0

Government of India
Central Public Works Department

Name of Work: - A/R & M/O Residential Building at Regional Meteorological Centre, Alipore. Kolkata during-2026-27. SH: - Day to day maintenance of sanitary and water supply and Misc. Civil works.

Sl. No.	Description	Page No.
1	Information and instructions for contractors for e-tendering forming part of NIT and to be posted on website & tender Notice inviting e-tenders	1 to 3
2	CPWD-6 for e-tendering	4 to 8
3	CPWD 7	9 to 10
4	Proforma of Schedules (A to F)	11 to 16
5	Form of Earnest Money Deposit Bank Guarantee Bond	17 to 19
6	General Condition	20 to 23
7	Special condition	24 to 26
8	Additional Conditions for cement, Portland Pozzolana cement, & steel	27 to 34
9	Additional Specifications	35 to 49
10	List of Preferred Makes of materials	50 to 56
11	Receipt of EMD deposit	57
12	Schedule of Quantities.	S-1 to S-9

Certified that this NIT document consists of Page No. 1 to 57 and this Index page and Schedule of Quantities at Page No. S-1 to S-9

Sr. D/Man
KCD-IV/CPWD/Kolkata

Assistant Engineer(P)
KCD-IV/CPWD/Kolkata

Approved

Executive Engineer
KCD-IV/CPWD/Kolkata

Addition. NIL
Deletion. NIL
Correction. NIL
Overwriting. NIL

Sr.D/Man AE(P) EE

INFORMATION AND INSTRUCTIONS FOR CONTRACTORS FOR e-TENDERING FORMING PART OF NIT AND TO BE POSTED ON WEBSITE

(Applicable for inviting open tenders)

The Executive Engineer, Kolkata-IV, Central Public Works Department, Nizam Palace, Kolkata -20 on behalf of President of India invites online percentage rate in Single Bid system from approved and eligible contractors of CPWD enlisted in appropriate class in Building & Road category for the following work(s):

Sl. No.	N.I.T No.	Name of work & Location	Estimated Cost put to tender	Earnest Money	Period of Completion	Last date & time of submission of tender	Time& date of opening of bid
1	2	3	4	5	6	7	8
1	125/EE/KCD-IV/CPWD/2026-27	A/R & M/O Residential Building at Regional Meteorological Centre, Alipore. Kolkata during-2026-27. SH: - Day to day maintenance of sanitary and water supply and Misc. Civil works.	Rs.19,30,832.00	Rs.38,617.00	12(Twelve)months	10/ 11 / 2026 at 3:00 P.M.	10/ 11 / 2026 at 3:30 P.M.

Note:

(1) The intending bidders may be aware of the recent modification in General Conditions of Contract (GCC) 2023. Before putting the financial quote, they should make clear assessment of the changes in GCC.

(2) Intending bidders are also advised to clearly understand the nature of work. They should fully understand the working condition &the nature of work to obviate any difficulty in execution of work at later stage.

1. The intending bidder must read the terms and conditions of CPWD-6 carefully. He should only submit his bid if he considers himself eligible and he is in possession of all the documents required.
2. Information and Instructions for bidders posted on website shall form part of bid document.

Addition. NIL
Deletion. NIL
Correction. NIL
Overwriting. NIL

Sr.D/Man AE(P) EE

3. The bid document consisting of plans, specifications, the schedule of quantities of various types of work 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. But the bid can only be submitted after deposition of original EMD either in the office of Executive Engineer inviting bids or division office of any Executive Engineer, CPWD within the period of bid submission and uploading the mandatory scanned documents such as Insurance Surety Bonds, Account Payee Demand draft or Banker's Cheque or Fixed Deposit Receipts or/ and Bank Guarantee including e-Bank Guarantee (for balance amount as prescribed) from any of the Commercial Bank towards EMD in favour of Executive Engineer as mentioned in NIT, receipt for deposition of original EMD to division office of any Executive Engineer (including NIT issuing EE/ AE), CPWD and other documents as specified.

5. Those contractors who are not registered or have not updated their profile on the website mentioned above, are required to get registered / update their profile beforehand. The necessary training materials including the videos with step to step process are available on download section of https://etender.cpwd.gov.in

6. The intending bidder must have valid Class-III digital signature certificate with encryption key (combo type) to perform any operations / transactions on the e-tendering portal / website and the bidder should download and install the eMsigner on their system as per instructions available on download section of https://etender.cpwd.gov.in

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(s) meant for quoting rate in figures appears in yellow colour and the moment rate is entered; it turns sky blue.

   In addition to this, while selecting any of the cells a warning appears that if any cell is left blank the same shall be treated as "0". Therefore, if any cell is left blank and no rate is quoted by the bidder, rate of such item shall be treated as "0" (ZERO).

   However, if a tenderer quotes nil rates against each item in item rate tender or does not quote any percentage above/below on the total amount of the tender or any section / sub head in percentage rate tender, the tender shall be treated as invalid and will not be considered as lowest tenderer.

Addition. NIL
Deletion. NIL
Correction. NIL
Overwriting. NIL

Sr.D/Man AE(P) EE

1. List of Mandatory Documents to be scanned and uploaded within the period of tender submission:

a. Insurance Surety Bond/Demand Draft/Account Payee Banker's Cheque/ FDR/Bank Guarantee of any commercial Bank against EMD.

b. Enlistment Order of the Contractor.

c. GST registration certificate, if already obtained by the bidder.
lf the bidder has not obtained GST registration as applicable (GST registration in West Bengal), then he shall scan and upload following undertaking along with bid documents.
"lf work is awarded to me, l/we shall obtain GST registration certificate, as applicable, within one month from the date of receipt of award letter or before release of any Payment by CPWD, whichever is earlier, failing which l/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."

d. Copy of receipt for deposition of original EMD issued from any Division office of CPWD (including NIT issuing EE).

e. Certificate of ERP Training from any of the CPWD Regional Training Institutes (RTIs) issued through LMS (Learning Management System) in ERP. Newly enlisted contractor must complete the ERP training within 90 days of their enlistment.

f. Contact details of the Contractor:
(a) E-mail ID No. –
(b) Contact phone/mobile no. –
(c) Mailing address –

g. All other relevant documents related to eligibility criteria prescribed in this NIT.

2. If the above mentioned documents are not scanned and uploaded within the period of bid submission the bid shall be treated as invalid and canceled.

Addition. NIL
Deletion. NIL
Correction. NIL
Overwriting. NIL

Sr.D/Man AE(P) EE

CPWD – 6
GOVERNMENT OF INDIA
CENTRAL PUBLIC WORKS DEPARTMENT
NOTICE INVITING BID

1. ~~Item rate~~/**percentage rate bids** are invited on behalf of President of India from approved and eligible contractors of CPWD in composite category in appropriate class ~~and those of appropriate list of M.E.S., BSNL, Railway and…….. State P.W.D. (B&R) or State Govt.'s Department …….. dealing with building and roads, if there is no State PWD (B&R~~) for the Work of **A/R & M/O Residential Building at Regional Meteorological Centre, Alipore. Kolkata during-2026-27. SH: - Day to day maintenance of sanitary and water supply and Misc. Civil works.**

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

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

1.1 The work is estimated to cost **Rs.19,30,832.00** This estimate, however, is given merely as a rough guide.

1.1.1 The authority competent to approve NIT for the combined cost and belonging to the major discipline will consolidate NITs for calling the bids. He will also nominate Division which will deal with all matters relating to the invitation of bids. For composite bid, besides indicating the combined estimated cost put to bid, should clearly indicate the estimated cost of each component separately. The eligibility of bidders will correspond to the combined estimated cost of different components put to bid.

1.1.2 Deleted.

2. Agreement shall be drawn with the successful bidders on prescribed Form No. **CPWD 7/~~8~~** (or other Standard Form as mentioned) which is available as a Govt. of India Publication and also available on website **www.cpwd.gov.in.** Bidders shall quote his rates as per various terms and conditions of the said form which will form part of the agreement

3. The time allowed for carrying out the work will be **12(Twelve)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. (i) The site for the work is available.

~~or~~

~~The site for the work shall be made available in parts as specified below:~~

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 Standard General Conditions of Contract Form can be seen on website https://etender.cpwd.gov.in free of cost.

Addition. NIL
Deletion. NIL
Correction. NIL
Overwriting. NIL

Sr.D/Man AE(P) EE

6. After submission of the bid the contractor can re-submit revised bid any number of times or withdraw it before last date and time of submission of bid as notified. No post-tender modification is allowed by the tenderers except through negotiations, if required. In case, any tenderer does so, the tender will be rejected and the tenderer will be debarred for future tendering in CPWD for two years by the concerned enlisting authority (in case of GPWD enlisted contractor) and by the concerned CE/SE (in case of non-enlisted contractor).

7. 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.

8. ~~When bids are invited in three stage system and if it is desired to submit revised financial bid then it shall be mandatory to submit revised financial bid. If not submitted then the bid submitted earlier shall become invalid.~~

9. Earnest Money in the form of Insurance Surety Bonds, Account Payee Demand Draft, Fixed Deposit Receipt, Banker's Cheque or Bank Guarantee including e- Bank Guarantee (for balance amount as prescribed) from any of the Commercial Banks (drawn in favor of **Executive Engineer, KCD-IV, CPWD, Kolkata-20**.) shall be scanned and uploaded on 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 including e- Bank Guarantee of any Commercial bank having validity for a period of 90 days for single bid works and ~~180 days for two bid system or more~~ from the last date of receipt of bids which is to be scanned and uploaded by the intending bidders.

   The earnest money given by all the tenderers except the lowest tenderer shall be refunded immediately after the expiry of stipulated bid validity period or immediately after acceptance of the successful bidder, whichever is earlier. However, in case of two/ three bid system, earnest money deposit of bidders unsuccessful during technical bid evaluation etc. should be returned within 30 days of declaration of result of technical bid evaluation.
   Copy of Enlistment Order and certificate of work experience and other documents as specified in the notice inviting e- tender shall be scanned and uploaded on the e-Tendering website within the period of bid submission. However, certified copy of all the scanned and uploaded documents as specified in e- tender notice shall have to be submitted by the lowest bidder within a week physically in the office of tender opening authority. Online bid documents submitted by intending bidders shall be opened only of those bidders, who has deposited EMD with any division of CPWD and other documents scanned and uploaded are found in order.

The bid submitted shall be opened at 03.30 PM on 10 / 11 /2026

Addition. NIL
Deletion. NIL
Correction. NIL
Overwriting. NIL

Sr.D/Man AE(P) EE

10. The bid submitted shall become invalid and e-Tender processing fee shall not be refunded if:

10.1 The bidder is found ineligible.

10.2 The bidder does not upload scanned copies of all the documents stipulated in the bid document.

10.3 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.

10.4 If a tenderer quotes nil rates against each item in item rate tender or does not quote any percentage above/below on the total amount of the tender or any section / sub head in percentage rate tender, the tender shall be treated as invalid and will not be considered as lowest tenderer.

11. The contractor whose bid is accepted will be required to furnish performance guarantee at specified percentage of the tendered amount as mentioned in schedule E and within the period specified in Schedule F. This guarantee shall be in the form of Insurance Surety Bonds, Account Payee Demand Draft, Fixed Deposit Receipt or Bank Guarantee from any of the Commercial Banks in accordance with the prescribed form. In case the contractor fails to deposit the said performance guarantee within the period as indicated in Schedule 'F', including the extended period if any, the Earnest Money deposited by the contractor shall be forfeited automatically without any notice to the contractor. The earnest money deposited along with bid shall be returned after receiving the aforesaid performance guarantee. The contractor whose bid is accepted will also be required to furnish either copy of applicable licenses/ registrations or proof of applying for obtaining labour licenses, registration with EPFO, ESIC and BOCW Welfare Board including Provident Fund Code No. If applicable and also ensure the compliance of aforesaid provisions by the sub-contractors, if any engaged by the contractor for the said work within the period specified in Schedule F.

12. The description of the work is as follows:
A/R & M/O Residential Building at Regional Meteorological Centre, Alipore. Kolkata during-2026-27. SH: - Day to day maintenance of sanitary and water supply and Misc. Civil works.
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 bidders 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.

Addition. NIL
Deletion. NIL
Correction. NIL
Overwriting. NIL

Sr.D/Man AE(P) EE

13. The competent authority on behalf of the President of India does not bind itself to accept the lowest or any other bid and reserves to itself the authority to reject any or all the bids received without the assignment of any reason. All bids in which any of the prescribed condition is not fulfilled or any condition including that of conditional rebate is put forth by the bidders shall be summarily rejected.
14. Canvassing whether directly or indirectly, in connection with bidders is strictly prohibited and the bids submitted by the contractors who resort to canvassing will be liable for rejection.
15. The competent authority on behalf of President of India reserves to himself the right of accepting the whole or any part of the bid and the bidders shall be bound to perform the same at the rate quoted.
16. The contractor shall not be permitted to bid for works in the CPWD Circle (Division in case of contractors of Horticulture/Nursery category) 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 gazette officer in the Central Public Works Department or in the Ministry of Housing and Urban Affairs. Any breach of this condition by the contractor would render him liable to be removed from the approved list of contractors of this Department.
17. No Engineer of Gazetted Rank or other Gazetted Officer employed in Engineering or Administrative duties in an Engineering Department of the Government of India is allowed to work as a contractor for a period of one year after his retirement from Government service, without the prior permission of the Government of India in writing. This contract is liable to be cancelled if either the contractor or any of his employees is found any time to be such a person who had not obtained the permission of the Government of India as aforesaid before submission of the bid or engagement in the contractor's service.
18. The bids for the work shall remain open for acceptance for a period of 30 (thirty) days from the date of opening of bids in case of single bid system and ~~75 (seventy-five) days from the date of opening of technical bids in case bids are invited in 2 or 3 bid system.~~ Further
    a. If any tenderer withdraws his tender within 7 days after last date and time(24 hours basis) of submission of bids, then the Government shall without prejudice to any other right or remedy, be at liberty to forfeit 50% of the earnest money absolutely irrespective of letter of acceptance for the work is issued or not.
    b. If any tenderer withdraws his tender after expiry of 7 days after last date and time (24 hours basis) of submission of bids, then the Government shall without prejudice to any other right or remedy, be at liberty to forfeit 100% of the earnest money absolutely irrespective of letter of acceptance for the work is issued or not.
    c. Withdrawal of the tender, by the tenderer, shall only be made through e-tender portal. Any other method i.e. through letter/e-mail etc. shall not be considered.
    d. In case of forfeiture of earnest money as prescribed in para (i) and (ii) above, the bidders shall not be allowed to participate in the rebidding process of the same work.

Addition. NIL
Deletion. NIL
Correction. NIL
Overwriting. NIL

Sr.D/Man AE(P) EE

19. 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:

(a) 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.

(b) Standard C.P.W.D. Form 7/~~8~~ or other Standard C.P.W.D. Form as applicable.

20. GST, Purchase Tax, Turnover Tax or any other tax applicable in respect of this Contract shall be payable by the contractor and Government will not entertain any claim whatsoever in respect of the same. TDS for GST shall be deducted as per the rules and instructions issued by the Government from time to time.

21. The intending bidders are required to update their profile in CPWD e- tender portal and to upload their bids well in advance of last date of submission of tender. Any issue related to updating profile/uploading tender can be resolved through the concerned Executive Engineer/ Assistant Engineer (**Phone no 033 2287-1884, e- mail Id eekcd4-wb@nic.in.**) or ERP helpline no. 18001803286 or e-mail id cpwd.support@techmahindra.com. The e- tendering bidders are also advised not to wait to raise any issues till the last date of submission of bid in their own interest.

22. **Price Preference to SC/ST individual contractor for item rate/percentage rate tender:**

Price preference in quoted item rate/percentage rate tender shall be applicable to the individual enlisted/non-enlisted SC/ST contractor as under: -

(i) For work(s) up to and equal to an estimated cost of Rs. 2.70 lakh a price preference up to 5% (with reference to the lowest valid tender) may be allowed in favor of individual SC/ST enlisted/non-enlisted contractor. No earnest money is required in such case(s).

(ii) For work(s) beyond an estimated cost of Rs. 2.70 lakh and up to and equal to estimated cost of Rs. 6.20 lakh, the price preference up to 5% (with reference to the lowest valid tender) may be allowed in favour of individual enlisted SC/ST contractor. However, earnest money at a reduced rate of ½% may be accepted in such cases.

The price preference up to 5% (with reference to the lowest valid price bid) may be allowed in favour of individual SC/ST contractor only. The above concession shall be allowed only after verification of the individual contractor's claim of belonging to SC/ST community.

Executive Engineer
For & on behalf of President of India

Addition. NIL
Deletion. NIL
Correction. NIL
Overwriting. NIL

Sr.D/Man AE(P) EE

CPWD- 7 ~~/ 8~~
GOVERNMENT OF INDIA
CENTRAL PUBLIC WORKS DEPARTMENT
Percentage Rate tender / ~~Item Rate tender~~ & Contract of work

Tender for the work: - A/R & M/O Residential Building at Regional Meteorological Centre, Alipore. Kolkata during-2026-27. SH: - Day to day maintenance of sanitary and water supply and Misc. Civil works.

~~(1) To be submitted/ uploaded by __**__ / __**__ / 20 __**__ hours on 3:00 P.M. to the Executive Engineer, Kolkata – IV, CPWD, Kolkata uploaded at **https://etender.cpwd.gov.in**.~~

~~(2) To be opened in presence of tenderers who may be present at 15:30 hrs. on__**__ / __**__ / 20 __**__ in the office of the Executive Engineer, Kolkata - IV, CPWD, Kolkata.~~

TENDER

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

I / We hereby tender for the execution of the work specified for the President of India within the time specified in Schedule 'F' viz., schedule of quantities and in accordance in all 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.

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

I/We have deposited EMD for the prescribed amount in the office of concerned Executive Engineer as per the bid document.

A copy of Earnest money deposit **receipt of prescribed amount deposited in the form of Insurance Surety Bonds, Account Payee Demand Draft, Fixed Deposit receipt, Banker's Cheque or Bank Guarantee (as prescribed)** issued by a **Commercial** Bank, is scanned and uploaded (strike out as the case may be). If I/We, fail to furnish the prescribed performance guarantee of **5% (Five Percent)** within prescribed period. I/We agree that the said President of India or his successors, in office shall without prejudice to any other right or remedy, be at liberty to forfeit the said earnest money absolutely. Further, if I/We fail to commence work as specified, I/We agree that President of India or the successors in office shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the said performance guarantee absolutely. The said Performance Guarantee shall be a guarantee to execute all the works referred to in the tender documents upon the terms and conditions contained or referred to those in excess of that limit at the rates to be determined in accordance with the provision contained in Clause 12.2 and

12.3 of the tender form.

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

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

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

Dated : _____ / _____ / 20 _____ **_____**

Witness : _____ **(Signature of Contractor)**

Address : _____ **_____**

Occupation : _____ **(Postal Address)**

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 ₹ _____. __ (Rupees _____)

[in words]

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

(a) _____**_____ .

(b) _____**_____ .

(c) _____**_____ .

For & on behalf of the President of India.

Dated : Signatures ……

: Designation ……..

Addition. NIL
Deletion. NIL
Correction. NIL
Overwriting. NIL

PROFORMA OF SCHEDULES (A to F)

(Separate Performa for Civil, Elect. & Hort. Works in case of Composite Tenders)

SCHEDULE 'A'

Schedule of quantities (as per PWD-3) attached from: **S-1 to S-9**

SCHEDULE 'D':

Extra schedule for specific requirements/document for the work, if any	**:**	**As attached in tender documents.**

SCHEDULE 'E':

Reference to General Conditions of contract.	:	GCC Maintenance Works – 2023 as modified & corrected up to previous day of the last date of submission of tender.
NAME OF WORK	:	**A/R & M/O Residential Building at Regional Meteorological Centre, Alipore. Kolkata during-2026-27. SH: - Day to day maintenance of sanitary and water supply and Misc. Civil works.**
Estimated cost of work	:	**Rs.19,30,832.00**
Earnest money	:	**Rs.38,617.00 (to be returned after receiving performance guarantee)**
Performance Guarantee	:	(a) 5% of tendered value or Estimated Cost Put to Tender (ECPT) (whichever is higher). (b) Where the tendered amount is less than eighty percent (80%) of the Estimated Cost Put to Tender (ECPT), the Performance Guarantee, in addition to the requirement under (a) above, shall be increased by an amount equal to the difference between eighty percent (80%) of the ECPT and the tendered amount.
Security Deposit	:	2.5% of tender value

SCHEDULE "F"

GENERAL RULES & DIRECTIONS:

1. Officer inviting tender	**:**	**Executive Engineer, Kolkata-IV, CPWD, Kolkata.**

Addition. NIL
Deletion. NIL
Correction. NIL
Overwriting. NIL

Sr.D/Man AE(P) EE

Definition:

2(vi)	Engineer-in-Charge	:	**Executive Engineer, Kolkata-IV**, CPWD, Kolkata or successor thereof for Civil work.
2(viii)	Accepting Authority	:	**Executive Engineer, Kolkata-IV**, CPWD, Kolkata or successor thereof.
2(x)	Percentage on cost of materials and labour to cover all overheads and profits	:	**15%**
2(x)(b)	Standard Schedule of Rates	:	DSR-2023 and Market Rate.
2(xi)	Department	:	Central Public Works Department
9 (ii)	Standard CPWD contract Form	:	**GCC Maintenance Works - 2023**, CPWD Form7/~~8~~ as modified & corrected up to previous day of the last date of submission of the tender.

Clause 1:

(i)	Time allowed for submission of Performance Guarantee, Programme Chart (Time and Progress) and applicable labour licenses, registration with EPFO, ESIC and BOCW Welfare Board or Proof of applying thereof from the date of issue of letter of acceptance	:	**07(Seven) Days**
(ii)	Maximum allowable extension with late fee @ 0.1% per day of Performance Guarantee amount beyond the period provided in (i) above	:	**03(Three) Days**

Clause 2:

Authority for fixing compensation under clause 2 : **Chief Engineer (Kolkata), CPWD, Kolkata or successor thereof.**

Clause 2A:

Whether Clause 2A shall be applicable : **Applicable**

Clause 5:

Number of days from the date of issue of letter of acceptance for reckoning date of start : **10 Days**

Addition. NIL
Deletion. NIL
Correction. NIL
Overwriting. NIL

Sr.D/Man AE(P) EE

Mile stone(s) as per table given below: -
Table of Mile Stone(s)

SL No.	Financial Progress	Time Allowed (From date of start)	Amount to be with-held in case of non-achievement of milestone
1	1/4	3 Months	In the event of not achieving the necessary progress as assessed from the running payments, 1.25% of the tendered value of work will be withheld for failure of each milestone.
2	1/2	6 Months	
3	3/4	9 Months	
4	Full work	12 Months	

Time allowed for execution of work: - **12(Twelve)months**

Authority to decide

(i) **Authority to convey the decision of shifting of milestone and extension of time** : **Executive Engineer, Kolkata-IV, CPWD, Kolkata or successor thereof.**

(ii) **Authority to decide rescheduling of mile stone and extension of time** : **Chief Engineer (Kolkata), CPWD, Kolkata or successor thereof.**

(iii) **Shifting of date of start in case of delay in handing over of site** : **Chief Engineer (Kolkata), CPWD, Kolkata or successor thereof.**

Proforma of Schedule Clause 5 Schedule of handing over of site

Part	Portion of Site	Description	Time Period for handing over reckoned from date of issue of letter of intent.
Part A	Portion without any hindrance		
Part B	Portions with encumbrances		
Part C	Portions dependent on work of other agencies		

Clause 5A
Whether Clause 2A shall be applicable : **Applicable**

Addition. NIL
Deletion. NIL
Correction. NIL
Overwriting. NIL

Sr.D/Man AE(P) EE

Clause 6

Mode of Measurement — **Applicable [Electronic Measurement Book (EMB) through CPWD ERP Portal]/CMB**

Clause 7

Gross work to be done together with net payment/adjustment of advances for Material collected, if any, since the last such payment for being eligible to interim payment — **Rs.1.60Lakh or as per approval of Engineer-in-Charge**

Clause 7A

Whether clause 7A shall be applicable — **NA**

Clause 10A

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

1.----------. 2.---------- 3. ----------

Clause 10B(ii)

Whether Clause 10B(ii) shall be applicable: **NA.**

Clause 10 C — **Applicable**

Component of labour expressed as percent of value of work = 25%

Clause 10 CC — **Not Applicable**

Schedule of component of other Materials, Labour etc. for price escalation

Component of Civil (except materials covered under Clause 10CA)/Electrical construction value of work	X. m…….. %
Component of Labour Expressed as percent of total value of work	Y…….. %

Note: X. m……. % should be equal to (100) -(materials covered under clause 10CA i.e. Cement, Steel, POL and other material specified in Clause 10CA+Component of Labour)

Clause 11

Specifications to be followed for execution of work. — **C.P.W.D. Specifications 2019 Vol-I to II with up to date correction slips till last date of Submission of tender. (Here in after called CPWD Specification also).**

Addition. NIL
Deletion. NIL
Correction. NIL
Overwriting. NIL

Sr.D/Man AE(P) EE

Clause 16

Competent Authority for deciding reduced rates : **Chief Engineer (Kolkata),** CPWD, Kolkata or successor thereof.

Clause 18

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

1. …… 2. …… 3. …… 4. ……
5. …… 6. …… 7. …… 8. ……

Clause 19C Authority to decide penalty for each default: Executive Engineer, KCD-IV, CPWD, Kolkata

Clause 19D Authority to decide penalty for each default: Executive Engineer, KCD-IV, CPWD, Kolkata

Clause 19G Authority to decide penalty for each default: Executive Engineer, KCD-IV, CPWD, Kolkata

Clause 19K Authority to decide penalty for each default: Executive Engineer, KCD-IV, CPWD, Kolkata

Clause 19L

The ESI and EPF contributions on the part of employer in respect of this contract shall be paid by the contractor. These contributions on the part of the employer paid by contractor shall be reimbursed by the Engineer-in-charge to the contractor on actual basis.

Clause 25

(i)	**Conciliator**	:	**Special Director General (Kolkata)**
(ii)	**Arbitrator Appointing Authority**	:	**Chief Engineer (Kolkata)**
(iii)	**Place of Arbitration**	:	**Kolkata**

Addition. NIL
Deletion. NIL
Correction. NIL
Overwriting. NIL

Sr.D/Man AE(P) EE

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	
						Figures	Words
1	Graduate Engineer or Diploma Engineer	Civil	Principal Technical Representative (Project Planning/Site/ building Engineer)	2 Years for Graduate Engineer or 5years for Diploma Engineer	01(one) no.	Rs.15000/- Per month/Per Person	Rupees Fifteen thousand Per month Per Month

Assistant Engineers retired from Government services that are holding Diploma will be treated at par with Graduate Engineers.

Diploma Holder with minimum 10-year relevant experience with a reputed construction co. can be treated at per with Graduate Engineer for the purpose of such deployment subject to the condition that such diploma holders should not exceed 50% of requirement of degree engineers.

Clause 38

I (a)	Schedule/Statement for determining theoretical quantity of cement and bitumen on the basis of Delhi Schedule of Rates 2023 printed by C.P.W.D.	**DSR 2023 and as per additional specifications attached in the NIT.**
II	Variations permissible on theoretical quantities	
(a)	Cement:	
	For works with estimated cost put to tender not more than Rs.25 lakh	**3% plus/minus**
	For works with estimated cost put to tender more than Rs.25 lakh	**2% plus /minus.**
(b)	Bitumen all works.	**2.5% plus & only & Nil on minus side**
(c)	Steel Reinforcement and structural steel sections for each diameter, section and Category	**2% plus/ minus.**
(d)	All other materials	**NIL**

Addition. NIL
Deletion. NIL
Correction. NIL
Overwriting. NIL

Sr.D/Man AE(P) EE

On non-judicial stamp paper of minimum Rs. 100

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

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

   OR**

   Whereas the Executive Engineer(name of division)CPWD 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 ₹ _____ . ____ (Rupees _____ only) valid up to (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.

2. We, (indicate the name of the bank)(hereinafter referred as "the Bank"), hereby undertake to pay to the Government an amount not exceeding ₹ _____ . ___ (Rupees _____ only) on demand by the Government within 10 days of the demand.
3. 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 ₹ _____ . ____ (Rupees _____

Addition. NIL
Deletion. NIL
Correction. NIL
Overwriting. NIL

Sr.D/Man AE(P) EE

only).

4. We, (indicate the name of the bank)further undertake to pay the Government any money so demanded notwithstanding any dispute or disputes raised by the contractor in any suit or proceeding pending before any court or Tribunal, our liability under this Bank Guarantee being absolute and unequivocal. The payment so made by us under this Bank Guarantee shall be a valid discharge of our liability for payment there under and the contractor shall have no claim against us for making such payment.

5. We, (indicate the name of the bank)further agree that the Government shall have the fullest liberty without our consent and without affecting in any manner our obligation here under to vary any of the terms and conditions of the said agreement or to extend time of performance by the said contractor from time to time or to postpone for any time or from time to time any of the powers exercisable by the Government against the said contractor and to forbear or enforce any of the terms and conditions rerating to the said agreement and we shall not be retrieved from our liability by reason of any such variation or extension being granted to the said contractor or for any forbearance, act of omission on the part of the Government or any indulgence by the Government to the said contractor or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.

6. We, (indicate the name of the bank)further agree that the Government at its option shall be entitled to enforce this Guarantee against the Bank as a principal debtor at the first instance without proceeding against the contractor and notwithstanding any security or other guarantee the Government may have in relation to the Contractor's liabilities.

7. This guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor.

8. We, (indicate the name of the bank)undertake not to revoke this guarantee except with the consent of the Government in writing.

9. This Bank Guarantee shall be valid up to _____ unless extended on demand by the Government. Not with standing anything mentioned above, our liability against this guarantee is restricted to ₹ _____ . ____ (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: _____.

Addition. NIL
Deletion. NIL
Correction. NIL
Overwriting. NIL

Sr.D/Man AE(P) EE

Witnesses:

1.	**Signature**	**:** _____	**Authorized signatory**	**:**	_____
	Name	**:** _____	**Name**	**:**	_____
	Address	**:** _____	**Designation**	**:**	_____
		_____	**Staff code no.**	**:**	_____
2.	**Signature**	**:** _____	**Bank seal**	**:**	
	Name	**:** _____			
	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.

** ln 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

Addition. NIL
Deletion. NIL
Correction. NIL
Overwriting. NIL

Sr.D/Man AE(P) EE

GENERAL CONDITIONS

1. The work shall be carried out as per description of item given in the "Schedule of Quantities", General conditions, Special conditions, BIS/IRC Specifications and CPWD Specifications 2019 Vol. I & II (with up to date correction slips) unless and otherwise specified in individual item or items in the schedule of quantity of the work.

2. The order of preference regarding applicability of various specifications and special condition shall be as given below:

   a) Nomenclature of items given in the schedule of quantities in the tender.

   b) Particular Specifications

   c) Special conditions.

   d) General Conditions

   e) Contract & Clauses as per Standard CPWD form 2023 with up to date.

   f) C.P.W.D. Specifications 2019 volume I to II with up-to-date correction slips.

   g) IRC specifications. Wherever these specifications are referred for this work, the latest one at the time of issue of the tenders shall be taken into consideration

   h) I.S. Codes or specifications. Wherever I.S. code is to be referred for this work, the latest one at the time of issue of the tenders shall be taken into consideration.

   i) Directions of Engineer-in-charge shall be applicable where none of the above are to be applied.

3. The contractor(s) shall inspect the site of work before tendering and acquaint himself with the site conditions and no claim on this account shall be entertained by the department.

   The contractor(s) shall also see the approaches to the site in case any approach from main road is required at, site or existing approach is to be improved and maintained for cartage of materials by the contractor, the same shall be provided, improved and maintained by the contractor at his own cost. No extra payment whatsoever shall be made on this account.

4. The contractor(s) shall get himself acquainted with nature and extent of the work and satisfy himself about the availability of materials from kiln or approved quarries for collection and conveyance of materials, suitable location for construction of godown, store, camp, transport facilities the extent of leads and lifts.

5. The contractor shall quote the percentage above or below the estimated cost in figures and words accurately so that there is no discrepancy in figures and words and total amount. If only percentage is written and above or below not quoted, then it will be assumed that rates / percentage quoted is below the estimated rates. The percentage rate quoted by the contractor shall include cost of materials, labour i/c all leads, lifts and depths etc. unless & otherwise specified in the nomenclature of item or items.

Addition. NIL
Deletion. NIL
Correction. NIL
Overwriting. NIL

6. The contractor & his work people shall observe all relevant rules regarding security promulgated in which work is to be carried out by the controlling authority of the area.

7. All the materials such as stone aggregate, screening materials, sand, bricks, cement and pipes etc. to be used in the work, shall have to be got approved from the Engineer-in-charge or his authorized representative prior to use in the work failing which work shall not be measured & paid for.

8. The contractor shall construct suitable Godown / stockyard at the site of work for safe storing of materials, like cement, bitumen and other materials, against damage by sun, rain, dampness, fire, theft etc at his own cost. He shall also employ watch & ward personnel(s), for plants and machinery and other materials issued and arranged by him at his own cost and no extra payment shall be made on this account.

9. No tools & plants or machinery shall be supplied by the department.

10. The contractor shall make his own arrangements for electricity and water required for the execution of the work and nothing extra shall be paid for the same. However, for electrical connection, Engineer-in-charge shall recommend the application to concerned authority for Electrical connection if required. Necessary payment shall be made by the contractor directly to the department concerned. In case the concerned authority fails to sanction the electric connection or delays the sanction of electric connection, the contractor shall make his own arrangements by providing diesel generators of adequate capacity at his own cost.

11. For water supply, contractor shall make his own arrangement including boring of tube well, if necessary, and nothing extra shall be paid by the Department for arrangement of water or on its treatment as per requirements laid down in IS: 456 / 2000 Para 5.4 or CPWD Specification 2019 Volume-I to II with up to date correction slips.

12. Roadside proper accommodation for labour / workmen, as per contract labour regulation Act, shall be provided by the contractor at his own cost & nothing extra shall be paid by the department.

13. Unserviceable materials shall have to be removed and disposed off to places as decided by the Engineer-in-charge.

14. The contractor shall at all time carry out the works on the road in a very systematic manner without interference to the flow of traffic and consistent with the satisfactory & timely execution of the work. For all works, the contractor shall maintain a passage for traffic either along a part of the existing carriage-way under improvement or along temporary diversion constructed close to the road for this purpose as directed by Engineer-in-Charge for which nothing extra shall be paid.

15. The contractor shall also provide necessary barricade, informatory boards, lights and flagmen at either end of the execution area and at such intermediate points as required & as directed by the Engineer-in-charge at no extra cost.

16. The work shall have to be executed in Kolkata areas. Contractor(s) should inspect the site, so as to apprise himself / themselves of the site condition, before tendering. Being a Kolkata area there could be some restriction by Security agencies and the contractor has to follow and no extra claim on this account shall be entertained by the department.

Addition. NIL
Deletion. NIL
Correction. NIL
Overwriting. NIL

Sr.D/Man AE(P) EE

17. The Executive Engineer by prior notice in writing to the contractor may reduce/increase the scope of work. In case of deviation in quantities, no extra claim except as otherwise provided in General Conditions of Contract 2023 shall be entertained by the department.

18. The contractor(s) shall submit " Time & Progress chart " for execution of work in different reaches showing activities distinctly along with Bar-Chart within fifteen days of the letter of acceptance of work in direct relation to the time stated in the contract document for completions of items of the works as per different milestone fixed indicating the forecast of date of commencement and date of completion of various items / activities kilometer wise from start point to end point of road as per agreement for adherence during execution.

If any time, it appears to the Engineer-in-charge that the actual progress of work does not confirm to the approved programmed referred above, the contractor shall produce a revised programmed showing the modifications to the approved programmed by additional inputs to ensure completion of the work within the stipulated time.

In case the contractor fails to achieve individual milestone as specified in Schedule F, action shall be taken as per clause 5 & other relevant clauses of the General Conditions of Contract 2023.

19. The item of concreting/premixing shall be started / executed strictly under prior written approval of the Executive Engineer at appropriate time indicating the quantities and reaches / length and shall be liable for any consequences of wastage / damage / loss / non-payment etc.

20. The contractor has to deploy necessary Tools & Plants in required numbers to ensure smooth & timely execution of work, at his own cost & risk as per the requirement of work at different stages. The decision of Engineer-in-charge shall be final regarding use of particular T & P(s) at a particular time(s) & the contractor has to adhere the same strictly. The Contractor shall be responsible for further running and maintenance and safety of all T&P. No claim whatsoever, for any loss or damage or idle Plant & Machinery, due to insurgency, accidents, theft prevailing at site, availability of materials, availability of land, suitable location for construction of Godown, stores and camp, transport facility including local conditions or other reasons shall be entertained by the Department.

21. The rates of materials shall be inclusive of all taxes such as Sale Tax, Royalty, Octroi etc. and contractor shall be liable to pay the same direct to the concerned department. No claim on this account shall be entertained by the department.

22. In case of any calamity or injury to any labour / workmen etc. or loss / wastage of materials due to nature or insurgency, contractor shall have to bear the cost of compensation and no claim to this effect shall be entertained by the department.

23. The contractor shall keep himself ready for execution of any item / items of work / part of the item of work on emergent notice given by the Engineer-in-charge on day to day basis during rainy season.

24. Unless otherwise specified in the schedule of quantities, the rates for all items of the work shall be considered as inclusive of pumping out or bailing out water if required for which no extra payment will be made. This will include water encountered from any source, such as rains, floods, sub-soil water table being high, due to any other cause whatsoever.

Addition. NIL
Deletion. NIL
Correction. NIL
Overwriting. NIL

Sr.D/Man AE(P) EE

25. Royalty / Octroi at the prevalent rates and all other incidental expenditure shall have to be paid by the contractor, on all the boulders, road metal, stone aggregate, river bed shingle, earth, sand, bare etc., collected by him for the execution of the work direct to the concerned Revenue Authority of the State or Central Government. The rates mentioned in the documents relating to this contractor are deemed to include all such expenditure and nothing extra shall be paid on this account.

26. The contractor shall maintain in good condition all work executed till the completion of the entire work entrusted to the contractor under this contract & nothing extra shall be paid on this account.

27. The work shall be executed and measured as per metric dimensions given in the schedule of quantities, drawings etc. (FPS units wherever indicated are for guidelines only).

28. The tenderer shall abide by the rules and regulations of respective State Value Added Tax / Works Contract Tax Act etc. Necessary deductions on account of taxes shall be made on the gross value of the work done from the bills of the contractor as per the provisions of above stated Acts. Necessary certificates for tax deduction at source shall be issued to the contractor by the Engineer in Charge. The decision of the Engineer in Charge regarding quantum of tax deducted at source shall be final and binding on the contractor.

29. Necessary permit etc. for utilization of forest produce would be obtained by the contractor directly from the Forest Authority. Necessary Forest Royalty Clearance Certificate (FRCC) from the Forest Authority shall be submitted by the Contractor to the Engineer-in-Charge along with the Bills for the work. Engineer-in-Charge reserves the right to deduct any sum considered reasonable towards forest royalty from the Running Accounts Bills of the Contractor, in the event on non-submission of FRCC. In case the contractor does not submit FRCC a sum considered reasonable towards payment of forest royalty would be deducted by the Engineer-in-Charge from the final bill of the work and credited to the Government accounts. The Engineer-in-Charge would determine the quantum of materials consumed on which such royalty is payable and also the rate of royalty payable. The decision of the Engineer-in-Charge shall be final and binding on the matter.

30. All test registers and material at site register shall be maintained by the Contractor which will be reviewed by the Officers of CPWD at regular intervals. These registers shall be issued to the contractor by the Engineer-in-Charge. Contractor shall be responsible for safe custody of all the test registers.

31. The contractor shall provide at his own cost suitable weighing and measuring equipments /instruments as may be necessary at site for checking purposes. All such equipments /instruments shall be got tested for calibration in advance from laboratory approved by the Engineer-in- Charge.

32. The work has to be carried out at different stretches and nothing extra will be payable on account of shifting of T&P, Machinery, Labour and materials etc.

Addition. NIL
Deletion. NIL
Correction. NIL
Overwriting. NIL

Sr.D/Man AE(P) EE

SPECIAL CONDITION

1) The work is undertaken to keep, restore and improve every facility of the structure while doing the work. The building services to be kept in good operating and habitable condition and occupant safety to be ensured.

2) The work is to be done as per CPWD Maintenance Manual 2023, up to date correction slip.

3) The day to day maintenance to be done through the deployment of required trained manpower under the supervision of Supervisor. The contractor will also provide the services clerks at the front offices of the service centers. It will be responsible for receiving the service requests from CPWD e-Sewa/IVRS/ various allottees and allotting the same keeping a detailed record of the work done in the computerized maintenance service of CPWD being run at the website http//cpwd.sewa.nic.in. The maintenance activity will include the cost of material required for attending of day to day complaints.

4) The work will be assigned through CPWD Sewa, a web-based application for lodging, monitoring and managing maintenance complaints. It is integrated with the call centre and SMS gateway. The contractor has to register their mobile after award of the work. The assigned work will be sent through SMSs on the same mobile number. The agency has to complete the work under benchmark period and the same to be updated in CPWD e-Sewa. The updated report will be reviewed by allottee on line. The contractor will maintain the register for complain received and take the signature of the complainant on register for the work done. The contractor will update the work done report to service centre on daily basis and submit the complaints attended report to service centre in charge on weekly basis.

5) **THE TYPES OF MAINTENANCE COMPLAINTS**.

(i) Minor Complaints

(ii) Major Complaints

(iii) Periodical Complaints

(iv) Up gradation

6) The benchmark period of attending minor, major and periodical complaints are as under.

Sl. No.	Complaint Description	Time
1.	Emergency	6 hours
2.	Minor	3 days
3.	Major	30 days
4.	Periodical	60 days
5.	Upgradation	60 days
6.	Upgradation	75 days

Addition. NIL
Deletion. NIL
Correction. NIL
Overwriting. NIL

Sr.D/Man AE(P) EE

7) The maintenance complaints to be attended under benchmark period. There will be levy of compensation for delayed attendance of maintenance request and or workmanship shall be provided for as deemed fit by Engineer in charge. The contractor has to attend all the complaints provided the item is in agreement.
If the complaint is not attended under benchmark period a recovery shall be made on per day basis Rs.50.00. If the contractor will not attend the complain after notice given by Engineer in charge, contractor will be levied for the workmanship provided by service centre in charge.

8) The contractor has to clean the garbage from the campus on weekly basis.

9) The contractor has to keep all the records of track entering in the campus and taking out the garbage. The EIC or his representative will be verifying the records on regular basis. The contractor has to submit fortnightly report to the service centre regarding vehicle challan taking out garbage from the campus. The above records will form part of bill.

10) If the contractor fails to remove the garbage on weekly basis or after instruction of EIC or his representative, a penalty to be made for Rs.1000.00 per day or cost of services provided to remove the garbage as decided by EIC.

11) The Contractor has to provide services for running and maintenance of Bio Convertor Machine. All the biodegradable waste and Horticultural waste collected in dust been to be shifted to Bio Convertor Machine at least once in three days and converted manure to be used in campus itself. These services to be provided as skilled and unskilled labour as per BOQ and nothing extra will be payable.

12) The age of the personnel should not exceed **60 years** as of the date of deployment.

Addition. NIL
Deletion. NIL
Correction. NIL
Overwriting. NIL

Sr.D/Man AE(P) EE

Special Condition for Painting Works

1. The Contractor shall take prior approval from Engineer-in-Charge before procurement of putty and paint (Internal and External)
2. The Contractor shall procure paint materials with valid GST invoice and submit to JE/AE CPWD for record.
3. All empty cans and bags of paint materials used for work shall be preserved at site till approval for CPWD for removal.
4. The Contractor shall inform CPWD after procurement of paint for necessary checks.
5. JE & AE shall perform 100% test check for painting works and EE shall perform 50% test check for painting works.
6. No kaccha bill or non-GST bill shall be accepted by CPWD from Contractor.
7. Batch nos. of paints shall be submitted by Contractor for record/M.A. S to CPWD.
8. Guarantee/Warranty certificate from manufacturer shall be obtained by contractor and shall be submitted to CPWD with Final bill.
9. Minimum 50% quantity of painting materials shall be brought at site by contractor before start of work.
10. All Painting works shall be done using roller only as per manufacturer's specification. No painting works using brush shall be allowed and payable.

Addition. NIL
Deletion. NIL
Correction. NIL
Overwriting. NIL

Sr.D/Man AE(P) EE

ADDITIONAL CONDITIONS

1. Unless otherwise provided in the Schedule of quantities the rates tendered by the contractor shall be all inclusive and shall apply to all heights, lifts, leads and depths of the building and nothing extra shall be payable to him on this account. Payment for centring, shuttering, however if required to be done for floor to floor heights greater than 3.5 m. shall be admissible at rates arrived at in accordance with clause-12. of the agreement if not already specified.

2. The contractor shall make his own arrangements for obtaining electrical service connection if required and make necessary payments directly to the department concerned.

3. Other agencies doing works related with this project will also simultaneously execute the works and the contractor shall afford necessary facilities for the same. The contractor shall leave such necessary holes, openings etc. for laying/burying in the work pipes, cables, conduits, clamps, boxes and hooks for fan clamps etc. as may be required for other agencies. Conduits for electrical wiring/cables will be laid in a way that they leave enough space for concreting and do not adversely affect the structural members. Nothing extra over the agreement rates shall be paid for the same.

4. Some restrictions may be imposed by the security staff etc. on the working and for movement of labour, materials etc. the contractor shall be bound to follow all such restriction/instructions and nothing extra shall be payable on this account.

5. (a) The building work will be carried out in the manner complying in all respects with the requirements of relevant by 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 will be paid on this account.

   (b) Water tanks, taps, sanitary, water supply and drainage pipes, fittings and accessories should conform to bye-laws and specifications of the Municipal Body/Corporation where C.P.W.D. specifications are not available. The contractor should engage licensed plumbers for the work and get the materials (fixtures/fittings) tested by the Municipal Body/Corporation Authorities wherever required at his own cost.

   (c) The contractor shall comply with proper and legal orders and directions of the local or public authority or municipality and abide by their rules and regulations and pay all fees and charges which he may be liable.

6. The contractor shall give a performance test of the entire installation(s) as per standing specifications before the work is finally accepted and nothing extra whatsoever shall be payable to the contractor for the test.

7. Any cement slurry added over base surface (or) for continuation of concreting for better bond is deemed to have been in built in the items and nothing extra shall be payable (or) extra cement considered in consumption on this account.

Addition. NIL
Deletion. NIL
Correction. NIL
Overwriting. NIL

Sr.D/Man AE(P) EE

Testing of materials:

(a) All the expenditure to be incurred for the testing of samples e.g. packaging, filling, transportation, loading, un-loading etc. including testing charges shall be borne by the Contractor.

(b) All the registers of tests to be carried out at Construction sites or in outside laboratories are maintained by the contractor, which are issued to the contractor by Engineer-in-charge.

(c) All samples of materials including Cement Concrete Cubes are taken jointly with Contractor by JE, AE and EE, as per percentage stipulated in the NIT or as prescribed in the CPWD Works Manual. All the necessary assistance is to be provided by the contractor. Cost of sample of materials including testing charges is to be borne by the contractor and he/she is responsible for safe custody of samples to be tested at site.

(d) All the test in field lab setup at Construction Site are carried out by the Engineering Staff deployed by the contractor preferably. The percentages of tests to be witnessed by the field officers are to be decided by the NIT approving authority and stipulated in the NIT keeping in view the nature of work and should form part of QA Plan. In case, no such provision is made in NIT, provisions of CPWD Works Manual shall be applicable.

(e) All the entries in the registers are made by the designated Engineering Staff of the contractor and same is regularly reviewed by the field officers as well as the Engineer-in-charge. Contractor is responsible for safe custody of all the test registers.

8. The structural and architectural drawings shall at all times be properly co-related before executing any work. However, in case of any discrepancy in the item given in the schedule of quantities appended with the tender and Architectural drawings relating to the relevant item, the former shall prevail unless and otherwise given in writing by the Engineer-in-charge.

9. The contractor shall bear all incidental charges for cartage, storage and safe custody of materials issued by department or procured by the contractor and nothing extra shall be payable to the contractor on their accounts.

10. The full nomenclature of items shall be adopted in preparing abstract of final bill in the measurement book and also in the bill form for final bill.

The concrete mix design/laboratory tests with and without admixture shall be got done by contractor at his own cost and will be carried out by the contractor.

List of approved laboratories for testing:

(a) Jadavpur University, Dept. of Civil Engineering.
(b) Bengal Engineering and Science University, Shibpur.
(c) National Test House, Kolkata.

Addition. NIL
Deletion. NIL
Correction. NIL
Overwriting. NIL

Sr.D/Man AE(P) EE

Or Approved Lab/Govt. Engineering Institutions as directed by the Engineer-in-charge.

The various ingredients for mix design / laboratory tests shall be sent to the test houses through the Engineer-in-Charge and the samples of such aggregate & cement shall be preserved at site by the department.

CONDITIONS FOR CEMENT.

1. The contractor shall procure 43 grade Ordinary Portland cement (conforming to IS: 8112), /Portland Pozzolana Cement confirming to IS 1489(Part-I) as required in the work, from reputed manufacturer of cement such as A.C.C., Ultratech, Vikram, Shree Cement, Ambuja, Jaypee Cement, Century Cement, & JK Cement or from any other reputed cement Manufacture having a production capacity not less than one million tons per annum as approved by **Chief Engineer / Chief Project Manager for that Zone**.

1.1 In addition to ordinary Portland cement as specified above, use of Portland slag cement conforming to IS: 455 (Latest edition) is permitted for foundation work. Portland slag cement will also be permitted for super structure works subjected to enhancement of striping time of " form work" as per provision of para 11.3.1 of IS: 456-2000 vis-à-vis the curing time as per the decision of the Engineer-in-Charge which shall be final and binding on the contractor.

2. The cement shall be brought at site to bulk supply of approximately 50 tonnes or as decided by the Engineer-in-Charge. The cement godown of the capacity to store a minimum of 2000 bags of cement shall be constructed by the contractor at site of work for which no extra payment shall be made.

3. Double lock provision shall be made to the door of the cement go down. The keys of one lock shall remain with the Engineer-in-Charge or his authorized representative and the key of the other lock shall remain with the contractor. The contractor shall be responsible for the watch & ward and safety of the cement go down. The contractor shall facilitate for the inspection of the cement go down by the Engineer-in-Charge at any time.

4. The cement shall be got tested by the Engineer-in-charge and shall be used on the work only after satisfactory test results have been received. The contractor shall supply free of charge the cement required for testing including its transportation cost to testing laboratories. The cost of tests shall be borne by the contractor.

5 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 38 of the contract and shall be governed by the 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 needs to be made.

6. 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.

7. 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.

8. Engineer-in-charge may change the brand of cement depending upon availability in local market, if needed. Instructions in this respect can be issued by them at regular intervals. The name of manufacturers should be finalized after taking into consideration the suggestions of contractors during pre bid meeting, if any.

Addition. NIL
Deletion. NIL
Correction. NIL
Overwriting. NIL

Sr.D/Man AE(P) EE

CONDITIONS FOR USING PORTLAND POZZOLONA CEMENT (PPC)

As per CDO, CPWD Circular No. CDO/SE(RR)/ Fly Ash (Main)/102 Dated 9.04.2009

1.0 **General:**

1.1 IS:456-2000 Code of Practice for Plain and Reinforced Concrete (as amended up to date) shall be followed in regard to Concrete Mix Proportion and its production as under:

1.1.1 The concrete mix design shall be done as "Design Mix Concrete" as prescribed in clause-9 of IS: 456 mentioned above.

1.1.2 Concrete shall be manufactured in accordance with clause 10 of above mentioned IS:456 covering quality assurance measures both technical and organizational, which shall also necessarily require a qualified Concrete Technologist to be available during manufacture of concrete for certification of quality of concrete.

1.2 Minimum M25 grade of concrete shall be used in all structural elements made with RCC both in load bearing and framed structure.

1.3 The mechanical properties such as modulus of elasticity, tensile strength, creep and shrinkage of fly ash mixed concrete or concrete using fly ash blended cements (PPCs) are not likely to be significantly different and their values are to be taken same as those used for concrete made with OPC.

1.4 To control higher rate of carbonation in early ages of concrete both in fly ash admixed as well as PPC based concrete, water/ binder ratio shall be kept as low as possible, which shall be closely monitored during concrete manufacture.

If necessitated due to low water/ binder ratio, required workability shall be achieved by use of chloride free chemical admixtures conforming to IS: 9103. The compatibility of chemical admixtures and super plasticizers with each set OPC, fly ash and/ or PPC received from different sources shall be ensured by trials.

1.5 In environment subjected to aggressive chloride or sulphate attack in particular, use of fly ash admixed or PPC based concrete is recommended. In cases, where structural concrete is exposed to excessive magnesium sulphate, fly ash substitution content shall be limited to 18% by weight. Special type of cement with low C3A content may also be alternatively used. Durability criteria like minimum binder content and maximum water/binder ratio also need to be given due consideration in such environment.

1.6 Wet curing period shall be enhanced to a minimum of 10 days or its equivalent. In hot & arid regions, the minimum curing period shall be 14 days or its equivalent.

Addition. NIL
Deletion. NIL
Correction. NIL
Overwriting. NIL

Sr.D/Man AE(P) EE

2.0 Use of Fly ash Admixed Cement Concrete (FACC) in RCC structures:

There shall be no bar on use of FACC in RCC structures subject to following additional conditions:

2.1 Fly ash shall have its chemical characteristics and physical requirements etc. conforming to IS: 3812 (Part-I) and shall be duly certified.

2.2 To ensure uniform blending of fly ash with cement in conformity with IS:456, a specific facility needs to be created at site with complete computerized automated process control to achieve design quality or with similar facility from Ready Mix Concrete (RMC) plants.

2.3 As per IS: 1489 (Part-I), maximum 35% of OPC by mass is permitted to be substituted with fly ash conforming to IS: 3812 (Part-I) and same is reiterated.

2.4 Separate storage for dry fly ash shall be provided. Storage bins or silos shall be weather proof and permit a free flow and efficient discharge of fly ash. The filter or dust control system provided in the bins or silos shall be of sufficient size to allow delivery of fly ash maintained at specified pressure to prevent undue emission of fly ash dust, which may interfere weighing accuracy.

3.0 Use of Fly Ash Blended Cements in Cement Concrete (PPCC) in RCC Structures

3.1 Subject to General Guidelines detailed out as above, PPC manufactured conforming to IS: 1489 (Part-I) shall be treated at par with OPC for manufacture of Design Mix Concrete for structural use in RCC.

3.2 Till the time, BIS makes it mandatory to print the %age of fly ash on each bag of cement, the certificate from the PPC manufacturer indicating the same shall be insisted upon before allowing use of such cements in works.

3.3 While using PPC for structural concrete work, no further admixing of fly ash shall be permitted.

Addition. NIL
Deletion. NIL
Correction. NIL
Overwriting. NIL

Sr.D/Man AE(P) EE

CONDITIONS FOR STEEL

1. The contractor shall procure TMT bars of Fe4145/Fe415D/Fe500D/Fe550D grade (the grade to procured is to be specified) from primary steel producers such as SAIL, Tata Steel Ltd. RINL, Jindal Steel and Power Ltd. and JSW Steel Limited or any other producer as approved by CPWD who are using iron ore as the basic raw material/ input and having crude steel capacity of 2.0 million tons per annum and above.

a) The grade of the steel Fe500 to be procured shall be specified as per BIS 1786-2008.

b) The Secondary producer must have valid BIS License to produce HSD bars conforming to IS 1786:2008. In addition to BIS License, the secondary producer must have valid License from.

c) The TMT bars procured from primary producers shall conform to manufacture's specifications.

d) The TMT bars procured from secondary producers shall conform to the specifications as laid by Temporal, Thermax, Encon, Turbo & Turbo Quench as the case may be.

e) TMT bars procured either from primary producers or secondary producers, the specifications shall meet the provisions of IS 1786: 2008 pertaining to Fe 500D grade of steel as specified in the tender.

2. The contractor shall have obtained and furnish test certificate to the Engineer-in-Charge in respect of all supplies of steel brought by him to the site of work.

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 as defined under para (1)(d) & (1)(e) above, 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.

4. The steel reinforcement shall be brought to the site in bulk supply of 10 tonnes or more as decided by Engineer-in-Charge.

5. Steel reinforcement (TMT bars) shall be stored by the contractor at site of work in such a way as to prevent distortion and corrosion and nothing extra shall be paid on this account. Bar of different sizes and length shall be store separately to facilitate easy counting and checking.

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

Addition. NIL
Deletion. NIL
Correction. NIL
Overwriting. NIL

Sr.D/Man AE(P) EE

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

7. The contractor shall supply free of charge the steel required for testing including its transporting cost to testing laboratories. The cost of tests shall be borne by the contractor.

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 42 of the contract and shall be governed by condition laid therein.

9. Steel brought to site and steel remaining unused shall not be removed from site without the written permission of the Engineer-in-Charge.

Addition. NIL
Deletion. NIL
Correction. NIL
Overwriting. NIL

Sr.D/Man AE(P) EE

ADDITIONAL SPECIFICATIONS

1.0 **GENERAL**

1.1 The work shall be executed and measured as per metric dimensions given in the Schedule of quantities, drawings etc. (F.P.S. units wherever indicated are for guidance only).

1.2 The following modifications in the above specifications and some additional specifications shall however apply:

i) All stone aggregate and stone ballast shall be of hard stone variety to be obtained from approved quarries at **Pakur** or any other source to be got approved by the Engineer-in-Charge.

ii) Sand to be used for cement concrete work, mortar for masonry and plaster work shall be of standard quality. Sand shall be obtained from **Bolpur** or any other source to be got approved from the Engineer-in-Charge and screened as required. The same shall consist of hard siliceous material. It shall be clean sand.

2.0 Wherever any reference to any Indian Standard Specification occurs in the documents relating to this contract the same shall be inclusive of all amendments issued there to revision thereof if, any, upto the date of receipt of tenders.

3.0 Unless otherwise specified in the schedule of quantities the rates for all items of the work shall be considered as inclusive of pumping out or bailing out water if required for which no extra payment will be made. This will include water encountered from any source, such as rains, floods, and sub-soil water label being high due to any other cause whatsoever.

3.1 **Brick Work.**

Bricks shall be obtained from kilns at --------- approved by the Engineer-in-Charge and shall be of size 10”x5”x3” instead of 22.9 cmx11. 4cm.x7.00cm. nominal mentioned in CPWD specification for works 2019 Vol.-I to II with correction slips. Consequently, the thickness of brick walls will be measured in multiple of 5” or 125 mm.

4.0 **R.C.C. Work.**

4.1 In respect of projected balconies, projected slabs at roof level and projected verandah, the payment for the RCC work shall be made under the item of RCC Slabs, the payment for centering and shuttering of such, items shall similarly be paid under the item of centering and shuttering of RCC slab. Nothing extra shall be paid for the side shuttering at the edges of these projects’ balconies and projected verandah. All the proposed edge shall however be finalized as per specifications and nothing extra shall be paid for this.

Addition. NIL
Deletion. NIL
Correction. NIL
Overwriting. NIL

Sr.D/Man AE(P) EE

4.1.1 The term machine batched, machine mixed and machine vibrated design mix cement concrete used in the document shall mean the concrete produced in automatic concrete batching and mixing plant and transported by transit concrete mixers (if necessary), placed in position by the concrete pumps and vibrated by surface vibrator/needle vibrator/plate vibrator, as the case may be to achieve required strength and durability.

4.2 Design mix cement concrete work shall be done as per CPWD Specifications.2019 for by using fully automatic computerized weigh batching plant conforming to IS: 4925 at site of works. The batching plant of capacity not less than 10 cum per hour should have a separate dozer and admixture.

4.2.1 The concrete mix will be designed for minimum workability as per the table given below.

Placing conditions	Degree of workability	Slump (mm)
Lightly reinforced section in slab, beams, walls, columns, RCC Raft, column footings etc.	Low	25-75
Heavily reinforced section in slabs, beams, walls and columns.	Medium	50-100
Pumped concrete	Medium	75-100

The rates should be quoted inclusive of all materials, labourers, machineries, transporting the mix with agitation in transit mixer to the work side and depositing the mix on platforms with or without staging at required level by pumping and laying the same at specific location in the form work as per nomenclature of the item, and also inclusive of all taxes, statutory charges, duties etc. all complete against the items mentioned in the schedule of quantities and nothing shall be paid extra on these accounts.

The cement to be used in all the concrete work should be either OPC of grade 43 conforming to IS: 8112 or Portland slag cement conforming to IS: 455 of approved manufacturers after getting the sample of cement tested and got approved from the Engineer-in-charge.

The concrete should be laid in the specific location of the form work within the initial setting time of concrete.

Maximum permissible water cement ratio of M-25 grade concrete for all R.C.C. work except pile shall be 0.50 (Zero decimal five zero)

The design mix shall be designed without use of admixtures and admixtures shall be added to improve the workability wherever required and as per the direction of Engineer-in-charge.

4.2.1.1 Conditions for RCC work: -

Addition. NIL
Deletion. NIL
Correction. NIL
Overwriting. NIL

The following special conditions for RCC works shall be followed: -

a) The cement concrete mix design shall be got done by the contractor through approved organization/testing labs.

b) The workability of concrete shall be as specified in para 7.0 of IS 456-2000 for all graded of concrete depending on the placing conditions/members.

c) Approved Plasticizers/Super plasticizers/Admixtures conforming to IS 9103 can be used for improving workability and their performance and shall be monitored as per clause 5.5 of IS 456-2000 and clause 4.1.3 of CPWD Specifications 2019.

d) No extra payment shall be paid for use of plasticizers.

e) The contractor may see and assess his requirement for establishing work shop. Automatic concrete batching plant, store as per the space available. It is made clear that no other site would be made available for these purposes and the contractor has to manage his acting his within the space available.

f) Concrete mix shall not be handled twice at the site of work. Either concrete shall be pumped or through chute. For placement of concrete at various levels. Tower Crane of appropriate size capacity or concrete pump shall necessarily be deployed by the contractor. However, mechanical joist can be used by the contractor for other material.

4.2.1.2 Design Mix.

a. Design mix concrete shall be used in the work for all structural members. The design mix concrete shall be as per revised CPWD Specification 2009 with up to date correction slips.

1.2 The concrete mix design with and without admixture will be carried out by the Contractor through one of the following Laboratories/Test House and ready-mix concrete shall confirm to accepted design mix. a.IIT Kharagpur. Jadavpur University, Dept. Of Civil Engineering. Bengal Engineering and Science University, Shibpur

1.3 In the event of all the three laboratories being unable to carry out the requisite design/testing the contractor shall have to get the same done from any other laboratory with prior approval of the Engineer-in-Charge.

1.4 The contractor shall submit the mix design report from any of above approved laboratories for approval of Engineer-in-Charge within 30 days from the date of issue of letter of acceptance of the tender. No concreting shall be done until the mix design is approved by the Engineer-in-Charge.

4.2.2 Ready Mix Concrete

Addition. NIL
Deletion. NIL
Correction. NIL
Overwriting. NIL

(a) The cost of packaging, sealing, transportation, loading, unloading, cost of samples and the testing charges for mix design in all cases shall be borne by the contractor.

(b) Ready mix concrete as per approved design mix shall be arranged by the contractor from ACC, Birla, and L&T etc.

(c) On specific request, permission may be given by the Engineer-in-charge to arrange Ready Mix Concrete (RMC) from the RMC producing Plant within 20 KM distance from the site of work. However, nothing extra shall be payable on this account. For procurement of ready-mix concrete from RMC Plants, the contractor shall, within 15 days of award of the work, submit detail of RMC Plant along with its location, capacity, technical establishment and text of MOU proposed to be entered between purchaser (the contractor) and supplier (RMC Plant) to the Engineer-in-Charge shall given approval in writing (subject of drawl of MOU). The contractor shall draw the MOU with approved RMC Plant Owner/Company and submit to Engineer-in-Charge within a week of such approval.

(d) The Engineer –in-Charge will reserve right to inspect at any such stage, and reject the concrete if he is not satisfied about quality of product. The contractor should therefore, draw MOU/Agreement with RMC Owner/Company very carefully keeping all terms and conditions/specifications forming a part of this tender document.

(e) The Engineer-in-Charge reserves the right to exercise control over the ingredients, water and admixtures purchased, stored and to be used in the concrete including conducting of tests for checking quality of materials, recordings of test results and declaring the materials fit or unfit for use in production of mix.

(f) Calibration Checks of the RMC. Weight and quantity check on the ingredients, water and admixtures added for batch mixing.

(i)Time of mixing of concrete.

(ii)Testing of fresh concrete, recordings of results and declaring the mix fit or unfit for use. This will include continuous control on the workability during production and taking corrective action.

(g) 43 Grade OPC(Conforming to IS 8112)/ PPC(conforming to IS 1489 (Part 1) 1991 of brand/make/source as approved by Engineer-in-Charge shall only be used for production of concrete.

(h) The item of design mix cement concrete shall be inclusive of all the ingredients including admixtures if required, labour, machinery T&P etc. (except shuttering which will be measured and paid for separately) required for a design mix concrete of required strength and workability. The rate quoted by the agency shall be net and nothing extra shall be payable on account of change in quantities of concrete ingredients like cement aggregates and admixtures etc. as per the approved mix design.

(i) Ready mix concrete shall be arranged in quantity as required at site of work. The ready mix concrete shall be supplied as per the pre-agreed schedule approved by Engineer-in-Charge.

4.2.3. **FORM WORK**

Basically, only steel shuttering shall be adopted in general. However, a

combination of steel and shuttering ply conforming to I.S: 848-1974 and I.S: 5539 may be allowed by the Engineer-in-Charge in consideration of the special request of the contractor to maintain quality and speed of the work. In such cases the use of shuttering ply shall be permitted only for circular columns, beam sides and bottom and in other locations wherever it is felt necessary on account of difficulty in using steel shuttering in such locations. But in other areas like slab, rectangular/square columns etc. steel shuttering shall be invariably used. However, no extra payment or deduction will be admissible or made for use of shuttering ply.

4.2.3.1 To maintain the quality and speed the contractors have to arrange and bring the following minimum quantities steel cantering shuttering with necessary steel vertical props, horizontal and diagonal bras sing before execution of the following items of work.

i.	Foundation and footings.	= 500 sqm.
ii.	Beams.	= 1200 sqm.
iii.	Columns.	= For 100 nos.
iv.	Slabs	= 1500 sqm
v.	Steel Props	= 800 nos.

The aforesaid quantities of shuttering materials should be kept at site for execution of the columns, suspended floors and beams at the upper floor levels.

5.0 **ALUMINIUM WORK**:

5.1 Before commencement of the work, the contractor shall co-relate all relevant structural, architectural, detailed drawings of aluminum doors, windows etc. and service drawings and shall satisfy himself that the information available their form is complete and unambiguous. The contractor shall be responsible for any error/omission owing to any discrepancy in the drawings, which has been overlooked by him and or had not been brought to the notice of the Engineer-in-Charge before execution.

5.2 **MATERIAL**:

5.2.1 Inspection of materials or works: All materials brought to the site by the contractor for use in the work, as well as fabricated components shall be subject to inspection and approval by Engineer-in-Charge. The contractor shall be required as directed by the Engineer-in-Charge, to get necessary tests carried out on materials components at his own cost from the laboratories/test houses, approved by the Engineer-in-Charge.

5.2.2 Manufacturer's Test Certificate: The contractor shall, if required by the Engineer-in-Charge, produce manufacturer's test certificates for any material or particular batch of materials supplied by him. The tests carried out shall be as per relevant specifications/Indian Standard Code.

5.3 **Aluminium Sections**:

5.3.1 Aluminium sections to be used for doors, windows, ventilators, fixed glazing etc. shall be manufactured by reputed companies such as Hindalco, Jindal, Indian

Aluminium Company, NALCO satisfying the design and specification criteria of relevant components and shall be subject to approval of the Engineer-in-Charge.

5.3.2 The aluminum extruded sections shall conform to IS Designations HEIWP/HVIWP alloy, with chemical composition and technical properties as per I.S: 733 and IS: 1285.

5.3.3 For sectional weight, tolerance limits shall be (-) 0.5%.

5.3.4 Approval of samples: No work shall commence before samples are approved. Samples of un-anodized as well as anodized and electro colored aluminum sections, neoprene gaskets, thermal barrier sections, glass, screws, hardware and any other material or components requiring approval of samples in opinion of Engineer-in-Charge shall be submitted for his approval. These samples will be retained as standards of materials and workmanship till the completion of work. Anodizing and electro coloring of aluminum section and fabrication shall be got done from the factory as approved by the Engineer - in - Charge.

5.4 Fabrication:

5.4.1 Contractor shall prepare detailed shop drawings of his proposal using suitable sections based on architectural design/drawings, adequate to meet the requirement/specifications laid down in this tender document. These detailed shop drawings shall be got approved from the Engineer-in-Charge before taking up the fabrications. Actual measurement of each opening shall be measured before fabrication of framework. Aluminium shall be fabricated in the factory to the extent possible and feasible, only adjustment, joining, assembling and fixing shall be done at the site of work.

5.4.2 All hard ware used shall conform to the relevant specifications and as per samples approved by the Engineer-in-Charge. Design, quality, type, number and fixing of hardware shall be in accordance with architectural drawings and as approved by the Engineer-in-Charge.

5.4.3 All doors, windows, ventilators and glazing etc. shall be made completely leak proof against water and air using neoprene gaskets and silicon sealants to the satisfaction of the Engineer-in-Charge.

5.4.4 The frames shall be as per architectural drawings and the corners of the frame shall be true to right angles. Both fixed frames and openable shutter frames shall be fabricated out of sections which have been cut to length, mired and mechanically jointed for satisfactory performance. All members shall be accurately machine milled and fitted to form hairline joints. The jointing accessories such as cleats, brackets, screws etc. shall be of such materials as not to cause any bimetallic action. Nothing extra shall be paid for jointing accessories.

5.4.5 Mixed joints of the doors, windows, ventilators, shutters and frames shall be either corner crimped or fixed with self tapping stainless steel screws of approved make and quality to heavy duty extruded aluminum cleats and sealed with silicon sealant, for which nothing extra shall be paid.

Addition. NIL
Deletion. NIL
Correction. NIL
Overwriting. NIL

5.4.6 Verticals of the frame shall be embedded in the floors, wherever required up to 50mm including cutting and making good of the floor, for which nothing extra shall be paid.

5.5 **Fixing**.

5.5.1 The screws used for fixing aluminum frames to masonry walls/RCC members and aluminum members to another aluminum members shall be stainless steel of approved make and quality. Threads of machine screws used shall conform to IS: 4218.

5.5.2 The gap between frames and sill, jamb or soffit, shall be filled with approved polysulphide sealant to ensure complete water tightness. The sealant shall be of such approved colour and composition that it would not stain the masonry/RCC work. It should not set or flow and shall not set hard or dry out under any conditions of weather. The silicon sealant shall be used as required and shall match the colour of the aluminum sections. Any excess sealant shall be removed/cleared. Nothing extra shall be paid for the above.

5.5.3 Fixing of glass panes should be designed in such a way that replacing damaged/ broken glass panes is easy without having to remove or damage any members or interior finishing materials.

5.6 **Anodizing/ Electro Coloring**:

5.6.1 Aluminum sections shall be anodized as per IS: 7088 - 1973.Anodising to be done as per Grade AC-15 and shall not be less than 15 microns thick when measured as per IS: 6012, and electro colour with colour fastness rating no.8 of IS: 1868. Colour anodizing shall be done only by electro color process. No visual variation in colour shall be permitted.

5.6.2 The anodic coating shall be properly sealed by steam or by boiling in deodorized water as per IS: 1868 and or IS: 6057. Sealing quality shall be tested in accordance with the relevant standards. Nothing extra shall be paid on that account.

5.6.3 The contractor shall satisfy himself by 100% checking in the factory that the thickness of the anodic coating is found to be minimum 15 microns and sealing quality appropriate everywhere. The testing shall be done by 'eddy current method' as per IS: 6012. If thickness is found substandard, the material shall be rejected. Requisite tests shall also be carried out at site as instructed by the Engineer-in-Charge. Contractor shall arrange all the equipments required for these tests at site. Nothing extra shall be paid for the same.

5.6.4 All anodized aluminum works shall conform to relevant IS standards relating to materials, workmanship, fabrications, finishing, erection, installation etc. In this connection, IS codes including IS: 1868 – 1982, IS: 733 – 1983, IS: 1948-1961, IS: 7088-1973, 6012-1970, IS: 1285-1975, IS: 740-1975 are considered relevant and applicable.

5.6.5 A thick layer of clear transparent lacquer based on methacrylate's or cellulose styrate shall be applied on the anodized sections, before they are brought at site. The lacquer shall be removed after installations are complete or as an alternative, the exposed surface of the aluminum sections shall be provided with gummed paper tape protection. After fixing and assuring of proper functioning of doors, windows etc., such protective layer shall be cleaned out/removed. Nothing extra shall be paid for above to the contractor.

5.7 Glazing:

5.7.1 All glass panes shall be retained within aluminum framing by use of exterior grade neoprene gaskets even though PVC gaskets may be mentioned in the schedule. No water leakage shall occur on the interior even if water penetrates exterior grade neoprene gaskets. Use of glazing or caulking compounds around the perimeter of glass will not be permitted. All fixed glass panes shall be supported by setting blocks. There shall be no whistling or rattling. Before installation of glass, contractor shall ensure the following: (a) All glazing rebates shall be square, to plumb, true to plane, dry and free from dust, (b) Glass edge shall be clean and cut to exact size, (c) glazing shall provide such thermal expansion and contraction of components, as will be caused by the temperature variations inside and outside without causing buckling stress on glass, detrimental effect on structural elements and components.

5.7.2 Samples of typical glazing shall be made and got approved by the Engineer-in-Charge before mass installation taken in hand.

5.7.3 Glass in doors, windows, ventilators and fixed glazing etc. shall be of Modi, Atul, Triveni, Asahi, Saint-Gobain, Pilkington make as approved by the Engineer-in-Charge.

5.7.4 4mm (10.00 kg/sqm) thick glass panes shall be provided for openings not exceeding 0.5 sqm. Openings exceeding 0.5 sqm. in size shall be provided with 5.5 mm. to 6.00 mm thick (13.75 kg. to 15 kg/Sqm.) glass panes unless specified otherwise.

5.7.5 Panel inserts shall be exterior grade boiling water proof particle board of Novapan, Bhutan Board, Kitlam, Green Lam make.

5.7.6 Fitting and fixture shall be of best quality of Classic, Adarsh as approved by the Engineer-in-Charge.

5.8 Protection and Cleaning

After erection and removal of protective layer, all aluminum works including glass panes shall be washed with a suitable thinner and water to give a uniform clear appearance free from any marks and/or blemishes.

5.9 **Measurements**:

5.9.1 For aluminum framework, the length of each member of the frame shall be measured correct to half centimeter along the center line of the member. The weight shall then be calculated on the basis of unit weight specified in the manufacturer's catalogue. The weight shall also be calculated on the basis of the

unit weight of the corresponding sections specified in the approved drawings.

5.9.2 For purpose of payment, the least of the two weights calculated as per 5.9.1 above shall be considered subject to the condition that actual weight per meter of the respect sections is not less than the weights calculated above. In case the actual weight per meter is less, the payment then shall be made on the basis of actual weight per meter.

5.9.3 For glazing and fixed laminated inserts, actual length and breadth of glass/laminated board shall be measured correct to half a centimeter and area calculated in square meters correct to two places of decimal.

5.9.4 Weight of cleats, angles, brackets, packing pieces, separators, nuts, bolts, washers, screws and other fixtures etc. which shall be required for fabrication and erection of aluminum work shall not be considered for the purpose of payment.

5.9.5 Rate: The rate shall include the cost of labour & materials incurred in all the operation described above.

6.0 **Wood Work**

The samples of species of timber to be used shall be deposited by the contractor with the E.E. before commencement of the work. The contractor shall produce cash vouchers and certificate from standard kiln seasoning chemically pressure treatment plant operators about the timber section to be used on the work having been kiln seasoned chemically pressure treated by them, failing which it would not be to accept as kiln seasoned & chemically pressure treated.

6.1 Factory made shutter, as specified shall be obtained from factories to be approved by the Engineer-in-Charge and shall conform to IS: 2202 (Part-I) 1977. The contractor shall inform well in advance to the Engineer-in-Charge the names and address of the factory where from the contractor intends to get the shutters manufactured. The contractor will place order for manufacture of shutters only after written approval of the Engineer-in-Charge in this regard is given. The contractor is bound to abide by the decision of the Engineer-in-Charge and recommend a name of another factory from the approved list in case the factory already proposed by the contractor is not found competent to manufacture quality shutters. Shutters will, however, be accepted only, if this meets the specified tests. The contractor will also arrange stage-wise inspection of the shutters at factory by the Engineer-in-Charge or his authorized representative. Contractor will have no claim if the shutters brought at site are rejected by Engineer-in-charge in full lot due to bad workmanship/quality. Such shutters will not be measured and paid and the contractor shall remove the same from the site of work within 7 days after the written instructions in this regard are issued by Engineer-in-charge or his authorized representative.

7.0 **STEEL WORK**:

7.1 The steel doors, windows, ventilators and composite units shall be got fabricated in workshop approved by the Chief Engineer concerned.

Addition. NIL
Deletion. NIL
Correction. NIL
Overwriting. NIL

7.2 The M.S. plate clamps 15x6mm. Thick for holding arrangements are to be provided and added as per site conditions. The rate is inclusive of the cost of such clamps.

7.3 All welded steel work shall be tested for quality of weld as laid down in IS: 822-1970 before actual erection, unless otherwise specified in the nomenclature of the item.

8.0 WATER SUPPLY SANITARY INSTALLATION

8.1 The S.C.I pipe and G.I pipe wherever necessary shall be fixed to RCC columns, beams etc. with rawl plugs and nothing extra shall be paid for this.

8.2 The contractor shall be responsible of the protection of the sanitary and water supply fittings and other fittings and fixtures against pilferages and breakage during the period of installation and thereafter until the building is handed over.

8.3 **Sunken Flooring:**

The rate of items of flooring is inclusive of providing sunk flooring in W.C, bathrooms, kitchen etc. and nothing extra on this account is admissible.

9.0 VARIATION IN CONSUMPTION OF MATERIALS:

The variation in consumption of material shall be governed as per CPWD specification and clauses of the contract to the extent applicable. The following specific clauses shall govern the variation in consumption of pig lead.

10.0 VARIATION IN CONSUMPTION OF PIG LEAD

10.1 The pig lead for caulking of joints of SCI pipes shall be issued as per theoretical consumption for SCI pipes of size 100mm, 75mm, 50mm at 0.98kg, 0.88kg, and 0.77 kg. per joint respectively. Over and above the theoretical quantities of lead as worked out, variation of 5% shall be allowed for wastage etc. Any difference between the actual consumption of pig lead and theoretical consumption worked out on the above basis i/c the authorized variation shall be recovered at rates in schedule 'B' plus 10% in case material issued by department. Where the pig lead is arranged by the contractor, in case variation is on higher side 5% will be allowed. In case the variation is on lower side, the quantity of pig lead used less shall be recovered from the contractor at market rate to be determined by Engineer-in-Charge whose decision in the matter will be final.

10.2 The theoretical quantity of cement to be utilized in item of concrete involving use of single aggregate and mixed by volume batching shall be computed on the basis of the co-efficient for cement to be used in different items of the work provided in DSR 2007 reducing each of the co-efficient by 5%. However, where the concrete is mixed by weight batching no such reduction shall be made from theoretical co-efficient given in DSR 2007 for concrete with crushed stone aggregate.

Addition. NIL
Deletion. NIL
Correction. NIL
Overwriting. NIL

Sr.D/Man AE(P) EE

11.0 CONDITIONS:

11.1 The contractor will have to work according to the programmed of the work, decided by the Engineer-in-Charge. The contractor for shall also construct a sample unit complete in all respect within time specified by the Engineer-in-charge and this sample unit shall be got approved from the Engineer-in-charge before mass construction is taken up. No extra claim what so ever beyond the payments due at agreement rates will be entertained from the Contractor on this account.

11.2 The contractor shall take instructions from the Engineer-in-Charge for stacking of materials in any place. No excavated earth or building material shall be stacked or areas where other buildings, roads, services of compound walls are to be constructed.

11.3 If as per municipal rules the huts for labour are not to be erected at the site of work by the contractors, the contractors are required to provide such accommodation as is acceptable to local bodies and nothing extra shall be paid on this account.

12.0 OTHER CONDITIONS

12.1 Cement bags shall be stored in separate godowns to be constructed by contractor at his own cost as per sketch which is only indicative and actual size will depend on the site requirements as per CPWD Specification 1996 (Vol. I to VI). With C.S 1 to 19 and revised CPWD Specification 2002 for cement concrete, cement mortar and R.C.C. work in pursuance (IS: 456-2000) with weather proof roof and walls. Each godown shall be provided with a single door with two locks. The keys of one lock shall remain with CPWD Engineer-in-Charge of work and that of the other lock with the authorized agent of the contractor at the site of work so that the cement is removed from the godown according to the daily requirement with the knowledge of both the parties and proper account maintained in standard proforma.

12.2 The contractor shall be fully responsible for the safe custody of the materials even if the materials are under double lock system.

12.3 The contractor shall bear all incidental charges for cartage, storage and safe custody of materials and shall construct suitable godowns, yards at the site of work for storing all other materials so as to be safe against damage by sun, rain, damages, fire, theft etc. at his own cost and also employ necessary watch and ward establishment for the purpose at his cost.

12.4 All materials shall be got checked by the Junior Engineer-in-Charge of the works on receipt of the same at site before use.

12.5 Royalty at the prevalent rates shall have to be paid by the contractor on all the boulders, metals, shingle, sand and bajri etc. collected by him for the execution of the work, direct to the Revenue Authority or authorized agent of the State Government concerned or Central Government.

Addition. NIL
Deletion. NIL
Correction. NIL
Overwriting. NIL

Sr.D/Man AE(P) EE

12.6 For all kind of RCC works only O.P.C./Portland slag cement conforming to IS:455 shall be allowed to be used.

12.7 The contractor shall construct separate stores for storage of OPC and Portland slag cement at site and the contractor will not claim anything extra on this account.

12.8 Separate cement register showing the receipt and issue of the OPC and Portland slag cement shall be maintained at site.

13.0 TESTING OF MATERIAL

(a) The contractor shall procure all the materials in advance so that there is sufficient time for testing and approving of the material and clearance of the same before use in work.

(b) In case of concrete and reinforced concrete work, the contractor shall be required to make arrangement for carrying out compression strength tests at his own cost. He shall render all assistance for the preparation of cubes, safe custody of the same proper curing and carriage up to the laboratory where the test is to be performed. The cube tests can be performed at any laboratory approved by the Engineer-in-Charge.

(c) Time allowed for execution of the work provided in clause 5 of Schedule 'F' is inclusive of the time required for any kind of testing of materials and preparation of Design mix of cement concrete for all R.C.C. work, time required for initial load testing / routine load testing of piles and time required for testing of weld etc.

14.0 INTEGRAL WATER PROOF FINISHING:

14.1 The contractor must associate himself with the specialized firm to be approved by the Engineer-in-Charge in writing, for integral cement-based water proofing treatment for sunken floors and on roofs. 10 years guarantee in prescribed proforma to be supplied by the Engineer-in-Charge must be given by the specialized firm, which shall be countersigned by the contractor, in token of his overall responsibility. In addition, 10% (ten percent) of the cost of these items would be retained as guarantee to watch the performance of the work done. However, half of this amount (withhold) would be released after five years. If the performance of the work done is satisfactory. If any defect is noticed during the guarantee period, it should be rectified by the contractor within seven days and if not attended to the same will be got done by another agency at the risk and cost of the contractor. However, this security deposit can be released in full, if bank guarantee of equivalent amount valid for 10 years is produced and deposited with the department. Before execution of the items of integral water proofing treatment/finishing work, the contractor must submit the following details and get the same approved by the Engineer-in-charge.

a) The name of the specialized firm
b) The trade names of the product which could be used.;

Addition. NIL
Deletion. NIL
Correction. NIL
Overwriting. NIL

c) List of works where this treatment has been used.
d) Quantity of chlorides and sulphides used in the product.
e) Rate/Rates quoted by the contractor shall include for all leads and lifts.

15.0 **INTEGRAL CEMENT BASED WATER PROOFING TREATMENT**.

15.1 Treatment for roof surface

15.1.1 The brick bats shall be from well burnt bricks. The water-proofing compound shall conform to I.S: 2645-1975. Before execution of work, water proofing compound has to be brought to site from which random sample would be got tested and a certificate of its conforming to I.S code should be produced. The water-proofing compound shall be added at the rate recommended by the specialist firm but not exceeding 8% percent by weight of cement.

15.1.2 The finished surface after water proofing treatment shall have minimum slope of 1 in 80. At no point shall the thickness of water proofing treatment to be less than 65mm.

15.1.3 While treatment of roof surface is done, it shall be ensured that the outlet drain pipes have been fixed and mouths at the entrance have been eased and rounded off properly for easy flow of water.

15.1.4 The surface where the water proofing is to be done shall be thoroughly cleared with wire brushes. All loose scales shall be removed and dusted off. The surface shall be treated with neat cement slurry admixed with water proofing compound, to penetrate into crevices and fill up all the pores in the surface. This cement slurry shall be applied at the junction of parapet and terrace slab by injection process.

15.1.5 After the slurry coat is laid layer of well burnt brick bats shall be laid in cement mortar of mix as specified by the specialist firm but not leaner than 1:5 (1 Cement: 5 coarse sand) admixed with water proofing compound to required gradient and joints filled to half the depth. The brickbat layer shall be rounded at the junction with the parapet and tapered towards top for a height of 300m. Curing of this layer shall be done for 2 days.

15.1.6 After curing, the surfaces shall be applied with a coat of cement slurry admixed with water proofing compound.

15.1.7 Joints of brick bat layer shall be filled fully with cement mortar of mix as specified by the specialist firm but not leaner than 1:4 (1Cement: 4 coarse sand) admixed with water proofing compound and finally top finished with average 20mm thick layer of same mortar and finished smooth with cement slurry admixed with water proofing compound. The finished surface shall have marking of 300x300mm false squares to give the appearance of tiles.

15.1.8 Curing of water proofing treatment shall be done for a minimum period of two weeks.

15.1.9 Measurements

Addition. NIL
Deletion. NIL
Correction. NIL
Overwriting. NIL

Sr.D/Man AE(P) EE

The measurements shall be taken along the finished surface of treatment including the rounded and tapered portion at junction of parapet wall. Length/ breadth shall be measured correct to one centimeter and area shall be worked out to nearest 0.01 sq. m. No deduction in measurements shall be made for either opening or recesses for chimneys, stacks, roof lights and the like for areas up to 0.40 Sq. m. nor anything shall be paid for forming such openings. For similar areas exceeding 0.40 Sqm. Deductions will be made in measurements for full openings and nothing extra shall be paid for making such openings.

15.1.10 RATES

The rate shall include the cost of all labour and materials involved in all the operation described above.

16.0 MARBLE STONE SLAB WORK

16.1 The marble stone slab work wherever specified in this contract / tender documents, the thickness should be considered as 16 mm in place of 18 mm and correspondingly the thickness of bed mortar shall be 24 mm.

16.2 Flooring work is to be executed as per flooring pattern shown in Arch. Drawings and as per direction of Engineer-in-Charge for which nothing extra will be paid.

16.3 The size of tiles/marble stone/Granite stone in dado/skirting is to be provided as shown in Architectural drawings.

17.0 WARRENTY CARD WHEREEVER APPLICABLE

Wherever applicable, the product which comes with manufacture warrantee/guarantee shall be available by the agency and such warrantee/guarantee shall be available by the agency and such warrantee/guarantee should be handed over to the Engineer-in-charge.

18.0 FLOORING

i. The rate of items of flooring is inclusive of Providing Sunken Flooring in Bathrooms, Kitchen, W.C., etc. and nothing extra on this account is admissible.
ii. All the work in general shall be carried out as per CPWD Specifications 2019.
iii. The vitrified tiles shall be double charged. The tiles shall be of specified colors as shown in the drawings and will be laid in pattern as per architectural drawings. Nothing extra shall be paid for laying tiles in specific pattern. The tiles shall be of first quality of approved make.
iv. Proper gradient shall be given to flooring for toilets, verandah, kitchen, courtyard etc. so that the wash water flows towards the direction of floor trap. Any reverse

slop if found, shall be made good by the contractor by ripping open the floor/grading concrete and nothing shall be paid for such rectifications.

v. The flooring and skirting will be executed as per pattern shown in the Architectural drawings and as per approval of Engineer-in-Charge and nothing extra shall be payable on this account.

vi. Samples of flooring material are to be deposited well in advance to the Engineer-in-Charge for approval. Approved samples should be kept at site with the Engineer-in-Charge and the same shall not be removed except with the written permission of Engineer-in-Charge. No payment whatsoever will be made for these samples.

vii. The rate shall include the cost of all materials and labour involved in all the operations. Nothing extra shall be paid for use of cut/sawn tiles in the work.

Addition. NIL
Deletion. NIL
Correction. NIL
Overwriting. NIL

Sr.D/Man AE(P) EE

PREFERRED MAKES FOR CIVIL WORK

(1) The Contractor shall obtain approval from the Engineer-In-Charge before placing order for any specific material or engaging any of the specialized agencies.

(2) Wherever applicable. The Engineer-In-Charge may approve any material equivalent to that specified in the tender subject to proof being offered by the Contractor for equivalence to his satisfaction.

(3) Unless otherwise specified, in the tender document all the materials which are ISI Marked shall be used in the work and if the ISI marked materials are not available, materials conforming to IS shall be used, and for the materials which are neither ISI marked nor conform to IS, the manufacturer's Specification shall be followed.

SL. NO.	MATERIALS	APPROVED MAKE
1.	Portland Pozzolana Cement	ACC / ULTRATECH /AMBUJA / JK CEMENT / BIRLA
2.	White Cement	BIRLA WHITE / J. K WHITE / ASIAN PAINTS
3.	Reinforcement Steel	SAIL / TATA STEEL LTD. / RINL / JINDAL STEEL & POWER LTD / JSW
4.	Parallel Threaded Couplers	DEXTRA / G-TECH / SANFIELD
5.	Re-barring Chemical	HILTI / 3M INDIA / FISCHER/WURTH
6.	Structural Steel	TATA/ JSW STEEL LTD/ SAIL/ JINDAL STEEL & POWER LTD./ RINL
7.	Plasticizer, Super Plasticizer, Admixtures, Other construction chemicals	M.C. BAUCHEMIE / FOSROC / SIKA / BASF/ PIDILITE / FIRSTCHOICE/ CRYSO / ECMAS / STP LIMITED
8.	AAC Block	ULTRATECH / AEROCON / BILTECH / JK LAXMI / MAGICRETE / XTRALITE
9.	AAC Block Adhesive	ULTRATECH / FERROUS CRETE / BAL ENDURA / FIRSTCHOICE / AEROCON / J K LAXMI / SIKA BLOCK JOINTING MORTAR
10.	Polymer modified cementitious grout	BAL ENDURA / WEBER / MYK LATICRETE / FERROUS-CRETE
11.	List of RMC producers	ULTRATECH / ACC / FIRSTCHOICE READYMIX/ LAFARGE (NUVOCO) / L&T
12.	Curing Compound	FOSROC / SIKA / PIDILITE / STP / CICO / FIRSTCHOICE / BASF
13.	Expansion Joint- modular	HERCULES / Z-Tech / SANFIELD/KANTA FLEX (INDIA) PVT. LTD.
14.	Shuttering Ply	MERINO/GREENLAM/CENTURY / ARCHIDPLY /KITLAM
WATERPOOFING:		
15.	Waterproofing Self Adhesive (HDPE) Membrane	GRACE / FOSROC / FIRSTCHOICE / MYK SCHOMBURG / STP LIMITED / PIDILITE

Addition. NIL
Deletion. NIL
Correction. NIL
Overwriting. NIL

Sr.D/Man AE(P) EE

SL. NO.	MATERIALS	APPROVED MAKE
16.	Single Component Liquid PU Elastomeric Membrane (spray applied) for Deck Waterproofing	BASF / SIKA / FOSROC/ MYK SCHOMBURG/ FIRSTCHOICE/ GRACE / STP LIMITED / PIDILITE
17.	Two component liquid Elastomeric Polyurea Polyurethane hybrid membrane	BASF /FIRSTCHOICE/ SIKA / FOSROC/ MYK SCHOMBURG / STP LIMITED / PIDILITE
18.	Waterproofing Compound (Crystalline) and Swellable Bar	XYPEX / KRYTON / PENETRON / BASF/FIRSTCHOICE / SIKA / FOSROC / MYK SCHOMBURG / GRACE/VENDEX / STP LIMITED
19.	Polymeric Cementitious Coating	FOSROC/ STP LIMITED / PIDILITE / FIRSTCHOICE/ BASF
20.	Elastomeric Acrylic UV resistant liquid applied coating	BASF/ FOSROC/ FIRSTCHOICE / SIKA / STP LIMITED
DOOR, WINDOWS & WOOD WORK:		
21.	Laminated Particle Board / Particle board / Laminates / Plywood	MERINO / GREENLAM / CENTURY / EUROPLY / ACTION-TESA
22.	Veneered Particle Board	MERINO / DURO / GREENLAM
23.	S.S Mesh	GKD / WMW
24.	Flush door shutters	GREENPLY / DURO / MERINO / CENTURY
25.	Glass wool Insulation	UP TWIGA / POLY GLASS / LLOYDS/OWENSCORNING
26.	Rock Wool Insulation	LLOYDS / ROXUL ROCKWOOL
27.	Polycarbonate Sheet	GE LEXAN / DANPALON/ GALLINA/PALRAM/DPI/SUNPAL
28.	Decking Steel sheet	TATA STEEL / LLOYDS / JSW
29.	Natural wood veneer	SONEAR / GREEN PLY / TRUWOOD
30.	Anti-static high-pressure laminate	FORMICA / BAKELITE HYLAM / DECOLAM / MERINO / KITMICA
31.	Fire Sealant	HILTI / 3M INDIA / FISCHER/WURTH
32.	Extruded Polystyrene Board	STP/SUPREME/ OWNESCORNING / SHALIMAR
33.	Wooden / Metal / Glazed / Acoustic - Fire Rated Door Shutters	NAVAIR / KUTTY / SHAKTIMAT / SAINT GOBAIN / PACIFIC / BHAWANI FIRE
34.	UPVC Doors & Windows	FENESTA / ALUPLAST / ENCRAFT / REHAU / LG-HAUSYS / DUROPLAST / GEALAN / SIMTA ASTRIX / KOMMERLING/MARG
35.	Fire rated glass (2 hours fire rating)	SAINT GOBAIN / PYROGUARD / SCHOTT / ASAHI
36.	PVC DOORS FRAME & SHUTTERS	POLYLINE, DUROPLAST, RAJSHRI
FINISHING:		
37.	Melamine Polish	ASIAN PAINTS/PIDILITE INDUSTRIES / DULUX / BERGER
38.	Polyester Powder Coating Shades	NEROLAC/BERGER/ AKZONOBEL (DULUX)

Addition. NIL
Deletion. NIL
Correction. NIL
Overwriting. NIL

Sr.D/Man AE(P) EE

SL. NO.	MATERIALS	APPROVED MAKE
39.	Wall Putty	BIRLA WHITE / JK WHITE / BERGER / ASIAN
40.	Oil Bound Washable Distemper	ASIAN PAINTS / BERGER / NEROLAC / ICI / AKZONOBEL (DULUX)
41.	Acrylic Distemper	BERGER / ASIAN / DULUX / NEROLAC
42.	Cement Primer	BP WHITE (BERGER) / DECOPRIME WT (ASIAN) / NEROLAC / AKZONOBEL(DULUX)
43.	Steel / Wood Primer	AKZONOBEL (DULUX)/ NEROLAC / BERGER / ASIAN PAINT / JENSON & NICHOLSON
44.	Adhesives	ANCHOR / DUNLOP / PIDILITE-FEVICOL
45.	Premium Acrylic Emulsion paints	AKZONOBEL (DULUX)/ NEROLAC / ASIAN PAINTS / BERGER
46.	Textured Exterior Finish	ASIAN (ULTIMA) / BERGER (WEATHER COAT ALL GUARD) / DULUX AKZONOBEL (ULTRA CLEAN) / NEROLAC (EXCEL TOTAL) / ULTRATECH (UTTPL)
47.	Synthetic Enamel Paint	ASIAN / BERGER / NEROLAC / AKZONOBEL (DULUX)
48.	Epoxy Paint	AKZONOBEL (DULUX) / NEROLAC / ASIAN PAINTS / ICI / BERGER
49.	Fire Paint	ASIAN PAINT / BERGER PAINTS / SHALIMAR / JOTUN / AKZONOBEL (DULUX)
50.	Gypsum Plaster	FERROUSCRETE / ULTRATECH / INDIA GYPSUM / ELITE (90) OF GYPROC
51.	Cement based Ready Mix Plaster	FERROUSCRETE / ULTRATECH / SAINT GOBAIN / FIRSTCHOICE
52.	Pre-Cast GRC Jali	UNISTONE / KERAKROME GRC
53.	Polysulphide sealant	FOSROC / SIKA / TUFFSEAL / PIDILITE / WACKER / DOW CORNING / GE / STP
54.	Silicone / Weather Sealant	WACKER / DOW CORNING / GE
55.	Wall Paper	EGO / VESCOM / ASIAN PAINTS / MURASPEC / MARSHALLS
56.	Vinyl Graphic	3M, AVERY DENNISION, LUMAR
STEEL & ALUMINIUM WORKS:		
57.	Stainless Steel	SALEM STEEL / JINDAL ALLOYS / SAIL
58.	Welding Electrodes	ADVANI-OERLIKON / MODI
59.	Dash / Anchoring Fasteners	HILTI / FISHER / BOSCH / AXEL / WURTH
60.	Anodized Aluminum Hardware (Heavy Duty)	HARDIMA / ALUALPHA / PULSE OFLGF / SYSMAC / HINDALCO / EVERITE

Addition. NIL
Deletion. NIL
Correction. NIL
Overwriting. NIL

Sr.D/Man AE(P) EE

SL. NO.	MATERIALS	APPROVED MAKE
61.	Aluminum Structural Members – Windows, Glazing and Partitions	JINDAL / HINDALCO / NALCO /INDALCO
62.	Stainless Steel Railing, Accessories etc. (Grade SS 316)	OZONE / GEZE / KICH / DORMA / HETTICH
63.	G. I Steel door frame	SYNERGY THRISLINGTON / SHAKTIMET / NAVAIR
CEILINGS:		
64.	False ceiling Grid system	GYPROC / GRIDLINE / RK / GRIDSYSTEM
65.	False Ceiling – Gypsum Board and Sections	SAINT GOBAIN GYPROC / INDIA GYPSUM /AMF / USG BORAL
66.	Metallic / Wooden Modular False Ceiling	ARMSTRONG / DURLUM / HUNTER DOUGLAS / SAINT GOBAIN/VINDSIL
67.	Acoustical Tile False ceiling	ARMSTRONG / SAINT GOBAIN / ECOPHON / DEXUNE / ANUTONE / AMF
68.	Calcium silicate ceiling tiles / Board	HILUX / ARMSTRONG (MYLAR) / EVEREST / NCL
69.	Aluminum Composite Panel	ALUCOBOND / ALPOLIC / ALUDECOR / REYNOBOND
70.	Acrylic Solid Surfaces	HANEX / L.G-HIMAC / DUPONT
71.	GRG Panel False ceiling	DIAMOND / AEROCEIL / SAINT GOBAIN
FLOORING/ WALL TILES:		
72.	Glass Mosaic Tiles	BISAZZA / MRIDUL / OPIO / PALLADIO / ITALIA GLASS
73.	Floor & Wall Tiles:	
	(a) Ceramic tiles	KAJARIA / H&R JOHNSON / SOMANY/VARMORA/ORIENTBELL /RAK / ASIAN (AGL)
	(b) Vitrified tiles	KAJARIA / H&R JOHNSON / SOMANY/VARMORA/ORIENTBELL /RAK / ASIAN (AGL)
74.	PVC Flooring	ARMSTRONG / TARKETT / LG HAUSYS
75.	Laminated flooring	ACTION / TESA / PERGO
76.	Engineered stone - Marble / Quartz	ASIAN / JOHNSON / VARMORA/ KALINGA / QUTONE
77.	Chequered Tiles, Paver Block & Kerb Stone (of Non-Recycled C&D Waste)	OVILITE / UNISTONE / HINDUSTAN / KK / ULTRA / DALAL TILES / NITCO
78.	Tile / Stone Adhesive / Tile Grout	PIDILITE / FERROUSCRETE / BALLENDURA/VARMORA/ FIRSTCHOICE / MYK LATICRETE
79.	Floor hardener	PIDITOP 333 BY PIDILITE / FOSROC / SIKA / IRONITE / FERROK / HARDONITE / FIRSTCHOICE
80.	Epoxy Flooring	FOSROC / SIKA / FIRSTCHOICE / CICO / LATICRETE / BASF

Addition. NIL
Deletion. NIL
Correction. NIL
Overwriting. NIL

Sr.D/Man AE(P) EE

SL. NO.	MATERIALS	APPROVED MAKE
81.	Heat Resistant Tiles	THERMATEK//ORIENTBELL /NATIONAL/VARMORA/ASIAN (AGL)/THERMAX/JOHNSON
82.	Floor Trap	JAYNA / CHILLI / NIRALI
GLAZINGS:		
83.	Glazing Structural / Suspended / Skylight / clear / float / frosted	SAINT GOBAIN / PYROGUARD / ASAHI
84.	Clear / Float / Frosted Glass / Mirror	ASAHI / MODIGUARD / SAINT GOBAIN
85.	Glass Spider Fittings	DORMA / HAFELE / OZONE
86.	Toughened Glass / Hermetically sealed performance glass	SAINT GOBAIN / MODIGUARD/ ASAHI / SCHOTT
HARDWARE:		
87.	Nuts / Bolts & Screws	GKW / HILTI / ATUL / WURTH
88.	Clamp system for dry stone cladding	HILTI / FISCHER / BOSCH / AXEL / WURTH
89.	Hinges & Brassware	EARL BIHARI / KICH / ASSA-ABLOY / HAFELE / GEZE / DORMA / DORSET
90.	MDF Board	NUWOOD / DURATUFF
91.	Vitreous Chinaware	HINDWARE / JOHNSON / CERA / PARRYWARE
92.	All type of hardware and fitting for all type of glazing / doors/ windows etc. including mortise latch & lock, tower bolt, ball bearing butt hinges, friction stay hinges, sliding door bolts, lever handle, magic eye door closer etc.	DORMA / HAFELE / GEZE / GODREJ / BACKEN / HETTICH / DORSET
93.	Toilet Cubicles	MERINO / GREENLAM / DORMA / STYLAM
94.	Hardware for Fire Check Door / panic bar / panic trim / door closer / hinges/ mortise lock / dead lock etc.	DORMA / GEZE / HAFELE / BACKEN
95.	EPDM Gasket	HANU / ANAND / OSAKA
PLUMBING & SANITARY:		
96.	Stainless Steel Pipes	JINDAL / RAMPART / J-PRESS / REMI
97.	HDPE/HDPE DWC pipes	JAIN / KAISTA / RELIANCE
98.	Polypropylene pipes	REHAU / POLOPLAST / HULIOT / ASTRAL / HINDWARE
99.	GI Pipes	JINDAL (HISAR) / TATA / SURYA PRAKASH
100.	GI Fittings	UNIK / ZOLOTO / SURYA
101.	DI Pipes	ELECTROSTEEL (VEDANTA) / JINDAL / TATA DUCTURA
102.	DI Fittings	ELECTROSTEEL (VEDANTA) / KALINGA / TATA DUCTURA
103.	CI Double flanged sluice valve	KIRLOSKAR / SONDHI / KEJRIWAL
104.	Float Valve	LEADER / ZOLOTO / KSB/ PRAYAG
105.	Centrifugally Cast (Spun) Iron Pipes & Fittings	JAYSWAL NECO / RIF / HEPCO / BIC
106.	Centrifugally Cast (Spun) Iron (Class LA) Pipes	JAYSWAL NECO / ELECTRO STEEL / TATA

Addition. NIL
Deletion. NIL
Correction. NIL
Overwriting. NIL

Sr.D/Man AE(P) EE

SL. NO.	MATERIALS	APPROVED MAKE
107.	CI Manhole covers, Frames & GI Gratings	JAYASAWAL NECO / RIF / HEPCO / BIC
108.	SFRC Manhole Covers & Gratings	KK / OCR / BIC / PARGATI / T-CON
109.	Stoneware Pipes and Gully Traps	PERFECT / PARRY / BURN / ANAND / RK / HIND
110.	RCC Manhole covers & Frames	KK MANHOLE / BIC / GRATING CO. (P) LTD
111.	Gun Metal Valves, Globes	ZOLOTO / CASTLE / KARTAR
112.	Sanitary CP Fittings & Accessories	ROCA / KEROVIT/ KOHLER / CERA / PARIWARE / HINDWARE/ PRAYAG
113.	Vitreous Chinaware	HINDWARE/ PARIWARE / ROCA / KOHLER/VARMORA/KEROVIT / CERA
114.	Water Meter	PRIMA / ZOLOTO / LEADER / CAPSTAN
115.	Brass Stop & Bib Cock	ZOLOTO / SANT / L&K / LEADER / ASTRAL/PRAYAG
116.	UPVC / CPVC Pipe & Fittings	AKG / ASTRAL / SUPREME / FINOLEX / SFMC / HINDWARE/ PRAYAG
117.	Non-Return Valve (Check valve) and other kind of Valves	ZOLOTO / SANT / LEADER
118.	Brass Ferrules	DHAWAN SANITARY UDYOG / KALSI / ANNAPURNA
119.	Insulation for hot water pipes	KAIFLEX / ARMAFLEX / CAREFLEX / LLOYD
120.	Insulation for external / exposed hot water pipes	KAIFLEX / ARMAFLEX / CAREFLEX
121.	Pipe protection for external water supply pipes	PYPKOTE / ARMAFLEX / MAKPOLYKOTE
122.	Stainless Steel Sink	NEELKANTH / NIRALI / CERA / JAYNA / KINGSTON/ PRAYAG
123.	RCC Pipes	LAKSHMI / SOOD & SOOD / JAIN & CO. / PRAGATI CONCRETE
124.	Sandwich PU Paneled Roofing Sheet	LIOYD INSULATION (INDIA) LTD. / JINDAL / MECTEC PVT. LTD. / TATA
125.	Galvalume Sheet	LIOYD (INDIA) LTD. / JSW / TATA / BLUESCOPE
126.	Acoustic Panels for Wall Paneling	ARMSTRONG / ANUTONE / SAINT-GOBAIN
127.	Self-Drilling Screws	CORROSHIELD / HILTI / EJOT
128.	GRG Plaster Board	SAINT-GOBAIN / ANUTONE KNAUFF / USG /BORAL
129.	ESD Vinyl Flooring	LG / GERFLOR / ARMSTRONG
130.	Under Deck Insulation	LIOYD INSULATION / SAINT-GOBAIN / ANUTONE KNAUFF /ASAWA / TWINGERIRSUL
131.	Expanded Rigid Polystyrene Pad Insulation	TWINGERIRSUL / LIOYD INSULATION / SAINT-GOBAIN / ANUTONE KNAUFF /
132.	Cementitious Polymer Modified Self-Levelling compound	SIKA / ARDER ENDURA / FOSROC / BASF

Addition. NIL
Deletion. NIL
Correction. NIL
Overwriting. NIL

Sr.D/Man AE(P) EE

SL. NO.	MATERIALS	APPROVED MAKE
133.	Sandwiched PUF Galvanized / Galvalume Sheet	LIOYD (INDIA) LTD. / JSW / TATA / BLUESCOPE / BHUSAN
134.	Rockwall Insulation Board	LIOYD INSULATION / ROCK INDIA PVT. LTD. / TWIGAFIFER / SUPREME
135.	Tensile Fabric	MEHLAR/FERRARI
136.	RO Plant	Oasis, Bluestar, A.O. Smith, Eureka, Forbes
137.	Modular Furniture	GODREJ/FEATHERLITE/DURIAN
138.	EV Charger (AC & DC)	WURTH, DELTA, ABB
139.	Core Cutting	WURTH, TYROLIT, RIPPLE
140.	Water Storage Tank	PRAYAG

All fitting shall have ISI marked on its body wherever applicable.

Note : - Chief Engineer, CPWD, Kolkata reserves the right to add or delete any materials and Brands in the list of approved materials/brands on the recommendations of Engineer-in-charge. Unless otherwise specified in the tender document, all the materials which are ISI marked shall be used in the work and if the ISI marked materials are not available, materials confirming to ISI shall be used, and for materials which are neither BIS marked nor confirm to BIS, the manufacturers specification shall be used with prior approval of Engineer-in-charge.

Addition. NIL
Deletion. NIL
Correction. NIL
Overwriting. NIL

Sr.D/Man AE(P) EE

RECEIPT OF DEPOSITION OF ORIGINAL EMD

(Receipt No...../date.....)

NAME OF WORK : A/R & M/O Residential Building at Regional Meteorological Centre, Alipore. Kolkata during-2026-27. SH: - Day to day maintenance of sanitary and water supply and Misc. Civil works.

1.	**NIT No.**	**:-**	**125/EE/KCD-IV/CPWD/2026-27**
2.	**Estimated Cost**	**:-**	**Rs.19,30,832.00**
3.	**Amount of Earnest Money Deposit**	**:-**	**Rs.38,617.00**
4.	**Last date of submission of bid**	**:-**	**__10__ / __11__ / 2026__ at 03:00 P.M.**

(____ to be filled by Executive Engineer / Kolkata - IV at the time of issue of NIT and uploaded along with NIT)**

5.	**Name of contractor**	**:-**	**_____***_____**
6.	**Form of EMD**	**:-**	**_____***_____**
7.	**Amount of Earnest money deposit**	**:-**	**_____***_____**
8.	**Date of submission of EMD**	**:-**	**_____***_____**

(___*___ to be filled by EMD receiving EE)**

Signature, Name and Designation of EMD receiving officer (EE/AE(P)/AE/AAO) along with Office stamp

Addition. NIL
Deletion. NIL
Correction. NIL
Overwriting. NIL

Sr.D/Man AE(P) EE