be worked out as per procedure prescribed in clause 42 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. In case of excess consumption no adjustment need to be made.
- 1.7** The cement brought to the 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.
- 1.8** 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 3 days of receipt of such notice, the Engineer-in-charge shall get it removed at the cost of the contractor.
- 1.9** The day-to-day receipt and issue accounts of all cement bags used in the work shall be maintained in the register as per following proforma and daily signed by the contractor or his authorized representative and by the representative of Engineer-in-charge.

Particulars of receipt			Particulars of issue								Remarks	
Date of receipt	Quantity received	Progressive total	Date of issue	Quantity issued	Items of work for which issued	Quantity returned at the end of the day	Total issued	Daily balance in hand	Contractor initials	JE' s initials	AE' s initials	EE' s initials
1	2	3	4	5	6	7	8	9	10	11	12	13

1.10 The Superintending Engineer, CCU may change the brand of cement depending upon availability in local market but conforming to grade mentioned in the NIT and only with ISI mark, if warranted.

2.0 Steel reinforcement bars

2.1 The contractor shall procure IS marked TMT bars of grade 500D or more from the steel manufacturers such as SAIL, TATA Steel Ltd, RINL, Jindal Steel & Power Ltd and JSWsteel Ltd. or their authorized dealers having valid BIS license for IS: 1786-2008 (Amendment -1 November 2012).

2.2 The contractor shall have to obtain and furnish test certificates to the Engineer-in-Charge in respect of all Supplies of steel brought by him to the site of work.

2.3 Samples shall also be taken and got tested by the Engineer-in-Charge as per the provisions in this regard in relevant BIS codes. In case the test results indicate that the steel arranged by the contractor does not conform to the specifications, the same shall stand rejected, and it shall be removed from the site of work by the contractor at his cost within a week time or written orders from the Engineer-in-Charge to do so.

2.4 The steel reinforcement bars shall be brought to the site in bulk supply of 05 tonnes or more, or as decided by the Engineer-in-Charge.

2.5 The steel reinforcement bars shall be stored by the contractor at site of work in such a way as to prevent their distortion and corrosion, and nothing extra shall be paid on this account. Bars of different sizes and lengths shall be stored separately to facilitate easy counting and checking.

2.6 For checking nominal mass, tensile strength, bend test, re-bend test etc. Specimens of sufficient length shall be cut from each size of the bar at random, and at frequency not less than that specified below:

Size of bar	For consignment below 100 tonnes	For consignment above 100 tonnes
Under 10 mm diabars	One sample for each 25tonnes or part thereof	One sample for each 40 tonnes or part thereof
10 mm to 16 mm dia bars	One sample for each 35tonnes or part thereof	One sample for each 45 tonnes or part thereof
Over 16 mm diabars.	One sample for each 45tonnes or part thereof	One sample for each 50 tonnes or part thereof

- 2.7** The contractor shall supply free of charge the steel required for testing including its transportation to testing laboratories. The cost of tests shall be borne by the contractor.
- 2.8** The actual issue and consumption of steel on work shall be regulated and proper accounts maintained as provided in clause 10 of the contract. The theoretical consumption of steel 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 consumption is less than theoretical consumption including permissible variations recovery at the rate so prescribed in Schedule F shall be made. In case of excess consumption no adjustment need to be made.
- 2.9** The steel reinforcement shall be stored by the contractor at site of work about 30 cm to 45 cm above ground. A coat of cement wash shall be given to the steel bars when stored at site for long duration so as to prevent corrosion. Nothing extra shall be paid on this account. Bars of different sizes and length shall be stored separately to facilitate easy counting and checking.
- 2.10** The steel brought to site and steel remaining unused shall not be removed from site without the written permission of the Engineer-in-Charge.
- 2.11** The actual issue of steel will be actual weight of total quantity of steel received at the site less actual weight of balance quantity of steel lying unutilized at the work site. If the quantity of steel actually used in the work is found to be more than the theoretical quantity of steel including authorized variation, no payment will be made to the bidder on this account. In the event of it being discovered that after the completion of the work the quantity of steel used is less than the quantity ascertained as herein before provided (allowing variation on the minus side as stipulated in clause 38), the cost of quantity of steel not so used will be recovered from the bidder as prescribed in Schedule F. Decision of the Engineer-in-charge in regard to theoretical quantity of steel which should have been actually used and recovery at the rate specified, will be final and binding on the bidder.
- 2.12** In case the bidder brings surplus quantity of steel the same after completion of the work will be removed from the site by the bidder at his own cost after approval of the Engineer-in-charge.
- 2.13** Steel Reinforcement bars including authorized spacer bars and laps will be measured in length of different diameters as actually (not more than as specified in the drawing) used in the work nearest to a centimetre. Wastage and unauthorized overlaps will not be measured and paid for.
- 2.14** The Standard sectional weight referred in CPWD Specifications Vol.1, 2019 will be considered for conversion of length of various diameters of Thermo-Mechanically Treated bars, into standard weight.
- 2.15** Record of actual sectional weight will also be kept dia wise / lot wise. The average sectional weight for each diameter will be arrived at from sample from each lot of steel received at site. The decision of Engineer-in-charge will be final for the procedure to be followed for determining the average sectional weight of each lot. Quantity of each diameter of steel received at the site of work each day will constitute one single lot for the purpose. The weight of steel by conversion of length of various sizes of bars based on the actual weighted average sectional weight be termed as 'Derived actual weight'.
- 2.16** If the Derived actual weight is lesser than the Standard weight, then the Derived actual weight will be taken for payment.
- 2.17** If the Derived actual weight is found more than the standard weight, then the Standard weight will be taken for payment. In such case no payment will be made for the difference between the Derived actual weight and the Standard weight.

3.0 RCC Work

- 3.1** The work shall be carried out in general as per CPWD Specifications as mentioned in schedule 'F'. The RCC work shall be done as specified in the nomenclature of items. The RCC work shall be done with Design Mix Concrete, wherever required.
- 3.2** The contractor shall engage one of the Indian institute of Technology (IIT) or National Institute of Technology (NIT) at his own expenses for designing the concrete mix in accordance with relevant IS code and to conduct laboratory tests to ensure the target strength and workability criteria for a given grade of concrete. The various ingredients for mix design/ laboratory tests shall be sent to the laboratory through the Engineer-in-charge and the samples of such aggregates shall be preserved at site by the department.
- 3.3** The contractor shall submit the report on design mix from any of the above laboratories for approval of the Engineer-in-charge in writing within 30 days from the date of issue of award letter of the tender. No concreting shall be done until the design mix is approved.
- 3.4** For any change in source of ingredients/quality of materials of the concrete, for which the concrete mix has been designed earlier and approved by the Engineer-in-Charge, the contractor will get the mix redesigned again from the institutes stated above at his own expenses and will obtain the approval of redesigned mix from the Engineer-in-Charge before use at site.
- 3.5** Where Ready Mix Concrete (RMC) is required to be used in the work, the main contractor shall obtain the approval of manufacturer/supplier of RMC (RMC Plant) in writing from the Engineer-in-Charge. The main contractor has to enter into a Memorandum of Understanding (MoU) with the RMC manufacturer/supplier who is supplying the RMC for the work. The copy of such MoU shall be submitted by the main contractor to the Engineer-in- Charge within three days of signing of MoU.
- 3.6** The design mix concreting shall be done using computerized fully automatic concrete batching plant of suitable capacity (as decided by the Engineer-in-charge) which shall be installed by the contractor at site, calibrated and tested. A copy of the valid/upto date calibration certificate shall be submitted by the contractor to the Engineer-in-charge before start of concreting work. The Plant shall have the facilities of data print out, pre-setting the quantity to be weighed with automatic cut-off when the same is achieved. The location to install batching plant at site shall be obtained by the contractor from the Engineer-in-charge. The receipt and issue account of cement bags used in the RMC work shall be properly kept. The computerized dispatch slips (indicating all required details) mentioning name of manufacturer/supplier that are sent with each dispatch of RMC shall be provided by the main contractor which shall be kept in record by the Engineer-in-Charge.
- 4.0 Steel work**
The contractor shall submit the fabrication drawings of complete steel structure (columns, truss etc.) for supporting the GI Profile sheet roofing work to the Engineer-in-charge for his approval. The fabrication drawings shall be based on architectural drawings/ structural drawings and will show construction details, joinery details, anchoring details etc. complete.

5.0 ROAD WORK

Road work shall conform to CPWD specification 2019, in case the same is not available in CPWD specification or if required as per item, the MORTH specifications for roads and bridges 2001 shall be followed. Five years (05) guarantee bond in prescribed Performa attached at Annexure-VI herewith shall be submitted by the contractor which shall also be signed by both the specialist agency and the contractor to meet their liability / liabilities under the guarantee bond. However, the sole responsibility shall rest with the building contractor.

10% (Ten percent) of the cost of bituminous layers of road work shall be retained as security deposit and the amount so withheld would be released after ten years from the date of completion of the entire work under the agreement, if the performance of the work done is found satisfactory, if any defects like leakage and manufacturing defects etc. is noticed during the guarantee period, it shall be rectified by the contractor within seven days of the receipt of intimation of defects in the work. If the defects pointed out are not attended to within the specified period, the same will be got done from another agency at the risk and cost of the contractor.

However, the security deposit deducted may be released in full against bank guarantee of equivalent amount in favor of Engineer-in-charge. If so, decided by the Engineer-in-charge.

The Security deposit against this item of work shall be in addition to the security deposit mentioned elsewhere in contract form.

Removal of rejected/sub-standard materials.

- 6.0 The following procedure shall be followed for the removal of rejected/sub-standard materials from the site of work:
- a Whenever any material brought by the contractor to the site of work is rejected, entry thereof should invariably be made in the Site Order Book under the signature of the Assistant Engineer, giving the approximate quantity of such materials.
 - b As soon as the material is removed, a certificate to that effect shall be recorded by the Assistant Engineer against the original entry, giving the date of removal and mode of removal, i.e., whether by truck, carts, or by manual labour. If the removal is by truck, the registration number of the truck should be recorded.
 - c When it is not possible for the Assistant Engineer to be present at the site of work at the time of actual removal of the rejected/sub-standard materials from the site, the required certificate should be recorded by the Junior Engineer, and the Assistant Engineer should countersign the certificate recorded by the Junior Engineer.

MINIMUM QUALITY ASSURANCE PLAN

1.1 FIELD LABORATORY

The contractor shall establish a laboratory at site of work at his own cost. The laboratory shall be equipped, inter alia, with the equipment mentioned in Schedule F.

1.2 OUTSIDE / INDEPENDENT TESTING

For the tests which cannot be carried out in a site laboratory, the outside laboratories shall be approved in the following manner:-

1.2.1 Testing of material shall be allowed by Engineer in Charge in Govt. Lab/Public Undertaking Lab/IIT or NIT Lab/Government Engineering College Lab provided these labs have necessary facilities to carry out the required tests.

1.2.2 If Govt. Lab/Public Undertaking Lab/IIT or NIT Lab/Government Engineering College Lab does not have necessary facilities to carry out the required tests, then only, the outside private laboratories shall be approved as under :-

- (i) The Superintending Engineer, CCU will approve the private lab irrespective of distance for tests. For this purpose, labs accredited by NABL or any other accreditation body which operates in accordance with ISO/IEC 17011 and accredits labs as per ISO/IEC 17025 for testing and calibration scopes is eligible.
- (ii) The lab will have to submit details of space available, equipments, staff (Technical and non- Technical), Accreditation and approval from various department/institutes.
- (iii) Initial approval of lab shall be for one year and can be revalidated for further one year and so on.
- (iv) The lab shall be audited for maintenance and calibration of equipments and employment of staff prior to approval/ revalidation.
- (v) Testing charges to be borne by contractor. All expenditure to be incurred for testing of samples e.g. packaging, sealing transportation, loading, unloading etc. including testing charges shall be borne by the contractor.

1.3 QUALITY CONTROL TESTS

Field / lab tests shall be carried out to check control and finally assure the quality of work at every level. Material and finished item shall be subjected to test to achieve the desired quality of work. Where ever necessary, required number of test shall be carried out in outside laboratory approved by the engineer-in-charge. The following mandatory test shall be carried out:

(A) TABLE OF MANDATORY TESTS

As per CPWD Specifications 2019 Vol. I and II with correction slips upto last date of submission of bid and as per relevant IS code.

1.4 Custody & Reporting of Records

All the records shall be maintained jointly by laboratory in-charge and the authorized representative of Engineer-in-charge. Records shall be maintained in registers and shall be kept in the safe custody of Junior Engineer in-charge of work. Status of mandatory test shall be reported at the time of presentation of each running account bill or monthly progress reports.

Maintenance of registers of test

- i. The register of tests carried out at construction site or in outside laboratories shall be maintained by the contractor which shall be issued to the contractor by Engineer-in-charge with a docket number. The contractor shall make a written request for issue of test register clearly stating the name of register.
- ii. All samples of materials including cement concrete cubes shall be taken jointly with contractor by JE, and out of this at least 50% samples shall be taken in presence of AE in charge. If there is no JE, all samples of materials including cement concrete cubes shall be taken by AE jointly with contractor. All the necessary assistance shall be provided by the contractor. Cost of sample materials is to be borne by the contractor and he shall be responsible for safe custody of samples to be tested at site.
- iii. All the tests in field lab setup at construction site shall be carried out by the Engineering staff deployed by the contractor which shall be 100% witnessed by JE and 50% of tests shall be witnessed by AE-in-charge. At least 10% of the tests are to be witnessed by the Executive Engineer.
- iv. 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/EE.

Submission of copy of test register and Material at Site Register along with each alternate running account bill and final bill shall be mandatory. These registers should be duly checked by AE(P) in division office and receipts of registers should be acknowledged by Accounts Officer by signing the copies and register to confirm receipt in division office.

If all the test registers are not submitted along with each alternate R/A bill & final bill, it will be responsibility of EE & AAO not to release any payment to the contractor.

Maintenance of material at site (MAS) register-

- i. All the MAS registers including Cement and Steel registers shall be maintained by contractor which shall be issued to the contractor by Engineer-in-charge with a docket number.
- ii. Each of the entry of receipt of material at site shall be 100% test checked by JE or by AE if there is no JE.
- iii. Each MAS register shall be checked by JE at least twice a week and at least once a week by AE. If there is no JE then MAS registers will be checked by AE at least twice a week.

1.5 Approval of source of materials -

Approval of source shall be obtained from Engineer-in-charge for availability of good quality materials. All materials shall be got approved from Engineer-in-charge before using them in the work.

PREFERRED MAKES/BRANDS 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.

LIST OF ACCEPTABLE MAKES FOR CIVIL WORKS

S.N.	<u>DETAILS OF MATERIALS</u>	<u>MANUFACTURERS NAME</u>
1	STEEL (TMT FE-500D)	TATA TISCON, RINL, JINDAL STEEL & POWER LTD, JSW STEEL LTD. AND SAIL
2	STRUCTURAL STEEL SECTIONS	TATA, JINDAL, SAIL, RINL
3	CEMENT [OPC AND (P.P.C.) 43 GRADE]]	ACC, AMBUJA, ULTRATECH, WONDER
4	PRECAST DUCTS/DRAINS/ DRAIN COVER/KERB CHANNEL	KK, NITCO, KERAKROME, TERRAFIRMA, FUJISILVERTECH
5	READY MIXED CEMENT CONCRETE	LAFARGE, ACC, ULTRA TECH, AFCON
6	WHITE CEMENT	BIRLA WHITE, J.K. WHITE, ULTRATECH
7	CC PAVERS	NITCO, UNISTONE, PAVIT, KK, DALAL
8	VITRIFIED TILES (DOUBLE CHARGED / FULL BODY/ULTRA SLIM /ANTISKID / ACID-ALKALI RESISTANT)	SIMPOLO, SOMANY, OASIS, KAJARIA, JOHNSON, QUTONE
9	CERAMIC GLAZED TILES	SIMPOLO, SOMANY, OASIS, KAJARIA, JOHNSON, QUTONE
10	WATER-PROOF CEMENT PAINT	SNOWCEM, ASIAN PAINT, SIKA, NEROLAC
11	SYNTHETIC ENAMEL PAINT	ASIAN PAINT (AP ASTER FINISH), BERGER (LUXOL USTER), NEROLAC (LUSTER ENAMEL), ICI (DULUX GLOSS)
12	PLASTIC EMULSION PAINT	ASIAN PAINT (ROYALE SHINE), BERGER (SILK LUXURY), NEROLAC (IMPRESSION 24 CARAT LUXURY), ICI (DULUX GLOSS)
13	OIL BOUND DISTEMPER/ACRYLIC EMULSION PAINT	ASIAN PAINT (TRACTOR ACRYLIC), BERGER (BISON ACRYLIC), NEROLAC (NERLAC ACRYLIC), DULUX
14	STEEL PRIMER	NEROLAC, BERGER, ASIAN PAINTS
15	WOOD PRIMER	NEROLAC, BERGER, ASIAN PAINTS
16	EXTERIOR WATERPROOFING PAINT	RAINCOAT (DR. FIXIT), ASIAN, BERGER

S.N.	<u>DETAILS OF MATERIALS</u>	<u>MANUFACTURERS NAME</u>
17	WOOD FINISH (MELAMINE & PU POLISH)	PIDILITE, ASIAN, WAXPOZ
18	LAMINATE	MERINO, GREENLAM, CENTURY
19	PLY BOARD, PLYWOOD (PINE BOARD)	GREEN, MERINO, CENTURY
20	SELF LEVELLING COMPOUND	MAPAI, ARDEX ENDURA, BIZZAR
21	EPDM GASKET	HANU, ANAND, VICTOR
22	WOOD ADHESIVE	FEVICOL, 3M, JIVANJOR, SIKA
23	FLUSH DOOR	GREEN, MERINO, CENTURY
24	WATER REPELLENT PAINT	ARDEX ADURA, WEBER, PIDILITE
25	FIRE SEALANT	HILTI, 3M, MCCOY
26	TILE ADHESIVE	PIDILITE, ARDEX ENDURA, WEBER
27	STONE ADHESIVE	PIDILITE, ARDEX ENDURA, WEBER
28	DASH, ANCHORING FASTENERS	HILTI, FISCHER, CANON
29	ALUMINIUM COMPOSITE PANEL	ALUCOBOND, REYNOBOND, ALPOLIC, VIRGO
30	EPOXY GROUTING COMPOUND	PIDILITE, ARDEX ENDURA, WEBER
31	GYPSUM PLASTER	SAINT GOBAIN, USG BORAL, ULTRATECH
32	SILICON SEALANT	GE, DOW CORNING, PIDILITE
33	GYPSUM BOARD	INDIA GYPSUM, USG BORAL, LAFAGE
34	ROOF TILES	KAJARIA, NITCO, JOHNSON, VAARMORA
35	MECHANICAL COUPERS	USHA MARTIN, DEXTRA, ASCON, HERRISAN, G-TECH SPLICING
36	FLOAT GLASS	ASAHI, MODI GLASS, SAINT GOBAIN GLASS
37	CRYSTALLIANE CEMENTITIOUS WATERPROOFING COMPOUND	XYPEX CONSTRUCTION CHEMICAL, KRYTONE, PENETRON
38	BITUMEN MEMBRANE FOR WATERPROOFING	PIDILITE (DR. FIXIT), GRACE, SIKA
39	HDPE MEMBRANE FOR WATERPROOFING	PIDILITE, GRACE, SIKA
40	PU MEMBRANE FOR WATERPROOFING	PIDILITE, GRACE, SIKA
41	ROLLER BLIND	VISTA, MAC, HUNTER DOUGLUS
42	PRELAMINATED PARTICLE BOARD	MERINO, CENTURY PLY, GREENLAM

S.N.	<u>DETAILS OF MATERIALS</u>	<u>MANUFACTURERS NAME</u>
43	HYDRAULIC DOOR CLOSER, FLOOR SPRING	DORMA, GEZE, HAFELE, HORMANN
44	HARDWARES FOR FIRE RATED DOORS	HAFELE, DORMA, GEZE, HORMANN
45	FRICITION STAY HINGES	HETTICH, EBCO, HAFELE
46	STAINLESS STEEL FITTINGS/HARDWARE FOR WOODEN/METAL/GLAZED/STEEL DOOR & WINDOWS	HAFELE, DORMA, GEZE, HORMANN
47	STEEL WINDOWS, PRESSED STEEL FRAMES	SAN HARVIC, STEELMAN INDUSTRIES, PD INDUSTRIES, METAL WINDOWS
48	WIRE MESH	STERLING ENTERPRISES, MICROMESH, HARVER STANDARD, INDIA WIRE MESH
49	ADHESIVE TAPE	3M, NORTON, BOPD, TESA
50	HIGH PERFORMANCE EPOXY BASED RESIN ANCHOR SYSTEM	BASF, FOSROC, CICO, SIKA
51	EPOXY MORTAR	FOSROC, SIKA, MYK LATICRETE, CICO
52	NUTS, BOLTS & SCREWS	GKW, KUNDAN, PRIYA, ATUL, AXISL, BOUN
53	ALUMINIUM SECTIONS FOR DOORS & WINDOWS ETC.	JINDAL, HINDALCO, BHORUKA
54	HARDWARE FITTINGS FOR ALUMINIUM WINDOWS & DOORS	GEZE, HAFELE, DORMA
55	MS SECTIONS (PIPES, BOXES CHANNELS)	JINDAL HISAR, TATA, SURYA
56	TEXTURED PAINT	ASIAN, BERGER, DULUX
57	S.S. MATERIAL/HADRAILS/RAILINGS	JINDAL STAINLESS STEEL LTD., TATA STEEL
58	WALL PUTTY	JK, BIRLA, ASAIN PAINT
59	FLOOR HARDENER	PIDILITE, FOSROC, SIKA, BASF, CICO
60	POLYSULPHIDE SEALANT	PIDILITE, ARDEX ENDURA, WEBER, BASF.
61	INSULATED ALUMINUM COMPOSITE/PUFF/SANDWITCH PANEL	KINGSPAN JINDAL, METECNO, HUNTER DOUGLAS, TATA BLUSCOPE, VIRGO
62	SPECIALISED AGENCY FOR EXPANSION JOINT TREATMENT	BASF, MIGUA, CS, M/S TECHNOCRATS, M/S TUFF WATERPROOFING CO., M/S. CAMEO

S.N.	<u>DETAILS OF MATERIALS</u>	<u>MANUFACTURERS NAME</u>
63	WATERPROOFING COMPOUND	FOSROC, DR. FIXIT, BASF, SIKA, ASAIN PAINT
64	ADMIXTURES	FOSROC, SIKA, ATPL, KUNALCOM CHEM
65	REFLECTIVE GLASS	SAINT GOBAIN, ASAHI (INDIA), PILKINGTON
66	LOOKING GLASS / MIRROR	ATUL, MODI GUARD, GOLDEN FISH
67	HIGH PERFORMANCE GLASS	SAINT GOBAIN, ASAHI, PILKINGTON
68	METAL/ALUMINUM FALSE CEILING	SAINT GOBAIN, HUNTER DOUGLUS, ARMSTRONG, DURLUM, ASP
69	AAC BLOCK	AEROCON, JINDAL BLOCK, MODCRETE, FINECRETE
70	AAC BLOCK ADHESIVE	ARDEX ENDURA, PIDILITE, WEBER
71	GRASS PAVER	PAVIT, UNISTONE, ULTRA TILES, NITCO, DURACRETE, OVILITE
72	HIGH PRESSURE LAMINATE INTERIOR/EXTERIOR GRADE	MERINO, FUNDERMAX, GREENLAM
73	UPVC WINDOWS	FENESTA, ALUPLAST, KOENMERLING
74	EPDM MEMBRANE	FIRESTONE, PIDILITE, MYK SCHOMBURG, ASIAN PAINTS
75	WALL GUARD, HAND RAIL, CORNER GUARD	CONSTRUCTION SPECIALITIES / GRADUS INPROCORP INDIA PVT. LTD.
76	SOLID ACRYLIC SURFACE	MERINO, LG, GRANIAM, SAMSUNG- STARON
77	VINYL / CONDUCTIVE FLOORING, DADO SKIRTING	FORBO, TARAKETT, RESPONSIVE, ARMSTRONG, GERFLOOR
78	CALCIUM SILICATE TILES FALSE CEILING	AEROLITE, RAMCO, HILUX
79	FIRE CHECK DOORS	NAVAIR, PROMAT, SHAKTI HORMANN
80	LEAD LINED DOOR	NAVAIR, SHAKTI HORMANN, METAFLEX, RESPONSIVE
81	FIRE RESISTANT GLASS	SAINT GOBAIN, ASAHI, PILKINGTON
82	ALUMINIUM GLAZED DOORS/WINDOWS	HINDALCO, SHAKTI HORMANN, GLAZE TECHNO, SARLA
83	PAINT AND PRIMER FOR FIRE CHECK DOOR.	VIPER, BERGER, NULLIFIRE

S.N.	<u>DETAILS OF MATERIALS</u>	<u>MANUFACTURERS NAME</u>
84	INTUMESCENT FIRE / SMOKESEAL	ASTRO FLAME, RAVEN, SEALZ, LORIENT
85	CALCIUM SILICATE BOARD FOR FIRE DOOR	PROMOTECH, PROMINA, RAMCO
86	FRP DOOR & FRAMES	FIBREWAYS, JAISHREE, FIBRE TECHNO, BHATT FRP, JAYNA
87	FLY ASH BRICKS	POWERBRICKS, PAUBHARA, YBW
88	INSULATION	UP TWIGA, LLOYD, ROXUL ROCKWOOL, ROCKWOOLINDIA
89	ANTI BACTERIAL PAINT	OIKOS/LIQUIDE PLASTIC /CONSTRUCTION SPECIALITY
90	GRAPHIC FILM	3M, AVERY DENNISON
92	GRC/ FRP	BIRLA WHITE, UNISTONE, SANDERSON, SHENISHA CORPORATION
93	PLASTER OF PARIS	JK, BIRLA, SAKARNI, ULTRATECH
94	MR BOARD	SAINT GOBAIN, USG BORAL, ARMSTRONG
95	MINERAL FIBRE SUSPENDED CEILING SYSTEM	SAINT GOBAIN, USG BORAL, ARMSTRONG, KNAUF AMF
96	CURTAIN TRACK AND CURTAIN FABRIC	WINDOWTECH, DECOREX, MEDFRESHE, RESPONSIVE
97	POLYMER MODIFIED ADHESIVE	ULTRATECH, BALL ENDURA, PIDILITE, FERROUSCRETE
98	ANTI BACTERIAL AND ANTI SKID VITRIFIED TILES	SIMPOLO, SOMANY, OASIS, KAJARIA, JOHNSON, QUTONE
99	POLYCARBONATE SHEET	DANPALON, SOLALITE, DPI SYSTEM, EVERLITE, CPI
100	GI PIPES	TATA, JINDAL, SURYA
101	CPVC PIPES	ASTRAL, PRINCE, SFMC
102	HDPE PIPES	SUPREME, FINOLEX, ASTRAL
103	CC (SPUN) IRON PIPE	NECO, SKF, HIF
104	CCI SOIL, WASTE, VENT PIPES & FITTINGS	NECO, SKF, HIF
105	C.P. BRASS FITTING	JAQUAR, GROHE, KOHLER, AMERICAN STANDARD, HINDWARE
112	SS SINK	NILKANTH, NIRALI, PARRYWARE

S.N.	<u>DETAILS OF MATERIALS</u>	<u>MANUFACTURERS NAME</u>
107	SS RAILING	DORMA, KICH, HARDWYN
108	C.P. BRASS BATHROOM ACESSORIES	JAQUAR,GROHE,KOHLER, AMERICAN STANDARD, HINDWARE
109	WATER BASED MELAMINE POLISH	ASIAN, PIDILITE, DULUX
110	TAC TILE	JOHNSON, KAJARIA, SUNHEART
111	GLASS MOSAIC TILE	ITALIA, CORAL, KAJARIA
112	WEATHER SILICON SEALANT	WACKER, MCCOY, DOW CORNING
113	BACKER ROD	SUPREME/SYSTRANS
114	SANITARY WARE (URINAL, WASH BASIN, WC ETC.)	JAQUAR,GROHE,KOHLER, AMERICAN STANDARD, HINDWARE
115	POLYSTRENE BOARD	SUPREME, DOW CORNING, TEXAS, PIDILITE

GUARANTEE TO BE EXECUTED BY THE CONTRACTOR FOR REMOVAL OF DEFECTS AFTER COMPLETION IN RESPECT OF WATER SUPPLY, SANITARY INSTALLATIONS AND DRAINAGE WORK

The agreement made this _____ day of _____ Two Thousand and _____ between _____ son of _____ (hereinafter called the GUARANTOR of the one part) and the PRESIDENT OF INDIA (hereinafter called the Government of the other part.)

WHEREAS THIS agreement is supplementary to a contract (Hereinafter called the Contract) dated and made between the GUARANTOR OF THE ONE PART AND the Government of the other part, whereby the contractor inter alia, undertook to render the work in the said contract recited structurally stable, workmanship, finishing and use of sound materials.

AND WHEREAS THE GUARANTOR agreed to give a guarantee to the effect that the said work will remain structurally stable and guaranteed against leakages, faulty workmanship, improper finishing, unsound materials and other defects.

NOW THE GUARANTOR hereby guarantee that work executed by him will remain structurally stable after expiry of maintenance period prescribed in the contract for the **minimum life of five year** to be reckoned from the date after the expiry of maintenance period prescribed in the contract.

The decision of the Engineer-in-charge with regard to nature and cause of defect shall be final.

During this period of guarantee, the guarantor shall make good all defects to the satisfaction of the Engineer-in-charge calling upon him to rectify the defects failing which the work shall be got done by the Department by some other contractor at the Guarantor's cost and risk. The decision of the Engineer-in-Charge as to the cost, payable by the Guarantor shall be final and binding.

That if the guarantor fails to make good all the defects commits breach there under, then the guarantor will indemnify the principal and his successor against all loss, damage, cost expense or otherwise which may be incurred by him by reason of any default on the part of the GUARANTOR in performance and observance of this supplementary agreement. As to the amount of loss and/or damage and or cost incurred by the Government, the decision of the Engineer-in-charge will be final and binding on both the parties.

IN WITNESS WHEREOF these presents, have been executed by the obligor _____ and by _____ for and on behalf of the PRESIDENT OF INDIA on the day, month and year first above written.

SIGNED, sealed and delivered by OBLIGOR _____ in the presence
of: 1.
2.

SIGNED FOR AND ON BEHALF OF THE PRESIDENT OF INDIA BY _____ in the
presence
of: 1.
2.

TO BE EXECUTED BY THE CONTRACTOR FOR REMOVAL OF DEFECTS AFTER COMPLETION IN RESPECT OF BITUMINOUS LAYERS OF ROAD WORK.

The agreement made this day of Two Thousand and _____ Between son of of _____ (hereinafter called the Guarantor of the one party) and the **PRESIDENT OF INDIA** (hereinafter called the Government of the other party).

WHEREAS THIS agreement is supplementary to a contract (hereinafter called the Contract), dated _ and made between the **GUARANTOR OF THE ONE** part and the Government of the one other part, whereby the Contractor, inter alia, undertook to render the buildings and structures in the said contract recited completely water and leak-proof.

AND WHEREAS THE GUARANTOR agreed to give a guarantee to the affect that the said work will remain structurally stable and guaranteed against faulty workmanship, finishing and unsound materials and other related problems.

NOW THE GUARANTOR here by guarantee that work executed by him will remain structurally stable after the expiry of maintenance period prescribed in the contract for the **minimum life of five years (05)** to be reckoned from the date after expiry of maintenance period prescribed in the contract.

The decision of the Engineer-in-charge with regard to nature and cause of defect shall be final.

During this period of guarantee, the guarantor shall make good all defects to the satisfaction of the Engineer-in-charge calling upon him to rectify the defects failing which the work shall be got done by the Department by some other contractor at the Guarantor's cost and risk. The decision of the Engineer-in-Charge as to the cost, payable by the Guarantor shall be final and binding.

That if the guarantor fails to make good all the defects, commits breach there under, then the guarantor will indemnify the principal and his successor against all loss, damage, cost expense or otherwise which may be incurred by him by reason of any default on the part of the **GUARANTOR** in performance and observance of this supplementary agreement. As to the amount of loss and/or damage and/or cost incurred by the Government, the decision of the Engineer-in-charge will be final and binding on both the parties.

INWITNESS WHERE OF these presents, have been executed by the obligator and by for and on behalf of the **PRESIDENT OF INDIA** on the day, month and year first above written.

SIGNED, sealed and delivered by **OBLIGATOR** in the presence of:

- 1. _____
- 2. _____

SIGNED FOR AND ON BEHALF OF THE PRESIDENT OF INDIA BY

_____ in the presence of:

- 1. _____
- 2. _____

GUARANTEE TO BE EXECUTED BY CONTRACTORS FOR REMOVAL OF DEFECTS AFTER COMPLETION IN RESPECT OF ANTI-TERMITE TREATMENT WORKS.

The Agreement made this _____ day of _____ one thousand nine hundred and _____ between _____ son of _____ of _____ (hereinafter called the Guarantor of the one part) and the PRESIDENT OF INDIA (hereinafter called the Government of the other part).

WHEREAS THIS agreement is supplementary to a contract (hereinafter called the Contract), dated _____ and made between the GUARANTOR OF THE ONE part and the Government of the other part, whereby the Contractor, *inter alia*, undertook to render the buildings and structures in the said contract recited completely termite proof.

AND WHEREAS THE GUARANTOR agreed to give a guarantee to the effect that the said structures will remain termite proof for **five years** from the date of giving of termite proof treatment.

NOW THE GUARANTOR hereby guarantees that anti-termite treatment given by him will render the structures completely termite proof and the minimum life of such treatment shall be **five years** to be reckoned from the date after the maintenance period prescribed in the contract.

During this period of guarantee, the guarantor shall make good all defects and in case of any defect being found render the building termite proof to the satisfaction of the Engineer-in-charge at his cost and shall commence the work for such rectification within seven days from the date of issue of the notice from the Engineer-in-charge calling upon him to rectify the defects failing which the work shall be got done by the Department by some other Contractor at the GUARANTOR'S cost and risk. The decision of the Engineer-in-charge as to the cost, payable by the Guarantor shall be final and binding.

That if the Guarantor fails to execute the termite proofing or commits breach thereunder, then the Guarantor will indemnify the Principal and his successors against all loss, damage, cost, expense or otherwise which may be incurred by him by reason of any default the part of the GUARANTOR in performance and observance of this supplementary agreement. As to the amount of loss and / or damage and /or cost incurred by the Government the decision of the Engineer-in-charge, will be final and binding on the parties.

IN WITNESS WHEREOF these presents have been executed by the Obligor _____ and by _____ and for and on behalf of the PRESIDENT OF INDIA on the day, month and year first above written.

Signed, sealed and delivered by Obligor in the presence of -

- 1. _____
- 2. _____

Signed for and on behalf of the President of India by _____

In the presence of -

- 1. _____
- 2. _____

GUARANTEE TO BE EXECUTED BY THE CONTRACTOR FOR REMOVAL OF DEFECTS AFTER COMPLETION IN RESPECT OF WATERPROOFING WORKS

The Agreement made this _____ day of _____ one thousand nine hundred and _____ between _____ son of _____ of _____ (hereinafter called the Guarantor of the one part) and the PRESIDENT OF INDIA (hereinafter called the Government of the other part).

WHEREAS THIS agreement is supplementary to a contract (hereinafter called the Contract), dated _____ and made between the GUARANTOR OF THE ONE part and the Government of the other part, whereby the Contractor, *inter alia*, undertook to render the buildings and structures in the said contract recited completely termite proof.

AND WHEREAS THE GUARANTOR agreed to give a guarantee to the effect that the said structures will remain termite proof for **five years** from the date of giving of termite proof treatment.

NOW THE GUARANTOR hereby guarantees that anti-termite treatment given by him will render the structures completely termite proof and the minimum life of such treatment shall be **five years** to be reckoned from the date after the maintenance period prescribed in the contract.

During this period of guarantee, the guarantor shall make good all defects and in case of any defect being found render the building termite proof to the satisfaction of the Engineer-in-charge at his cost and shall commence the work for such rectification within seven days from the date of issue of the notice from the Engineer-in-charge calling upon him to rectify the defects failing which the work shall be got done by the Department by some other Contractor at the GUARANTOR'S cost and risk. The decision of the Engineer-in-charge as to the cost, payable by the Guarantor shall be final and binding.

That if the Guarantor fails to execute the termite proofing or commits breach thereunder, then the Guarantor will indemnify the Principal and his successors against all loss, damage, cost, expense or otherwise which may be incurred by him by reason of any default the part of the GUARANTOR in performance and observance of this supplementary agreement. As to the amount of loss and / or damage and /or cost incurred by the Government the decision of the Engineer-in-charge, will be final and binding on the parties.

IN WITNESS WHEREOF these presents have been executed by the Obligor _____ and by _____ and for and on behalf of the PRESIDENT OF INDIA on the day, month and year first above written.

Signed, sealed and delivered by Obligor in the presence of –

- 1. _____
- 2. _____

Signed for and on behalf of the President of India by _____

In the presence of –

- 1. _____
- 2. _____

GUARANTEE TO BE EXECUTED BY THE CONTRACTOR FOR REMOVAL OF DEFECTS AFTER COMPLETION IN RESPECT OF uPVC DOOR/WINDOWS/VENTILATOR WORKS & ALUMINIUM WORKS

The Agreement made this _____ day of _____ one thousand nine hundred and _____ between _____ son of _____ of _____ (hereinafter called the Guarantor of the one part) and the PRESIDENT OF INDIA (hereinafter called the Government of the other part).

WHEREAS THIS agreement is supplementary to a contract (hereinafter called the Contract), dated _____ and made between the GUARANTOR OF THE ONE part and the Government of the other part, whereby the Contractor, *inter alia*, undertook to render the buildings and structures in the said contract recited completely termite proof.

AND WHEREAS THE GUARANTOR agreed to give a guarantee to the effect that the said structures will remain termite proof for **five years** from the date of giving of termite proof treatment.

NOW THE GUARANTOR hereby guarantees that anti-termite treatment given by him will render the structures completely termite proof and the minimum life of such treatment shall be **five years** to be reckoned from the date after the maintenance period prescribed in the contract.

During this period of guarantee, the guarantor shall make good all defects and in case of any defect being found render the building termite proof to the satisfaction of the Engineer-in-charge at his cost and shall commence the work for such rectification within seven days from the date of issue of the notice from the Engineer-in-charge calling upon him to rectify the defects failing which the work shall be got done by the Department by some other Contractor at the GUARANTOR'S cost and risk. The decision of the Engineer-in-charge as to the cost, payable by the Guarantor shall be final and binding.

That if the Guarantor fails to execute the termite proofing or commits breach thereunder, then the Guarantor will indemnify the Principal and his successors against all loss, damage, cost, expense or otherwise which may be incurred by him by reason of any default the part of the GUARANTOR in performance and observance of this supplementary agreement. As to the amount of loss and / or damage and /or cost incurred by the Government the decision of the Engineer-in-charge, will be final and binding on the parties.

IN WITNESS WHEREOF these presents have been executed by the Obligor _____ and by _____ and for and on behalf of the PRESIDENT OF INDIA on the day, month and year first above written.

Signed, sealed and delivered by Obligor in the presence of -

1. _____
2. _____

Signed for and on behalf of the President of India by _____

In the presence of -

1. _____
2. _____

Schedule of Quantity for Civil work

Schedule of Quantity

SLNo	Description	Qty	Unit	Rate	Amount
1	EARTH WORK				
1.1	Earth work in surface excavation not exceeding 30 cm in depth but exceeding 1.5 m in width as well as 10 sqm on plan including getting out and disposal of excavated earth upto 50 m and lift upto 1.5 m, as directed by Engineer-in- Charge:				
1.1.1	All kinds of soil.	19.00	sqm	129.85	2467.00
2	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level				
2.1	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)	3.00	cum	6518.60	19556.00
4	Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level :				
4.1	1:1.5:3 (1 cement : 1.5 coarse sand (zone-III) derived from natural sources : 3 graded stone aggregate 20 mm nominal size derived from natural sources)	4.00	cum	9045.75	36183.00
3	Centering and shuttering including strutting, propping etc. and removal of form for				
3.1	Lintels, beams, plinth beams, girders, bressumers and cantilevers	29.00	sqm	736.40	21356.00

5	Encasing rolled steel sections, in beams and columns, with cement concrete 1:1.5:3 (1 cement : 1.5 coarse sand (zone-III) derived from natural sources : 3 graded stone aggregate 20 mm nominal size derived from natural sources) including centering and shuttering complete but , excluding cost of reinforcement.	4.00	cum	16089.40	64358.00
6	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete above plinth level.				
6.1	Thermo-Mechanically Treated bars of grade Fe-500D or more.	597.00	kg	107.85	64386.00
7	Providing and laying Autoclaved Aerated concrete(AAC) blocks masonry with 150mm to 300 mm thick with Grade-1 AAC blocks of density 551 to 650 kg/cum conforming to IS:2185 (Part 3) in super structure above plinth level up to floor V level with RCC band at sill level and lintel level with approved block laying polymer modified adhesive mortar all complete as per direction of Engineer-in-Charge. (The payment of RCC band and reinforcement shall be made for seperately).	17.00	cum	8333.65	141672.00
8	Structural steel work in single section, fixed with or without connecting plate, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.	862.00	kg	117.35	101156.00
9	Steel work in built up tubular (round, square or rectangular hollow tubes etc.) trusses etc., including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer, including welding and bolted with special shaped washers etc. complete.				
9.1	Hot finished welded type tubes	1750.00	kg	194.40	340200.00
10	Providing and fixing mild steel round holding down bolts with nuts and washer plates complete.	130.00	kg	97.20	12636.00

11	Providing and fixing bolts including nuts and washers complete.	350.00	kg	159.35	55773.00
12	Providing and laying Vitrified tiles in different sizes (thickness to be specified by the manufacturer), with water absorption less than 0.08% and conforming to IS: 15622, of approved brand & manufacturer, in all colours and shade, in skirting, riser of steps, laid with cement based high polymer modified quick set tile adhesive (water based) conforming to IS: 15477, in average 6 mm thickness, including grouting of joints (Payment for grouting of joints to be made separately).				
12.1	Size of Tile 600x600 mm	6.00	sqm	1893.90	11363.00
13	Providing and laying Vitrified tiles in floor with 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 with cement based high polymer modified quick set tile adhesive (water based) conforming to IS : 15477, in average 6 mm thickness, including grouting of joints (Payment for grouting of joints to be made separately).				
13.1	Size of Tile 600x600 mm	56.00	sqm	1725.35	96620.00
14	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.				
14.1	110 mm diameter	18.00	mtr	377.40	6793.00
15	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.				
15.1	Coupler				

15.1.1	110 mm	8.00	each	136.15	1089.00
16	Bend 87.5°				
16.1	110 mm bend	8.00	each	150.35	1203.00
17	Shoe (Plain)				
17.1	110 mm Shoe	4.00	each	131.85	527.00
18	Providing and fixing unplasticised -PVC pipe clips of approved design to unplasticised - PVC rain water pipes by means of 50x50x50 mm hard wood plugs, screwed with M.S. screws of required length, including cutting brick work and fixing in cement mortar 1:4 (1 cement : 4 coarse sand) and making good the wall etc. complete.				
18.1	110 mm Shoe	16.00	each	371.30	5941.00
19	Providing and fixing to the inlet mouth of rain water pipe cast iron grating 15 cm diameter and weighing not less than 440 grams.	4.00	each	54.70	219.00
20	Providing and fixing precoated galvanised iron profile sheets (size, shape and pitch of corrugation as approved by Engineer-in-Charge) of total coated thickness 0.50mm (base metal of minimum 0.45mm thickness with total coating thickness of 0.05mm) with zinc coating 120 grams per sqm as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns. Sheet should have protective guard film of 25 microns minimum to avoid scratches during transportation and should be supplied in single length upto 12 metre or as desired by Engineer-in-charge. The sheet shall be fixed using self drilling /self tapping screws of size (5.5x 55 mm) with EPDM seal, complete upto any pitch in horizontal/ vertical or curved surfaces, excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required.	70.00	sqm	738.65	51706.00

21	Providing and fixing pre-coated galvanised steel sheet roofing accessories of total coated thickness 0.50mm (base metal of minimum 0.45mm thickness with total coating thickness of 0.05mm) with Zinc coating 120 grams per sqm as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns using self drilling/ self tapping screws complete :				
21.1	Ridges plain (500 - 600mm)	14.00	metre	532.35	7453.00
21.1.1	Flashings/ Aprons.(Upto 600 mm)	28.00	metre	485.60	13597.00
22	Gutter (600 mm over all girth)	28.00	metre	1313.65	36782.00
23	Providing and Fixing Sillhoute profile 15 mm thick densified tegular edged eco friendly light weight calcium silicate false ceiling tiles of approved texture of size 595 x 595 mm in true horizontal level, suspended on inter locking metal grid of hot dipped galvanised steel sections (galvanising @ 120 grams per sqm including both side) consisting of main 'T' runner suitably spaced at joints to get required length and of size 24x38 mm made from 0.33 mm thick (minimum) sheet, spaced 1200 mm centre to centre, and cross "T" of size 24x28 mm made out of 0.33 mm (Minimum) sheet, 1200 mm long spaced between main'T' at 600 mm centre to centre to form a grid of 1200x600 mm and secondary cross 'T' of length 600 mm and size 24 x28 mm made of 0.33 mm thick (Minimum) sheet to be inter locked at middle of the 1200x 600 mm panel to from grid of size 600x600 mm, resting on periphery walls /partitions on a Perimeter wall angle pre-coated steel of size(24x24X3000 mm made of 0.40 mm thick (minimum) sheet with the help of rawl plugs at 450 mm centre to centre with 25 mm long dry wall screws @ 230 mm interval and laying 15 mm thick densified edges calicum silicate ceiling tiles of approved texture in the grid, including, cutting/ making opening for services like diffusers, grills, light fittings, fixtures, smoke detectors etc., wherever				

	required. Main 'T' runners to be suspended from ceiling using G.I. slotted cleats of size 25x35x1.6 mm fixed to ceiling with 12.5 mm dia and 50 mm long dash fasteners, 4 mm G.I. adjustable rods with galvanised steel level clips of size 85 x 30 x 0.8 mm, spaced at 1200 mm centre to centre along main 'T', bottom exposed with 24 mm of all Tsections shall be pre-painted with polyster baked paint, for all heights, as per specifications, drawings and as directed by Engineer-in-Charge.				
	Note :- Only calcium silicate false ceiling area will be measured from wall to wall. No deduction shall be made for exposed frames/opening (cut outs) having area less than 0.30 sqm. The calcium silicate ceiling tile shall have NRC value of 0.50 (Minimum), light reflection > 85%, non- combustible as per B.S. 476 part IV, 100% humidity resistance and also having thermal conductivity <0.043 w/mK.	56.00	sqm	2158.15	120856.00
24	12 mm cement plaster of mix :				
24.1	1:6 (1 cement: 6 fine sand)	68.00	sqm	333.35	22668.00
25	15 mm cement plaster on the rough side of single or half brick wall of mix :				
25.1	1:6 (1 cement: 6 fine sand)	68.00	sqm	383.00	26044.00
26	Distempering with 1st quality acrylic distemper (ready mixed) having VOC content less than 50 gram/litre, of approved manufacturer and of required shade and colour all complete to achieve even shade and colour :				
26.1	New work (two or more coats) over and including water thinnable priming coat with cement primer having VOC content less than 50 gram/litre	68.00	sqm	185.65	12624.00
27	Finishing walls with Acrylic Smooth exterior paint of required shade :				
27.1	New work (Two or more coat applied @ 1.67 ltr/10 sqm over and including priming coat of exterior primer applied @ 0.90 ltr/10 sqm)	68.00	sqm	160.60	10921.00

28	Painting with synthetic enamel paint of approved brand and manufacture to give an even shade :				
28.1	Two or more coats on new work	70.00	sqm	155.90	10913.00
29	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.	136.00	sqm	156.05	21223.00
30	Providing and laying matt finished vitrified tile of size 300x300x9.8mm having with water absorption less than 0.5% and conforming to IS: 15622 of approved make in all colours and shades in for outdoor floors such as footpath, court yard, multi modals location etc., laid on 20mm thick base of cement mortar 1:4 (1 cement : 4 coarse sand) in all shapes & patterns including grouting the joints with white cement mixed with matching pigments etc. complete as per direction of Engineer-in-Charge.	58.00	sqm	1455.65	84428.00
31	Providing and laying factory made chamfered edge Cement Concrete paver blocks in footpath, parks, lawns, drive ways or light traffic parking etc, of required strength, thickness & size/ shape, made by table vibratory method using PU mould, laid in required colour & pattern over 50mm thick compacted bed of sand, compacting and proper embedding/laying of inter locking paver blocks into the sand bedding layer through vibratory compaction by using plate vibrator, filling the joints with sand and cutting of paver blocks as per required size and pattern, finishing and sweeping extra sand. complete all as per direction of Engineer-in-Charge.				
31.1	60mm thick cement concrete paver block of M-35 grade with approved colour, design & pattern.	16.00	sqm	1045.65	16730.00

32	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately) :				
32.1	For fixed portion				
32.1.1	Polyester powder coated aluminium (minimum thickness of polyester powder coating 50 micron)	418.00	kg	539.85	225657.00
33	For shutters of doors, windows & ventilators including providing and fixing hinges/ pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber / neoprene gasket required (Fittings shall be paid for separately)				
33.1	Polyester powder coated aluminium (minimum thickness of polyester powder coating 50 micron)	103.00	kg	643.45	66275.00
34	Providing and fixing 12 mm thick prelaminated particle board flat pressed three layer or graded wood particle board conforming to IS: 12823 Grade I Type II, in panelling fixed in aluminum doors, windows shutters and partition frames with C.P. brass / stainless steel screws etc. complete as per architectural drawings and directions of engineer-in-charge.				

34.1	Pre-laminated particle board with decorative lamination on both sides	15.00	sqm	1115.40	16731.00
35	Filling the gap in between aluminium frame & adjacent RCC/ Brick/ Stone work by providing weather silicon sealant over backer rod of approved quality as per architectural drawings and direction of Engineer-in-charge complete.				
35.1	Upto 5mm depth and 5 mm width	127.00	mtr	96.75	12287.00
36	Providing and fixing 12 mm thick frameless toughened glass door shutter of approved brand and manufacture, including providing and fixing top & bottom pivot & double acting hydraulic floor spring type fixing arrangement and making necessary holes etc. for fixing required door fittings, all complete as per direction of Engineer-in-charge (Door handle, lock and stopper etc.to be paid separately).	8.00	sqm	5325.90	42607.00
37	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):				
37.1	With Toughned glass of 12 mm thickness (weight not less than 30kg/sqm)	17.00	sqm	3616.55	61481.00
	Total				18,44,481.00

Assistant Engineer (P)
CED-II, CCU
Dehradun

Executive Engineer
CED-II, CCU
Dehradun

PART-C

**SCHEDULE 'A' TO 'F' FOR MINOR COMPONENT OF THE
WORK GENERAL/SPECIFIC CONDITIONS, SPECIFICATIONS
AND SCHEDULE OF QUANTITIES APPLICABLE TO MINOR
COMPONENT OF THE ELECTRICAL WORK.**

PROFORMA OF SCHEDULES (Electrical Part)

(Separate Performa for Elect. Works in case of Composite Tenders) (Operative Schedules to be supplied separately to each intending tenderer)

SCHEDULE 'A'

Schedule of quantities

As per Separate Sheets Attached

SCHEDULE 'B'

Schedule of materials to be issued to the contractor.

S. No.	Description of item	Quantity	Rates in figures & words at which the material will be charged to the contractor	Place of issue
1	2	3	4	5
Nil	Nil	Nil	Nil	Nil

SCHEDULE 'C'

Tools and plants to be hired to the contractor

S. No	Description	Hire charges per day	Place of Issue
1	2	3	4
Nil	Nil	Nil	Nil

SCHEDULE 'D'

Extra schedule for specific requirements/document for the work, if any.

NIL

SCHEDULE 'E'

Reference to General Conditions of contract.

General Conditions of contract for CPWD Works 2023 for Construction Work as amended/modified up to last date of submission of bid.

Name of Work: **Construction of Souvenir shop Near main gate at WII Dehradun. (SH:- Electrical work)**

Estimated cost of work

As per Part A of NIT

Earnest Money

As per Part A of NIT

Performance Guarantee

As per Part A of NIT

Security deposit

As per Part A of NIT

SCHEDULE 'F'

GENERAL RULES & DIRECTIONS :

Officer inviting tender	Executive Engineer, CED-II, CCU, MoEF&CC, Dehradun.
Maximum percentage for quantity of items of work to be executed beyond which rates are to be determined in accordance with Clauses 12.2 & 12.3:	See below
Definitions:	
2(v) Engineer-In-Charge	Assistant Engineer (E) , CED-II, CCU, MoEF&CC, Dehradun.
2(viii) Accepting Authority	Executive Engineer, CED-II CCU, MoEF&CC, Dehradun.
2(x) Percentage on cost of materials and labour to cover all overheads and profits:	15%
2(xi) Standard Schedule of Rates	Market Rates and DSR (E&M) 2022
2(xii) Department	Civil Construction Unit, MoEF&CC
9(ii) Standard CPWD Contract Form	As per part A of NIT
Clause 1	
(i) Time allowed for submission of Performance Guarantee from the date of issue of letter of acceptance	07 days
(ii) Maximum allowable extension with late fee @ 0.1% per day for performance guarantee amount beyond the period provided in (i) above	03 days
Clause 2	
Authority for fixing compensation under clause 2	Superintending Engineer, CCU, MoEF&CC, New Delhi.
Clause 2A	
Whether Clause 2A shall be applicable	As per Part A of NIT
Clause 5	
Number of days from the date of issue of letter of acceptance for reckoning date of start	As per Part A of NIT
Mile stone(s)	Not Applicable
Time allowed for execution of work:	As per Part A of NIT
Authority to decide:	
(i) Extension of time :	Executive Engineer, CED-II, CCU, Dehradun.

- (ii) Rescheduling of mile stones : Executive Engineer, CED-II, CCU, Dehradun.
- (iii) Shifting of date of start in case of delay in handing over of site Executive Engineer, CED-II, CCU, MoEF&CC, Dehradun.

Clause 5.4

Schedule of rate of recovery for delay in submission of the modified programme in terms of delay days.

S.No.	Contract Value	Recovery per day (Rs.)
1	As per Part A of NIT	

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

As per Part A of NIT

Clause 7A

Whether Clause 7A shall be Applicable

Yes

Clause 8 A

As per Part A of NIT

Clause 10 A

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

Micro meter (least count 0.01 mm), earth tester, tong tester, multi meter, LT meger, lux Meter, etc as per work requirement

Clause 10 B (ii)

Whether Clause 10 B (ii) shall be applicable

No

Clause 10 C

Not Applicable

Clause 10 CA

S No.	Material covered under this clause	Nearest Materials (other than cement, reinforcement bars and the structural steel) for which All India Wholesale Price Index to be followed	Based Price of all Materials covered under clause 10 CA
1			
2		NIL	
3			

* Base price of all the materials covered under clause to CA is to be mentioned at the time of approval of NIT.

Clause 10 CC

NA

Clause 11

**Specifications to be followed
execution of work**

**CPWD General Specifications Part-I, 2023 internal electrical for
installations, Part-II, 2023 external Electrical installations
with upto date correction slips.**

Clause 12

Type of work :

Construction/Original Work

12.2. &12.3

Deviation limit beyond which clauses
12.2 & 12.3 shall apply for building work

As per Part A of NIT

12.5

(i) Deviation limit beyond which clauses
12.2 &12.3 shall apply for foundation work(except
items mentioned in earth work

As per Part A of NIT

sub head in DSR and related items)
(ii) Deviation limit for items mentioned in earth
work sub head of DSR and related items

As per Part A of NIT

Clause 16

Competent Authority for
Deciding reduced rates.

Superintending Engineer,
CCU, MoEF&CC, New Delhi

Clause 18

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

- i Chase cutter
- ii Steel wire for drawing of electrical wires
- iii Drill machine etc.

Clause 25

Constitution of Dispute Redressal Committee (DRC)

Chairman :

Member : As per major component

Member:.

Clause 32

Requirement of Technical Representative(s) and recovery Rate

S. No	Minimum qualification of technical representative	Discipline	Designation (Principal Technical/ Technical/ Representative)	Minimum Experience	Number	Rate at which recovery shall be made from the contractor in the event of not fulfilling provision of clause 32 (i)	
						Figure	Word
			NIL				

GENERAL TERMS AND CONDITIONS FOR ELECTRICAL WORKS

General Commercial & Technical Conditions:

- 1.0 All the works shall be carried out as per CPWD General specification for Electrical Works, Part-I (Internal) 2023 & Part-II (External) 2023, amended up to date and should also comply with relevant provisions of the Indian Electricity Rules and Acts as applicable, amended up to date.
- 2.0 The contractor is advised to visit the site of work to have an idea of the execution of the work; failure to do so shall not absolve their responsibility to do the work as specified in agreement.
- 3.0 **Rates:**

The work shall be treated as on works contract basis and the rates tendered shall be for complete items of work (except the materials, if any, stipulated for supply by the department) inclusive of all taxes (including GST), duties, and levies etc. and all charges for items contingent to the work, such as packing, forwarding, insurance, freight and delivery at site for the materials to be supplied by the contractor, watch and ward of all materials (including those supplied by the department, if any) for the work at site etc. Prices quoted shall be firm
- 4.0 **Taxes and Duties:**

Being an indivisible works contract, any taxes (including GST), duties, and levies etc. are not payable separately.
The Goods and service tax (GST) shall be deducted from the bills of the contractor as applicable in the State in which the work is carried out, at the time of payments.
- 5.0 **Mobilization Advance:**

No mobilization advance shall be paid for the work, unless otherwise stipulated in tender papers for any individual works / composite work.
- 6.0 **Completeness of Tender:**

All sundry fittings, assemblies, accessories, hardware items, foundation bolts, termination lugs for electrical connections as required, and all other sundry items which are useful and necessary for proper assembly and efficient working of the various components of the work shall be deemed to have been included in the tender, whether such items are specifically mentioned in the tender documents or not.
- 7.0 **Works to be arranged by the department:**

Unless and otherwise specified in the tender documents, the following works shall be arranged by the Department:

 - a) **Supply of materials to the contractor if stipulated in the tender documents.**
- 8.0 **Works to be done by the contractor:**

Unless and otherwise mentioned in the tender documents, the following works shall be done by the contractor, and therefore their cost shall be deemed to be included in their tendered cost:-

 - a) Foundations for equipments and components where required, including foundation bolts.
 - b) Cutting and making good all damages caused during installation and restoring the same to their original finish.
 - c) Sealing of all floor openings provided by him for pipes and cables, from fire safety point of view, after laying of the same.
 - d) Painting at site of all exposed metal surfaces of the installation other than pre-painted items like fittings, fans, switchgear/distribution gear items, cubical switchboard etc. Damages to finished surfaces of these items while handling and erection, shall however be rectified to the satisfaction of the Engineer-in-Charge.
 - e) Testing and commissioning of completed installation.
 - f) Storage space for all equipments, components and materials for the work
- 9.0 **Storage and Custody of Materials:**

The contractor has to make his own arrangement for the storage of the material at site & necessary watch and ward of the electrical installation during the execution of work till the same is handed over to the department. No extra payment will be made on this account. The storage space shall however be arranged by the department at site, if available.

The main contractor shall arrange for proper storage of all electro-mechanical equipments and electrical materials including fans and fittings at site and that double lock system shall be arranged for the fans and fittings after receipt at site until the time they are taken for installation. The contractor shall however be responsible for proper storage and safe custody of the same till their installation and handing over to the department.

10.0 Electric Power Supply and Water Supply:

Power and water supply will be arranged by the contractor at the site for installation purpose.

11.0 Tools for handling and Erecting:

All tools and tackles required for handling of equipments and materials at site of work as well as for their assembly and erection and also necessary test instruments shall be the responsibility of the contractor.

12.0 Payment Terms:

Payment shall be made as per the relevant clauses of form PWD 7/8 (As per Part "A" of NIT) forming part of the tender documents.

13.0 Co-ordination with other agencies:

The contractor shall co-ordinate with all other agencies involved in the building work so that the building work is not hampered due to delay in his work. Recessed conduit and other works, which directly affect the progress of building work, should be given priority.

13.1. Care of buildings:

Care shall be taken by the contractor to avoid damage to the building during execution of his part of the work. He shall be responsible for repairing all damages and restoring the same to their original finish at his cost. He shall also remove, at his costs, all unwanted and waste materials arising out of his work, from the site.

14.0 Structural Alterations to Buildings:

- a) No structural member in the building shall be damaged /altered, without prior approval from the competent authority through the Engineer-in-charge.
- b) Structural provisions like openings, cutouts, if any, provided by the department for the work, shall be used. Where these required modifications or fresh provisions are required to be made, such contingent works shall be carried out by the contractor at his cost.
- g) All such openings in floors provided by the department shall be closed by the contractor after installing the cables/conduits/rising mains etc. as the case may be, by any suitable means as approved by the Engineer-in-charge without any extra payment.
- d) All chases required in connection with the electrical works shall be provided and filled by the contractor at his own cost to the original architectural finish of the buildings.

15.0 Addition to an installation:

Any addition, temporary or permanent, to the existing electrical installation shall not be made without a properly worked out scheme/design by a qualified Electrical Engineer to ensure that such addition does not lead to overloading, safety violation of the existing system.

16.0 Work in occupied buildings:

- a) When work is executed in occupied buildings, there would be minimum of inconvenience to the occupants. The work shall be programmed in consultation with the Engineer-in-charge and the occupying department. If so required, the work may have to be done even before and after the office hours.
- b) The contractor shall be responsible to abide by the regulations or restrictions set in regard to entry into, and movement within the premises.
- h) The contractor shall not tamper with any of the existing installations including their switching operations or connections there to without specific approval from the Engineer-in-charge.

17.0 Drawings:

- a) The work shall be carried out in accordance with the drawings and the tender documents and also in accordance with modification thereto from time to time as approved by the Engineer-in-charge.
- b) All wiring diagrams shall be deemed to be Drawings' within the meaning of the term as used in Clause 11 of the conditions of contract (PWD 7 or PWD 8). They shall indicate the main switch board, the distribution boards (with circuit numbers controlled by them), the runs of various mains and sub mains and the position of all points with their controls.
- c) After award of the work, the firm will be required to submit the drawings for the proposed work including layout plan, conduit routes showing location of points and height etc. Work will be carried out as per the approved drawings before start of work.

18.0 Conformity to IE act, IE Rules, and standards:

18.1. All electrical works shall be carried out in accordance with the provisions of Indian Electricity Act, 1910 and Indian Electricity Rules, 1956 amended up to date (Date of call of tender unless specified otherwise). List of rules of particular importance to electrical installations under these General Specifications is given in Appendix C for reference.

19.0 General requirements of components:

19.1. Quality of material: All materials and equipments supplied by the contractor shall be new. They shall be of such design, size and materials as to satisfactorily function under the rated conditions of operation and to withstand the environmental conditions at site.

20.0 Inspection of materials and equipments:

Materials and equipments to be used in the work shall be inspected by the departmental officers. Such inspection will be of following categories:

- a) Inspection of materials / equipments to be witnessed at the Manufacturer's premises in accordance with relevant BIS / Agreement Inspection Procedure.
- b) To receive materials at site with Manufacturer's Test Certificate(s)
- c) To inspect materials at the authorized dealer's godowns to ensure delivery of genuine materials at site.
- d) To receive materials after physical inspection at site.

Adequate care to ensure that only tested and genuine materials of proper quality are used in work shall be ensured by firm. The firm shall ensure that:

- a) Material will be ordered & delivered at site only with the prior approval of the department to ensure timely delivery.
- b) As and when the order is placed for the fittings/ fixtures, cables, switchgears, poles, rising main, other main items etc, its copy shall be endorsed to the Engineer-in-charge.
- c) The firm will be required to procure material like exhaust fans, MCB's & DB's, switches & sockets, wires & cables, conduits and switchgears etc directly from the manufacturer/ authorized dealers to ensure genuineness & quality and as per the approved makes only. Proof in this regard shall be submitted by the contractor before installation at site to the department.
- d) Inspection at factory or at godown of the manufacturer, as required, shall be arranged by the firm for a mutually agreed date. Certificate for genuineness of the fittings shall have to be provided duly signed by the manufacturer's officer not below the rank of Regional Manager.
- e) Delivery of material shall be taken up only with the consent of department, after clearance of the material.
- f) Department shall reserve the right to waive inspection in lieu of suitable test certificate, at its discretion.
- g) Similarly, for fabricated equipments, the contractor will first submit dimensional detailed drawings for approval before fabrication is taken up in the factory. Suitable stage inspection at factory also will be made to ensure proper use of materials, workmanship and quality control.

21.0 Ratings of components:

All components in a wiring installation shall be of appropriate ratings of voltage, current and frequency, as required at the respective sections of the electrical installations in which they are used.

All conductors, switches and accessories shall be of such size as to be capable of carrying the maximum current, which will normally flow through them, without their respective ratings being exceeded.

22.0 Conformity to standards:

All components shall conform to relevant Indian Standard Specifications wherever existing. Materials with ISI certification mark will be preferred.

Relevant Indian Standards including amendments or revisions thereof up to the date of tender acceptance shall be applicable in the respective contracts for respective items, firm to ensure its compliance.

23.0 Inter changeability:

Similar parts of all switches, lamp holders, distribution fuse boards, Switch gears, ceiling roses, brackets, pendants, fans and all other fittings of the same type shall be interchangeable in each installation.

24.0 Workmanship:

Good workmanship is an essential requirement to be complied with. The entire work of manufacture/fabrication, assembly and installation shall conform to sound engineering practice.

Proper supervision/skilled workmen: The contractor shall be a licensed electrical contractor suitable for execution of the electrical work. He shall engage suitably skilled/licensed workmen of various categories for execution of work supervised by supervisors / Engineer of appropriate qualification and experience to ensure proper execution of work. They will carry out instruction of Engineer-in-charge and other senior officers of the Department during the progress of work.

Use of quality materials: Only quality materials of reputed make as specified in the tender will be used in work.

Fabrication in reputed workshop: Switch boards and LT panels shall be fabricated in a factory/workshop having modern facilities like quality fabrication, seven tank process, powder/epoxy paint plant, proper testing facilities, manned by qualified technical personnel. These shall be as per make / item approved.

25.0 Testing:

All tests prescribed in this General Specification, to be done before, during and after installation, shall be carried out, and the test results shall be submitted to the Engineer-in-charge in prescribed Form, forming part of the Completion Certificate.

26.0 Commissioning on completion:

After the work is completed, it shall be ensured that the installation is tested and commissioned.

27.0 Completion plan and completion certificate:

For all works completion certificate after completion of work shall be submitted to the Engineer in-charge.

Completion plan drawn to a suitable scale in A2 Sheet (It shall be laminated if desired by the Site-in-Charge) indicating the following, and three copies of the same shall also be submitted.

- a) General layout of the building.
- b) Locations of main switchboard and distribution boards, indicating the circuit numbers controlled by them.
- c) Position of all points and their controls.
- d) Types of fittings, viz. fluorescent, pendants, brackets, bulk head, fans, exhaust fans etc.
- e) Name of work, job number, tender reference, actual date of completion, names of Division/Sub-division and name of the firm who executed the work with their signature.
- f) Cable layout showing general distribution diagram along with position of cable joints, if any.

28.0 Guarantee

The installation will be handed over to the department after necessary testing and commissioning. The installation will be guaranteed against any defective design/workmanship. Similarly, the materials supplied by the contractor will be guaranteed against any manufacturing defect or inferior quality. The guarantee period will be for a period of 12 months from the date of handing over to the department or recording of completion certificate by the engineer-in-charge and acceptance by the competent authority whichever is later. Installation / equipments or components thereof shall be rectified / repaired to the satisfaction of the Engineer-in-charge at his own cost and nothing extra will be paid to the contractor on this account. The firm will be required to submit guarantee of material from the manufacturer to the department.

Note: The quantity of material in the BOQ is indicative. Contractor has to assess the actual requirement of material at site before placing the order, keeping in view the drawing and site requirement. No claim for payment for unused excess material shall be entertained.

CONDITIONS FOR ELECTRICAL WORK

The main contractor has to submit the following documents for association of electrical contractor / agency / Manufacturer / Authorized Dealer prior to depositing performance guarantee.

1. The main contractor should submit the willingness from an eligible electrical contractor / Agency / Manufacture / Authorized Dealer to get associated with him for execution of the Pump work component in wholesome manner and as per the conditions set out in the MoU to be entered into, between the one who is awarded the work and the associated eligible electrical contractor / Agency / Manufacture / Authorized Dealer.
2. In support of the eligibility conditions of the proposed associated contractor/ Agency / Manufacture / Authorized Dealer for the work including appliances, copy of their documents, Electrical Contractor's License, Tax Documents duly attested by the main contractor shall be submitted to the Engineer-in-charge who will submit these documents to the Engineer-in-charge for deciding the eligibility by the competent authority. Each such an electrical contractor will certify that they are not debarred as on the last date of uploading of tender.
3. The main contractor will submit MOU signed with eligible registered electrical contractor / Agency / Manufacture / Authorized Dealer signed by both the parties i.e. main contractor as 1st party and associated electrical contractor / Agency / Manufacture / Authorized Dealer as 2nd party.
4. The associate or sub-contractor shall sign a tripartite Agreement/Contract along with the main contractor and the departmental officer, for technical compliance of specification, guarantee etc.
5. In the event of the concerned E&M Contractor / Agency not performing satisfactorily or failure of associate/sub-contractor to complete the E&M work, the main contractor on the written direction of the department, shall remove the Associate/sub-contractor deployed on the work and shall submit name of new associate who fulfill the conditions mentioned in NIT to execute the leftover work without any loss of time or variation in cost to the department in this regard. Such associates shall also enter into tripartite Agreement/Contract along with the main contractor and the departmental officer and shall meet all the guarantee for the equipments already supplied for which payment has been released by the Deptt. in part. If any equipment supplied for the work, during the currency of the earlier Associate/sub-contractor and paid partly by the Deptt., 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 approved Electrical Contractor will be allowed without prior approval of the Executive Engineer, CCU.
6. The main contractor shall not indulge in procurement of items and getting the work done on labour contract with the associate contractor. The whole component shall be executed by the eligible associate contractor on a turnkey basis i.e. procurement of material & engaging labour. The associate contractor shall submit the completion certificate of work executed by him along with necessary test reports, completion plan etc.
7. The main contractor shall be responsible and liable for proper and complete execution of the Electrical work and ensure coordination and completion of both civil and electrical work.
8. The associate or sub contractor shall attend the inspection of the work by the Engineer-in- Charge of the work as and when required.
9. Drawing & Inventories:-
 - (a) The Contractor is required to submit Good for Construction (GFC) drawings based on Inventories
 - (b) The Contractor has to submit and get approval from Engineer-in- Charge of actual conduit layout in the drawings before execution of any conduit work.
10. These Special Conditions of Contract shall be read in conjunction with the other documents forming part of the contract. In any case of any discrepancy, the order of preference shall be as under:-
 - a) Nomenclature of the item as per schedule of quantities.
 - b) General/ Additional conditions attached with the contract document.
 - c) Additional Specifications attached with the contract document.
 - d) Drawings.
 - e) CPWD Specifications with correction slips up to last date of submission of bids.
 - f) BIS Specifications.
 - g) Manufacturer's specifications.
 - h) Decision of the Engineer-in-Charge.
 - i) Sound Engineering practices.

11. Scope of Work:

- a) Contractor shall submit the samples / catalogues of each material/ equipment giving technical data/ detail. Only after written approval of sample/ catalogues, the contractor shall place the order.
- b) Preparation of shop drawings. Contractor shall submit the detailed shop drawings after coordinating with the civil wing.
- c) Before starting of the work at site the contractor shall examine all service drawings and report to Architect/ Consultants for discrepancies and obtain clarifications. Any work done without regard or consultation with other trades, shall be removed by the contractor without additional cost to owner.
- d) Testing & commissioning of systems including submission of test report.
- e) Contractor shall submit as installed drawings, operation & maintenance manual for all equipment / operations etc. Framed operation and maintenance instructions shall be provided in plant room.
- f) Procurement of all the materials shall be done after the approval of the Engineer-in-charge.

LIST OF PREFERRED MAKES OF MATERIALS (ELECTRICAL WORK)

Preferred makes of materials to be used in the work are enclosed. Only BIS marked materials 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.

SI No	Item	Approved Make
1	Wires	Grandley/Polycab/Havells/RR Kable/KEI
2	XLPE Insulated Cable	Grandley/Polycab/Havells/RR Kable/KEI
3	Modular Switch/Sockets	Legrand/MK-Honeywell/Havells
4	MCCB/MCB/DB	Legrand/L&T/Havells/Seimens/Hager
5	Steel / PVC Conduit	AKG/ BEC/ NIC
6	Copper Pipe	Mandev/Totaline
7	GI Box	Legrand/ Havells/ MK
8	LED fixture	Phillips/ Havells/ Crompton/ Wipro
9	Ceiling Fan/ Exhaust Fan/ Wall Fan	Crompton/ Havells/ Usha/ Bajaj
10	Air Conditioners	Diakin/Mitsubishi/Hitachi/O- General/Carrier
11	Stabilizers	V-Gurad/Bluebird/ Microtek
12	DLP/ GI Raceway	Precision/ Legrand/ AKG/ MK
13	DP Box	Legrand/ ABB/ Havells
14	DWC Pipe	Rex/Trupati/Duraline
15	Any Other item	As per Approval of Engineer-in Charge

Assistant Engineer(E)
CED-II,CCU, Dehradun

Schedule of Quantity

S.NO	Description of Item	Qty	Rate	Unit	Amount
1	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable etc. as required.				
a)	Group - C	25	1467	Points	36675.00
2	Wiring for light/ power plug with 2 x 4 sq.mm FRLS PVC insulated copper conductor single core cable in surface/ recessed steel conduit along with 1 No. 4 sq.mm FRLS PVC insulated copper conductor single core cable for loop earthing as required.	100	433	mtr	43300.00
3	Wiring for light/ power plug with 4X4 sq. mm FR PVC insulated copper conductor single core cable in surface/ recessed steel conduit along with 2 Nos 4 sq. mm FR PVC insulated copper conductor single core cable for loop earthing as required	50	662	mtr	33100.00
4	Wiring for circuit/submain 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	100	327	mtr	32700.00
5	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 6 pin 5/6 & 15/16 A modular socket outlet and 15/16 A modular switch, connections etc. as required..	4	586	each	2344.00
6	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).	4	676.00	Each	2704.00
7	Supplying & fixing suitable size GI box with modular plate and cover in front on surface or in recess including providing and fixing 25 A modular socket outlet and 25 A modular SP MCB, "C" curve including connections, painting etc. as required.	4	727.00	Each	2908.00
8	Supplying, installation, testing & commissioning of following light fixtures complete with all accessories, directly on surface/wall/ceiling/in recess including cutting ceiling/false ceiling if required, making connections with 3 core 1.5 sq.mm FRLS PVC insulated, copper conductor, armoured cable from existing point i/c saddling and tapping for cable . including providing and fixing suspension for fixtures as per requirement complete as reqd.at site with following minimum parameters:: (1) PF shall not be less than 0.9. (2) THD shall be less than 10%				
a)	1200mm LED luminaire made of extruded aluminum housing. with efficacy 75 Lumens/watt or better having lumens output 2000 or better	10	513.00	Each	5130.00

b)	Bulk head LED Luminaires 10W LED Down Light with colour temp 6500K Suitable for 220v Single Phase Supply complete with driver circuit including making connections etc.as required.	5	1274.00	Each	6370.00
9	SITC of recessed/surface mounted 42W LED luminaire of size 600mm x 600mm with CRCA powder coated body & high efficiency diffuser to provide soft glare free light i/c connection with 1.5 sq.mm. FRLS PVC insulated single core copper conductor cable etc. complete as required.	16	3009.00	Each	48144.00
10	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	12	256.00	Each	3072.00
11	Supplying & fixing following way, three pole and neutral sheet steel , MCB distribution board, 415 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	4 way (4 +12), Double Door, horizontal type	1	4091.00	Each	4091.00
12	Supplying and fixing following rating, four pole, 415 V, MCB in the existing MCB DB complete with connections, testing and commissioning etc. as required				
a)	100 A	1	1227.00	Each	1227.00
13	SITC of 400mm sweep wall fan complete with all respects, i/c connection with 1.5 sq.mm. FRLS PVC insulated single core copper conductor cable i/c providing suitable clamp for hanging in wall etc. complete as required.	4	2309.00	Each	9236.00
14	Supplying, installation, testing & commissioning of inverter type all weather(heating and cooling) 1.5 TR or better, split type 3 star rating or better AC Unit capacity Split AC unit with outdoor stand duly powder coated of suitable for operation on 220V + 10% single phase 50 HZ HV AC supply complete with energy efficient rotary compressor type of refrigerant R32, complete in all respect & with cordless remote, i/c connection etc, as reqd.	4	54603.00	Each	218412.00
15	Supplying of following capacity, single phase, 230 v 50Hz, having input range of 145 to 280V and output range 195 to 245V with time delay and hanging bracket voltage stabilizer suitable for 1.5 ton capacity split AC etc. as required. (A) 4 KVA	4	2588.00	Each	10352.00
16	Supplying and fixing of 20 mm dia rigid medium PVC drain water piping complete with fittings, support etc. as required.	30	56.00	Mtrs	1680.00

17	Supply, Installation, testing and commissioning including vaccumiazation and Nitrogen testing of following nominal sizes of soft/hard drawn copper refrigerant piping for Split AC system, complete with fittings, with suitable adjustable ring type hanger supports, jointing/brazing including accessories, insulated with XPLE Class-O tubular insulation/with Class-O closed cell elastometric nitrile rubber tubular sleeves sections of specified thickness as given below for Suction and Liquid lines, all accessories as per specifications etc. as required :				
a)	6.4 mm dia (OD) (Soft drawn) with tube thickness 1.2 mm with 19 mm thick insulation	20	245.00	Mtrs	4900.00
b)	12.7 mm dia (OD) (Soft drawn) with tube thickness 1.2 mm with 19 mm thick insulation	20	466.00	Mtrs	9320.00
18	Supplying and fixing of 2.5 sq.mm 4 core PVC insulated and PVC Sheathed, copper conductor (flexible) cable i/c connection, testing, etc as required.	20	244.00	Mtrs	4880.00
19	Supplying, installation, testing & commissioning of 3 pin 25 Amp plug top i/c connection etc as required.	4	192.00	Mtrs	768.00
20	Supplying and laying of one no PVC insulated XLPE aluminium conductor armoured power cable of 1.1 kV grade of following sizes confirming to IS in dwc pipe/RCC/Hume/Open/Wall etc as required.				
a)	3 ^{1/2} x 35 sqmm	70	382.00	Mtrs	26740.00
21	Supplying and laying of following size DWC HDPE pipe ISI marked along with all accessories like socket, bend, couplers etc. conforming to IS 14930, Part II complete with fitting and cutting, jointing etc. direct in ground (75 cm below ground level) including excavation and refilling the trench but excluding sand cushioning and protective covering etc., complete as required.				
a)	63 mm dia (OD-63 mm & ID-51 mm nominal)	60	247.00	Mtrs	14820.00
22	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.				
a)	3½ X 35 sq. mm (32mm)	2	369.00	nos	738.00
	G. Total			Rs	523611.00
	Add 6.33% on DSR Items		191899.00	Rs	12147.21
	Total			Rs	535758.00

Assistant Engineer (E)
CED-II CCU, Dehradun

PART D

N.I.T. No: 43/EE/CED-II/CCU/2023-24

Name of work Construction of Souvenir shop Near main gate at WII 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 Works	18,44,481/-	*	*	*
2	Electrical Works	5,35,758/-			
	Total	23,80,239/-			

*- 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) place 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