

PART –A

INFORMATIONS AND INSTRUCTIONS FOR CONTRACTORS FOR e TENDERING, CPWD 6 AND 7, AND GUARANTEE BOND

**INFORMATION AND INSTRUCTIONS FOR BIDDERS FOR E-TENDERING FORMING
PART OF BID DOCUMENT AND TO BE POSTED ON WEBSITE
(Applicable for inviting open bids)**

The Executive Engineer, CPWD, Public Library Building, Shastri Road, Kottayam-686001 (Phone No 0481-2583214 **Email:** eecpwdktm@yahoo.co.in) invites on behalf of the President of India online percentage rate bids from approved and eligible composite/building/Infrastructure category contractors of CPWD for the following work(s):

S. No.	NIT No.	Name of work & Location	Estimated cost put to bid	Earnest Money	Period of Completion	Last date of online submission of bid, copy of receipt of deposition of original EMD and other documents as specified in the bid document	Time & date of opening of bid.
1	2	3	4	5	6	7	8
	11/2026-27/KCD/Kottayam/R3	Providing sheet roofing after dismantling the existing damaged roof of PD Building at CCRI Kalavoor, Alappuzha	Rs.69,25,043/-	Rs. 1,38,501/-	270 (Two hundred and seventy) Days	Up to 03.00 PM on 07.09.2026	After 3.30 PM on 07.09.2026

Instruction to Bidders

1. The intending bidder must read the terms and conditions of CPWD-6 carefully. He should submit his bid if only he considers himself eligible and he is in possession of all the documents required.
2. Information and Instructions for bidders will form part of NIT and to be uploaded on <https://etender.cpwd.gov.in> website.
3. The bid document consisting of plans, specifications, the schedules of quantities of various types of items to be executed and 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> or www.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 **(the EMD document shall only be issued from the place in which the office of receiving division office is situated)** and uploading the mandatory scanned documents such as Demand draft or Pay order or Bankers Cheque or Deposit at call Receipt or Fixed Deposit Receipts and Bank Guarantee of any scheduled Bank towards EMD 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.

A part of earnest money (EMD) is acceptable in the form of bank guarantee also. In such cases, 50% of earnest money or Rs. 20 Lakh whichever is less, will have to be deposited in shape prescribed above and balance can be accepted in form of Bank Guarantee issued by a scheduled bank. The bank guarantee submitted as a part of Earnest Money shall be valid for a period of six months or more from the last date of submission of bid.

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 before hand. 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 the 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 JPG format and PDF format. **Bidder should ensure that the document uploaded is legible and full documents page is properly scanned.**
9. Contractor must ensure to quote **the percentage** 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.

10. If the contractor is found ineligible after opening of bids, his bid shall become invalid.
11. If any discrepancy is noticed between the documents as uploaded at the time of submission of bid and the hard copies as submitted by the lowest bidder, the bid shall become invalid.

12. LIST OF DOCUMENTS TO BE SCANNED AND UPLOADED WITHIN THE PERIOD OF BID SUBMISSION:

- (i) Treasury Challan/Demand Draft/Pay order or Banker's Cheque /Deposit at Call Receipt/FDR/ Bank Guarantee of any Scheduled Bank against EMD
- (ii) Copy of receipt for deposition of original EMD issued from division office of any Executive Engineer, CPWD. (The EMD document shall be issued from the place in which the office of receiving division office is situated).
- (iii) Enlistment Order of the Contractor
- (iv) Affidavit of Not having Blacklisted/Debarred on a Non -Judicial Stamp paper worth Rs.200/- (Form –'A') attested by Notary.
- (v) Undertaking on structural stability and soundness as per prescribed format Form 'B'.
- (vi) Undertaking for site inspection (intending bidder must upload undertaking that they have inspected and examined the site and its surrounding before submitting their bids. (Form 'C').
- (vii) Certificate of having attended the compulsory ERP training by either the bidder or their authorized representative issued through LMS (Learning Management System) portal in ERP. In case of authorized representative, authorization by the bidder shall also be uploaded.
- (viii) GST Registration Certificate, if already obtained by the bidder.

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

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

The bidder shall upload scanned copies of all the documents stipulated in the bid document. (Including GST Registration and **copy of EMD** uploaded as stipulated in the bid documents).

13. Tendered Amount quoted by the contractor is final and inclusive of GST etc. and nothing extra shall be paid. Necessary deduction for GST shall be made as per prevailing rules.
14. The bid become not eligible if bidder does not upload scanned copies of all the documents stipulated in the bid document (including GST Registration and as stipulated in the bid documents)..

**** However, the successful L1 bidder has to submit the original hard copy of the above uploaded documents to the Engineer-in-charge for the purpose of verification within a week time.**

On non-judicial stamp paper of minimum Rs.100/-

(Guarantee offered by Bank to CPWD in connection with the execution of contracts)

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

1. Whereas the Executive Engineer Kottayam, CPWD, Kottayam on behalf of the President of India (hereinafter called "The Government") has invited bids under NIT No. **11/2026-27/KCD/Kottayam/R3** dated For the work of **"Providing sheet roofing after dismantling the existing damaged roof of PD Building at CCRI Kalavoor, Alappuzha."** The Government has further agreed to accept irrevocable Bank Guarantee for Rs..... (Rupees only) valid up to (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 Kottayam, CPWD, Kottayam on behalf of the President of India (hereinafter called "The Government") has entered into an agreement bearing No. with (Name and address of the contractor) ... (hereinafter called the "the contractor") for execution of work of **"Providing sheet roofing after dismantling the existing damaged roof of PD Building at CCRI Kalavoor, Alappuzha."** The Government has further agreed to accept irrevocable Bank Guarantee for Rs. (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 to as "the Bank") hereby undertake to pay to the Government an amount not exceeding Rs..... (Rupees.....only) on demand by the Government within 10 days of the demand.
3. We (Indicate the name of the Bank), do hereby undertake to pay the amount due and payable under this Guarantee without any demure, 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 Contractors. Any such demand made on the Bank shall be conclusive as regards the amount due and payable by the Bank under this Guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs..... (Rupees only).
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 contractors 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 obligations hereunder to vary any of the terms and conditions of the said agreement or to extend time of performance by the said Contractor from time to time or to postpone for any time or from time to time any of the powers exercisable by the Government against the said contractor and to forbear or enforce any of the terms and conditions relating to the said agreement and we shall not be relieved from our liability by reason of any such variation or extension being granted to the said Contractors or for any forbearance, act of omission on the part of the Government or any indulgence by the Government to the said Contractor or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.

6. We, (indicate the name of the Bank), further agree that the Government at its option shall be entitled to enforce this Guarantee against the Bank as a principal debtor at the first instance without proceeding against the contractor and notwithstanding any security or other guarantee the Government may have in relation to the Contractor's liabilities.
7. This guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor.
8. We (indicate the name of the Bank), undertake not to revoke this guarantee except with the consent of the Government in writing.
9. This Bank Guarantee shall be valid up to unless extended on demand by the Government. Notwithstanding anything mentioned above, our liability against this guarantee is restricted to Rs. (Rupees_____only) and unless a claim in writing is lodged with us within the date of expiry or extended date of expiry of this guarantee, all our liabilities under this guarantee shall stand discharged.

Date

Witnesses:

1. Signagture	Authorized Signatory
Name & Address	Name
	Designation
	Staff Code No.
	Bank Seal

1. Signagture
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.

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

INFORMATION AND INSTRUCTIONS FOR EXECUTIVE ENGINEER for e-TENDERING

1. The Executive Engineer of any division/projects or any other officer designated by CPWD Directorate from time to time are authorized to receive the original EMD for tender or tenders of any other division/projects.
2. The Executive Engineer at the time of issue of NIT shall also fill and upload the following prescribed format of receipt of deposition of original EMD along with NIT:

Receipt of deposition of original EMD	
(Receipt No...../ Date.....)	
1. Name of Work:	Providing sheet roofing after dismantling the existing damaged roof of PD Building at CCRI Kalavoor, Alappuzha.
2. NIT No.	: 11/2026-27/KCD/Kottayam/R3
3. Estimated Cost	: Rs. 69,25,043/-
4. Amount of Earnest Money Deposit	: Rs.1,38,501/-
5. Last date of submission of bid:	: *up to 03.00 PM on 07.09.2026
1. Name of Contractor	:
2. Form of EMD	:
3. Amount of Earnest Money Deposit	:
4. Date of submission of EMD	:
Signature, Name and Designation of EMD receiving officer (EE/AE(P)/AE/AAO) along with Office stamp. <i>*# to be filled by EMD receiving EE/DDH</i>	

3. The Executive Engineer receiving EMD in original form examines the EMD deposited by the bidder and issues a receipt of deposition of earnest money to the agency in a given format uploaded by tender inviting authority. The receipt may be issued by any subordinate gazetted authority authorized by EE /Engineer-in-charge/DDH.
4. The Executive Engineer receiving original EMD also intimates tender inviting Executive Engineer about deposition of EMD by the agency by email/fax/telephonically.
5. The original EMD receiving Executive Engineer releases the EMD to unsuccessful bidders after the expiry of stipulated bid validity period or immediately after acceptance of the successful bidder, whichever is earlier, after verification from the e-tendering portal website (<https://etender.cpwd.gov.in> >closed Tender>all that the particular contractor is not L-1 tenderer and work is awarded.
6. **The tender inviting Executive Engineer will call for original EMD of the L-1 tenderer from EMD receiving**

**GOVERNMENT OF INDIA
CENTRAL PUBLIC WORKS DEPARTMENT
CPWD-6 FOR e-TENDERING**

1. Online Percentage rate bids are invited on behalf of President of India from approved and eligible composite/building category contractors of CPWD for the work of **Providing sheet roofing after dismantling the existing damaged roof of PD Building at CCRI Kalavoor, Alappuzha.**

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.

The work is estimated to cost **Rs.69,25,043/-** This estimate, however, is given merely as a rough guide.

2. Agreement shall be drawn with the successful bidders on prescribed Form No. **CPWD 7** which is available as a Govt. of India Publication and also available on website www.cpwd.gov.in. Bidders shall quote his rates as per various terms and conditions of the said form which will form part of the agreement.
3. The time allowed for carrying out the work will be **270 (Two hundred and seventy) Days** from the date of start as defined in schedule 'F' or from the first date of handing over of the site, whichever is later, in accordance with the phasing, if any, indicated in the bid documents.
4. The site for the work is available.
5. The bid document consisting of plans, specifications, the schedule of quantities of various items to be executed and the terms and conditions of the contract and other necessary documents except Standard General Conditions of Contract can be seen on website www.etender.cpwd.gov.in **free of cost.**
6. After submission of the bid the contractor can re-submit revised bid any number of times but before last time and date of submission of bid as notified.
7. The Earnest Money in the form of Treasury Challan or Demand Draft or Pay order or Banker's Cheque or Deposit at Call Receipt or Fixed Deposit Receipt (**drawn in favour of Executive Engineer, CPWD, Kottayam**) shall be scanned and uploaded to the e- Tendering websites 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 document shall only be issued from the place in which the office of receiving division office situated). The EMD receiving Executive Engineer shall issue a receipt of deposition of earnest money deposit to the bidder in a prescribed format uploaded by tender inviting EE in the NIT. This receipt shall also be uploaded to the e-tendering web site by the intending bidder up to the specified bid submission date and time. 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 lakh, whichever is less, shall have to be deposited in shape prescribed above, and balance may be deposited in shape of Bank Guarantee of any scheduled bank having validity for **ninety days** or more from the last date of receipt of bids which is to be scanned and uploaded by the intending bidders. Online bid documents submitted by intending bidders shall be opened only of those bidders, whose EMD and other documents are found in order.

8. Copy of Enlistment Order and other documents as specified in the notice inviting tender shall be scanned and uploaded to the e-Tendering website within the period of bid submission. However, certified copy of all the scanned and uploaded documents shall have to be submitted by the lowest bidder only within a week physically in the office of tender opening authority.

The bid submitted shall be **opened after 03:30 PM on 07.09.2026**

9. The bid submitted shall become invalid if:
- (i) The bidder is found ineligible.
 - (ii) The bidder does not upload all the documents as stipulated in the bid document.
 - (iii) If any discrepancy is noticed between the documents as uploaded at the time of submission of bid and hard copies as submitted physically by the lowest bidder in the office of tender opening authority.
 - (iv) If a tenderer quotes nil rates against each item in item rate tender or does not quote any percentage above/below on the total amount of the tender or any section/sub head in percentage rate tender, the tender shall be treated as invalid and will not be considered as lowest tenderer.
10. The contractor whose bid is accepted, will be required to furnish **Performance Guarantee (a) 5% of tendered value or Estimated Cost Put to Tender (ECPT) (whichever is higher) (b) Where the tender amount is less than 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 as mentioned (As per circular No. DG/Manual-2024/20 dated 27.02.2026)** within the period specified in Schedule F. This guarantee shall be in the form of cash (in case guarantee amount is less than Rs. 10000/-) or Deposit at Call receipt of any scheduled bank/Banker's cheque of any scheduled bank/ demand Draft of any scheduled bank/Pay order of any Scheduled Bank of any scheduled bank (in case guarantee amount is less than Rs. 1,00,000/-) or Government Securities or Fixed Deposit Receipts or Guarantee Bonds of any Scheduled Bank or the State Bank of India in accordance with the prescribed form. In case the contractor fails to deposit the said **Performance Guarantee and additional Performance Guarantee (if any)** 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 and Program Chart (Time and Progress) within the period specified in Schedule F.

11. The description of the work is as follows

Providing sheet roofing after dismantling the existing damaged roof of PD Building at CCRI Kalavoor, Alappuzha.

e-tendering 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 nature and extent of work executed and the balance work, available drawings, the means of access to the site, the accommodation they may require and in general shall themselves obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their bid. A bidder shall be deemed to have full knowledge of the site whether he inspects it or not and no extra charge consequent on any misunderstanding shall be allowed. The bidders shall be responsible for arranging and maintaining at their 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.

12. 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 assigning any reason. All bids in which any of the prescribed condition is not fulfilled or any condition including that of conditional rebate put forth by the bidders shall be summarily rejected.
13. 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.
14. The competent authority on behalf of President of India reserves 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.
15. **GST** or any other tax applicable in respect of inputs procured by the contractor for the contract shall be payable by the contractor and Government will not entertain any claim whatsoever in respect of the same. However, component of GST at time of supply of service (as provided in CGST ACT 2017) provided by the contract shall be varied if different from that applicable on the last date of receipt of tender including extension if any.
16. The contractor shall not be permitted to bid for works in the CPWD Zone(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 Chief Engineer and Junior Engineer (both inclusive). He shall also intimate the names of persons who are working with him in any capacity or are subsequently employed by him and who are near relatives to any gazetted officer in the Central Public Works Department or in the Ministry of Urban Development. 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 bid for the works shall remain open for acceptance for a period of **Thirty (30) days** from the date of opening of bids.
 - a. If any tenderer withdraws his tender or makes any modification in the terms & conditions of the tender which is not acceptable to the department within 7 days after last date 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 or makes any modification in the terms & conditions of the tender which is not acceptable to the department after expiry of 7 days after last date 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. In case of forfeiture of earnest money as prescribed in para (i) and (ii) above, the bidders shall not be allowed to participate in the rebidding process of the same work.

19. This notice inviting Bid shall form a part of the contract document. The successful bidders/contractor, on acceptance of his bid by the Accepting Authority shall within 15 days from the stipulated date of start of the work, sign the contract consisting of:-
- 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 modified and corrected up to last date of receipt of Bid/tender as applicable.
20. ~~Integrity Pact: The contractor shall download the Integrity Pact, which is a part of tender documents, affix his signature in the presence of a witness, and upload the same while submitting online bids for all works of estimated cost put to tender equal or more than the threshold value given in Schedule F. In the event of his failure to sign and upload the Integrity Pact along with other bid documents, his bid shall be rejected.~~
21. In case any discrepancy is noticed between the documents as uploaded at the time of submission of the bid online and hard copies as submitted physically in the office of Executive Engineer, then the bid submitted shall become invalid. Further the bidders shall not be allowed to participate in the rebidding process of the work.
22. 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. **0481-2583214**, e-mail Id eeCPWDktm@yahoo.co.in) or ERP help line No. 18001803286 or e-mail Id cpwd.support@techmahindra.com. The e-tendering bidders are also advised not to wait to raise any issues till the last date of submission of bid in their own interest.

**Executive Engineer
CPWD, Kottayam**

GOVERNMENT OF INDIA
Percentage Rate Tender & Contract for Works

- (A) Tender for the work of **Providing sheet roofing after dismantling the existing damaged roof of PD Building at CCRI Kalavoor, Alappuzha.**
- (B) To be uploaded **upto 03.00 PM on 07.09.2026** to the **Executive Engineer, CPWD, Kottayam.**

To be opened in presence of tenderers who may be present **After 03.30 PM on 07.09.2026** in the office of the **Executive Engineer, CPWD, Kottayam.** Issued to intending eligible bidders.

TENDER

I/We have read and examined the notice inviting tender, schedule, A, D, E & F Specifications applicable, Drawings & Designs, General Rules and Directions, Conditions of Contract, clauses of contract, Special conditions, Brief particular specifications, Schedule of Rates & 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 respect of 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 in case of single bid system, ~~75 (Seventy five) days from the date of opening of technical cum eligibility bid in case tenders are invited on 2 /3 bid/ system for specialised work~~ and not to make any modification 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.

The validity period for acceptance of tenders shall be 30 (Thirty) days from the last date of receipt of bids.

A copy of earnest money deposit receipt of prescribed amount deposited in the form of Insurance Surety Bonds, Account Payee Demand draft, Fixed Deposit Receipts, Bankers 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 and additional Performance Guarantee (if any)** 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 and additional Performance Guarantee (if any)** absolutely. The said **Performance Guarantee and additional Performance Guarantee (if any)** 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. Further, I/We agree that in case of forfeiture of Earnest Money or **Performance Guarantee and additional Performance Guarantee (if any)** as aforesaid. I/We shall be debarred for participation in the re-tendering process of the work.

I/We undertake and confirm that eligible similar work(s) has/have not been got executed through another contractor on back to back basis. Further that, if such a violation comes to the notice of Department, then I/we shall be debarred for tendering in 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 and additional Performance Guarantee (if any)**.

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:

Signature of Contractor

Witness:

Postal Address

Address:

Occupation:

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
.....).

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

(a)

(b)

(a)

For & on behalf of President of India

Signature

Dated:

Designation.....

PROFORMA OF SCHEDULES**SCHEDULE 'A'**

Schedule of quantities (as per PWD-3): Enclosed in page No. **59-61**

SCHEDULE 'B'

Schedule of materials to be issued to the contractor.

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

SCHEDULE 'C'

Tools and plants to be hired to the contractor

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

SCHEDULE 'D'

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

SCHEDULE 'E'

Reference to General Conditions of contract: **GCC 2023 Maintenance Works CPWD form 7 as modified & corrected up to last date of receipt of bid.**

Name of Work :

Providing sheet roofing after dismantling the existing damaged roof of PD Building at CCRI Kalavoor, Alappuzha.

Estimated cost of work **Rs. 69,25,043/-**

Performance guarantee : **(a) 5% of tendered value or Estimated cost Put to Tender (ECPT) (whichever is higher).**

(b) Where the tender amount is less than 80% of the Estimated Cost Put to Tender (ECPT) the Performance Guarantee (PG), in addition to the required 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 tendered value**

SCHEDULE 'F'**GENERAL RULES & DIRECTIONS:**

Officer inviting tender

**Executive Engineer
C.P.W.D., Kottayam**

Maximum percentage for quantity of items of work to be executed beyond which rates are to be determined in accordance with Clauses 12.2 & 12.3:

See under Clause 12

Definitions:

2(v) Engineer-in-Charge

**Executive Engineer
C.P.W.D., Kottayam**

2(viii) Accepting Authority

**Executive Engineer
C.P.W.D., Kottayam**

2(x) Percentage on cost of materials And labour to cover all overheads and profits:

15%

2(xi) Standard Schedule of Rates

**D.S.R. 2023 with upto date
correction slips**

2(xii) Department

**Central Public Works
Department.**

9(ii) Standard CPWD Contract Form

**GCC 2023 Maintenance Works
CPWD form 7 modified and
corrected up to last
date of receipt of Bid/tender.****Clause 1**

- (i) Time allowed for submission of **Performance Guarantee and additional Performance Guarantee (if any)**, Programme Chart (Time and Progress) and applicable labour licenses, registration with EPFO, ESIC and BOCW Welfare Board or proof of applying thereof from the date of issue of letter of acceptance : **7 (seven) days**
- (i) Maximum allowable extension with late fee @ 0.1% of **Performance Guarantee and additional Performance Guarantee (if any)** amount per day beyond the period provided in (i) above : **5 (Five) days**

Clause 2

Authority for fixing compensation under clause 2 : **Chief Engineer, CPWD, Trivandrum or successor as designated by CPWD**

Clause 5

Number of days from the date of issue of letter of acceptance for reckoning date of start : **12 (Twelve) days**

Mile stone(s) as per table given below :

Sl. No.	Description of Milestone (Physical)	Time allowed in days (from date of start)	Amount to be with- held in case of non-achievement of milestone
1	Completion of 25% of the tendered amount.	70 days	In the event of non achieving the necessary progress as assessed from the running payment, an amount of @ 1.25% of the bid value of the work will be withheld for non-achievement of each milestone.
2	Completion of 50% of the tendered amount	140 days	
3	Completion of 75% of the tendered amount	210 days	
4	Completion of 100% of the tendered amount	270 days	

Time allowed for execution of work **270 (Two hundred and Seventy) days**

Clause 5.2 :

Mode of recording hindrance : Online through ERP portal available in www.cpwd.gov.in in compliance to the directions and detailed procedures contained in OM issued vide: DG/CON /CONSTRUCTION/2023/04 dated 08.12.2023 issued vide F.No: CSQ / CM/17(1)/ 2023/ CONSTRUCTION e file No:9161772 and any subsequent amendment made from time to time by the directorate.”.

Authority to decide:

- (i) Authority to convey the decision of shifting of milestone and Extension of time : **Executive Engineer- Kottayam, CPWD, Kottayam**
- (ii) Authority to decide Rescheduling of milestone and Extension of time : **Chief Engineer-Trivandrum CPWD, Trivandrum or successor as designated by CPWD**
- (iii) Shifting of date of start in case of delay in handing over of site : **Chief Engineer-Trivandrum CPWD, Trivandrum or successor as designated by CPWD**

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	Site fully available	Site readily available
Part B	Portions with encumbrances	Nil	Nil
Part C	Portions dependent on work of other agencies	Nil	Nil

Clause 6

Mode of measurement

:

Electronic Measurement Book (EMB) through CPWD ERP Portal
As per CON Circular No. DG/CON-Construction-2020/337 dt. 13.04.2023

Clause 7

Gross works 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

8.00 lakhs**Clause 7A**

Whether Clause 7A shall be applicable

Yes

No Running Account bill shall be paid for the work till the applicable labour licenses, registration with EPFO, ESIC and BOCW Welfare Board, whatever applicable are submitted by the contractor to the Engineer-in-Charge.

Clause 8 A

Whether clause 8A shall be applicable

:

Yes**Clause 9**

Whether clause 9 shall be applicable

:

Yes

Clause 10A

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

:

As per list attached in NIT

Clause 10B (ii) & (iii)

Whether clause 10 B (ii) & (iii) shall be applicable

:

Not Applicable

Clause 10C

Payment on Account of Increase in Prices/ Wages : Not Applicable
 due to Statutory Order(s)

Clause 10CC

Payment due to Increase / Decrease in
 Prices/ Wages after Receipt of Tender for Works : Not Applicable

Clause 10CA – Deleted**Clause 11**

Specifications to be followed for execution of work : **Civil work: CPWD Specifications 2019**
 volume- I & II with
 corrections slips issued up to
 the last date of submission of
 bid.

Clause 12**Type of work:**

12.2.&12.3

Deviation limit beyond which Clauses 12.2 &12.3:
 shall apply (All Works)

Maintenance work

**All the deviated quantities
 shall be paid at agreement
 rates**

Clause 16

Competent Authority for
 deciding reduced rates }

**Chief Engineer, CPWD,
 Trivandrum or successor as
 designated by CPWD**

Clause 19 C:	Engineer-in - charge to decide penalty for each default
Clause 19 D:	Engineer-in - charge to decide penalty for each default
Clause 19 G:	Engineer-in - charge to decide penalty for each default
Clause 19 K:	Engineer-in - charge to decide penalty for each default

Clause 25

- (i) Conciliator : Additional Director General-Kochi, CPWD, Chennai
- (ii) Arbitrator : Appointing Authority : Chief Engineer, CPWD, Trivandrum
- (iii) Place of Arbitration : **Kottayam /** as decided by Arbitrator in consultation with both parties.

Clause 32**Requirement of Technical Representative(s) and recovery Rate**

Sl. No	Minimum Qualification of Technical Representative	Discipline	Designation (Principal Technical/Technical representative)	Minimum Experience (Years)	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	Project Manager cum planning/quality/ Site/billing Engineer	2 or 5 years respectively	1	15,000/- per month per person	Rupees fifteen thousand only.

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 company can be treated at par with Graduate Engineers for the purpose of such deployment subject to the condition that such diploma holders should not exceed 50% of requirement of degree engineers.

Clause 38

(i)	(a)	Schedule/statement for determining theoretical quantity of cement & bitumen on the basis of Delhi Schedule of Rates	Delhi Schedule of Rates 2023 with upto date correction slips.
(ii)		Variations permissible on theoretical quantities:	
	(a)	Cement	
	(i)	For works with estimated cost put to tender not more than Rs. 25 lakh	± (plus/minus) 3 % (Three percent)
	(ii)	For works with estimated cost put to tender more than Rs. 25 lakh	± (plus/minus) 2 % (Two percent)
	(b)	Bitumen for all works	+ (plus) 2.5% (Two point five percent) only and nil on – (minus) side.
	(c)	Steel Reinforcement and structural steel sections for each diameter, section and category.	± (plus/minus) 2% (Two percent) only.
	(d)	All other materials.	Nil

Form 'A'

AFFIDAVIT OF NOT HAVING BLACKLISTED/DEBARRED

I/we undertake and confirm that our firm/partnership firm has not been blacklisted and/or debarred by any state/Central Departments/PSUs/Autonomous bodies during the last 7 years of its operations ending last day of the month previous to the one in which tenders are invited. Further that, if such an information comes to the notice of the department then I/we shall be debarred for bidding in CPWD in future forever. Also, if such an information comes to the notice of department on any day before date of start of work, the Engineer-in-charge shall be free to cancel the agreement and to forfeit the entire amount of Earnest money deposit/ **Performance Guarantee and additional Performance Guarantee (if any)** (Scanned copy of this notarized affidavit to be uploaded at the time of submission of bid)

NOTE: Affidavit to be furnished on a 'Non-Judicial' stamp paper worth Rs.200/-

Signature of Bidder(s) or an authorized
Officer of the firm with stamp

Signature of Notary with seal

Note: In case of any litigation in process or in last seven years, the details of same should be furnished/ (scanned and uploaded at the time of submission of bid) in the following Format.

S.No	Name of work	Year	Details of litigations	Type of litigation	Status of litigation

Signature of Bidder(s) or an authorized

Officer of the firm with stamp

Signature of Notary with seal

Undertaking on structural stability and soundness of already completed buildings and infrastructure projects

I/We undertake and confirm that any building/infrastructure constructed by our firm/partnership firm/company has not suffered any failure, making it unfit for intended use, either due to structural design and defects or due to use of sub-standard materials or execution of sub-standard work, poor workmanship or any other reason during the last 25(Twenty Five) years.

I/We, further, undertake that if such information comes to the notice of CPWD, then Engineer-in-Charge shall be free to terminate the bid/agreement and to forfeit the entire amount of earnest money deposit, **Performance Guarantee and additional Performance Guarantee (if any)** and security deposits.

I/We, also undertake that in addition to above, the Engineer-in-Charge shall be free to debar us forever from tendering in CPWD.

The decision of Engineer-in-Charge or any higher authority shall be final and binding.

Signature of Notary with Seal

**Signature of bidder or an
authorized person of the firm
with stamp**

Note: Affidavit to be furnished on a 'Non-judicial' stamp paper of Rs. 200/- (Scanned copy of the notarized affidavit to be uploaded at the time of submission of bid)

DECLARATION ABOUT SITE INSPECTION

NIT No: 11/2026-27/KCD/Kottayam for the work: of "Providing sheet roofing after dismantling the existing damaged roof of PD Building at CCRI Kalavoor, Alappuzha".

It is hereby declared that as per **CPWD-6 for e-Bidding**, I/ We the bidder inspected and examined the subject site and its surrounding and satisfy myself/ ourselves as to the nature of the ground and sub-soil (so far as is practicable), the forms and nature of the site./ ourselves before submitting the bid, the accommodation which may require and all necessary information as to risks, contingencies and other circumstances which may influence or affect our bid have been obtained. I/We the bidder shall have full knowledge of the site and no extra charge consequent upon any misunderstanding or otherwise shall be claimed in later date.

I /We bidder shall be responsible for arranging and maintaining at 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 me/us implies that I / We have read this notice and all other contract documents and has made myself /ourselves aware of the scope and specifications of the work to be done and local conditions and other factors having a bearing on the execution of the work.

(Duly authorized signatory of the bidder)

GUARANTEE TO BE EXECUTED BY CONTRACTORS FOR REMOVAL OF DEFECTS AFTER COMPLETION IN RESPECT OF WATER PROOFING WORKS

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

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

AND WHEREAS GUARANTOR agreed to give a guarantee to the effect that the said structures will remain water and leak-proof for five years from the date of giving of water proofing treatment.

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

Provided that the guarantor will not be responsible for leakage caused by earthquake or structural defects or misuse of roof or alteration and for such purpose:

- (a) Misuse of roof shall mean any operation which will damage proofing treatment, like chopping of firewood and things of the same nature which might cause damage to the roof;
- (b) Alteration shall mean construction of an additional storey or a part of the roof or Construction adjoining to existing roof whereby proofing treatment is removed in parts;
- (c) The decision of the Engineer-in-Charge with regard to cause of leakage shall be final.

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

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

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

Signed, sealed and delivered by OBLIGOR in the presence of—

1.

2.

Signed for and on behalf of THE PRESIDENT OF INDIA by In the presence of—

1.

2.

GUARANTEE TO BE EXECUTED BY CONTRACTORS FOR REMOVAL OF DEFECTS AFTER COMPLETION IN RESPECT OF PAINTING WORKS

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

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

AND WHEREAS GUARANTOR agreed to give a guarantee to the effect that the said structures will remain water proof and without fading or peeling for five years from the date of completion of the work.

NOW THE GUARANTOR hereby guarantees that painting done by him will render the structures completely water resistance and without fading and the minimum life of such painting work shall be five years to be reckoned from the date of completion of the agreement.

Provided that the guarantor will not be responsible for damages caused by earthquake or structural defects or misuse or alteration and for such purpose:

- (a) Misuse of structure shall mean any operation which will damage painting like external damping agents like tree branches other nearby construction, lack of maintenance, scraping of paint or any such activity.
- (b) Alteration shall mean construction of an additional storey or any type of Construction activity to adjacent to the painted wall resulting in ingress of water or anything other than the original construction.
- (c) The decision of the Engineer-in-Charge with regard to cause of paint damage shall be final.

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

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

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

Signed, sealed and delivered by OBLIGOR in the presence of—

- 1.
- 2.

Signed for and on behalf of THE PRESIDENT OF INDIA by In the presence of—

- 1.
- 2.

GUARANTEE BOND FOR REMOVAL OF DEFECTS IN CURTAIN GLAZING & ALUMINIUM WORKS (USED IN ALUMINIUM WINDOWS, DOORS AND CURTAIN GLAZING)

This Agreement made this _____ day of _____ two thousand _____ and _____ between _____ son of _____ (hereinafter called the Guarantor on the one part) and President of India (hereinafter called Government on the other part).

WHEREAS this agreement is supplementary to a contract (hereinafter called the contract) dated _____ and made between the GUARANTOR on the one part and the Government on the other part for construction _____ (Name of the work) where by the GUARANTOR, *inter alia*, undertook to render the work of aluminium and curtain glazing in the said contract recited completely structurally safe, water tight and free from defects in functional performance of glass, glazed units, anodizing, aluminium sections, EPDM/Silicon gaskets and sealants.

AND WHEREAS THE GUARANTOR agreed to give a guarantee to the effect that the said work of aluminium and curtain glazing in the said contract recited completely will remain structurally stable, completely leak proof and guaranteed against faulty material and workmanship, powder coated finishing for ten years from the date of completion of the work under this tender.

NOW THE GUARANTOR hereby guarantees that Curtain glazing and aluminium works executed by him will remain structural stable completely leak proof and guaranteed against faulty material and workmanship, powder coated finishing for ten years from the date of completion of the work under this tender.

The decision of the Engineer-in-charge with regard to cause of defect(s) shall be final.

During this period of guarantee, the GUARANTOR shall make good all defects to the satisfaction of the Engineer-in-charge at his cost and commence the work for such rectification within seven days from the date of issue of notice from the Engineer-in-charge calling upon him to rectify the defects failing which the work shall be got done by the department of some other contractor at the GUARANTOR's cost and risk. The decision of Engineer-in-charge as to the cost, payable to the GUARANTOR shall be final and binding.

That if the GUARANTOR fails to execute the necessary rectification of curtain glazing and aluminium works or commits breach there under, then the Guarantor will indemnify Engineer-in-charge and his successors against all loss, damage, cost expense or otherwise which may be incurred by him by reasons of any default on the part of GUARANTOR in performance and observance of this supplementary agreement. As to the amount of loss and / or damage and / or cost incurred by the Government, the decision of the Engineer – in – Charge will be final and binding on the parties.

IN WITNESS WHEREOF these presents has been executed by the Obligator _____ and by _____ and for an on behalf of the President of India on the day, month and year first above written.

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

1.

2.

SIGNED FOR AND ON BEHALF OF PRESIDENT OF INDIA BY in the presence of:

1.

2.

PART –B

**SPECIAL CONDITIONS, SPECIAL CONDITION FOR
CEMENT& STEEL, SPECIAL CONDITION FOR
ALUMINIUM WORK, EQUIPMENTS LIST OF T&P.**

SPECIAL CONDITIONS

1. The contractor shall execute the whole work in the most substantial and workman like manner in strict accordance with the specifications, approved design, drawings, particular specifications, special conditions, additional conditions and instructions of the Engineer-in-Charge.
2. Before tendering, the contractor shall inspect the site of work and structures and shall fully acquaint himself about the conditions prevailing at site, availability of materials, availability of land and suitable location for construction of go-downs, stores, site office, transport facilities, constraints of space for establishing design mix plants, weather condition at site, the extent of leads and lifts involved in execution of work etc., which may affect or influence the tenders.
3. The contractor shall at his own expense and risk arrange land for accommodation of labour, setting up of office, storage of materials, erection of temporary workshops, and construction of approach roads to the site of work, including land required for carrying out of all jobs connected with the completion of the work. However, the departmental land to the extent available may be allowed to be used for these purposes free of rent without accepting any responsibility for the delay, if any, on this account. The contractor shall have to abide by the regulations of the authorities concerned and the directions of the Engineer-in-Charge for use of land available at the site of work. If it becomes necessary during construction to remove or shift the stored materials, shed, workshop, access roads, etc, to facilitate execution of the work included in this agreement or any other work by any other agency, the contractor shall remove or shift these facilities as directed by the Engineer-in-Charge and no claim whatsoever shall be entertained on this account. ~~The contractor shall submit a detailed layout drawing of the temporary structures, stock yards, plant locations proposed to be constructed by him for his use which may be got approved before any such construction is attempted. A tentative layout showing the working space is attached in Page No.179.~~
4. It shall be deemed that the contractor has satisfied himself as to the nature and location of the work, transport facilities, availability of land for setting up of camp, etc. The department will bear no responsibility for lack of such knowledge and the consequences thereof.
5. The contractor shall have to make approaches to the site, if so required and keep them in good condition for transportation of labour and materials as well as inspection of works by the Engineer-in-Charge. Contractor will have no right to restrict access to whom so ever the engineer in charge authorizes from using any such temporary or permanent access made Nothing extra shall be paid on this account.
6. ~~The contractor shall carry out true and proper setting out of the work in co-ordination with the Engineer in Charge or his authorized representatives and shall be responsible for the correctness of the positions, levels, dimensions and alignments of all parts of the structure. If at any time during the progress of the work any error appears or arises in the position, level, dimensions or alignment of any part of the work, the contractor on being asked to do so by the Engineer-in-Charge, shall rectify such error to the entire satisfaction of Engineer-in-charge. The checking by the Engineer-in-Charge or his authorized representatives shall not relieve the contractor of his responsibility for the correctness of any setting out of any line or level. The contractor shall carefully protect and preserve all bench marks, pegs and pillars provided for setting out of works.~~
7. All setting out activities concerning establishment of bench marks, instrument stations, centre line pillars, etc. including all material, tools, plants, equipments and all other instruments, labour, etc. required for performing all the functions necessary and ancillary thereto at the commencement of the work, during the progress of the work

and till the completion of the work shall be carried out by the contractor and nothing extra shall be paid on this account.

8. The work shall be carried out in such a manner so as not to interfere or adversely affect or disturb other works being executed by other agencies, if any.
9. Any damage done by the contractor to any existing works or work being executed by other agencies shall be made good by him at his own cost or will be made good at his risk and cost without any notice served in this regard depending on the urgency of restoration of such damaged services.
10. **Compliance with Local Bye-Laws/Control of state Pollutions as per Pollution Control Board – Rules and regulations.**

The work shall be carried out in the manner complying in all respects with the requirement of relevant bye-laws of the local bodies under the jurisdiction of which the work is to be executed/**Pollution Control Board issued till the completion of work** or as directed by the Engineer-in-charge and nothing extra shall be paid on this account. The Contractor shall give due notices to the Municipality, Gram Panchayat, Police and /or other authorities as may be required under the law/rules under force and obtain all requisite licenses/permissions to carry out the work and pay all charges which may be leviable on account of his execution of the work under the agreement. Nothing extra shall be payable in this account. In the event of any restrictions being imposed by security and traffic agencies or any other authority having jurisdiction in the area on the working or movement of labour /material, the contractor shall strictly follow such restrictions and nothing extra shall be payable to the contractor on this account. The loss of time on this account, if any, shall have to be made up by generating additional resources etc.

11. For completing the work in time, the contractor may have to work in two or more shifts and no claims whatsoever shall be entertained on this account, notwithstanding the fact that the contractor will have to pay to the labourers and other staff engaged directly or indirectly on the work according to the provisions of the labour regulations and the agreement entered upon and/or extra amount for any other reasons.
12. The contractor shall make his own arrangements for water and for obtaining electric connections if required and make necessary payments directly to the State / Central Govt. departments concerned. Contractor shall get the water tested from laboratory approved by the Engineer-in-charge at regular interval as per the CPWD Specifications 2019. All expenses towards collection of samples, packing, transportation, testing charges etc. shall be borne by the contractor.
13. The drawings for the work issued by the Engineer-in-Charge during execution of work shall at all times be properly correlated before executing any work and no claim whatsoever shall be entertained for discrepancies in the drawings.
14. The works to be governed by this contract shall cover delivery and transportation up to destination, safe custody at site, insurance, erection, testing and commissioning of the entire works.

The works to be undertaken by the contractor shall inter-alia include the following:

- (i) Preparation of detailed SHOP drawings and AS BUILT drawings wherever applicable.
- ~~(ii) Obtaining of Statutory permissions where ever applicable and required.~~

- (iii) ~~Pre-commissioning tests as per relevant standard specifications, code of practice, Acts and Rules wherever required.~~
 - (iv) Warranty obligation for the equipments and / or fittings/fixtures supplied by the contractor. Contractor shall provide all the shop drawings or layout drawings for all the co-ordinated services before starting any work or placing any order of any of the services etc. These shop drawings /layout drawings shall be got approved from Engineer-in-charge before implementation and this shall be binding on the contractor. The contractor shall submit material submittals along with material sample for approval of Engineer-in-charge prior to delivery of material at site.
15. The contractor shall maintain in good condition all work executed till the completion of entire work entrusted to the contractor under this contract.
 16. No payment shall be made to the contractor for damage caused by rain, whatsoever during the execution of works and any damage to the work on this account shall have to be made good by the contractor at his own cost.
 17. 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 centering, shuttering, however, if required to be done for floor heights greater than 3.5m shall be admissible at rates arrived in accordance with clause 12 of the agreement if not already specified.
 18. The rates quoted by the Contractor are deemed to be inclusive of site clearance, setting out work (including marking of reference points, center lines of buildings), construction and maintenance of reference bench mark(s), taking spot levels, construction of all safety and protection devices, barriers, barricading, signage, labour safety, labour welfare and labour training measures, preparatory works, working during monsoon, working at all depths, height and location etc. and any other incidental works required to complete this work. Nothing extra shall be payable on this account.
 19. Ancillary and incidental facilities required for execution of work like labour camp, stores, fabrication yard, offices for Contractor, watch and ward, temporary ramp required to be made for working at the basement level, temporary structure for plants and machineries, water storage tanks, installation and consumption charges of temporary electricity connection, telephone, water etc. required for execution of the work, liaison and pursuing for obtaining various approvals, No Objection Certificates, completion certificates from local bodies etc., protection works, testing facilities / laboratory at site of work, facilities for all field tests and for taking samples etc. during execution or any other activity which is necessary (for execution of work and as directed by Engineer-in-Charge), shall be deemed to be included in rates quoted by the Contractor, for various items in the schedule of quantities. Nothing extra shall be payable on these accounts. The Contractor shall submit to the Engineer-in-Charge, a site / construction yard layout, specifying areas for construction, site office, positioning of machinery, material yard, cement and other storage, steel fabrication yard, site laboratory, water tank, etc. within one month from the award of the work.
 20. No claim whatsoever for idle labour, additional establishments, costs of hire and labour charges for tools and plants, scaffolding etc, would be entertained under any circumstances.
 21. The Contractor(s) shall take all precautions to avoid accidents by exhibiting necessary caution boards day and night. In case of any accident of labours/ contractual staffs the entire responsibility will rest on the part of the contractor and any compensation under such circumstances, if becomes payable, shall be entirely borne by the contractor.

22. Contractor shall within two weeks of award of work, submit to the Engineer-in-Charge for his approval, list of measures for maintaining safety of manpower deployed for construction and avoidance of accidents.
23. For the safety of all labour directly or indirectly employed in the work the contractors shall, in addition to the provision of CPWD safety code and directions of the Engineer-in-Charge, make all arrangements to provide facility as per the provision of Indian Standard Specifications (Codes) listed below and nothing extra shall be paid on this account.

i)	IS 3696 Part I	Safety Code for scaffolds and ladders.
ii)	IS 3696 Part II	Safety Code for scaffolds and ladders Part II ladders.
iii)	IS 764	Safety Code for excavation work.
iv)	IS 4138	Safety Code for working in compressed air.
v)	IS 7293	Safety Code for working with construction machinery.
vi)	IS 7969	Safety Code for storage and handling of building materials.
vii)	IS 4130	Safety code for demolition of buildings.
24. The contractor shall take all precautions to avoid all accidents by exhibiting necessary caution boards and by providing red flags, red lights and barriers. The contractor shall be responsible for any accident at the site of work and consequences thereof.
25. Scaffolding : Wherever required for the execution of work, all the scaffolding shall be provided and suitably fixed, by the Contractor. It shall be provided strictly with steel double scaffolding system, suitably braced for stability, with all the accessories, gangways, etc. with adjustable suitable working platforms to access the areas with ease for working and inspection. It shall be designed to take all incidental loads. It should cater to the safety features for workmen. It shall be ensured that no damage is caused to any structure due to the scaffolding. Nothing extra shall be payable on this account.
26. Royalty if any payable and all other incidental expenditure shall have to be paid by the contractor on all the boulders, metal shingle, earth, sand bajri, etc. collected by him for the execution of the work, direct to the concerned Revenue Authority of the State or Central Govt. and the amount paid shall not be reimbursed in any form whatsoever.
27. Other agencies working at site will also simultaneously execute the works entrusted to them and to facilitate their working, the contractor shall make necessary provisions e.g. holes, openings, etc. for laying/burying pipes, cables, conduits, clamps, hooks, etc. as may be required from time to time. The contractor shall extend full co-operation to other agencies for smooth execution of works by other agencies. The final finishing of the work is to be executed in co-ordination with other agencies as directed by the Engineer-in-Charge.
28. On account of security considerations, there could be some restrictions on the working hours, movement of vehicles for transportation of materials and location of labour camp. The contractor shall be bound to follow all such restrictions and adjust the programme for execution of work accordingly. Nothing extra shall be paid on this account. Also the contractor shall plan the activities so that no delay occurs due to the above. The contractor is expected to collect information about the same.

29. Stacking of materials and excavated earth shall be done as per the directions of the Engineer-in-Charge. Double handling of materials or excavated earth if required shall have to be done by the contractor at his own cost.
30. In case of construction joints, the cost of applying cement slurry over the concrete surface before fresh concrete is laid as per para 5.4.4.4. of CPWD Specification 2019 is included in the relevant items of the schedule of quantities and nothing extra shall be paid on this account.
31. Unless otherwise specified in the Schedule of Quantities the rates for all items of work shall be considered as inclusive of working in or under water and/or liquid mud and/or foul conditions including pumping or bailing out liquid mud or water accumulated in excavations during the progress of the work from springs, tidal or river seepage, rain, broken water mains or drains and seepage from subsoil aquifer.
32. For works below ground level the contractor shall keep that area free from water. If dewatering or bailing out of water is required the contractor shall do the same at his own cost and nothing extra shall be paid except otherwise provided in the items of Schedule of Quantities.
33. The holes of required shape and size shall be drilled in the single piece stone slabs of treads for fixing balustrades wherever necessary. Pattern of stone slabs for landings of staircase shall be decided by the Engineer-in-Charge. Nothing extra is payable on this account.
34. Stone slabs used for treads of staircase shall be provided with three machine cut grooves of size 3mm wide x 2mm deep, 25 mm apart near the nosing of the steps. Nothing extra is payable on this account.
35. To protect the flooring and steps of staircases during construction and until the completion of the work, finished/semi-finished surface of flooring shall be covered with a thick layer of plaster of Paris and this layer shall be maintained in good condition till its removal. The removal of the layer of plaster of Paris and cleaning the surface shall be done as and when decided by the Engineer-in-Charge. After the removal of plaster of Paris and cleaning of the surface, damage, if any, shall have to be made good by the contractor. No extra payment shall be made for protection with plaster of Paris, removal of plaster of Paris, cleaning and making good the damages.
36. 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.
37. The steel work in railing includes fish tailing of the section to be embedded in concrete and fixing the same.
38. Only factory made round / square type cover blocks should be used in RCC work, to avoid displacement of reinforcement bars in any direction and to ensure proper cover.
39. In RCC work, to avoid displacement of reinforcement bars in any direction and to ensure proper cover, only factory made round / square type cover blocks should be used.
40. Nothing extra will be paid for centering, shuttering, reinforcement and RCC work for sloped slabs and beams, unless otherwise specified in the item.

41. Steel bars shall be stored about 30 to 45 cm above ground and where the storage is for more than 3 months, a coat of cement wash shall be given to the bars. Nothing extra shall be paid towards cost of application of cement wash.
42. Some restrictions may be imposed by the State Government on quarrying of sand, stones etc, from certain areas. The contractor shall have to bring such materials from other quarries located elsewhere for timely completion of work and nothing extra shall be paid on this account.
43. The contractor shall give five years guarantee in the prescribed proforma for water proofing items and structural glazing items specified in the schedule of quantities. In addition to this 10% of the quoted cost of items shall be retained either in cash /fixed deposit or in the form of bank guarantee, which shall be released after the expiry of five years from the date of completion if no defects are found in water proofing or the defects are made good. This amount shall be adjusted against the expenses incurred on making good the defects if the contractor commits breach of guarantee.
44. In case of any difference in the Hindi version and English version in any of the condition of contract, English version shall prevail.
45. To facilitate gas connection, holes (if required by the Engineer-in-Charge) including suitable rubber gasket shall be provided in the kitchen platform of RCC slab/granite /marble/ other stone slab etc. Nothing extra will be paid on the account and rates quoted for relevant items are inclusive of making such provision.
46. Concrete mixers to be used on the work shall have automatic arrangement for dispersing water for controlling water cement ratio.
47. 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 no extra cement considered in consumption on this account.
48. If the actual weight of reinforcement and structural steel to be used in the work differs from standard weight given in table 5.4 of CPWD Specification, the following procedure shall be followed for arriving at the quantity for payment.
 - (a) If the actual weight is more than standard weight only standard weight shall be considered for payment.
 - (b) If the actual weight is less than standard weight but within the permissible variation, only actual weight shall be considered for payment.
49. The contractor shall arrange to keep the premises neat and clean. The rubbish/malba and unserviceable materials shall be removed on day to day basis.
50. The Contractor shall arrange electricity at his own cost for testing of the various electrical installations as directed by Engineer-in-Charge and for the consumption by the contractor for executing the work. Also all the water required for testing various electrical installations, fire pumps, wet riser / firefighting equipments, fire sprinklers etc. and also testing water supply, sanitary and drainage lines, water proofing of underground sump, overhead tanks, water proofing treatment etc. shall be arranged by the contractor at his own cost. Nothing extra shall be payable on this account.

51. Time and Programme Chart.

- i. The contractor shall give scientifically analyzed detailed programme chart for all the activities of the work within 10 days from the date of issue of letter of acceptance of tender. The programme chart shall be prepared covering the physical milestones as envisaged in the tender documents. Nothing extra shall be paid for preparation/ modification of programme chart, CPM and PERT chart. The contractor shall submit the time and programme and project report using the mutually agreed software or in other format decided by the Engineer-in-charge.
- ii. While preparing the above detailed programme chart, effort shall be made to take all possible items of work simultaneously.
- iii. Separate programme chart should be prepared exclusively for procurement of materials. The detailed bar chart should distinctly bifurcate the items of work and of materials required for the execution of that item. Both should not be clubbed together. For example, for internal plumbing work the bar chart should show the procurement of pipe and other fittings with start and finish dates and items of work with start and finish dates separately. Both items should be interlinked preceding and succeeding activity. The programme chart not indicating procurement items separately will not be accepted.
- iv. Similarly programme chart should be prepared separately for arrangement of labour.
- v. The programme chart so finalized and accepted by department should be got reviewed by the department, once in a month regularly. Modified / revised programme chart shall be prepared in the event of not adhering to the targets mentioned in the earlier programme chart. The contractor shall augment additional resources, materials and man power for achieving the targets, so submitted in the revised Programme chart.
- vi. He shall furnish the details both in hard copies as well as soft copies. Nothing extra shall be paid on this account.
- vii. In case the above details are not furnished within 15 days as mentioned above, recovery @ Rs. 1000/-per day till its receipt by Engineer-in-Charge shall be effected from the first RA bill/RA bills.
- viii. The submission for approval by the Engineer-in-Charge of such program or the furnishing of such particulars shall not relieve the contractor of any of his duties or responsibilities under the contract. This is without prejudice to the right of Engineer-in-Charge to take action against the contractor as per terms and conditions of the agreement.
- ix. **SUBMISSION OF PROGRESS REPORTS:**
Apart from the above integrated program chart, the contractor shall be required to submit monthly progress report of the work in a computerized form on 1st and 16th of every month.

- x. Monthly progress report showing the work done during the previous month in prescribed form by the department shall be furnished by the contractor on or before 5th day of each month. The authorized representatives of the contractor shall attend fortnightly works review meeting with Engineer-in-Charge without fail till completion of the work. In case the monthly progress report for the work done during previous month is not furnished on or before 5th day of each month a recovery @ Rs. 2500/- per day basis will be imposed till its receipt by Engineer-in-Charge.
- xi. The contractor shall ensure strict COVID Protocol if so mandated by the authorities. The contractor shall ensure quarantine or lockdown of their employees or laboures as required by the directions given by the state or central government authorities.
- xii. The contractor shall ensure the basic needs to the labourer or the employees are full filled during lockdown or quarantined if so necessitated. The contractor can strike terms as necessary with their labours of employees but adherence of strict lockdown/quarantine shall be the contractors responsibility and contractor shall ensure humane conditions during the same.
- xiii. The normal delay in work due to the present pandemic situation is already built in to the completion time of the work no extra time for completion will be allowed due to the same unless complete lockdown is announced or directions are issued by the Central/ State Government for extension of time of completion.

52. QUALITY ASSURANCE

- (i) The proposed work is a prestigious campus development project and quality of work is of paramount importance. Contractor shall have to engage well-experienced skilled labour and deploy modern T&Ps and other equipment in the execution of the work.

Many items like flooring work, factory made door- window shutters, proper slope maintaining in toilet units, sanitary- water supply installation, water proofing treatment, will specially require engagement of skilled workers having experience particularly in execution of such items.
- (ii) The contractor shall ensure quality construction in a planned and time bound manner. Any sub-standard material / work beyond the set out tolerance limit shall be summarily rejected by the Engineer-in-charge and the contractor shall be bound to replace / remove such sub-standard / defective work immediately. If any material, even though approved by Engineer-In-Charge is found defective or not conforming to specifications shall be replaced / removed by the contractor at his own risk & cost.
- (iii) Special attention should be paid towards quality of materials, workmanship of execution of required standard and finish, lines and levels internal and external plastering, finish of exposed **smooth surface of RCC members by providing fresh shuttering plates, rubberized linings to all the shuttering joints**, accurate joinery work in wooden doors and windows, accurate joints in stone/ tiling / cladding work, non-hollowness in floor and dado tiles work, protection of scratches over flooring by providing layer of plaster of Paris, water tight pipe linings, proper compaction of joints in brick masonry, proper compaction of filled up earth etc. as per specification to achieve prescribed standards, Quality assurance for the project shall be of paramount importance.
- (iv) The Contractor shall submit, within 21 days after the date of award of work, a detailed and complete method statement for the execution, testing and Quality Assurance, of such items of works, as directed by the Engineer-in-Charge.

- (v) All the materials to be used in the work, to make the finished work complete in all respects, shall comply with the requirements of the specifications and shall pass all the tests required as per specifications as applicable or such specifications / standards as directed by the Engineer-in- Charge. However, keeping the Quality Assurance in mind, the Contractor shall submit, on request from the Engineer-in-Charge, his own Quality Assurance procedures for basic materials and such items, to be followed during the execution of the work, for approval of the Engineer-in-Charge.
- (vi) All materials and fittings brought by the contractor to the site for use shall conform to the specification and the samples approved by the Engineer-in-charge. The contractor should get the samples of all the materials got approved from the Engineer in charge before bringing the bulk quantity, which shall be preserved at site of execution till the completion of the work. If a particular brand of material is specified in the item of work in Schedule of Quantity, the same shall be used after getting the same approved from Engineer-In-Charge. Wherever brand / quality of material is not specified in the item of work, the contractor shall submit the samples as per approved list of brand names given in the tender document / particular specifications for approval of Engineer-In-Charge. For all other items, materials and fittings of ISI Marked shall be used with the approval of Engineer-In-Charge. Wherever ISI Marked material / fittings are not available, the contractor shall submit samples of materials / fittings manufactured by firms of repute conforming to relevant specifications or IS codes and use the same only after getting the approval of Engineer-In-Charge.
- (vii) The Contractor shall procure and provide all the materials from the manufacturers / suppliers approved by Engineer-in-charge, as per the item description and particular specifications for the work. No claim, whatsoever, of any kind shall be entertained from the Contractor on this account. Also, the material shall be procured only after written approval of the Engineer-in-Charge.
- (viii) All materials whether obtained from Govt. stores or otherwise shall be got checked by the Engineer-in-Charge or his authorized supervisory staff on receipt of the same at site before use.
- (ix) To avoid delay, contractor should submit all samples well in advance so as to give timely orders for procurement.
- (x) The contractor has to establish field laboratory at site including all necessary equipment for field tests as given in Schedule 'F'. All the relevant and applicable standards and specifications shall be made available by the contractor at his cost in the field laboratory. The contractor shall designate one of his technical representatives possessing required qualification and experience specified in the Schedule F as Quality Assurance Engineer, who shall be responsible for carrying out all mandatory field/laboratory tests. The contractor shall also provide adequate supporting staff at his cost for carrying out field tests, packaging and forwarding of samples for outside laboratory tests and for maintaining test records.
- (xi) All the registers of tests carried out at Construction Site or in outside laboratories and all material at site (MAS) registers including cement register shall be maintained by the contractor which shall be issued to the contractor by Engineer-in-charge. All the entries in the registers will be made by the designated Engineering Staff of the contractor and same should be regularly reviewed by JE/AE/AEE/EE. Contractor shall be responsible for safe custody of all the registers. The above registers shall in no circumstances be taken out of the site and shall be made available for inspection as and when required without any delay.

- (xii) The contractor shall at his own cost submit samples of all materials sufficiently in advance and obtain approval of Engineer-in-Charge. The materials to be used in actual execution of the work shall strictly conform to the quality of samples approved by the Engineer-in-Charge and nothing extra shall be paid on this account. The acceptance of any sample or material on inspection shall not be a bar to its subsequent rejection, if found defective.
- (xiii) The contractor shall at his cost, make all arrangements and shall provide necessary facilities as the Engineer-in-Charge may require for collecting, preparing, packing, forwarding and transportation of the required number of samples for tests and for analysis at such time and to such places as directed by the Engineer-in-Charge. Nothing extra shall be paid for the above operations including the cost of materials required for tests and analysis. Testing charges shall be borne by the contractor.
- (xiv) The necessary tests shall be conducted in the laboratory approved by the Engineer-in-Charge. For this purpose, laboratories in the Government Sector, Semi Government or Private Sector, all Govt. Institutes, Indian Institutes of Technology, National Institutes of Technology, Central and State research Centers, Centrally and State funded laboratories stand approved. The samples for carrying out all or any of the tests shall be collected by the Engineer-in-charge or on his behalf by any other officer of CPWD. The contractor or his authorized representative shall associate himself in collection, preparation, packing and forwarding of such samples for the prescribed tests and analysis. In case the contractor or his authorized representative is not present or does not associate him in the aforesaid operation the results of such tests and consequences thereon shall be binding on the contractor.
- (xv) Materials used on work without prior inspection and testing (where testing is necessary) and without approval of the Engineer-in-Charge are liable to be considered unauthorized, defective and not acceptable. The Engineer-in-Charge shall have full powers to require the removal of any or all of the materials brought to site by contractor which are not in accordance with the contract specifications or do not conform, in character or quality to the samples approved by the Engineer-in-Charge. In case of default on the part of the contractor in removing rejected materials, the Engineer-in-Charge shall be at liberty to have them removed at the risk and cost of the contractor.
- (xvi) The contractor shall make his own arrangement of water required for execution of work and get the water tested at his own cost with regard to its suitability for use in the works and get written approval from the Engineer-in-Charge before he proceeds with the use of same for execution of work and thereafter it is got tested at the prescribed interval as per specification.
- (xvii) All the hidden items such as water supply lines, drainage pipes, conduits, sewers etc. are to be properly tested as per the design conditions before covering and their measurements in computerized measurement book duly test checked shall be deposited with Engineer in charge or his authorized representative, prior to hiding these items.
- (xviii) Water tanks, taps, sanitary, water supply and drainage pipes, fittings and accessories should conform to local bye-laws rules and specification of municipal / corporation, If CPWD Specifications are not available for the same. 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.

- (xix) Third party Quality Assurance shall be engaged for the work, by CPWD and the client jointly for monitoring the construction of the work for all items from start to finish. The contractor has to fully co-operate with this TPQA (Third Party Quality Assurance) and the execution of the work shall be fully as per the approval of TPQA. The cost for engaging TPQA shall be borne by CPWD. The contractor will be extending all cooperation by providing working office at site, other facilities as required, access and permission to enter into all contractual environments of the work to the TPQA. The condition regarding for TPQA stipulated by CPWD shall be binding on the contractor fully.
53. Senior Officers of CPWD, Dignitaries from Central Ministry / Department, **CCRI Authorities** shall be inspecting the on-going work at site at any time with or without prior intimation. The contractor shall, therefore, keep updated the following requirements and detailing.
- a) Display Board showing detail of work, weekly progress achieved with respect to targets, reason of shortfall, status of manpower, wages being paid for different categories of workers.
 - b) Entrance and area surrounding to be kept clean.
 - c) Display layout plan key plan, Building drawings including plans, elevations and sections.
 - d) Display of up to date Bar chart, CPM and PERT Chart etc.
 - e) Keep details of quantities executed, balance quantities, deviations, possible Extra item etc.
 - f) Keep one set of plastic / cloth mounted building drawings.
 - g) Sets of Helmets and safety shoes for exclusive use for officers/dignitaries visiting at site.
54. The contractor shall not store/dump construction material or debris on metalled road.
55. The contractor shall get prior approval from Engineer-in-charge for the area where the construction material or debris can be stored beyond the metalled road, This area shall not cause any obstruction to the free flow of traffic/inconvenience to the pedestrians. It should be ensured by the contractor that no accidents occur on account of such permissible storage.
56. The Contractor shall take appropriate measures like raising wind breakers of appropriate height on all sides of the plot/area using CGI sheets or plastic and/or other similar material to ensure that no construction material dust fly outside the plot area.
57. The contractor shall ensure that all the trucks or vehicles of any kind which are used for construction purposes/or are carrying construction material like cement, sand and other allied material are fully covered. The contractor shall take every necessary precautions that the vehicles are properly cleaned and dust free to ensure that enroute their destination, the dust, sand or any other particles are not released in air/contaminate air.
58. The contractor shall provide mask to every worker working on the construction site.
59. The Contractor shall provide all medical help, investigation and treatment to the workers involved in the construction of building and carry of construction material and debris relatable to dust emission.
60. The contractor shall ensure that C&D waste is transported to the C&D Waste site only and due record shall be maintained by the contractor.

61. The contractor shall compulsory use of wet jet in grinding and stone cutting.
62. The contractor shall comply all the preventive and protective environmental steps as stated in the MoEF guidelines,2010 amended upto date
63. The contractor shall carry out on-Road-Inspection for black smoke generating machinery. The contractor shall use cleaner fuel.
64. The contractor shall ensure that all DG sets comply emission norms notified by MoEF amended upto date.
65. The contractor shall use vehicles having pollution under control certificate. The emissions can be reduced by a large extent by reducing the speed of a vehicle to 20 kmph. Speed bumps shall be used to ensure speed reduction. In cases where speed reduction cannot effectively reduce fugitive dust, the contractor shall divert traffic to nearby paved areas.
66. The contractor shall ensure that the construction material is covered by tarpaulin. The contractor shall take all other precaution to ensure that no dust particles are permitted to pollute air quality as a result of such storage.
67. The contractor shall make arrangement for helmet and safety shoes (meant for construction works at site). For all field staff of the Department, during the entire period of construction for safety reasons, one helmet and two pairs of shoes per staff member (maximum 10 members) of the Department(s) per year shall be arranged by the contractor.
68. Safety, security and insurance for the workers engaged shall be the responsibility of the agency.
69. The Jurisdiction for any legal dispute shall be the courts which are having Jurisdiction over the State of KERALA.
70. For water proofing works guarantee bond in the prescribed format and 10% security for 5 years.
71. Jointing with existing RCC& reinforcement shall be done at no extra cost by the Contractor.
72. Nothing extra shall be payable for jungle clearance, bush cutting, and removal of any building rubbish.
73. Extra lift shall not be paid for earth work excavation in hill side cutting where actual lift is not involved.
74. Nothing extra shall be paid for double handling of surplus excavated earth.
75. Manufacturer warranty for all manufacturing items such as valves, sanitary fittings, dry wall partition, water supply and sanitary fittings, doors and windows i/c fittings etc shall be secured from the manufacturer and shall be provided by the agency to the client.

76. All external painting should have a warranty of minimum 3 years from the date of completion of work, warranty in form of undertaking has to be given by the agency to the client and any rectifications should be done by the agency in the warranty period at their own cost.
77. Unless otherwise specified, nothing extra, whatsoever shall be paid for executing the work as per the above special conditions from serial Number 1 to 76.

SPECIAL CONDITION FOR ALUMINIUM WORK

1.0 Aluminum Doors, Windows and Ventilators

- 1.1. Powder coated aluminium doors, windows, ventilators and fixed glazing shall be generally as per the architectural drawing and shall be fabricated using aluminium alloy standard extruded sections of "JINDAL", "INDAL", "HINDALCO" or equivalent as approved by the Engineer-in-Charge. The contractor shall submit the drawings indicating the sections proposed to be used by him and the fixing arrangement for approval. The Engineer-in-Charge shall have the right to reject or modify these drawings before approval and the contractor is bound to execute the work in accordance with drawings approved by the Engineer-in-Charge.
- 1.2. Samples of doors, windows and ventilators as per the drawings approved by the Engineer-in-Charge shall be fabricated and got approved by the Engineer-in-Charge before taking up the execution of these items of work.
- 1.3. The aluminium sections shall be jointed to each other wherever required with extruded aluminium angle cleats of suitable size and of thickness not less than 6mm for doors and 4mm for windows and ventilators with stainless steel screws. Unless otherwise specified all joints shall be mitred.
- 1.4. Various tests on aluminium sections shall be conducted in accordance with the relevant provisions of IS: 1868 (anodic coatings on aluminium and its alloys) and IS: 5523 (Method of testing anodic coating on aluminium and its alloys).
- 1.5. The fabricated aluminium frame work shall be given a laquer coating which shall be maintained during the entire period of construction to prevent damage to the anodic coating of aluminium sections. The surface shall be cleaned and polished before handing over the works.
- 1.6. The doors, windows, ventilators, fixed glazing etc. individually or forming composite unit shall be provided with glazing and paneling as specified with PVC weather sealing gaskets/neoprene felt. Glazing and paneling shall be fixed with aluminium snap beading. The sliding shutters of windows shall be provided with nylon pullers with concealed bearings, aluminium stoppers and special locking arrangements as approved by the Engineer-in-Charge. The interlocking styles of sliding windows shall be provided with PVC/ neoprene weather sealing gaskets. The windows with side hung shutters shall be provided with best quality heavy type anodized aluminium hinges with stainless steel pins/bolts, anodized aluminium peg stays and fasteners of suitable size and shape.
- 1.7. For the purpose of payment, the weight of each door, window, ventilator, louvered window, fixed glazing etc. individually or forming composite unit shall be the actual weight of extruded aluminium sections, cleat angles and aluminium snap beading excluding the weight of all fittings & fixtures. If the variation between the actual unit weight and unit weight specified in the manufacturer's catalogue is more than +10%, the materials shall be rejected as being substandard. The cost of hinges, locking arrangements, gaskets, stainless steel screws, pins/bolts etc and the wastage of extruded aluminium sections shall be deemed to be included in the agreement rate and nothing extra whatsoever shall be payable. Paneling and glazing shall be paid separately.

SPECIAL CONDITIONS FOR CEMENT AND STEEL BROUGHT BY THE CONTRACTOR

1. CEMENT

- 1.1. The contractor shall procure 43 grade ordinary Portland cement conforming to IS:8112/ Portland Pozzolona Cement conforming to IS:1489 (Part-I) as required in the work, from reputed manufacturers of cement as per approved list of manufacturers or from any other reputed cement Manufacturer having a production capacity not less than one million tonnes per annum as approved by SDG/ADG for the region.

The tenderers may also submit a list of names of cement manufacturers which they propose to use in the work. The tender accepting authority reserves right to accept or reject name(s) of cement manufacturer(s) which the tenderer proposes to use in the work. No change in the tendered rates will be accepted if the tender accepting authority does not accept the list of cement manufacturers, given by the tenderer, fully or partially. Supply of cement shall be taken in 50 kg bags bearing manufacturer's name and ISI marking. Samples of cement arranged by the contractor shall be taken by the Engineer-in-Charge and got tested in accordance with provisions of relevant BIS codes. In case test results indicate that the cement arranged by the contractor does not conform to the relevant BIS codes, the same shall stand rejected and shall be removed from the site by the contractor at his own cost within a week's time of written order from the Engineer-in-Charge to do so. Every fresh cement batch should be brought to site at least 30 days before they are to be used / consumed in the work.

- 1.2. The cement shall be brought at site in bulk supply of approximately 50 tonnes or part thereof as decided by the Engineer-in-Charge.
- 1.3. The cement go-down of the capacity to store a minimum of 2 months requirement shall be constructed by the contractor at site of work for which no extra payment shall be made. Double lock provision shall be made to the door of cement go-down. The keys of one lock shall remain with Engineer-in-Charge or his authorized representative and keys of the other lock shall remain with the contractor. The contractor shall be responsible for the watch and ward and safety of the cement go-down. The contractor shall facilitate the inspection of the cement go-down by the Engineer-in-Charge or his authorized representatives.
- 1.4. The cement shall be got tested 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 frequency and details of the tests shall be decided by the Engineer-in-Charge depending on the quantum of supply in each batch. The cost of tests shall be borne by the contractor
- 1.5. 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 governed by the conditions laid therein. In case of excess consumption no adjustment shall be made.

- 1.6. Cement brought to site and cement remaining unused after completion of work shall not be removed from site without written permission of the Engineer-in-charge.
- 1.7. 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 at the cost of the contractor.
- 1.8. The cement bags shall be stacked on proper floors consisting of two layers of dry bricks laid on well consolidated earth at a level of at least one foot above ground. The stacks shall be in rows of 2 and 10 bags high with minimum of 0.6m clear. Bags should be placed horizontally continuous in each line. Actual size / shape of go down shall be as per site requirement and nothing extra shall be paid on this account. The decision of Engineer-in-charge regarding capacity shall be final.
- 1.9. Cement register for the cement shall be maintained at site. The account of daily receipts and issues of cement shall be maintained in the register in the proforma prescribed and signed daily by contractor or his authorized agent.
- 1.10 The contractor shall bring whatever cement he requires for temporary structures or for trial mix for design mix or any such miscellaneous work and consume the same before storing the cement in the cement godown. If any personal requirement of cement for any purpose what so ever occurs after the cement is taken in account for in the cement register the same shall be intimated to the Engineer in Charge in writing which will be issued in your personal name by the Engineer in Charge which then will be excluded from in the calculation of the cement consumption.
- 1.11 Cement if left un consumed for longer than the permissible expiry time will be rejected by the Engineer In Charge and will have to be removed from site without any compensation and will be written off from the cement register.
- 1.12 Cement shall be stored such that the older lot gets consumed first.

2. STEEL

- 2.1 (a) The CPWD/Contractor shall procure IS marked TMT bars of various grades from the steel manufacturers or their authorized dealers (as per following selection criteria) having valid BIS license for IS.1786-2008 (Amendment 1st November 2012).

The procured steel should have following qualities.

- i) Excellent ductility, bend ability and elongation of finished product due to possible refining technology.
- ii) Consumption of steel should be accurate as per design.
- iii) Steel should have no brittleness problem in finished product.
- iv) Steel should carry the quality of corrosion and earthquake resistance.
- v) Quality steel with achievement of proper level of sulphur and phosphorus as per IS:1786-2008.

- 2.2 The contractor shall have to obtain and furnish test certificates to the Engineer-in-charge in respect of all supplies of steel brought by him to the site of work.
- 2.3 Samples shall also be taken and got tested 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 2.1 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's time of written orders from the Engineer-in-charge to do so.
- 2.4 The steel reinforcement bars shall be brought to the site in bulk supply of 10 tonnes or more or as decided by the Engineer-in-Charge.
- 2.5 The steel reinforcement shall be stored by the contractor at site of work in such a way as to prevent their distortion and corrosion, and nothing extra shall be paid on this account. Bars of different sizes and lengths shall be stored separately to facilitate easy counting and checking.
- 2.6 For checking nominal mass, tensile strength, bend test, re-bend test, elongation etc. specimen of sufficient length shall be cut from each size of the bar at random, and at frequency not less than that specified below:-

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

- 2.7 The contractor shall supply free of charge the steel required for testing including its transportation to testing laboratories. The cost of tests shall be borne by the contractor.
- 2.8 The actual issue and consumption of steel on work shall be regulated and proper accounts maintained as provided in clause 10 of the contract. The theoretical consumption of steel shall be worked out as per procedure prescribed in clause 38 of the contract and shall be governed by conditions laid therein. In case of excess consumption no adjustment need to be made.
- 2.9 The contractor should submit pre measurement of existing exposed reinforcement to the Engineer-in-charge before taking up any further reinforcement work on the portion and nothing extra shall be paid on this account
- 2.10 The steel brought to site and steel remaining unused shall not be removed from site without the written permission of the Engineer-in-Charge.

- 2.11 The standard section weight referred to as standard tables in Para 5.3.3. in CPWD specifications 1996 Volume –II to be considered for conversion of length of various sizes of MS bars and High yield strength deformed bars into weight are as under.

Size (Diameter MM)	Weight in Kg/ Meter
6	0.222
8	0.395
10	0.617
12	0.888
16	1.58
18	2.00
20	2.47
22	2.98
25	3.85
28	4.83
32	6.31
36	7.99
40	9.86
45	12.49
50	15.42

For steel, measurement will be regulated on sectional weight basis, weight being calculated with help of the above tables. The weight shall be taken as per actual weight if it is found lower than the standard weight but within tolerance limit as per relevant IS codes. Nothing extra shall be paid for extra weight of steel sections more than that given in the table.

The Contractor has to produce the cash bills to the JE/AE as and when he brings the cement and steel to the site

SPECIAL CONDITIONS FOR RMC AND DMC

1. The cost of packaging, scaling, transportation, loading, unloading, cost of samples and the testing charges for mix design in all cases shall be borne by the contractor.
2. The various ingredients for mix design / laboratory tests shall be sent to the lab / test houses through the Engineer-in-Charge and the samples of such ingredients sent shall be preserved at site till completion of work or change in Design Mix / Ready Mix whichever is earlier. The sample shall be taken from the approved materials which are proposed to be used in the work.
3. For each change of source or quality / characteristic properties of the ingredients during the work, from that approved and used in the concrete mix, a fresh mix design shall be got done by the contractor. Revised trial mix test shall be conducted and shall be submitted by the contractor as per the direction of the Engineer-in-Charge.
4. A separate mix design shall be done for concrete incorporating water proofing compound and water proofing compound shall not be blindly added in the mix design already obtained and approved without water proofing compound.
5. The items of RMC and DMC 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 ready 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.
6. Sampling and Testing

Quantity of concrete delivered (cum)	Number of sample
Less than 15	1
16 to 30	2
31 to 50	3
51 and above	Three plus one sample for each additional 30 cum or part thereof.

7. Minimum ordinary Portland cement /Portland pozzolona cement for Mix M-25 grade concrete shall be 330 kg/m³.
8. All concrete of M25 grade shall be done using batching plant conforming to the batching plant description given in the NIT.

Batching Plants and Batching Equipment

Hoppers for weighing cement, mineral admixtures, aggregates and water and chemical admixture shall consist of suitable containers freely suspended from a scale or other suitable load measuring devices and equipped with a suitable discharging mechanism. The method of control of the loading mechanism shall be such that, as the quantity required in the weighing hopper is approached, the material may be added at a controllable rate and shut off precisely within the weighing tolerances specified in Annexure-A. The weighing hoppers for cement, mineral admixtures, and aggregate shall be capable of receiving their rated load, without the weighed material coming into contact with the loading mechanism. The weighing hoppers shall be constructed so as to discharge efficiently and prevent the build up of materials. A tare adjustment up to 10 percent of the nominal capacity of the weigh scale shall be provided on the weighing mechanism so that the scale can be adjusted to zero at least once each day. Dust seals shall be provided on cement hoppers between the loading mechanism and the weigh hopper, and shall be fitted so as to prevent the emission of cement dust and not to affect weighing accuracy. The hopper shall be vented to permit escape of air without emission of cement dust.

Vibrators or other attachments, where fitted, shall not affect the accuracy of weighing. There shall be sufficient protection to cement and aggregate weigh hoppers and weighing mechanisms to prevent interference with weighing accuracy by weather conditions or external build-up of materials.

Where chemical admixture dispensers are used, they shall be capable of measurement within the tolerances in Annexure-A and a calibrated container or weigh scale shall be provided to check the accuracy of measurement at least once a month.

Each control on the batching console and weigh-dial or display shall be clearly labeled with its function and where concerned with the batching of materials, the material type.

When pulverized fuel ash and other mineral admixtures are batched through the cement weigh system, the weighing device and discharge screw or other parts of the transfer system shall be empty when the weighing system has returned to zero reading or completed the batch.

Where a back weigh system is utilized to weigh materials a system shall be in place so as to prevent materials being loaded during the process of weighing.

Fully automatic production systems shall be fitted with digital control equipment to allow the correct operation of the plant to be monitored during weighing and batching. Automatic control systems on batching plants shall not commence batching until all hoppers have been emptied and / or tared and the scales zeroed unless such systems are designed to take account of build up in their programming.

LIST OF TESTING EQUIPMENTS TO BE PROVIDED BY THE CONTRACTOR AT SITE LAB

1. Balances
 - a. 7 Kg to 10 Kg capacity, semi-self indicating type-Accuracy 10 gm
 - b. 500 gm capacities, semi-self indicating type-Accuracy 1gm
 - c. Pan balance – 5 kg capacity – Accuracy 10 gms.
2. Sieve shaker capable of 200 mm and 300 mm dia sieves, manually operated with timing switch assembly.
3. Equipment for slump test-slump cone, steel plate, tamping rod, steel scale, scoop.
4. Concrete mixer, Needle vibrator.
5. Graduated measuring cylinders 200 ml capacity – 3 Nos.
6. Steel tapes – 3m.
7. Vernier calipers.
8. Micrometer screw 25 mm gauge.
9. A good quality plumb bob.
10. Spirit level, Minimum 30 cms long with 3 bubbles for horizontal vertical.
11. Wire gauge (Circular type) disc.
12. Long Nylon thread.
13. Magnifying glass.
14. Screw driver 30 cms long.
15. Plastic bags for taking samples.

Any other equipment for site tests as outlined in BIS Codes and as directed by the Engineer in charge.

**LIST OF PREFERRED MAKE OF MATERIALS
(FOR CIVIL WORKS)**

NOTE: - 1) A list of Preferred Brand names of various Materials/Products are shown below for usage in execution of work. However, Approved equivalent material of any other specialized Companies/Firms may also be used in case it is established that the Brands specified below are not available in the market and subject to Approval of the alternate Brand by the Engineer in Charge.

2) It must be ensured, in general, that all materials to be used in the works shall bear BIS Certification mark. In cases where for a particular material/product, BIS Certification Mark is not available, then the material proposed to be procured can be used subject to the condition that it should conform to CPWD Specifications and relevant BIS codes. In such cases written approval of the Engineer-in-Charge shall be obtained before use of such material in their works.

3) The list given below does not absolve the Executing Agency from their responsibility for using these products. It is only after, they are satisfied about the quality and performance, the products shall be used. To achieve this, proper check on the quality of the product, actually to be used, should be exercised.

SL NO	MATERIALS	PREFERRED MAKE/BRAND
1	WHITE CEMENT	J.K. WHITE, BIRLA WHITE, ASIAN PAINTS
2	CHEMICAL ADMIXTURES	ARDEX ENDURA, FOSROC, MC BAUCHEMIE, SIKA, BASF, PIDILITE, CHOKSEY CHEMICALS, BOSTIK, ULTRA FINE, STP LIMITED, CERACHEM
3	EXPANSION JOINT BOARD	SUPREME INDUSTRIES, SIL FILL OR EQUIVALENT, STP LTD
4	DAMP PROOF MATERIAL	ASIAN PAINTS, ARDEX ENDURA, IMPERMO, DURASEAL, ACCO-PROOF
5	NON METALIC SURFACE HARDNER	ARDEX ENDURA, FOSROC, SIKA, PIDLITE,
6	INJECTION GROUTING	ARDEX ENDURA, FOSROC, SIKA, BASF, CICCOC
7	CHLOROPHYRIPHOS	UDRSBANTCT, PREMISE AGENDA, PIRAMID, NOBAN, HILBAN, SARUPUS PEST CONTROL.
8	RMC / DMC	ULTRATECH, LAFARGE, ACC, RMC INDIA, NEPTUNE, POABSONS
9	BITUMEN	INDIAN OIL, HINDUSTAN PETROLEUM, MANGALORE REFINERIES, BHARAT PETROLIUM
10	STEEL WORK / TMT BARS	IS MARKED TMT BARS OF TATA, JSPL, JSW, RINL, VSP OR THEIR AUTHORIZED DEALERS:
11	STEEL	IS MARKED TATA, JSPL, JSW, RINL OR THEIR AUTHORIZED DEALERS:
12	AAC BLOCKS	XTRALITE FROM ULTRATECH, AEROCON FROM HIL, SIPOREX INDIA LIMITED, NCL, RENACON.

13	ADHESIVE FOR ACC BLOCK	ASIAN PAINTS, ULTRATECH, ARDEX ENDURA, FERROUS CRETE, SMART CARE TILE ADHESIVE, TILE ADHESIVE PLUS
14	EPOXY MORTAR	ARDEX ENDURA, FOSROC, SIKA, BASF, ULTRATECH, BOSTIK, PIDILITE
15	CC BLOCKS/ FLYASH BLOCKS	SIPOREX, SUNVIK, HIL
16	FRP DOOR FRAME	MEENA, RAWJI, FIBERTECH, ASTRALWIN DOORS
17	FRP DOOR SHUTTERS	MEENA, RAWJI, FIBERTECH, ASTRALWIN DOORS
18	PVC DOOR SHUTTER AND FRAME	RAJASHREE, SINTEX, DUROPLAST
19	WOODEN FLUSH DOORS	KITPLY, CENTURY, GREENPLY, ARCHID PLY, KUTTY
20	WATER PROOF PLY WOOD	DURO, KITPLY, CENTURY, ARCHID PLY, GREENPLY
21	COMMERCIAL PLY.	DURO, KITPLY, CENTURY, ARCHID PLY, GREENPLY
22	LAMINATE	FORMICA, DECOLAM, CENTURY, ROYAL TOUCH, GREENLAM , HERITAGE
23	HIGH PRESSURE LAMINATES	MERINO, GREENLAM, DECOLAM, CENTURY, ROYAL TOUCHE, HERITAGE
24	PRELAMINATED PARTICLE BOARD	KITLAM, ARCHID PLY, CENTURY
25	NATURAL WOOD VENEER	ARCHID, ANCHOR, DURAIN, KITPLY, NATIONAL ACTION TESA
26	POLYESTER POWDER COATED SHADES	NEROLAC, BERGER, AKZONOBEL, ASIAN
27	GYPSON BOARD	SAINT GOBAIN, LAFARGE, BORAL BOARD, ARMSTRONG
28	FALSE CEILING CALCIUM SILICATE	ARMSTRONG, AEROLITE, RAMCO, HILUX
29	FALSE CEILING MINERAL FIBRE	SAINT GOBAIN, ARMSTRONG, ANUTONE, AEROLITE
30	MELAMINE POLISH	ASIAN PAINTS, MALAMYNE GOLD WUDFIN OF PIDILITE INDUSTRIES TIMBERTONE OF ICI DULUX
31	DOOR HARDWARE	DORMA, HAFELE, KICH, OZONE, DORSET, BACKERS FS, GODREJ
32	HYDRAULIC DOOR CLOSERS / FLOOR	DORMA, KICH, GODREJ, HARDWYN, DORSET
33	LOCKS / LATCHES	GODREJ, HARRISON, LINK, DORSET, DORMA
34	FIRE CHECK DOOR	BANGALORE PROTECH, SHAKTI, NAVAIR, KENWOOD, VEROTECH, SHAKTI HARMON
35	SMOKE SEAL STRIP	IMPROTED PROMAT / ASTRO FLAME
36	FIRE RATED HARDWARE	DORMA, INGERSOL RAND, GEZE, DORSET BACKERS FS

37	STAINLESS STEEL SCREWS FOR FABRICATION AND FIXING OF WINDOWS.	KUNDAN, PUJA, ATUL, GRIPWELL, NAKODA
38	BUTT / BALL BEARING HINGES	HAFFLE, DORMA, DORSET, GODREJ
39	PIANO HINGES	JOLLY, GARG, AMIT, JYOTI, SLEEK
40	NUTS BOLTS/ SCREWS	KUNDAN, PUJA, ATUL, IT, BOLT MASTER, GRIPWELL, NAKODA
41	ACOUSTIC INSULATION	U.P. TWIGA LTD, LLOYD INSULATION, SAINT GOBAIN, ARMSTRONG
42	GLASS/ REFLECTIVE GLASS	MODI FLOAT, SAINT GOBAIN, ASAHI, GLAVERBEL
43	UPVC WINDOWS / VENTILATION	FENESTA, REHAU, ENCRAFT, DUROPLAST WINTech, NCL VEKA, MADHU INDUSTRIES, LG, QUTE
44	SOURCE FOR TEMPERING REFL. GLASS / CLEAR	FUSO, SAINT GOBAIN, GURIND, IMPACT SAFETY, ASAHI
45	FIRE RATED GLASS	PYOSWISS OF SAINT GOBAIN, PYRAN OF SCHOTT, PILKINGTON
46	VITRIFIED TILES	KAJARIA, JOHNSON, RAK CERAMICS, NITCO, AGL
47	GLAZED CERAMIC TILES	JOHNSON, KAJARIA, NITCO, AGL, RAK, SIMPOLO VITRIFIED PVT LTD.
48	FALSE FLOOR	HEWETSON, UNIFLOOR, UNITILE, KEBAO, PINNACLE
49	ENGINEERED WOOD/LAMINATE FLOORING	ARMSTRONG, WERNEL, PERGO, ACTION TESA, WELSPUN
50	CEMENT CONCRETE PARKING TILES	NITCO, NTC, HINDUSTAN, PODDAR EUROCON, DAZZLE ULTRA.
51	INTERLOCKING CONCRETE BLOCKS	NITCO-(ROCKARD), BHARAT- (NILSAN) REGENCY, BESANT BEATONS
52	CLAY TILES ON ROOF	KENJAI, JOHNSON, COMMON WEALTH TRUST (IND) LTD
53	TILE ADHESIVE	ARDEX ENDURA, CICO, PIDILITE, PERROUS, FOSROC, SIKA
54	CHEQUERED TERRAZO TILES	NITCO, BHARAT, PODDAR
55	SYNTHETIC CARPET TILES	TOLI, HOLLITEX, STANDARD CARPETS, WELSPUN
56	GLASS MOSAIC TILES	ITALIA, PALLADIO, BISAZZA
57	PAINT/PRIMER/OIL BOUND DISTEMPER ACRYLIC PAINT	ASIAN PAINTS, ICI DULUX, NEROLAC, BERGER
58	WATER PROOF CEMENT PAINT	SNOWCEM INDIA LTD, ASIAN PAINTS, ICI DULUX, NIPPON PAINTS

59	SYNTHETIC ENAMEL PAINT	BERGER, NEROLAC, ASIAN, ICI DULUX
60	ACRYLIC TEXTURED PLASTER	ASIAN PAINTS, ICI DULUX, NEROLAC, BERGER
61	FIRE RETARDANT PAINT	JOTUN, HILTI, AKZONOBEL, NIPPON
62	MIRROR GLASS	MODI GUARD, SAINT GOBAIN, ASAHI, ATUL
63	ANTI CORROSIVE BITUMASTIC PAINT	ASIAN / BERGER / SHALIMAR
64	EPOXY PAINT	BERGER PAINTS, ASIAN PAINTS, MRF, ARDEX ENDURA
65	EPOXY COATING	ARDEX ENDURA, BASF, FORSOC, LATICRETE, MRF
66	STRUCTURAL SILICON/ WEATHER SILICON	DOW CORNING / WACKER / GE
67	ACRYLIC EXTERIOR PAINT	ASIAN PAINTS, ICI DULUX, BERGER, NEROLAC
68	STAINLESS STEEL FITTINGS	DORSET, GODREJ, DORMA, OZONE, KICH
69	ALUMINIUM SECTIONS	JINDAL, HINDALCO, INDAL
70	FRICTION STAY HINGES	EBCO, HAFELE, SEVAX
71	ALUMINIUM COMPOSITE PANEL (ACP)	ALUCOBOND, EUROBOND, DURABUILD, CITY BOND
72	E.P.D.M. GASKETS	ANAND / ROOP / BOHRA / HANU / AMEE RUBBER
73	WATER PROOFING COMPOUND	ASIAN PAINTS, SIKA, ACCOPROOF, IMPERMO, FOSROC, PIDILITE, ARDEX ENDURA, BOSTIK, BERGER, STP LIMITED, KRYTON
74	MEMBRANE WATERPROOFING SYSTEM	ASIAN PAINTS, BASF, TEXSA, WR GRACE, PIDILITE, HYDRO TECH LTD. ARDEX ENDURA, BOSTIK, FOSROCK
75	POLYMER BASED CONTENTIOUS WATER PROOF COATINGS	ARDEX ENDURA, BASF, MC-BAUCHEMIE, SIKA, FORSOLOC, PIDILITE, BERGER
76	WATER STOPS	ASIAN PAINTS, ARDEX ENDURA, HYDROTITE, BASF, HYDROSWELL, PIDILITE, BOSTIK
77	PVC PERFORATED PIPES	REX POLYEXTRUSION LTD, AKASH ENTERPRISES, ZENPLAS PIPES PVT. LTD
78	MS PIPES	TATA, JINDAL, APOLLO, SAIL, TISCO
79	POLYSULPHIDE SEALANT	ASIAN PAINTS, PIDILITE, CHEMETALL-RAJ, FOSROC, CHOKSEY CHEMICALS, TUFF SEAL
80	BITUMEN IMPREGNATED BOARD	SHALITEX OR EQUIVALENT
81	POLYETHYLENE BACKER ROD	SUPREME IND. LTD. OR EQUIVALENT

82	FALSE CEILING MEMBERS (PERIMETER, CEILING SECTION, INTERMEDIATES, ANGLES ETC.)	ARMSTRONG, GYP. ROCK (SAINT GOBAIN)
83	WELDING ROD	ADVANI, ESAB
84	METAL DECK SHEET	TATA, JINDAL, ALFA, KAILASH ROOFIN
85	SHEAR STUD / CONNECTOR	KOCO OR EQUIVALENT
86	CLAMP. REBAR, CHEMICAL FASTENER	HILTI, FISCHER, WURTH, AXEL
87	ANCHOR FASTENERS / BOLTS	HILTI, FISHER, CANON, BOSCH, AXEL
88	MASKING TAPES	3M, SUN CONTROL, WONDER POLYMER
89	DASH FASTENERS	HILTI, FISHER, CANON, BOSCH, AXEL
90	STAINLESS STEEL BOLTS, WASHERS AND NUTS	ATUL / HILTI / GRIPWELL / NAKODA
91	GRC JALI	TERRAFIRMA, ECOVISION, BIRLA WHITE GRC, EVEREST GRC
92	STAINLESS STEEL	SALEM, JINDAL, SAIL, KINGSTON
93	POLYCARBONATE SHEET	DANPALON, ALCOX, POLYGAL, V.A. CORPORATION, ALFA, GE, LEXON, TUFLITE
94	PT STRANDS	DP WIRES, TATA, USHA MARTIN
95	ADHESIVE (MANUFACTURE SPECS)	ARDEX ENDURA, DUNLOP, VAMORGANIC, SIKA, FOSROC, PIDLITE, BOSTIK
96	GROUTS	KERAKOLL, WEBER, ARDEX ENDURA, BOSTIK, FOSROCK, PIDILITE
97	SOLAR STUDS / MEDIAN MARKERS	3M, AVERY DENNISON, NIKKALITE
98	POLYCARBONATE CONVEX MIRRORS, RUBBERISED ROAD HUMPS	UNIQUE SAFETY SOLUTIONS
99	AIR TRANSFER GRILLS	COOL GRILLS PUNE, SYSTEMAIR INDIA
100	THERMAL INSULATION TREATMENT	PIDILITE, BASF, BERGER, ARDEX ENDURA
101	VITREOUS WC / WASH BASIN	PARRYWARE, HINDWARE, CERA, JAQUAR, BATHSENSE, TCET/BATHSENSE
102	GULLYTRAPS	PERFECT, PARRY
103	STAINLESS STEEL SINKS	NILKANTH, AMC, COBRA, NIRALI, DIAMOND, HINDWARE, CERA

104	C. P. BRASS FITTINGS	JAQUAR, PARKO, MARC, HINDWARE, PARRYWARE, KINGSTON, ESSESS/BATHSENSE/ROYALE
105	GI PIPES	TATA, JINDAL, HISSAR, APOLLO, ZENITH
106	GI PIPE FITTINGS	ZOLOTO, ITAPS, UNIK, HB, ICS
107	RCC PIPES	INDIAN HUME PIPE, MOHAN HUME PIPE, BANGALORE CEMENT PIPES
108	SPUN CAST IRON COVERS & GRATINGS	NECO, SKF/ BENGAL IRON CORPORATION
109	SPUN CAST IRON PIPES	NECO, SKF/ BENGAL IRON CORPORATION
110	SPUN CAST IRON FITTINGS	NECO, SKF/ BENGAL IRON CORPORATION
111	SWR PVC PIPES AND FITTINGS	SUPREME, FINOLEX, PRINCE, ASTRAL
112	CPVC PIPE AND FITTINGS	SUPREME, ASHRIVAD, FINOLEX, PRINCE, FLOWGARD, ASTRAL
113	UPVC PIPES	SUPREME, PRINCE, FINOLEX, ASTRAL
114	WATER SUPPLY VALVES	ZOLOTO, ITAPS, LEADER, ARCO
115	CI MANHOLE COVER	NECO, BIC
116	SFRC COVER AND GRATING	TULSHI CONCRETE, KK, ADVENT, NEWTECH
117	AIR RELEASE VALVES	KIRLOSKAR, RBM, KARTAR
118	FLOAT VALVES	PRAYAG, LEADER, ZOLOTO, ITAPS, ARCO
119	CI DOUBLE FLANGE SLUICE VALVE	KIRLOSKAR, RBM, KARTAR
120	PLASTIC ENCAPSULATED FOOT REST	KK INDIA, KGM, ACCURATE BUILDCON
121	GUN METAL VALVES	ZOLOTO, ITAPS, LEADER, SANT, ANDCO INDIA
122	CI DOUBLE F LANGED SLUICE VALVES	KIRLOSKAR, IVS, BURN, ZOLOTO, ITAPS, LEADER
123	CI DOUBLE FLANGED NON-RETURN VALVES	KIRLOSKAR, FLUIDTEH, ZOLOTO, ITAPS
124	SANDWICH PU PANELLED ROOFING SHEETS	LLOYD INSULATION (INDIA) LTD., JINDAL, MEC TEC PVT LTD., TATA
125	GALVALUME SHEET	LLOYD (INDIA) LTD., JSW, TATA BLUESCOPE
126	CRYSTALLINE WATER PROOFING ADMIXTURE AND COMPOUND	PENETRON, KRYTON, PIDILITE, FOSROC.
127	STAINLESS STEEL WATER SUPPLY PIPES & FITTINGS	JINDAL, SWASTIK, RAMPPART, J-PRESS.

128	HERMETICALLY SEALED PERFORMANCE GLASS, TOUGHENED, DGU, SGU, TOUGHENED LAMINATED GLASS	AUTHORISED TOUGHENERS OF (MODI GUARD, SAINT GOBAIN, ASAHI, AIS/GLAVERBEL, PILKINGTON
129	ORDINARY PORTLAND CEMENT (43 GRADE)AND PORTLAND POZZOLONA CEMENT	ACC CEMENT,ULTRATEC CEMENT, COROMANDAL CEMENT, BIRLA CEMENT,CHETTINADU CEMENT, BHARATI CEMENT , DALMIA CEMENT.ZUARI CEMENT, JAYPEE CEMENT ,MAHA CEMENT, J.K.CEMENT ,AMBUJA CEMENT , CENTURY CEMENT, PENNA CEMENT , RAMCO CEMENT, INDIA CEMENTS
130	PLASTICISER AND SUPER PLASTICISER	AS PER CEMENT MANUFACTURER'S RECOMMENDATION
131	EXPANSION JOINT BITUMEN BOARD	DURA BOARD HD100, DURAFILL
132	HIGH DENSITY PRELAMINATEDEBOARD	PERGO, GREEN PLY INDUSTRIES LTD, HIDEX
133	SS BUTT HINGES	OZONE , DORMA, GEZE
134	REFLECTIVE GLASS	SAINT GOBAIN , ASAHI , PILKINGTON,MODI FLOAT, GLAVERBEL
135	PREMIER ACRYLIC SMOOTH EXTERIOR PAINT WITH SILICON ADDITIVES	ASIAN PAINT, ICI DULUX, NEROLOC BERGER
136	CEMENT BASED WALL PUTTY	JK WALL PUTTY, BIRLA WALLCARE, ASIAN PAINT
137	FLUSHING CISTERN	KOHLER, GROHE, JAQUAR , CERA, BATHSENSE TECE/BATHSENSE, PARRYWARE, HINDWARE
138	URINAL	CERA, HINDWARE, PARRYWARE, JAQUAR, BATHSENSE TECE/BATHSENSE
139	PE-AL-PE COMPOSITE PIPES	KITECH, VECTUS, JINDAL
140	PVC /HDPE WATER STORAGE TANKS	VECTUS, SYNTEX, SUPREME
141	WATER SUPPLY FIXTURES, (CP BRASS)	JAQUAR, HINDWARE, PARRYWARE, METRO, SEIKO
142	ANODISED ALUMINIUM FITTINGS FOR DOORS AND WINDOWS	DEFNE, SCHUECO, BHORUKA, KAWANEER, HARDIMA, EVERITE, JYOTHI, SIGMA, DORMA
143	STRUCTURAL GLAZING	MODI, SAINTGOBAIN, ASAHI, GLAVERBEL
144	MULTI WALLED POLYCARBONATE ROOFING SHEETS	DANPALON, LEXAN GE, DPI DAYLIGHT, PALRAM
145	EPOXY FLOORING	STP LIMITED, ASIAN, FOSROC

146	PVC/WPC BOARD	SMP IMPEX, A1 STONE, ECOSTE, ECHON, RAJASREE, QUTE
147	DRY WALL PARTITION	GYPROC (SAINT GOBAIN), HILUX, BISON, AEROCON

NOTE: If any item is not available in the preferred make list, the Engineer-in-Charge shall accord the approval of such item.

Schedule of Quantities

Name of work: Providing sheet roofing after dismantling the existing damaged roof of PD Building at CCRI Kalavoor, Alappuzha

SLNo	Description	Qty	Unit	Rate	Amount
1	STEEL WORK				
1.1	Structural steel work in single section, fixed with or without connecting plate, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.	200	kg	150.70	30140.00
1.2	Structural steel work riveted, bolted or welded in built up sections, trusses and framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.	4000	kg	171.70	686800.00
2	ROOFING				
2.1	Providing & fixing false ceiling at all height including providing & fixing of framework made of special section, power pressed from M.S. sheets and galvanised with zinc coating of 120 gms/ sqm (both side inclusive) as per IS : 277 and consisting of angle cleat of size 25 mm wide x 1.6 mm thick with flanges of 27 mm and 37mm, at 1200 mm c/c, one flange fixed to the ceiling with dash fastener 12.5 mm dia x 50 mm long with 6 mm dia bolts, other flange of cleat fixed to the angle hangers of 25 x10 x0.50 mm of required length with nuts & bolts of required size and other end of angle hanger fixed with intermediate G.I channels 45 x15 x 0.90 mm running at the spacing of 1200 mm c/c, to which the ceiling section 0.5 mm thick bottom wedge of 80 mm with tapered flanges of 26 mm each having lips of 10.5mm, at 450 mm c/c, shall be fixed in a direction perpendicular to G.I intermediate channel with connecting clip made out of 2.64 mm dia x 230 mm long G.I wire at every junction, including fixing perimeter channels 0.50 mm thick 27 mm high having flanges of 20 mm and 30 mm long, the perimeter of ceiling fixed to wall/ partitions with the help of Rawl plugs at 450 mm centre,				
	with 25 mm long dry wall screws @ 230 mm interval, including fixing of Calcium Silicate Board to ceiling section and perimeter channels with the help of dry wall screws of size 3.5 x25 mm at 230 mm c/c, including jointing & finishing to a flush finish of tapered and square edges of the board with recommended jointing compounds, jointing tapes,finishing with jointing compounds in three layers covering up to 150 mm on both sides of joints and two coats of primer suitable for boards, all as per manufacture's specification and also including the cost of making opening for light fittings, grills, difusers, cut outs made with frame of perimeter channels suitably fixed, all complete as per drawings, specifacaton and direction of the Engineer in charge but excluding the cost of painting with:				
2.1.1	8 mm thick Calcium Silicate Board made with Calcareous & Siliceous materials reinforced with cellulose fiber manufactured through autoclaving process.	270	sqm	2019.40	545238.00
2.2	Providing and fixing of Pre-coated colour or mill finish Aluminium Roofing Accessories in 0.71 mm thickness ,Alloy 31500 (IS designation) [Aluminium Alloy (AA) 3004 (ISO designation)]. For colour, coating shall be 5-7 microns epoxy primer on both sides of the sheet and polyester top coat 15-18 microns, using self drilling/tapping SS screws of size 6 x 50 mm with 3 mm thick EPDM seal and SS plain washer complete:				
2.2.1	Precoated/mill finish aluminium Ridges plain (500- 600mm)	107	metre	1369.40	146526.00

SLNo	Description	Qty	Unit	Rate	Amount
2.2.2	Precoated/mill finish aluminium Flashings/ Aprons (Upto 600 mm)	170	metre	1255.00	213350.00
3	FINISHING				
3.1	Finishing with Epoxy paint (two or more coats) at all locations prepared and applied as per manufacturer's specifications including appropriate priming coat, preparation of surface, etc. complete.				
3.1.1	On steel work	230	sqm	310.50	71415.00
3.2	Wall painting with premium acrylic emulsion paint of interior grade, having VOC (Volatile Organic Compound) content less than 50 grams/ litre of approved brand and manufacture, including applying additional coats wherever required to achieve even shade and colour.				
3.2.1	One coat	550	sqm	122.60	67430.00
3.3	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade:				
3.3.1	One or more coats on old work	620	sqm	132.05	81871.00
3.4	Finishing walls with Premium Acrylic Smooth exterior paint with Silicone additives of required shade				
3.4.1	Old work (one or more coats applied @ 0.83 ltr/10 sqm).	800	sqm	113.75	91000.00
4	REPAIRS TO BUILDING				
4.1	Repairs to plaster of thickness 12 mm to 20 mm in patches of area 2.5 sq.meters and under, including cutting the patch in proper shape, raking out joints and preparing and plastering the surface of the walls complete, including disposal of rubbish to the dumping ground, all complete as per direction of Engineer-in-Charge.				
4.1.1	With cement mortar 1:4 (1 cement : 4 fine sand)	50	sqm	703.05	35153.00
5	Dismantling and Demolishing				
5.1	Taking out doors, windows and clerestory window shutters (steel or wood) including stacking within 50 metres lead :				
5.1.1	Of area beyond 3 sq. metres	44	each	242.60	10674.00
5.2	Dismantling roofing including ridges, hips, valleys and gutters etc., and stacking the material within 50 metres lead of:				
5.2.1	Asbestos Cement sheet	1660	sqm	99.30	164838.00
6	ALUMINIUM WORK				
6.1	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / panelling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately) :				
6.1.1	For fixed portion				

SLNo	Description	Qty	Unit	Rate	Amount
6.1.1.1	Powder coated aluminium (minimum thickness of powder coating 50 micron)	920	kg	681.85	627302.00
6.1.2	For shutters of doors, windows & ventilators including providing and fixing hinges/ pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber / neoprene gasket required (Fittings shall be paid for separately)				
6.1.2.1	Powder coated aluminium (minimum thickness of powder coating 50 micron)	740	kg	814.85	602989.00
6.2	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge . (Cost of aluminium snap beading shall be paid in basic item):				
6.2.1	With float glass panes of 5 mm thickness (weight not less than 12.50 kg/sqm)	90	sqm	1933.30	173997.00
	Non Scheduled Items				
7	Providing and fixing with necessary self tapping screws sandwich panel trafford roofing sheet having a total thickness of 50 mm with polyurethane foam of density 36 ± 2 Kg/ Cum with thermal conductivity $\leq 22\text{MW/MK}$ and form tensile strength (adhesion) at $80^\circ\text{C} \geq 80$ KPa and Young's Modulus at $80^\circ\text{C} \geq 2500$ KPa sandwiched between two sheets. The external and internal sheet shall have thickness of 0.40 mm and 0.30 mm respectively. The external and internal sheet shall be JSW/TATA/ Bhushan/ Llyod's make having a minimum 150 GSM Galvalume coating pre painted with approved colour and shade by the Engineer - in - charge with an SMP coating of 18 microns ver epoxy coats of 18 microns over epoxy coats of 7 microns.	1520	Sqm	2182.75	3317780.00
8	Providing and fixing galvanised End Cap to the edge facia of the roofing sheet with necessary self tapping screws,etc as per the Direction of Engineer in charge	170	metre	344.35	58540.00
	Total				6,925,043.00