भारत सरकार

GOVERNMENT OF INDIA

केन्द्रीय लोक निर्माण विभाग

CENTRAL PUBLIC WORKS DEPARTMENT

कार्यपालक अभियंता (वैधूत)- कोच्ची का कार्यालय

Office of the Executive Engineer (E) – Kochi,
CPWD, Kochi / के. लो. नि. वि, कोच्ची

निविदा आंमत्रण सूचना

NOTICE INVITING TENDER

सूचकांक/INDEX

Name of Work : **Maintenance to the old Fountain area in front of NIFPHATT Administrative Building including surrounding Landscaping/ Horticulture works at NIFPHATT, Kochi.**

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3.	भाग 'घ " /PART – D SCHEDULE OF QUANTITIES	106 to 115
4.	/PART – E MISCELLANEOUS Applicable GCC 2023 (Construction Works) with Correction slips issued up to the last date of submission of bid	Available on CPWD Web site (www.cpwd.gov.in)

Certified that this NIT contains page 1 to page 115 including this index page. Further certified that this NIT contains printed matter only and there is no correction/insertion/addition/deletion in it.

PART -A

INFORMATIONS AND INSTRUCTIONS FOR CONTRACTORS FOR e-TENDERING

CPWD-6

CPWD 7

SCHEDULE A TO F

INFORMATION AND INSTRUCTIONS FOR CONTRACTORS FOR e-TENDERINGFORMINGPART OF BID DOCUMENT

The Executive Engineer (Elect) – Kochi, CPWD, 4th Floor, 'A' Block, Kendriya Bhavan, Kakkanad, Kochi – 682 037 (Telephone No. 0484-2423729) on behalf of the President of India invites **Online Percentage rate** tenders from **" CPWD Enlisted Contractor of Composite Category in appropriate class "** in **Single Bid system** for the following work:

S. No.	NIT No.	Name of work & Location	Estimated cost put to Bid	Earnest Money	Period of Completion	Last date & time of submission of bid, copy of receipt for deposition of original EMD and other document as specified in the NIT	Time & date of opening of Eligibility Bid
1	2	3	4	5	6	7	8
1	55/EE(E)-KOCHI/2026-27	**Maintenance to the old Fountain area in front of NIFPHATT Administrative Building including surrounding Landscaping/ Horticulture works at NIFPHATT, Kochi.**	**Rs 9,90,306/- [Electrical – Rs 5,71,874/- + Civil – Rs 4,18,432/-]**	**Rs 19,806/-**	**02 (Two) Months**	**20.11.2026 up to 15.00Hrs.**	**20.11.2026 at 15.30Hrs .**

1. The intending bidder must read the terms and conditions of **CPWD-6** carefully. He should only submit his bid if he considers himself eligible and he is in possession of all the documents required.

2. This information and instructions for bidders posted on website shall form part of bid document.

3. The contractor can deposit 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 contractor shall obtain the receipt of EMD from the concerned Executive Engineer (including NIT issuing EE) in the prescribed format uploaded by NIT issuing Executive Engineer. The bid document as uploaded can be viewed and downloaded free of cost by anyone including intending bidder. But the bid can only be submitted after uploading the mandatory scanned documents such as **Insurance Surety Bonds/ Account payee Demand Draft/ Fixed Deposit Receipt (FDR)/ Banker's cheque or Bank Guarantee (as prescribed) issued by a Commercial Bank towards EMD in favour of respective Executive Engineer, copy of receipt of original EMD and other documents specified in the NIT.**

4. The bid document consisting of Plans, Specifications, Schedule of quantities of various types of items to be executed and the set of terms and conditions of the contract to be complied with and other necessary documents can be seen in **office of the Executive Engineer (E),CPWD, Kochi** and downloaded from website **www.etender.cpwd.gov.in**or **www.cpwd.gov.in** free of cost.

   Applicants are advised to keep visiting the above mentioned web-sites from time to time (till the deadline for bid submission) for any updates in respect of the tender documents, if any. Failure to do so shall not absolve the applicant of his liabilities to submit the applications complete in all respects including updates thereof, if any. An incomplete application may be liable for rejection.

5. But the bid can only be submitted after deposition of original EMD either in the office of Executive Engineer inviting bids or division office of any Executive Engineer, CPWD within the period of bid submission and uploading the mandatory scanned documents such as Insurance Surety Bonds, Account Payee Demand Draft or Banker's Cheque or Fixed Deposit Receipts or/ and Bank Guarantee (as prescribed) issued by a commercial bank towards EMD **in favour of Executive Engineer, Cochin Central Division, CPWD, Cochin** receipt for deposition of original EMD to division office of any Executive Engineer (including NIT issuing EE/AE), CPWD and other documents as specified.

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

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

8. On opening date, the contractor can login and see the bid opening process. After opening of bids, he will receive the competitor bid sheets.

9. Contractor can upload documents in the form of JPG format and PDF format.

10. **a) The contractor must ensure to quote rate in the prescribed column(s) meant for quoting rate in figures appears in Yellow colour and the moment rate is entered, it turns sky blue.**

    b) Tenderer shall quote the percentage rate above or below two places of decimals only.

    c) The tenderer shall quote only one overall percentage rate above or below on the designated place, which shall be applicable on Civil and E&M components

11. 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" (ZERO). However, if a bidder quotes nil rate, the bid shall be treated as invalid and he will not be considered as lowest bidder

    a) 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.

    b) It is mandatory to upload scanned copies of all the documents including GST registration. If documents are not uploaded, then bid will become invalid and shall summarily be rejected.

    c) Please read para – 9 of CPWD-6 for further details.

12. Tenders with any condition including that of conditional rebates shall be rejected forthwith. If any information furnished by the applicant is found incorrect at a later stage, he shall be liable to be debarred from tendering/ taking up of works in CPWD. The Department reserves the right to verify the particulars furnished by the applicant independently

13. This work requires engaging more than 20 nos. of labour / workers and therefore all necessary licenses such as labour license, EPFO and ESI, BOCW welfare registration etc., shall be taken by contractor within the time limits as prescribed under clause 1 of schedule 'F'

14. The Department reserves the right to reject any prospective application without assigning any reason and to restrict the list of qualified contractors to any number deemed suitable by it, if too many bids are received satisfying the laid down criteria.

15. Contractor shall not divert any advance payments or part thereof for any other purpose other than needed for completion of the contracted work. All advance payments received as per terms of the contract (i.e., mobilization, secured against materials brought at site, secured against plant & machinery and / or for work done during interim stages, etc.) are required to be re-invested in the contracted work to ensure advance availability resources in terms of materials, labour, plant & machinery needed for required pace of progress for timely completion of work.

16. **Any dispute arising out of this tender including dispute related to encashment of any Bank Guarantee/ FDR etc., shall be subject to the jurisdiction of courts of Kerala State only.**

17. The tenderer should also read the **General Conditions of Contract (GCC) for Construction Works 2023** amended up to date (available on CPWD above websites), which is available as Govt. of India Publications.

18. If the bidder has not obtained GST Registration as applicable, then he shall scan and upload following undertaking along with other 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 a/c of the work executed and/or for any action taken by CPWD or GST department in this regard."

19. If the bidder has not possess valid electrical license of appropriate voltage / class issued by competent authority, he shall scan and upload following under taking along with other bid documents.

"If work is awarded to me, I/we shall either obtain valid electrical license of appropriate voltage / class issued by competent authority at the time of execution of electrical work or associate with eligible CPWD enlisted contractor possessing valid electrical license of appropriate voltage / class issued by competent authority through which the electrical works will be executed."

20. **List of Documents to be filled in by the bidders in various forms to be scanned and uploaded in JPG / PDF format within the period of bid submission:**

1. Treasury Challan /Demand Draft/Pay order or Banker`s Cheque /Deposit at Call Receipt/FDR/ Bank Guarantee of any Scheduled Bank (**drawn in favour of Executive Engineer, Cochin Central Division, CPWD, Cochin**) against EMD.

2. Copy of receipt for deposition of original EMD issued from Division Office of any Executive Engineer, CPWD (including NIT issuing EE/AE(P))

3. Enlistment Order of the Contractor in composite category and appropriate class

4. GST registration Certificate as applicable or undertaking as per Para -18 above

5. Confirmation for Submission of Financial Bid – **Form 'C'** on the firm's letterhead

6. Copy of PAN No. (Permanent Account Number)

7. An undertaking **Form -D** (Undertaking regarding not debarred by Govt / Autonomous Body etc) at the time of submission of Tender to be furnished on the firm letterhead.

8. An undertaking **Form -E** (Undertaking regarding work not got executed back to back basis) to be furnished on the firm letterhead.

9. Copy of Valid Electrical License in appropriate voltage / class issued by competent authority of the State Government / CEIG or Undertaking as per Para -19 above.

10. Copy of ERP TRAINING CERTIFICATE issued through LMS (LEARNING MANAGEMENT SYSTEM) MODULE IN ERP.

11. Copy of registration with ESI / EPF authorities. In case the intending bidder does not have any registration with the ESI / EPF authorities, but has applied for the same, he shall upload a copy of acknowledgement of the application with these authorities. In case the intending bidder is not covered under the ESI / EPF Acts, he shall upload a self declaration on his letterhead to this effect.

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Assistant Engineer (E) (P)
O/o EE(E)-Kochi, CPWD, Kochi

Executive Engineer (E) – Kochi
CPWD, Kochi

ANNEXURE 20A.14
(New Annexure as per DG/MAN/341)

INFORMATION AND INSTRUCTIONS FOR EXECUTIVE ENGINEER for e-TENDERING

1. **The Executive Engineer of all divisions including Division / Sub Division of CPWD should receive the original EMD for tender of other division.**

2. **The NIT approving authority/EE 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.....)

Name of Work: Maintenance to the old Fountain area in front of NIFPHATT Administrative Building including surrounding Landscaping/ Horticulture works at NIFPHATT, Kochi.

1	**NIT No.**	**: 54/EE(E)-KOCHI/2026-27.**
2	**Estimated Cost:**	**: Rs 9,90,306/- [Electrical – Rs 5,71,874/- + Civil – Rs 4,18,432/-]**
3	**Amount of Earnest Money Deposit:**	**: Rs. 19,806/-**
5	**Last date of submission of bid:**	**: 20.11.2026 up to 15.00.Hrs**

(*To be filled by NIT approving authority/EE at the time of issue of NIT and uploaded along with NIT)

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.

(# to be filled by EMD receiving EE)

3. **The Executive Engineer receiving EMD in original form shall examine the EMD deposited by the bidder and shall issue a receipt of deposition of earnest money to the agency in a given format uploaded by tender inviting EE. The receipt may be issued by the AE (P)/AE/AAO.**

4. **The Executive Engineer receiving original EMD shall also intimate tender inviting Executive Engineer about deposition of EMD by the agency by email/fax/telephonically.**

5. **The original EMD receiving Executive Engineer shall release the EMD after verification from the e-tendering portal website (www.etender.cpwd.gov.in) that the particular contractor is not L-1 tender and work is awarded.**

6.The tender inviting Executive Engineer will call for original EMD of the L-1 tenderer from EMD receiving Executive Engineer immediately.

NOTE : 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, Cochin Central Division, CPWD, Cochin.)

Form – C

CONFIRMATION FOR SUBMISSION OF FINANCIAL BID

To
The Executive Engineer (E) - Kochi
CPWD, Kochi

Sub:-

Sir,

I/We ..... the Bidder have uploaded financial bid from our firm for above work.

Yours faithfully

Signature

Full Name of the Firm/Bidder:.....

Designation:.....

Address:.....

Tele No.s (O)..... (R).....

E mail:.....

Fax No:.....

Form – D

UNDERTAKING

I/We declare that, I/we have not been debarred/restrained/black listed by any Central Govt/ State Govt. Agency/ Autonomous body of the Central or State Govt./ PSU etc.

Signature of the Bidder

Address

UNDERTAKING

I/We undertake and confirm that eligible similar works (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 from bidding 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.

Signature of the Bidder

Address

Form 'F'

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

1. **Online Percentage rate bids** are invited on behalf of the President of India from **"CPWD Enlisted contractors of Composite Category in appropriate class"** for the following work:

Name of Work: **Maintenance to the old Fountain area in front of NIFPHATT Administrative Building including surrounding Landscaping/ Horticulture works at NIFPHATT, Kochi.**

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 should be valid on the original date of submission of Bids.

1.1 The work is estimated to cost **Rs. 9,60,306/- [Electrical – Rs 5,71,874/- + Civil – Rs 4,18,432/-].** This Estimate however, is given merely as a rough guide.

1.1.1 The authority competent to approve NIT for the combined cost and belonging to the major discipline will consolidate NIT's for calling the bids. He will also nominate Division which will deal with all matters relating to the invitation of bids.

For composite bid, besides indicating the combined estimated cost put to bid, should clearly correspond to the combined estimated cost of different components put to bid.

1.2. Intending bidders is eligible to submit the bid provided he has definite proof from the appropriate authority, which shall be to the satisfaction of the competent authority, of having satisfactorily completed similar works of magnitude specified.

To become eligible for issue of bid, the bidders shall have to furnish an affidavit as under:-

I/We undertake and confirm that eligible similar works(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 bidding 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. (Scanned copy to be uploaded at the time of submission of bid)

2. Agreement shall be drawn with the successful bidders on prescribed **Form No.CPWD7/8** (or other standard Form as mentioned) which is available as a Govt. of India Publication **and also available on website www.cpwd.gov.in.** Bidders shall quote his rates as per various terms and conditions of the said form which will form part of the agreement.

3. **The time allowed for carrying out the work will be 02 (Two) months from the date of start as defined in schedule 'F' or from the first date of handing over of the site, whichever is later, in accordance with the phasing, if any, indicated in the bid documents.**

4. The site for the work is available.

5. The bid document consisting of plans, specifications, the schedule of quantities of various types of items to be executed and the set of terms and conditions of the contract to be complied with and other necessary documents except Standard General Conditions of Contract Form can be seen on website **www.etender.cpwd.gov.in** or **www.cpwd.gov.in** free of cost.

6. After submission of the bid the contractor can re-submit revised bid any number of times but before last time and date of submission of bid as notified. While submitting the revised bid, contractor can revise the rate of one or more items(s) any number of times (be need not re-enter rates of all the items) but before last time and date of submission of bid as notified.

7. 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, Cochin Central Division, CPWD, Cochin.**) shall be scanned and uploaded to the e-Tendering website within the period of bid submission. The original EMD should be deposited either in the office of Executive Engineer inviting bids or division office of any Executive Engineer, CPWD within the period of bid submission. The EMD receiving Executive Engineer (including NIT issuing EE/AE) shall issue a receipt of deposition of earnest money deposit to the bidder in a prescribed format (enclosed) uploaded by tender inviting EE in the NIT. This receipt shall also be uploaded to the e-tendering website by the intending bidder upto the specified bid submission date and time.

Copy of Enlistment order and other documents as specified in Tender notice shall be scanned and uploaded to the e-Tendering website within the period of Bid submission. However, certified copy of all the scanned and uploaded documents as specified shall have to be submitted by the lowest bidder only along with original duly filled Proforma for EMD Declaration uploaded within a week physically in the office of Tender opening authority. Online Bid documents submitted by intending bidders shall be opened only of those bidders, whose duly filled Proforma for EMD Declaration and other documents scanned and uploaded are found in order.

For MSME registered firms also, there is no EMD exemption in this Tender

8 The contractors registered prior to 01.04.2015 on e-tendering portal of CPWD shall have to deposit tender processing fee at existing rates, or they have option to switch over to the new registration system without tender processing fee any time.

The Bid submitted shall be opened at 15.30 Hrs on 20.11.2026

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

(i) The bidder is found ineligible.
(ii) The bidder does not deposit original EMD with Division Office of any Executive Engineer, CPWD.
(iii) The bidder does not upload scanned copies of all the documents stipulated in the Bid document.
(iv) GST Registration Certificate is already obtained by the bidder.

If the bidder has not obtained GST registration as applicable, then he shall scan and upload following under taking along with other 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 a/c of the work executed and/or for any action taken by CPWD or GST department in this regard."

(v) The bidder does not upload Valid Electrical License of appropriate voltage. However, the contractor shall be allowed to participate in tender with an undertaking that "They will either obtain valid electrical license of appropriate voltage at the time of execution of electrical work or associates with agency possessing valid electrical contractor license of appropriate voltage issued by competent authority through which the electrical works will be executed".

(vi) 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.

(vii) If a tenderer quotes NIL rates against all items 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 of **5% (Five Percent)** of the bid amount within the period specified in Schedule F. This guarantee shall be in the form of cash (in case guarantee amount is less thanRs.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. **Performance Guarantee (drawn in favour of Executive Engineer, Cochin Central Division, CPWD, Cochin)**. In case the contractor fails to deposit the said performance guarantee within the period as indicated in Schedule 'F', including the extended period if any, he shall be suspended for one year and shall not be eligible to bid for CPWD Tenders from date of issue of Suspension order. The Contractor whose bid is accepted will also be required to furnish either copy of applicable license / registrations or proof of applying for obtaining labour licenses, registration with EPFO, ESIC and BOCW Welfare Board including Provident Fund Code No if applicable and also ensure the compliance of aforesaid provisions by the sub contractors, if any engaged by the contractor for the said work within the period specified in Schedule F.

11. The Description of the work is as follows:

Maintenance to the old Fountain area in front of NIFPHATT Administrative Building including surrounding Landscaping/ Horticulture works at NIFPHATT, Kochi.

Intending Bidders are advised to inspect and examine the site and its surroundings and satisfy themselves before submitting their bids as to the nature of the ground and sub-soil (so far as is practicable), the form and nature of the site, the means of access to the site, the accommodation they may require and in general shall themselves obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their bid. A bidders shall be deemed to have full knowledge of the site whether he inspects it or not and no extra charge consequent on any misunderstanding or otherwise shall be allowed. The bidders shall be responsible for arranging and maintaining at his own cost all materials, tools & plants, water, electricity access, facilities for workers and all other services required for executing the work unless otherwise specifically provided for in the contract documents. Submission of a bid by a bidders 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 the assignment of any reason. All bids in which any of the prescribed condition is not fulfilled or any condition including that of conditional rebate is put forth by the bidders shall be summarily rejected.

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 to himself the right of accepting the whole or any part of the bid and the bidders shall be bound to perform the same at the rate quoted.

15. The contractor shall not be permitted to bid for works in the CPWD Circle (Division in case of

contractors of Horticulture/Nursery category) responsible for award and execution of contracts, in which his near relative is posted a Divisional Accountant or as an officer in any capacity between the grades of Superintending Engineer and Junior Engineer (both inclusive). He shall also intimate the names of persons who are working with him in any capacity or are subsequently employed by him and who are near relatives to any gazetted Officer in CPWD 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.

16. 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.

17. **The bid for the works shall remain open for acceptance for a period of Thirty / ~~SeventyFive~~ (30/~~75~~) days from the actual date of opening of Bid in case of Single Bid system / ~~Sixty (60) days from the date of opening of Technical Bid in case bids are invited on 2 or 3 Bid envelope system~~. (strike out as the case may be).** If any bidder withdraws his bid before the said period or issue of letter of acceptance, whichever is earlier, or makes any modifications in the terms and conditions of the bid which are not acceptable to the department, then the Government shall, without prejudice to any other right or remedy, be at liberty to forfeit 50% of the said earnest money as aforesaid. Further the bidders shall not be allowed to participate in the rebidding process of the work.

18. 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 15days from the stipulated date of start of the work, sign the contract consisting of:-

(a) The Notice Inviting Bid, all the documents including additional conditions, specifications and drawings, if any, forming part of the bid as uploaded at the time of invitation of bid and the rates quoted online at the time of submission of bid and acceptance thereof together with any correspondence leading thereto.

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

19. **<u>For Composite Tenders</u>**

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

2. The bid document will include following three components:

Part A:- CPWD-6, CPWD-7/8 including schedule A to F, Standard General Conditions of Contract for CPWD 2023 as amended/ modified up to date.

Part B:- General / specific conditions, Technical specifications as applicable.

Part C:- Schedule of Quantities of the work.

3. The bidders must associate himself, with agencies as per NIT conditions

4. The eligible bidders shall quote rates for all items of major component as well as for all items of minor components of work.

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

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

7. Security Deposit will be worked out separately for each component corresponding to the estimated cost of the respective component of works.

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

9. In case the main contractor intends to change any of the above agency/agencies during the operation of the contract, he shall obtain prior approval of Engineer-in-charge of relevant specialized component(s).

   The new agency/agencies shall also have to satisfy the laid down eligibility criteria. In case Engineer-in-charge is not satisfied with the performance of any agency, he can direct the contractor to change the agency executing such items of work and this shall be binding on the contractor.

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

11. Running payment for the major component shall be made by EE of major discipline to the main contractor. Running payment for minor components shall be made by the Engineer- in-charge of the discipline of minor component directly to the main contractor. The CMB shall be maintained independently by the Engineer-in-Charge of major and minor components.

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

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

Assistant Engineer (E) (P)
O/o EE(E)-Kochi

Executive Engineer (E) – Kochi
CPWD, Kochi

BRIEF PARTICULARS OF WORK

1. The work is situated at **NIFPHATT, Cochin Office, W/Island, Kochi, Kerala**

2. General features and major components of the work are as under:

E&M Works

(i) Fabricating, SITC of cubical outdoor type box, IP42 ingress protected, suitable for operation on 3 phase 415 V, 4 wire AC supply with 32 Amps, 16 KA FPMCCB as incomer and 3 nos. 16A, 415 Volts, 50Hz, FPMCB, C curve along with automatic controller for general lighting and bollard lights.

(ii) SITC of 45W decorative type LED post top type luminaire along with 3 meter pole & SITC of LED Bollard light with in built LED / LED lamp of 600-1000mm Height of System wattage 11W etc. as required.

(iii) SITC of Name Board with LED lit letters of suitable size indicating "I ❤️ NIFPHATT" at the center of the lawn.

(iv) Supplying and laying of 3.5 x 25 Sq mm & 2C x 10 sq.mm XLPE insulated, PVC sheathed, armoured, aluminium conductor power cable etc. as required.

(v) Providing suitable earthing with G.I. earth pipe and GI wire etc. as required.

Civil Works

(i) Clearing Jungle area in the existing lawn area, dismantling existing fountain and clearing.

(ii) Providing grassing with buffalo grass and small ornamental plants.

(iii) Providing pathway to the lawn by laying paver blocks and kerb stones.

(iv) Providing 5 Nos of Stone benches in the lawn area.

GENERAL TERMS AND CONDITIONS

1.1 General Specifications & Order of preference:

1.1.1 Except for the items, for which Particular Specifications are given or where it is specifically mentioned otherwise in the description of the items in the schedule of quantities, the work shall generally be carried out in accordance with the "CPWD Specifications for Electrical Works Part-I Internal -2023, Part-II External – 2023, CPWD General Specifications Part-III Lift & Escalators – 2003, Indian Electricity Act 2003, CEA (Measures relating to Safety and Electric Supply) Regulations, 2023" with up-to-date amendments / correction slips, additional / Particular Specifications, Architectural / structural drawings and as per instructions of Engineer-in-Charge.

1.1.2 The several documents forming the tender are to be taken as mutually complementary to one another. Detailed drawings shall be followed in preference to small scale drawings and figured dimensions in preference to scaled dimensions.

1.1.3 If there is any difference or discrepancy between the description of items as given in the schedule of quantities, particular specifications for individual items of work (including special conditions) and I.S. Codes etc., the following order of preference shall be observed

a) **Description of items as given in Schedule of Quantities.**

b) **Particular Specifications, Special Conditions and Additional conditions, if any.**

c) **Drawings.**

d) **CPWD Specifications.**

e) **General conditions of contract for CPWD works.**

f) **Indian Standard Specifications of B.I.S.**

g) **Manufacturers' specifications & as decided by Engineer-in-charge.**

h) **Sound Engineering practices.**

"In the event of any variation/ discrepancy in the drawings, specifications and tender documents etc. the decision of the Engineer-in-charge shall be final binding and conclusive on the contractor and in the case the contractor have any doubt and the same should be got clarified immediately from the Engineer-in-charge and no claim of the contractor shall be entertained thereafter. Moreover, the agency is not allowed to take benefit out of any clerical/ grammatical mistake in the standard clauses/Schedule of Quantities/Specifications etc. being used in the agreement".

1.1.4 Any reference made to any Indian Standard Specifications, shall imply to the latest version of that standard, including such revisions / amendments as issued by the Bureau of Indian Standards up to last date of receipt of tenders. **The Contractor shall keep at his own cost all such publications including relevant Indian Standard Codes applicable to the work at site**.

1.2 Scope:

1.2.1 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. Pre-commissioning tests as per relevant standard specifications, code of practice, Acts and Rules wherever required.

iii. Warranty obligation for the equipment and/or fittings/fixtures supplied by the contractor.

1.2.2 Contractor shall provide all the shop drawings or layout drawings for all the coordinated services before starting any work or placing any order for 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.

1.2.3 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.

1.3 Deployment of Technical staff & skilled labour:

1.3.1 The quality of work is of paramount importance. Contractor shall have to engage well experienced skilled labour and deploy modern T&P and other equipment to execute the work to provide the desired quality.

1.4 Removal of Machinery, Tools & Equipment:

1.4.1 Removal of machinery, tools & equipment shall be allowed to be moved away from the site only when, in written opinion of Engineer-in-Charge, the same are no longer required at site of work.

1.5 Site condition:

1.5.1 The tenderer shall acquaint himself with the site of work and see the approaches to the site. In case any approach from main road is required at site or existing approach is to be improved and maintained for cartage of materials by the contractor, the same shall be provided, improved and maintained by the contractor at his own cost.

1.6 Precautionary measures:

1.6.1 Contractor shall take all precautionary measures to avoid any damage to adjoining property. All necessary arrangement shall be made at his own cost. The contractor shall take all precautions to prevent his workmen and employees from removing and damaging any Flora (plant/vegetation) from the campus/site.

1.6.2 The contractor shall take all precautions to avoid accidents by exhibiting necessary caution boards day and night, speed limit boards, red flags, red lights and providing barriers. He shall be responsible for all damages and accidents caused to work due to negligence on his part. No hindrances shall be caused to traffic, during the execution of the work. In case of any accident of the labourers/ contractual staff, the entire responsibility will rest on the contractor and any compensation under such circumstances, if becomes payable, shall be entirely borne by the contractor.

1.6.3 The contractor, his authorized representative, workmen etc. shall strictly observe orders pertaining to fire precautions prevailing in the area.

1.6.4 The Contractor shall take all necessary precautions to prevent any nuisance or inconvenience to the owners, tenants or occupants of the adjacent properties and to the public in general. The Contractor shall take all care, as not to damage any other adjacent property or other services running adjacent to the plot. If any damage is done, the same shall be made good by the Contractor at his own cost and to the entire satisfaction of the Engineer-in-Charge. The Contractor shall use such methodology and equipment for execution of the work, so as to cause minimum environmental pollution of any kind during construction, to have minimum construction time and minimum inconvenience to road users and to the occupants of the buildings on the adjacent plot and public in general, etc. He shall make good at his own cost and to the entire satisfaction of the Engineer in Charge any damage to roads, paths, cross drainage works or public or private property whatsoever caused, due to the execution of the work or by traffic brought thereon, by the Contractor.

1.6.5 Further, the Contractor shall take all precautions to prevent any pollution of streams and waterways. All waste or superfluous materials shall be carted away by the Contractor, entirely to the satisfaction of the Engineer-in-Charge. Utmost care shall be taken to keep the noise level to the barest minimum so that no disturbance as far as possible is caused to the occupants / users of adjoining buildings. No claim what so ever on account of site constraints mentioned above or any other site constraints not specifically stated here, shall be entertained from the Contractor. Therefore, the Contractors are advised to visit site and get first hand information of site constraints. Accordingly, they should quote their tenders. Nothing extra shall be payable on this account.

1.7 General cleanliness of the site and Stacking & Storage of Materials:

1.7.1 The site of work shall be always kept clean in general strictly adhering to approved job layout and green building parameters. The Contractor shall take all care to prevent any water- logging at site. The waste water shall not be allowed to be collected at site. It may be directly pumped into the public drainage system with prior approval of the concerned authorities. For discharge into public drainage system, necessary permission shall be obtained from concerned authorities after paying the necessary charges, if any, directly to the authorities. The work shall be carried out in such a way that the area is kept clean and tidy. All the fees/charges in this regard shall be borne by the Contractor. Nothing extra shall be payable on this account.

1.7.2 The contractor shall take instructions from the Engineer-in-Charge regarding collection and stacking of materials at any place. No excavated earth or building rubbish shall be stacked on areas where other buildings, roads, compound wall, services etc. are to be constructed.

1.7.3 For construction works which are likely to generate malba / rubbish, contractor shall dispose of malba, rubbish & other unserviceable materials and wastes at his own cost to the notified/specified dumping ground and under no circumstances these shall be stacked / dumped even temporarily, outside the construction premises.

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

1.8 Lab Equipment:

The contractor shall provide at his own cost suitable weighing, surveying and levelling and measuring arrangements as may be necessary at site for checking. All such equipment shall be got calibrated in advance from laboratory, approved by the Engineer-in-Charge. Nothing extra shall be payable on this account.

1.9 Setting Out

1.9.1 The approval by the Engineer-in-Charge, of the setting out by the contractor, shall not relieve the contractor of any of his responsibilities and obligation to rectify the errors/defects, if any, which may be found at any stage during the progress of the work or after the completion of the work.

1.9.2 The contractor shall be entirely and exclusively responsible for the horizontal, vertical and other alignments, the level and correctness of every part of the work and shall rectify effectively any errors or imperfections therein. Such rectifications shall be carried out by the contractor at his own cost to the instructions and satisfaction of the Engineer-in-Charge.

1.9.3 The Contractor shall carry out survey of the work area, at his own cost, setting out the layout of building in consultation with the Engineer-in-Charge & proceed further. Any discrepancy between the architectural drawings and actual layout at site shall be brought to the notice of the Engineer-in-charge. It shall be responsibility of the Contractor to ensure correct setting out of alignment. Total station survey instruments only shall be used for layout, fixing boundaries, and centre lines, etc., along with the theodolites. Nothing extra shall be payable on this account.

1.10 Temporary Water, Electricity & Telephone Connections:

1.10.1 The contractor shall make his own arrangements for water including boring of tube wells etc. if necessary and for electricity by obtaining electric connections and by providing diesel generators of adequate capacity if required and make necessary payments directly to the State Govt. departments concerned. Necessary approval shall be taken by the contractor from the ground water department for boring of tube wells. Nothing extra shall be paid on these accounts. 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 and testing charges etc. shall be borne by the contractor. The contractor shall obtain environmental and pollution clearance for the diesel generators. Nothing extra shall be paid on this account.

1.10.2 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 equipment, 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.

1.10.3 Arrangement of temporary telephone connection, water and electricity required by Contractor, shall be made by him at his own cost and also necessary permissions shall be obtained by him directly from concerned authorities, under intimation to the Department. Also, all initial cost and running charges, and security deposit, if any, in this regard shall be borne by him. The Contractor shall abide by all the rules/ bye laws applicable in this regard and he shall be solely responsible for any penalty on account of violation of any of the rules / byelaws in this regard. Nothing extra shall be payable on this account.

1.10.4 The Contractor shall be responsible for maintenance and watch and ward of the complete installation and water / electricity meter and shall also be responsible for any pilferage, theft, damage, penalty etc. in this regard. The Contractor shall indemnify the Department against any claim arising out of pilferage, theft, damage, penalty etc. whatsoever on this account. Security deposit for the work shall be released only after **No Dues Certificates** are obtained from the local Authorities from whom temporary electric/ water / telephone connection have been obtained by the Contractor. Nothing extra shall be payable on this account.

1.10.5 The Department shall in no way be responsible for either any delay in getting electric and/or water and/or telephone connections for carrying out the work or not getting connections at all. No claim of delay or any other kind, whatsoever, on this account shall be entertained from the Contractor. Also contingency arrangement of stand-by water & electrical supply shall be made by the Contractor commencement and smooth progress of the work so that work does not suffer on account of power failure or disconnection or not getting connection at all. No claim of any kind whatsoever shall be entertained on this account from the Contractor. Nothing extra shall be payable on this account.

1.11 Scaffolding &Staging:

1.11.1 Wherever required for the execution of work, all the scaffolding shall be provided and suitably fixed, by the contractor. The scaffolding 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. Single scaffolding system is strictly prohibited and shall invite necessary action. It shall be designed to take all incidental loads. It should cater to the safety features for workmen. Nothing extra shall be payable on this account. It shall be ensured that no damage is caused to any structure due to the scaffolding.

1.11.2 The contractor should submit the shop drawings of staging and shuttering for approval of Engineer-in-Charge before actually commencing the execution of work under the item. Nothing extra shall be payable on this account.

1.12 Co-ordination with other agencies:

1.12.1 The Contractor shall conduct his work so as not to interfere with or hinder the progress of the work being performed by other Contractors or by the Engineer-in-Charge. As far as possible, he shall arrange his work and place, so as not to interfere with the operations of other Contractors or shall arrange his work with that of the others, in an acceptable and coordinated manner and shall perform it in proper sequence.

1.12.2 Other agencies may also simultaneously execute and install the works and the contractor shall afford necessary facilities for the same. The contractor shall leave such recesses, holes, openings, trenches etc. as may be required for such related works (for which inserts, sleeves, brackets, conduits, base plates, clamps etc. shall be available as specified elsewhere in the contract) and the contractor shall fix the same at the time of casting of concrete, stone work and brick work, if required, and nothing extra shall be payable on this account.

1.12.3 The Contractor shall cooperate with and provide the facilities to the associate-Contractors and other agencies working at site for smooth execution of the work. The Contractor shall

i. Allow use of scaffolding already erected, toilets, sheds etc.

ii. Properly co-ordinate their work with the work of other Contractors.

iii. Provide control lines and benchmarks to his associate-Contractors and the other Contractors.

iv. Provide electricity and water at mutually agreed rates.

v. Provide hoist and crane facilities for lifting material at mutually agreed rates.

vi. Co-ordinate with other Contractors for leaving inserts, making chases, alignment of services etc. at site.

vii. Adjust work schedule and site activities in consultation with the Engineer-in-Charge and other Contractors to suit the overall schedule completion.

viii. Resolve the disputes with other Contractor amicably and the Engineer-in-Charge shall not be **made intermediary or arbitrator. The department shall not be responsible for the disputes between the subject work contractor and associate contractor / other agencies working at site. No claim shall be allowed by the department.**

1.13 Procurement of materials:

1.13.1 All material shall only be brought at site as per program finalized with the Engineer-in-Charge. Any pre-delivery of the material not required for immediate consumption shall not be accepted and thus not paid for.

1.13.2 The contractor shall procure the required materials in advance so that there is sufficient time for testing of the materials and approval of the same before use in the work.

1.14 Protection of Existing Services & buildings and Materials:

1.14.1 Existing drains, pipes, cables, over-head wires, sewer lines, water lines and similar services encountered in the course of the execution of work shall be protected against the damage by the contractor at his own expense. The contractor shall not store materials or otherwise occupy any part of the site in a manner likely to hinder the operation of such services. In case temporary supporting of such services is required to facilitate the work, the same shall be done by the contractor at no extra cost.

1.14.2 In case the existing services are to be shifted permanently, then before dismantling the existing services, alternate/diversion of service lines has to be laid by the contractor so that there is no interruption in use of existing services. The contractor has to plan the alternate suitable route for diversion/shifting of service lines and get the same approved from the Engineer-in-Charge before starting shifting of services. Nothing extra shall be paid except the payment of dismantling and laying of new service lines as per conditions of contract.

1.14.3 All fossils, coins, articles of value of antiquity, structures and other remains or things of geological or archaeological interest discovered on project location during excavation/construction shall be the property of the Government, and shall be dealt with as per provisions of the relevant legislation. The contractor will take reasonable precaution to prevent his workmen or any other persons from removing and damaging any such article or thing. He will, immediately upon discovery thereof and before removal acquaint the Engineer-in-charge of such discovery and carry out the official instructions of Engineer-in-charge for dealing with the same, till then all work shall be carried out in a way so as not to disturb/ damage such article or thing.

1.14.4 The contractor shall be responsible for the watch and ward / guard of the buildings, safety of all fittings and fixtures including sanitary and water supply fittings and fixtures provided by him against pilferage and breakage during the period of installations and thereafter till the building is physically handed over to the client department. No extra payment shall be made on this account.

1.14.5 The contractor shall be fully responsible for the safe custody of materials brought by him/ issued to him even though the materials may be under double lock key system.

1.15 Rates and other conditions for payment:

The rates quoted by the Contractor are deemed to be inclusive of the following-

1.15.1 Site clearance, setting out work, profile, establishment of reference bench mark(s), taking spot levels, construction of all safety and protection devices, barriers, barricading, signage, labour safety, welfare & training measures, preparatory works, working during monsoon, working at all depths, height, lead, lift and location etc. until / unless specified otherwise, etc. and any other incidental works required to complete this work. Nothing extra shall be payable on this account. Payment for centring & shuttering, however, if required to be done for floor heights greater than 3.50m shall be admissible at rates arrived in accordance with clause 12 of the agreement if not already specified.

1.15.2 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 it and nothing extra shall be paid except otherwise provided in the items of schedule of quantities.

1.15.3 Any legal or financial implications resulting out of disposal of earth shall be sole responsibility of the contractor. Nothing extra over the schedule shall be paid on this account.

1.15.4 All labour, material, tools and plants and other inputs involved in the execution of the item.

1.15.5 Providing sunk flooring in bath-rooms, kitchen, etc.

1.15.6 Performance test of the entire installation(s) before the work is finally accepted.

1.15.7 Any cement slurry added over base surface (or) for continuation of concreting for better bond is deemed to have been built in the items.

1.15.8 The rates quoted by the tenderer, shall be inclusive of all taxes including GST and levies applicable in respect of this contract shall be payable by the contractor and Government will not entertain any claim whatsoever in respect of the same.

1.15.9 For completing the work in time, the Contractor might be required to work in two or more shifts (including night shifts). No claim whatsoever shall be entertained on this account, not with-standing the fact that the Contractor may have to pay extra amounts for any reason, to the labourers and other staff engaged directly or indirectly on the work according to the provisions of the labour and other statutory bodies regulations and the agreement entered upon by the Contractor with them.

1.15.10 The Contractor shall keep himself fully informed of all acts and laws of the Central & State Governments, all orders, decrees of statutory bodies, tribunals having any jurisdiction or authority, which in any manner may affect those engaged or employed and anything related to carrying out the work. All the rules & regulations and bye-laws laid down by Collector / MC etc. and any other statutory bodies shall be adhered to, by the contractor, during the execution of work. The Contractor shall also adhere to all traffic restrictions notified by the local authorities. It is clarified that the extra sewerage charges (one time charges for commencement of work) required to be paid to the Municipal Corporation / other statutory bodies shall be paid by the department and need not be considered by the contractor. The water charges (for municipal water connection as well as tanker water) shall be borne by the contractor. Also, if the contractor obtains water connection for the drinking purposes from the municipal authorities or any other statutory body, the consequent sewerage charges shall be borne by the contractor. All statutory taxes, levies, charges (including GST, water and sewerage charges, charges for temporary service connections and / or any other charges) payable to such authorities for carrying out the work, shall be borne by the Contractor. The Contractor shall arrange to give all notices as required by any statutory / regulatory authority and obtain all requisite licenses wherever required and shall pay to such authority all the fees that are required to be paid for the execution of work. He shall protect and indemnify the Department and its officials & employees against any claim and /or liability arising out of violations of any such laws, ordinances, orders, decrees, by himself or by his employees or his authorized representatives. Nothing extra shall be payable on these accounts. The fee payable to statutory authorities for obtaining the various permanent service connections and Occupancy Certificate for the building shall be borne by the Department.

1.15.11 Royalty charges towards all materials such as <u>stone aggregate, coarse or fine sand etc.</u> shall be borne by the Contractor.

1.15.12 All 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, telephone, water etc. required for execution of the work, liaison and pursuing for obtaining various No Objection Certificates, completion certificates from local bodies etc., protection works, barricading, 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. Before start of the work, 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.

1.15.13 The Contractor shall assume all liability, financial or otherwise in connection with this contract and shall protect and indemnify the Department from any and all damages and claims that may arise on any account. The Contractor shall indemnify the Department against all claims in respect of patent rights, royalties, design, trademarks of name or other protected rights, damages to adjacent buildings, roads or members of public, in course of execution of work or any other reasons whatsoever, and shall himself defend all actions arising from such claims and shall indemnify the Department in all respect from such actions, costs and expenses. Nothing extra shall be payable on this account.

1.15.14 The Contractor shall make all necessary arrangements for protecting from rain or likewise extreme weather conditions, the work already executed and for carrying out the further work, during monsoon including providing and fixing temporary shelters, protections etc. Nothing extra shall be payable on this account. Also, no claims for hindrance shall be entertained on this account.

1.15.15 In case of flooding of site on account of rain or any other cause and any consequent damage, whatsoever, no claim financially or otherwise shall be entertained not withstanding any other provisions elsewhere in the contract agreement. Also, the Contractor shall make good, at his own cost, the damages caused, if any. Further, no claims for hindrance shall be entertained on this account.

1.15.16 No payment shall be made for any damage caused by fire, rain, snowfall, flood or any other natural calamity, whatsoever during the execution of the work. The contractor shall be fully responsible for any damage to the govt. property and the work for which payment has been advanced to him under the contract and he shall make good the same at his risk and cost. The contractor shall be fully responsible for safety and security of his material, T&P/Machinery brought to the site by him. The contractor shall maintain all the work in good condition at his own cost till the completion of the entire work.

1.15.17 In case the same item appears more than once in the schedule of work under the same sub head or among the different sub heads of works, the lowest rate quoted for that item shall be taken for other items also and tender will be evaluated accordingly.

1.15.18 The ESI and EPF contribution on the part of employer in respect of this contract shall be paid by the contractor. These contributions on the part of employer paid by the contractor shall be reimbursed by the Engineer in charge to the contractor on actual basis. The applicable and eligible amount of EPF& ESI shall be reimbursed preferably within 7 days but not later than 30 days of submission of documentary proof of payment which are in order.

1.16 Tools & Plant:

1.16.1 No tools and plants including any special T&P etc. shall be supplied by the Department and the Contractor shall have to make his own arrangements at his own cost. No claim of hindrance (or any other claim) shall be entertained on this account.

1.17 Computerized MBs & EMBs:

1.17.1 The contractor will submit computerized bill with measurement sheet for the work carried out by him for making payment as per Clause – '6' of the **CPWD General Conditions of Contract 2023 for Construction Works** (with correction slips upto the last date of submission of tender). For casting of RCC members and other hidden items the corrected and duly test checked measurement sheets of reinforcement or that of other hidden items shall be deposited with Engineer in charge or his authorized representative, before casting of RCC or other hidden items. The delay in submission of corrected and duly checked measurement sheet may, therefore, delay casting of RCC or execution of hidden item for which no hindrance shall be recorded.

1.17.2 Electronic measurement book is introduced. The contractor shall comply with the same as per the direction of Engineer-in-charge.

2 SECRECY

2.1 The contractor shall take all steps necessary that all persons employed on any work in connection with the contract have noticed that the Indian Official Secrets Act 1923 applies to them & will continue so to apply even after the execution of such works under the contract.

2.2 The contract is confidential and must be strictly confined to the contractor's own use (except so far as confidential disclosure to sub-contractors or suppliers as necessary) and to the purpose of the contract.

2.3 All documents, copies thereof & extracts there from furnished to the contractor shall be returned to the Engineer-in-Charge on the completion of the work / works or the earlier determination of the contract.

3 LABOUR AND SECURITY

3.1 In the event of the contractor(s) committing a default or breach of any of the provisions of the Central Public Works Department, Contractor's Labour Regulations and Model Rules for the protection of health and sanitary arrangements for the workers as amended from time to time or furnishing any information or submitting or filing any statement under the provisions of the above Regulations and' Rules which is materially incorrect, he/they shall, without prejudice to any other liability, pay to the Government a sum not exceedingRs.500/- for every default, breach or furnishing, making, submitting, filing such materially incorrect statements and in the event of the contractor(s) defaulting continuously in this respect, the penalty may be enhanced to Rs.1000/- per day for each day of default subject to a maximum of 5 per cent of the estimated cost of the work put to tender. The decision of the Engineer-in-Charge shall be final and binding on the parties.

No payment shall be made for construction of labour housing.

3.2 The Contractor shall display all permissions, licenses, registration certificates, bar charts, other statements etc. under various labour laws and other regulations applicable to the works, at his site office.

3.3 No site is available for labour huts. The contractor shall have to have his own arrangements for hiring land for setting up labour huts. The contractor will be provided space for watchman huts, site office etc. to a very limited extent inside the campus but the space requirement and location, as assessed by Engineer-in-Charge shall be final and binding.

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

3.5 Contractor has to follow the security requirement of the campus and obtain necessary entry passes for the labour and vehicles and follow security checks at entry / exit gates, restriction on movement of vehicle, restricted timings of working etc. The Department however shall assist the contractor in obtaining such passes for movement of vehicles and labour. No claim whatsoever shall be entertained on account of delay in entry of vehicles and labour including restrictions in working hours, if there is any.

3.6 The contractor shall employ only Indian Nationals after verifying their antecedents and loyalty. The contractor shall, on demand submit list of his agents, employees and work people concerned & shall satisfy as to the bonafides of such people.

3.7 The contractor & his work people shall observe all relevant rules regarding security promulgated in which work is to be carried out by the Controlling Administrative Authority of the campus/area (hereinafter referred to as "Administrator").

3.8 The contractor, his representative, workman shall be allowed to enter through specified gates & timing as laid down by the controlling authority. They shall be issued an identity card or an individual pass in accordance with the standing rules & regulations & they should possess the same while working. The contractor shall be responsible for the conduct & actions of his workmen, agents/ representatives.

3.9 Normally contractor shall be allowed to carry out work between 7 AM to 6 PM. However, he may also be allowed to carry out the work beyond 6 PM & up to 7 AM, if the site conditions

/ circumstances so demand with prior written permission from the “Administrator”. However, if the work is carried out in more than one shift or at night, no claim on this account shall be entertained.

3.10 Normally contractor’s material / vehicles etc. shall be allowed to move in / go-out between **7 AM to 7 PM** only & no movement of material / vehicles out of the site of work shall be allowed during night hours unless specific permission is obtained from the “Administrator”.

3.11 In case if a separate entry has been allowed, the contractor has to make all arrangement for making a separate entry gate and barricading of the working area to segregate/separate the same from other areas. All these have to be done by the contractor at his own cost including safeguarding any untoward incident in the restricted area due to separate entry gate and barricading arranged by the contractor. No extra amount on this account shall be payable by the department.

3.12 In the event of any restrictions being imposed by the Security agency, CPWD, Traffic 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 such accounts. The loss of time on these accounts, if any, shall have to be made up by augmenting additional resources whatever required. Nothing extra shall be payable on this account.

4.0 DOCUMENTATION

The Contractor shall render all help and assistance in documenting the total sequences of this project by way of photography, slides, audio / video recording & other records etc. Nothing extra shall be payable to Contractor on this account. However, cost of photographs, slides, audio / video graph etc. shall be borne by the Department. The original films shall be the property of the Department. No copy shall be prepared without the prior approval of the Engineer- in – Charge.

5.0 PROGRESS CHART: -

5.1 The contractor shall submit a Time and Progress Chart for each mile stone. **The Engineer-in-charge may within 10 days thereafter, if required modify, and communicate the program approved to the contractor failing which the program submitted by the contractor shall be deemed to be approved by the Engineer-in-charge. The work programme shall include all details of balance drawings and decisions required to complete the contract with specific dates by which these details are required by contractor without causing any delay in execution of the work.** The chart shall be prepared in direct relation to the time stated in the Contract documents for completion of items of the works. It shall indicate the forecast of the dates of commencement and completion of various trades of sections of the work and may be amended as necessary by agreement between the Engineer-in-charge and the Contractor within the limitations of time imposed in the Contract documents, and further to ensure good progress during the execution of the work, the contractor shall in all cases in which the time allowed for any work, exceeds one month (save for special jobs for which a separate programme has been agreed upon) complete the work as per mile stones given in Schedule ‘F’.

5.2 In case of non-submission of construction programme by the contractor the Program approved by the Engineer-in-charge shall be deemed to be final.

5.3 The approval by the Engineer-in-charge of such programme shall not relieve the contractor of any of the **obligations** under the contract.

5.4 The contractor shall submit the **Time and Progress Chart** and progress report using the **mutually agreed software or in other format decided by Engineer-in-charge** for the work done during previous month to the **Engineer-in-charge on or before 5th day of each month failing which a recovery Rs. 1000/- shall be made on per week or part basis in case of delay in submission of the monthly progress report.**

5.5 The program chart should include the following: -

a) Descriptive note explaining sequence of various activities.

b) BAR CHARTS prepared in mutually agreed software or in other format decided by Engineer-in-charge which will indicate resources in financial terms, manpower and specialized equipment for every important stage.

c) Program for procurement of materials by the contractor.

d) Program for arranging and deployment of manpower both skilled and unskilled so as to achieve targeted progress.

e) Program of procurement of machinery / equipment having adequate capacity, commensurate with the quantum of work to be done within the stipulated period, by the contractor. In addition, to the above to achieve the progress of work as per programme, the contractor must bring at site adequate shuttering material required for cement concrete and RCC works etc. The contractor shall submit shuttering schedule adequate to complete the structure work within the laid down physical milestones.

f) Programme for achieving milestones.

5.6 The submission for approval by the Engineer-in-charge of such programme or such particulars shall not relieve the contractor of any of the 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.

6. **PROGRESS AND MONITORING OF WORK**:

6.1 The progress report shall contain the following, apart from whatever else may be required as specified: -

i. Construction schedule of the various components of the work through a bar chart for the next three months (or as may be specified), showing the micro milestones, targeted tasks and up to date progress. At least 10 digital photographs showing all the parts of construction site along with at least 5 minutes video of executions of different items in soft copy has to be submitted in every monthly progress report.

ii. Progress chart of the various components of the work that are planned and achieved, for the month as well as cumulative up to the month, with reason for deviations, if any in a tabular format.

iii. Plant and machinery statement, indicating those deployed in the work.

iv. Man-power statement, indicating individually the names of all the staff deployed on the work, along with their designations. Number of skilled workers and unskilled workers deployed on the work and their location of deployment.

v. Financial statement, indicating the broad details of all the running account payment received up to date, such as gross value of work done, advances taken, recoveries effected, amount withheld, net payments details of Cheque payment received, extra /substituted /deviations items if any, etc.

6.2 For completing the work in time, the Contractor might be required to work in two or more shifts (including night shifts). No claim whatsoever shall be entertained on this account, not with-standing the fact that the Contractor may have to pay extra amounts for any reason, to the labourers and other staff engaged directly or indirectly on the work according to the provisions of the labour and other statutory bodies regulations and the agreement entered upon by the Contractor with them.

6.3 The work should be planned in a systematic manner so that chase cuttings in the walls, ceilings and floors is minimized. Wherever absolutely essential, the chase shall be cut using chase cutting machines. Chases will not be allowed to be cut using hammer / chisel. The electrical boxes should be fixed in walls simultaneously while raising the brick work. The contractor shall ensure proper co-ordination of various disciplines viz. building works, sanitary & water supply & electrical installations etc.

6.4 The contractor shall conduct his work, so as not to interfere with or hinder the progress or completion of the work being performed by other contractor(s) or by the Engineer-in-Charge and shall as far as possible arrange his work and shall place and dispose of the materials being used or removed so as not to interfere with the operations of other contractor or he shall arrange his work with that of the others in an acceptable and coordinated manner and shall perform it in proper sequence to the complete satisfaction of Engineer-in-charge.

6.5 The Contractor shall do proper sequencing of the various activities by suitably staggering the activities within various pockets in the plot so as to achieve early completion. The agency may deploy adequate equipment, machinery and labour as required for the completion of the entire work within the stipulated period specified. Also, ancillary facilities shall be provided commensurate with requirement to complete the entire work within the stipulated period. Nothing extra shall be payable on this account. Adequate number/sets of equipment in working condition, along with adequate stand-by arrangements, shall be deployed during entire construction period. It shall be ensured by the Contractor that all the equipment, Tools & Plants, machineries etc. provided by him are maintained in proper working conditions at all times during the progress of the work and till the completion of the work. Further, all the constructional tools, plants, equipment and machineries provided by the Contractor, on site of work or his work shop for this work, shall be exclusively intended for use in the construction of this work and they shall not be shifted / removed from site without the permission of the Engineer-in-Charge.

6.6 All material shall only be brought at site as per program finalized with the Engineer-in-Charge. Any pre-delivery of the material not required for immediate consumption shall not be accepted and thus not paid for.

7. DEFECT LIABILITY PERIOD (REFUND OF SECURITY DEPOSIT):

7.1 The defect liability / maintenance period shall be 12 months after the date of completion of work for this contract agreement.

8.0 SAFETY MEASURES

8.1 The issue of construction safety & standards has gained utmost importance in recent times. This subject is to be dealt with in an integrated manner with an approach to developing and establishing a safety culture at work sites. Broadly, its components are:

i. Creating awareness.

ii. Education.

iii. Training.

iv. Implementation.

v. Enforcement measures.

All workers of contractor and associate agencies, invariably and at all the times, must follow all safety norms, adopt safe construction practices and use all required safety gadgets in their working throughout the project duration.

8.2 The contractor shall issue ***Photo Identity Cards*** with unique numbers containing salient information of workers for the labour& his staff.

8.3 The Contractor shall monitor and achieve the objectives of construction safety continuously, progressively and through affirmative action, and shall oversee implementation of safety program over the entire construction period.

8.4 Warning / Caution Boards

All temporary warning / caution boards / glow signage display such as “Construction Work in Progress”, “Keep Away”, “No Parking”, Diversions & protective Barricades etc. shall be provided and displayed during day time by the Contractor, wherever required and as directed by the Engineer-in-Charge. These glow signage and red lights shall be suitably illuminated during night also. The Contractor shall be solely responsible for damage and accident caused, if any, due to negligence on his part. Also he shall ensure that no hindrance, as far as possible, is caused to general traffic during execution of the work. This signage shall be dismantled & taken away by

the Contractor after the completion of work, only after approval of the Engineer – in – Charge. Nothing extra shall be payable on this account.

8.5 Sign Boards

8.5.1 The Contractor shall provide and erect a display board of size and shape as required and paint over it, in a legible and workman like manner, the details about the salient features of the project, as required by the Engineer-in-Charge. The Contractor shall fabricate and put up a sign board in an approved location and to an approved design indicating name of the project, client / owner, architects, structural consultants, Department etc. besides providing space for names of other Contractors, Associate contractors and specialized agencies. Nothing extra shall be payable on this account.

8.5.2 A display board shall be kept at site which would list the names of workers, teams and agencies following safety program in the best manner. This would be updated weekly.

8.5.3 Necessary protective and safety equipment shall be provided to the Site Engineer, Supervisory staff, labour and technical staff of the contractor by the Contractor at his own cost and used at site.

8.5.4 No inflammable materials including P.O.L shall be allowed to be stored in huge quantity at site. Only limited quantity of P.O.L may be allowed to be stored at site subject to the compliance of all rules / instructions issued by the relevant authorities and as per the direction of Engineer -in-Charge in this regard. Also, all precautions and safety measures shall be taken by the Contractor for safe handling of the P.O.L products stored at site. All consequences on account of unsafe handling of P.O.L shall be borne by the Contractor.

9.0 The following procedure should be followed in case of removal of rejected/sub-standard materials from the site of work.

i. Whenever any material brought by the contractor to the site of work is rejected, entry thereof should invariably be made in the site order book under the signature of the AE/AEE giving approximate quantity of such materials.

ii. As soon as the material is removed, a certificate to that effect may be recorded by the AE/AEE against the original entry, giving the date of removal, mode of removal i.e. whether by truck, carts or by manual labour. If removal is by truck, the registration number of the truck should be recorded.

10.0. INSPECTION OF WORKS:

10.1 In addition to the provisions of relevant clauses of the contract, the work shall also be open to inspection by the Superintending Engineer-Cochin, CPWD and other senior officers of CPWD in addition of the Engineer-in-charge, his authorized representatives, Authorities and Team of Third-Party Quality Assurance engaged for the work. The contractor shall at times during the usual working hours and at all times at which reasonable notices of the intention of the Engineer-in-charge or other officers as stated above to visit the works shall have been given to the contractor, either himself be present to receive the orders and instructions or have a responsible representative duly accredited in writing, to be present for that purpose.

10.2 The committee/consultant appointed by CPWD, shall be inspecting the works including workshops and fabrication factory to ensure that the works in general being executed according to the design, drawings and specifications laid down in the contract. Their observations shall be communicated by CPWD engineering staff and compliance is to be reported to CPWD. The committee/consultant appointed by CPWD shall certify on completion of particular building that it has been constructed according to the approved drawings design and specifications.

10.3 Senior Officers of CPWD, Dignitaries from Central Ministry / Department, State Government and Client Department 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: -

i. 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.

ii. Entrance and area surrounding to be kept cleaned.

iii. Display layout plan key plan, building drawings including plans, elevations and sections.

iv. Up to date displays of programme chart (Bar charts).

v. Keep details of quantities executed, balance quantities, deviations, possible Extra item, substituted Item etc.

vi. Keep plastic / cloth mounted one sets of building drawings.

vii. Set of Helmets and safety shoes for safety.

11. INSURANCE POLICIES:

Before commencing the execution of work, the Contractor shall, without in any way limiting his obligations and liabilities, insure at his own cost and expense against any damage or loss or injury, which may be caused to any person or property, at site of work. The Contractor shall obtain and submit to the Engineer-in-Charge proper Contractor All Risk Insurance Policy for an amount equivalent to the contract amount for this work, with Engineer-in-Charge as the first beneficiary. The insurance shall be obtained in joint names of Engineer-in-Charge and the Contractor (who shall be second beneficiary). Also, he shall indemnify the Department from any liability during the execution of the work.

12.0. APPLICABLE PERMITS:

12.1 The contractor(s) shall give to the Municipality, police and other authorities all necessary notices etc. that may be required by law and obtain all requisite licenses for temporary obstructions, enclosures etc. and pay all fee, taxes including GST and charges which may be levied on account of these operations in executing the contract. He shall make good any damage to the adjoining property whether public or private and shall supply and maintain lights either for illumination or for cautioning the public at night.

12.2 The contractor shall ensure that applicable permits mandated by the local bodies and in case warranted for this work are obtained as required under the Applicable Laws.

13.0 LOCAL BYE-LAWS:

13.1 The building work shall be carried out in the manner complying in all respects with the requirements of relevant bye-laws of the local body under the jurisdiction of which the work is to be executed or as directed by the Engineer-in-Charge and nothing extra shall be paid on this account.

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

13.3 The contractor shall not stack building material/ malba on the road or on the land owned by any other authority, as the case may be. In case, the Contractor is found stacking the building material/ malba as stated above, he shall be liable to pay the stacking charges as may be levied by local body or authority and also to face penal action as per the rules, regulations and bye-laws of the said body or authority. The Engineer-in-Charge shall be at liberty to recover the sums due but not paid to the concerned authorities on the above counts from any sums due to the contractor including amount of the Security Deposit or Retention Money in respect of this contract or any other contract.

14.0 FINAL TESTING OF THE INSTALLATION:

The Contractor shall demonstrate trouble free functioning of all the Civil and E & M installations and services. The Engineer-in-Charge or his authorized representatives shall carry out final inspection of the various Civil and E & M services and installations. Any defect(s) noticed during demonstration shall be rectified by the Contractor at his own cost to the entire satisfaction of the Engineer-in-Charge. Nothing extra shall be payable on this account.

15.0 **No surplus land is available with the department for allotting to Contractor to set up Labour Campus. The Contractor should make his own arrangement for hiring suitable piece of land for making Labour Campus as per CPWD Model Rules for protection of health and sanitary arrangements which is forming part of GCC-2023, CPWD Specifications and Special Conditions of NIT.**

16. All the Guidelines/instructions regarding measures Procedures for containment of Covid- 19 issued from time to time by Ministry of Home Affairs/Ministry of Health, Government of India, Kerala Government or any other statutory Authority are to be strictly adhered to.

17. The quoted rates shall be deemed to include cost of all measures for COVID control as per guidelines / SOPs / Statutory instructions of Government authorities from time to time and nothing extra shall be paid.

18. The rates quoted by the tenderer shall be inclusive of all taxes including GST and levies applicable in respect of this contract. Government will not entertain any claim whatsoever in respect of the same.

19. In case of reduction in scope of work no claim on account of reduction in value of work, loss of expected profit, consequential overheads etc., shall be entertained.

20. ASSOCIATION OF OTHER AGENCY(S) FOR EXECUTION OF SPECIALISED WORKS BY THE BUILDING CATEGORY CONTRACTOR: -

The Minimum eligibility criteria for Specialized work, Associate Agency wherever applicable is as follows :

S.N.	COMPONENT OF E&M WORKS	ESTIMATED COST(Rs.)	ELIGIBILITY
I	ELECTRICAL INSTALLATIONS AND ALLIED WORKS	**Rs. 5,71,874/-**	If the main contractor does not possess valid Electrical license of appropriate class / voltage for executing the work then, he shall associate with eligible CPWD enlisted contractor, possessing valid Electrical Contractor License of appropriate class / Voltage issued by competent authority. Three similar works each of value not less than **Rs. 2.29 Lakhs**. OR Two similar works each of value not less than **Rs. 3.43 Lakhs.** OR One similar work of value not less than **Rs. 4.57 Lakhs**. **Similar works means: "SITC of Internal Electrical Installations works and Allied Works"**

Note:

a) The main contractor shall submit name and credentials w.r.t. meeting eligibility criteria for specialize agency he propose to associate for the specialize work(s). The approval of specialize agency shall be given by Engineer-in-charge of work. The Contractor and the associated specialized agencies shall give required affidavit to confirm their association.

b) However, the contractor shall also be eligible to carry out himself any or all of these works without associating any specialized agency provided:

(i) He fulfils the prescribed eligibility criteria respectively for these work(s).

or

(ii) He directly procures the equipment of approved make from manufacturer and get it installed from authorised agency/service provider of the manufacturer or specialized agency as per criteria mentioned above.

c) Wherever work is specified to be done or material procured through specialized agencies, their names shall be got approved well in advance from Engineer- in-charge of relevant component. Failure to do so shall not justify delay in execution of work. It is suggested that immediately after award of work, contractor should negotiate with concerned specialist agencies and send their names for approval to Engineer-in-charge. Any material procured without prior approval of Engineer- in-charge in writing is liable to be rejected. Engineer- in-charge reserves right to get the materials tested in laboratories of his choice before final acceptance.

d) The value of executed works shall be brought to current costing level by enhancing the actual value of work at simple rate of 7% per annum calculated from the date of completion to last date of submission of tender. For other conditions, refer special conditions specified in Part C.

e) The applicant/ main contractor has to submit consent letters from at least one eligible associate agency of the respective component within 15 days of award of work OR before start of minor component of work whichever is earlier.

The main contractor will submit Affidavit of MOU signed with eligible associated contractor. The Affidavit of MOU shall be signed by both contractors, Main contractor as 1st party and associated contractor as 2nd party, independently for

" **Maintenance to the old Fountain area in front of NIFPHATT Administrative Building including Surrounding Landscaping/ Horticulture works at NIFPHATT, Kochi."**

specified as above.

f) If the main contractor fails to associate agency for execution of minor components of work within 15 days of award of work OR before start of minor component of work whichever is earlier or furnishes incomplete details or furnishes details of ineligible agencies even after the tenderer is given due opportunity, the entire scope of such component of work shall be withdrawn from the tender and the same shall be got executed by the Engineer-in–Charge at the risk and cost of the main contractor.

g) Verifiable completion certificates of the work, registration/approval documents, self-attested GST registration documents in respect of the associated agencies as the case may be, duly attested by the applicant shall be submitted within 15 days of award of work OR before start of minor component of work whichever is earlier.

h) Self-attested GST registration documents in respect of the associated agencies shall be submitted within 15 days of award of work OR before start of Specialized / minor component of work whichever is earlier.

i) It shall be the responsibility of main contractor to sort out any dispute / litigation with the Specialized Agencies without any time & cost overrun to the Department. The main contractor shall be solely responsible for settling any dispute / litigation arising out of his agreement with the Specialized Agencies. The contractor shall ensure that the work shall not suffer on account of litigation/ dispute between him and the specialized agencies / sub-contractor(s). No claim of hindrance in the work shall be entertained from the Contractor on this account. No extension of time shall be granted and no claim what so ever, of any kind, shall be entertained from the Contractor on account of delay attributable to the selection/rejection of the Specialized Agencies.

[**This Form is to be submitted by the Main agency/contractor within 15 days from date of commencement of work (if he desires to associate other agency for execution of Specialized E & M works)}**

MEMORANDUM OF UNDERSTANDING (MOU) FOR ASSOCIATED CONTRACTOR

(To be submitted individually for each package of work for which main agency is not having the prescribed eligibility as per NIT)

(*Affidavit to be furnished on a 'Non-Judicial' stamp paper worth Rs.100/-*)

M/s. (Name of the firm with full address) …….

(Henceforth called the Main Contractor)

And

M/s. (Name of the firm with full address) …….

(Henceforth, called the Associated Contractor)

Name of work: **Maintenance to the old Fountain area in front of NIFPHATT Administrative Building including Surrounding Landscaping/ Horticulture works at NIFPHATT, Kochi.**

NIT No: *******

This Memorandum of Understanding (MOU) is made at ..... on ..... **Between** .....(herewith called the main contractor) having its registered office at ..... which expression shall unless repugnant to the subject or context include its administrators, successors and assigns.

and

..... (herewith called the Associated contractor) having its registered office at ..... which expression shall unless repugnant to the subject or context include its administrators, successors and assigns.

Whereas the main contractor has agreed to entrust the ..... (NAME OF THE PACKAGE) only to the associated contractor.

We state that MoU between us will be treated as an agreement and has legality as per Indian Contract Act (amended up to date) and the department (CPWD) can enforce all the terms and conditions of this agreement for execution of the ..... (NAME OF THE PACKAGE) only in respect of above work. Both of us shall be responsible for the execution of ..... (NAME OF THE PACKAGE) as per the agreement to the extent this MoU allows. In case of any delay in the payment by the main contractor, the associated contractor can apply to the CPWD to release the payment under Clause 7B and deduct the same from the bills of the main contractor. In case of any dispute, either of us will go for mediation by the CE or SE (as the case may be) and his decision shall be final and binding on both of us.

We have further agreed as under:

1. The Associated Contactor will execute ..... (NAME OF THE PACKAGE) works as per terms and conditions of this agreement.
2. All the machinery and equipment, tools and tackles required for execution of the ..... (NAME OF THE PACKAGE) works, as per this MoU, shall be the responsibility of the Associated Contractor.

3. The site staff required for the execution of ..... (NAME OF THE PACKAGE) work shall be arranged by the Associated Contractor as per terms and conditions of this MoU.
4. All the correspondence regarding execution of the ..... (NAME OF THE PACKAGE) work shall be done by the department with the main contractor. In case of non-compliance of the provisions of agreement of the work by the associated contractor, the main contractor shall be held responsible and action will be taken against him as per agreement provisions.
5. In case of non-performance, associated contractor will be debarred from participation or association in the CPWD tenders by the CPWD.

(Authorized Signatory)	(Authorized Signatory)
SIGNATURE OF THE MAIN CONTRACTOR	SIGNATURE OF ASSOCIATED CONTRACTOR
Date :	Date : .....
Place :	Place : .....
1. Witness with address	1. Witness with address
(From main contractor side)	(From associated contractor side)

CONSENT LETTER FROM ELIGIBLE ASSOCIATE AGENCY OF MINOR COMPONENT OF WORK

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

[**This Form is to be submitted by the Main agency/contractor within 15 days from date of commencement of work (if he desires to associate other agency for execution of Specialized E & M works)**

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

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

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

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

Date:

Signature with date of Major component	Signature with date of Associate/ Minor Component
Contractor Address	Contractor Address
Witness with address (From major component contractor side)	Witness with address (From minor component contractor side)

GOVERNMENT OF INDIA
CENTRAL PUBLIC WORKS DEPARTMENT

Percentage Rate Tender & Contract for Works

(A) Tender for the work of: **- Name of Work:**

Maintenance to the old Fountain area in front of NIFPHATT Administrative Building including Surrounding Landscaping/ Horticulture works at NIFPHATT, Kochi.

(i) Tender to be uploaded by **15:00 hours on 20.11.2026** to Executive Engineer (E)- Kochi, CPWD, Kendriya Bhavan, Kakkanad, Kochi/ uploaded at www.etenderwizard.cpwd.gov.in.

(ii) Tender to be opened in presence of tenderers who may be present at **15:30 hours** on **20.11.2026** in the Office of Executive Engineer (E)- Kochi, CPWD, Kendriya Bhavan, Kakkanad, Kochi.

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, Schedule of Rate & other documents and Rules referred to in the conditions of contract and all other contents in the tender document for the work.

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

We agree to keep the tender open for **Thirty (30) days** from the due date of its opening in case of Single Bid system and ~~**Sixty (60) days** from the date of opening of Technical Bid in case Tenders are invited on 2/3 bid system for specialized works and~~ not to make any modification in its terms and condition.

I/We have deposited **Earnest Money Deposit (EMD)** for the prescribed amount as per the bid document.

A copy of earnest money in receipt treasury challan / deposit at call receipt of a scheduled bank/ fixed deposit receipt of scheduled bank / demand draft of a scheduled bank / bank guarantee issued by a schedule bank is scanned and uploaded (strike out as the case may be). If I/We, fail to furnish the prescribed performance guarantee within prescribed period. I/We agree that the said President of India or his successors, in office shall without prejudice to any other right or remedy, be at liberty to forfeit the said earnest money absolutely. Further, if I/We fail to commence work as specified, I/We agree that President of India or the successors in office shall without prejudice to any other right or remedy available in law, be at liberty to forfeit the said earnest money and the performance guarantee absolutely, otherwise the said earnest money shall be retained by him towards security deposit to execute all the works referred to in the tender documents upon the terms and conditions contained or referred to those in excess of that limit at the rates to be determined in accordance with the provision contained in Clause 12.2 and 12.3 of the tender form.

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

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

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

Dated: **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 an 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)

(c)

For & on behalf of President of India

Signature

……

Designation

……..

Dated:

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

OR**

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

2. We…….. (indicate 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 amounts 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 contractor(s). 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 to 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 contractors shall have no claim against us for making such payment.

5. We ……(Indicate the name of the Bank) further agree with the Government that the Government shall have the fullest liberty without our consent and without effecting 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 contractors 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 contractors and to for-bear 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(s) 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 not withstanding 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 constituted 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 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.

Dated ……..

Witness :

1. Signature ……..

   Name and Address

   Authorized signatory

   Name

   Designation

   Staff Code No.

   Bank Seal

2. Signature ……

   Name and Address

***Date to be worked out on the basis of validity period of 90 days where only financial bids are invited and 180 days for Two / Three Bid system from the date of submission of Tender.**
**** In paragraph 1, strike out the portion not applicable. Bank Guarantee will be made either for Earnest money or for Performance Guarantee / Security Deposit / Mobilization Advance, as the case may be.**

PROFORMA OF SCHEDULE

SCHEDULE 'A'

Schedule of quantities (as per PWD-3) **: See part D of the NIT**

SCHEDULE 'D' -

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

SCHEDULE 'E'

Reference to General Conditions of contract. CPWD General Conditions of Contract 2023 – Construction Works with up to date amendments.

Name of Work:

Maintenance to the old Fountain area in front of NIFPHATT Administrative Building including surrounding landscaping/ Horticulture works at NIFPHATT, Kochi.

Estimated cost of work:	**Rs. 9,90,306/- [Electrical – Rs 5,71,874/- + Civil – Rs 4,18,432/-].**
(i) Earnest Money Deposit	**Rs 19,806/-**
(ii) Performance Guarantee	**(a) 5% of Tender Value or Estimated Cost put to Tender (ECPT) [Whichever is higher]**
	(b) Where the Tendered amount is less than Eighty percent (80%) of the Estimated Cost put to Tender (ECPT), the Performance Guarantee, in addition to the requirement under Clause (a) above, shall be increased by an amount equal to the difference between Eighty percent (80%) of the ECPT and the Tendered amount.
(iii) Security Deposit	**2.5% of Tendered Amount**

SCHEDULE 'F'

GENERAL RULES & DIRECTIONS:

Officer inviting tender : Executive Engineer (E) - Kochi
CPWD, Kendriya Bhavan, Kakkanad
Kochi – 682 037

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 as given below : See below

Definitions:

2(v) Engineer-in-Charge Executive Engineer (E) - Kochi
CPWD, Kendriya Bhavan, Kakkanad
Kochi – 682 037

2(viii) Accepting Authority. Executive Engineer (E) -Kochi
CPWD, Kendriya Bhavan, Kakkanad
Kochi – 682 037

2(x) Percentage on cost of materials and Labour to cover all overheads and profits:	15%
2(xi) Standard Schedule of Rates	Delhi Schedule of Rates (E&M) 2025, with up to date amendments and prevailing market rates as applicable.
2(xii) Department	CPWD
9(ii) Standard CPWD Contract Form	CPWD GCC 2023 – Construction Works Form 7/8 with up to date amendments.

Clause 1

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

Clause 2

Authority for fixing compensation under clause 2	Superintending Engineer – Cochin CPWD, Kendriya Bhavan, Kakkanad Kochi – 682 037

Clause 5

Number of days from the date of issue of letter of acceptance for reckoning date of start	**07(Seven) days**

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

S.No.	Description of Milestone (Physical)	Time Allowed in Months (from date of start)	Amount to be with-held in case of non-achievement of mile stone
1	Submission of details of Associate agency with supporting documents, Time & Programme chart, lay out drawing/Technical details, TDS of materials etc as per preferred make list for approval. Placing of order of all equipment after approval.	**0.5 Months**	1.0% of Tendered amount
2	Supply of materials like LED light fittings, Cables, Wires, DB's, Fans & Fittings etc complete as required. Completion of clearing Jungle area in the existing lawn area, dismantling existing fountain and clearing etc.	**1.0 Months**	1% of Tendered amount

S.No.	Description of Milestone (Physical)	Time Allowed in Months (from date of start)	Amount to be with-held in case of non-achievement of mile stone
3	Supply of panels, Name Board with LED lit letters etc. Completion of providing pathway to the lawn by laying paver blocks and kerb stones and Stone benches in the lawn area.	**1.5 Months**	1% of Tendered amount
4	Completion of all works in the scope of NIT, Commissioning and handing over of installations to client.	**2.0 Months**	1% of Tendered amount

Time allowed for execution of work **: 02 (Four) months**

Authority to decide:

(i) Authority to convey the decision of shifting of mile stone and Extension of time : Executive Engineer (E) – Kochi CPWD, Kendriya Bhavan, Kakkanad Kochi – 682 037

(ii) Rescheduling of mile stones and Extension of time : Superintending Engineer – Cochin CPWD, Kendriya Bhavan, Kakkanad Kochi – 682 037

(iii) Shifting of date of start in case of delay in handing over of site : Superintending Engineer – Cochin CPWD, Kendriya Bhavan, Kakkanad Kochi – 682 037

Clause 5.2

Documentation of Hindrances	**1.** The contractor has to first register himself through a registration form, available on CPWD website under 'Contractors Login' tab. After registration, User ID and password will be automatically generated and sent on his registered mobile and email ID. Using this User ID and Password he can access the module and view all the works which are being carried out by him in CPWD and he can register the hindrance against any particular work. After recording the hindrance by the contractor, it will be visible to all concerned officers (JE and above) of that work. An alert through text message and email will be sent to EE. **2.** Executive Engineer will first assign the work to the JEs/AEs who will give their comments on the hindrance within 2 days. After that Executive Engineer of the work will have to take appropriate action on the hindrance within 2 days. The comments of JEs/AEs will not be visible to contractor, only the decision of the Executive Engineer on the hindrance will be visible to contractor under "Decision of the Engineer-in-charge."

Clause 5.1 (iv)

Schedule of rate of recovery for any delay in submission of the Programme /Modified programme in terms of delay days **: Rs 1000/- per week**

Clause 6

Computerized Measure Book (CMB) / Electronic Measurement Book (EMB)

Mode of Measurement **:** **CMB / EMB**

Clause 7

Gross work to be done together with net payment /adjustment of advances for material collected, if any, since the last such payment for being eligible to interim payment :**As per GCC 2023 – Construction Works**

Clause 7A
Whether Clause 7A shall be applicable : Yes

Clause 8A
Authority to decide compensation on account if Contractor fails to submit completion plans : Superintending Engineer – Cochin CPWD, Kendriya Bhavan, Kakkanad Kochi – 682 037

Clause 10A

List of testing equipment to be provided by the Contractor : Megger, Earth Tester, Multimeter

Clause 10B (ii)

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

Clause 10C (Applicable in only those contracts where 10cc is not applicable)

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

Clause 10CA **:** **Deleted**

Clause 10CC **:** ~~**Applicable**~~ **/Not Applicable**

A. For Construction period

Sl No.	Relevant component of Material / Labour for price escalation	Percentage of total value of work
~~1.~~	~~Cement component~~	
~~2.~~	~~Labour Component~~	
~~3.~~	~~Civil Component of other Construction Materials~~	
~~4.~~	~~E & M (Electrical & Mechanical) component of Construction Materials~~	
~~5.~~	~~POL (Diesel) component~~	
~~6.~~	~~Reinforcement steel bars / TMT bars / structural steels (including strands and cables) component~~	
~~7.~~	~~Bitumen component~~	
	Total	100%

B **For maintenance period**

Sl No.	Relevant component of Material / Labour for price escalation	Percentage of total value of work
~~1.~~	~~Labour component~~	
~~2.~~	~~Civil Component of other Construction Materials~~	
~~3.~~	~~E & M (Electrical & Mechanical) component of Construction Materials~~	
~~4.~~	~~Bitumen component (For Road work component)~~	
	Total	100%

Clause 11

Specifications to be followed for execution of work: **CPWD General Specifications for Electrical Works Part-I- Internal 2023, Part-II External 2023, As per relevant IE Rules and also as per direction of the Engineer-in-Charge.**

Clause 12

Clause 12	:	The completion cost shall, in no case, exceed 1.5 times the contract amount. Contractor will devise a system to keep a watch on quantum of work vis-a-vis balance item to complete design scope of work and will give the alerts to Engineer-in-charge before taking up extra item(s), deviation(s)so that completion cost does not exceed above limit. Work executed beyond above limit will neither be recorded nor be paid. Engineer-in charge will verify and confirm the alerts before assigning deviations (s) and / or extra item(s) to the contractor. If additional work (s) is required to complete defined scope of work beyond above limit the Engineer-in-charge may take up such work (s) separately. The contractor will not have any claim (s) whatsoever on this account.

Clause 12.2 &.12.3

Deviation Limit beyond which clauses 12.2 & 12.3 shall apply for building work. : **100%**

Clause 16

Competent Authority for deciding reduced rates. : Superintending Engineer – Cochin CPWD, Kendriya Bhavan, Kakkanad Kochi – 682 037

Clause 18

List of mandatory machinery, tools & plants to be deployed of by the Contractor at site : As required for timely execution work as per directions of Engineer-in-charge.

Clause 19C authority to decide penalty for each default **:** Executive Engineer (E) –Kochi, CPWD

Clause 19D authority to decide penalty for each default **:** Executive Engineer (E) –Kochi, CPWD

Clause 19G authority to decide penalty for each default : Executive Engineer (E) –Kochi, CPWD

Clause 19K authority to decide penalty for each default **:** Executive Engineer (E) –Kochi, CPWD

Clause 25

Constitution of Dispute Redressal Committee (DRC)

Conciliator	:	Additional Director General, Region Kochi, CPWD
Arbitrator Appointing Authority	:	Superintending Engineer – Cochin CPWD, Kendriya Bhavan, Kakkanad Kochi – 682 037
Place of Arbitration	:	Cochin, Kerala

~~**Clause 32**~~

~~**Requirement of Technical Representative(s) and recovery Rate**~~

~~**S.No.**~~	~~**Minimum Qualification of Technical Representative**~~	~~**Discipline**~~	~~**Designation (Principal Technical/ Technical Representative**~~	~~**Minimum Experience**~~	~~**Number**~~	~~**Rate at which recovery shall be made from the contractor in the event of not fulfilling provision of clause 32**~~	
						~~**Figures**~~	~~**Words**~~
~~1~~	~~Graduate Engineer OR~~ ~~Diploma Engineer~~	~~Electrical~~	~~Site Engineer~~	~~02 Years~~ ~~05 Years~~	~~1~~	~~Rs. 15,000/- per month per person~~	~~Rupees Fifteen Thousand Only per month per person~~

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

~~**Diploma holder with minimum 10 years relevant experience with a reputed construction co. can be treated at par with Graduate Engineers for the purpose of such deployment subject to the condition that such diploma holder 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 DSR 2022 with modified & correction slips issued till last date of submission of Tender~~.

~~(ii) Variations permissible on theoretical quantities~~:

~~(a)~~	~~Cement~~		
	~~For Works with estimated cost put to Tender~~		
	~~Not more than Rs 25 Lakhs~~	:	~~3% plus/minus~~
	~~For Works with estimated cost put to Tender~~		
	~~more than Rs 25 Lakhs~~	:	~~2% plus/minus~~
~~(b)~~	~~Bitumen all works~~	:	~~2.5% plus & only & nil on minus side~~
~~(c)~~	~~Steel reinforcement and structural steel~~		
	~~Sections for each diameter, section & category~~	:	~~3% plus/minus~~
~~(d)~~	~~All other materials~~	:	~~NIL~~

Assistant Engineer (E) (P)
O/o EE(E)-Kochi, CPWD, Kochi

EXECUTIVE ENGINEER (E) - KOCHI
CPWD, KOCHI.

I N T E G R I T Y P A C T

To,

……..
……..
……..

Sub: NIT No. 55/EE(E)-KOCHI/2026-27 for the work:-

Name of Work: Maintenance to the old Fountain area in front of NIFPHATT Administrative Building including Surrounding Landscaping/ Horticulture works at NIFPHATT, Kochi.

Dear Sir,

It is here by declared that CPWD is committed to follow the principle of transparency, equity and competitiveness in public procurement.

The subject Notice Inviting Tender (NIT) is an invitation to offer made on the condition that the Bidder will sign the integrity Agreement, which is an integral part of tender/bid documents, failing which the tenderer/bidder will stand disqualified from the tendering process and the bid of the bidder would be summarily rejected.

This declaration shall form part and parcel of the Integrity Agreement and signing of the same shall be deemed as acceptance and signing of the Integrity Agreement on behalf of the CPWD.

Yours faithfully

EXECUTIVE ENGINEER (E) - KOCHI,
CPWD, KOCHI.

I N T E G R I T Y P A C T

To,

Executive Engineer (E) - Kochi
C.P.W.D.
Kendriya Bhavan
Kochi - 682037

Sub: Submission of Tender for the work of: -

Maintenance to the old Fountain area in front of NIFPHATT Administrative Building including Surrounding Landscaping/ Horticulture works at NIFPHATT, Kochi.

Dear Sir,

I/We acknowledge that CPWD is committed to follow the principles thereof as enumerated in the Integrity Agreement enclosed with the tender/bid document.

I/We agree that the Notice Inviting Tender (NIT) is an invitation to offer made on the condition that I/We will sign the enclosed integrity Agreement, which is an integral part of tender documents, failing which I/We will stand disqualified from the tendering process. I/We acknowledge that THE MAKING OF THE BID SHALL BE REGARDED AS AN UNCONDITIONAL AND ABSOLUTE ACCEPTANCE of this condition of the NIT.

I/We confirm acceptance and compliance with the Integrity Agreement in letter and spirit and further agree that execution of the said Integrity Agreement shall be separate and distinct from the main contract, which will come into existence when tender/bid is finally accepted by CPWD. I/We acknowledge and accept the duration of the Integrity Agreement, which shall be in the line with Article 1 of the enclosed Integrity Agreement.

I/We acknowledge that in the event of my/our failure to sign and accept the Integrity Agreement, while submitting the tender/bid, CPWD shall have unqualified, absolute and unfettered right to disqualify the tenderer/bidder and reject the tender/bid is accordance with terms and conditions of the tender/bid.

Yours faithfully

(Duly authorized signatory of the Bidder)

I N T E G R I T Y P A C T

TO BE SIGNED BY THE BIDDER AND SAME SIGNATORY COMPETENT / AUTHORISED TO SIGN THE RELEVANT CONTRACT ON BEHALF OF CPWD.

INTEGRITY AGREEMENT

This Integrity Agreement is made at ..... on this ..... day of ..... 20.....

BETWEEN

President of India represented through **Executive Engineer (E) -Kochi, C.P.W.D., Kendriya Bhavan, Kochi - 682037,** (Hereinafter referred as the (Address of Division) '**Principal/Owner**', which expression shall unless repugnant to the meaning or context hereof include its successors and permitted assigns)

AND

..... (Name and Address of the Individual/firm/Company) through..... (Hereinafter referred to as the (Details of duly authorized signatory) "**Bidder/Contractor**" and which expression shall unless repugnant to the meaning or context hereof include its successors and permitted assigns)

PREAMBLE

WHEREAS the Principal / Owner has floated the Tender **(NIT No. 55/EE(E)-KOCHI/2026-27)** (hereinafter referred to as "**Tender/Bid**") and intends to award, under laid down organizational procedure, contract for:-

Name of Work:

Maintenance to the old Fountain area in front of NIFPHATT Administrative Building including Surrounding Landscaping/ Horticulture works at NIFPHATT, Kochi.

Hereinafter referred to as the "**Contract**".

AND WHEREAS the Principal/Owner values full compliance with all relevant laws of the land, rules, regulations, economic use of resources and of fairness/transparency in its relation with its Bidder(s) and Contractor(s).

AND WHEREAS to meet the purpose aforesaid both the parties have agreed to enter into this Integrity Agreement (hereinafter referred to as "**Integrity Pact**" or "**Pact**"), the terms and conditions of which shall also be read as integral part and parcel of the Tender/Bid documents and Contract between the parties.

NOW, THEREFORE, in consideration of mutual covenants contained in this Pact, the parties hereby agree as follows and this Pact witnesses as under:

Article 1: Commitment of the Principal/Owner

1) The Principal/Owner commits itself to take all measures necessary to prevent corruption and to observe the following principles:

   (a) No employee of the Principal/Owner, personally or through any of his/her family members, will in connection with the Tender, or the execution of the Contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.

(b) The Principal/Owner will, during the Tender process, treat all Bidder(s) with equity and reason. The Principal/Owner will, in particular, before and during the Tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential / additional
information through which the Bidder(s) could obtain an advantage in relation to the Tender process or the Contract execution.

(c) The Principal/Owner shall endeavor to exclude from the Tender process any person, whose conduct in the past has been of biased nature.

2) If the Principal/Owner obtains information on the conduct of any of its employees which is a criminal offence under the Indian Penal code(IPC)/Prevention of Corruption Act, 1988 (PC Act) or is in violation of the principles herein mentioned or if there be a substantive suspicion in this regard, the Principal/Owner will inform the Chief Vigilance Officer and in addition can also initiate disciplinary actions as per its internal laid down policies and procedures.

Article 2: Commitment of the Bidder(s)/Contractor(s)

1) It is required that each Bidder/Contractor (including their respective officers, employees and agents) adhere to the highest ethical standards, and report to the Government / Department all suspected acts of **fraud or corruption or Coercion or Collusion** of which it has knowledge or becomes aware, during the tendering process and throughout the negotiation or award of a contract.

2) The Bidder(s)/Contractor(s) commit himself to take all measures necessary to prevent corruption. He commits himself to observe the following principles during his participation in the Tender process and during the Contract execution:

(a) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm, offer, promise or give to any of the Principal/Owner's employees involved in the Tender process or execution of the Contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the Tender process or during the execution of the Contract.

(b) The Bidder(s)/Contractor(s) will not enter with other Bidder(s)into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to cartelize in the bidding process.

(c) The Bidder(s)/Contractor(s) will not commit any offence under the relevant IPC/PC Act. Further the Bidder(s)/Contract(s) will not use improperly, (for the purpose of competition or personal gain), or pass on to others, any information or documents provided by the Principal/Owner as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.

(d) The Bidder(s)/Contractor(s) of foreign origin shall disclose the names and addresses of agents/representatives in India, if any. Similarly Bidder(s)/Contractor(s) of Indian Nationality shall disclose names and addresses of foreign agents/representatives ,if any. Either the Indian agent on behalf of the foreign principal or the foreign principal directly could bid in a tender but not both. Further, in cases where an agent participate in a tender on behalf of one manufacturer, he shall not be allowed to quote on behalf of another manufacturer along with the first manufacturer in a subsequent/parallel tender for the same item.

(e) The Bidder(s)/Contractor(s) will, when presenting his bid, disclose (with each tender as per proforma enclosed) any and all CON 255 Page 9 payments he has made, is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the Contract.

3) The Bidder(s)/Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.

4) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm indulge in fraudulent practice means a willful misrepresentation or omission of facts or submission of fake/forged documents in order to induce public official to act in reliance thereof, with the purpose of obtaining unjust advantage by or causing damage to justified interest of others and/or to influence the procurement process to the detriment of the Government interests.

5) The Bidder(s)/Contractor(s) will not, directly or through any other person or firm use Coercive Practices (means the act of obtaining something, compelling an action or influencing a decision through intimidation, threat or the use of force directly or indirectly, where potential or actual injury may befall upon a person, his/ her reputation or property to influence their participation in the tendering process).

Article 3: Consequences of Breach

Without prejudice to any rights that may be available to the Principal/Owner under law or the Contract or its established policies and laid down procedures, the Principal/Owner shall have the following rights in case of breach of this Integrity Pact by the Bidder(s)/Contractor(s) and the Bidder/ Contractor accepts and undertakes to respect and uphold the Principal/Owner's absolute right:

1) If the Bidder(s)/Contractor(s), either before award or during execution of Contract has committed a transgression through a violation of Article 2above or in any other form, such as to put his reliability or credibility in question, the Principal/Owner after giving 14 days notice to the contractor shall have powers to disqualify the Bidder(s)/Contractor(s) from the Tender process or terminate/determine the Contract, if already executed or exclude the Bidder/Contractor from future contract award processes. The imposition and duration of the exclusion will be determined by the severity of transgression and determined by the Principal/Owner. Such exclusion may be forever or for a limited period as decided by the Principal/Owner.

2) **Forfeiture of Performance Guarantee/Security Deposit**: If the Principal/Owner has disqualified the Bidder(s) from the Tender process prior to the award of the Contract or terminated/determined the Contract or has accrued the right to terminate/determine the Contract according to Article 3(1), the Principal/Owner apart from exercising any legal rights that may have accrued to the Principal/Owner, may in its considered opinion forfeit the entire amount of Performance Guarantee / Security Deposit of the Bidder/Contractor.

3) **Criminal Liability:** If the Principal/Owner obtains knowledge of conduct of a Bidder or Contractor, or of an employee or a representative or an associate of a Bidder or Contractor which constitutes corruption within the meaning of Indian Penal code (IPC)/Prevention of Corruption Act, or I fthe Principal/Owner has substantive suspicion in this regard, the Principal/Owner will inform the same to law enforcing agencies for further investigation.

Article 4: Previous Transgression

1) The Bidder declares that no previous transgressions occurred in the last 5 years with any other Company in any country confirming to the anticorruption approach or with Central Government or State Government or any other Central/State Public Sector Enterprises in India that could justify his exclusion from the Tender process.

2) If the Bidder makes incorrect statement on this subject, he can be disqualified from the Tender process or action can be taken for banning of business dealings/ holiday listing of the Bidder/Contractor as deemed fit by the Principal/ Owner.

3) If the Bidder/Contractor can prove that he has resorted / recouped the image caused by him and has installed a suitable corruption prevention system, the Principal/Owner may, at its own discretion, revoke the exclusion prematurely.

Article 5: Equal Treatment of all Bidders/Contractors/Subcontractors

1) The Bidder(s)/Contractor(s) undertake(s) to demand from all subcontractors a commitment in conformity with this Integrity Pact. The Bidder/Contractor shall be responsible for any violation(s) of the principles laid down in this agreement/Pact by any of its Subcontractors/sub-vendors.

2) The Principal/Owner will enter into Pacts on identical terms as this one with all Bidders and Contractors.

3) The Principal/Owner will disqualify Bidders, who do not submit, the duly signed Pact between the Principal/Owner and the bidder, along with the Tender or violate its provisions at any stage of the Tender process, from the Tender process.

Article 6- Duration of the Pact

This Pact begins when both the parties have legally signed it. It expires for the Contractor/Vendor 12 months after the completion of work under the contract or till the continuation of defect liability period, whichever is more and for all other bidders, till the Contract has been awarded.

If any claim is made/lodged during the time, the same shall be binding and continue to be valid despite the lapse of this Pacts as specified above, unless it is discharged/determined by the Competent Authority, CPWD.

Article 7- Other Provisions

1) This Pact is subject to Indian Law, place of performance and jurisdiction is the Head quarters of the Division of the Principal/Owner, who has floated the Tender.

2) Changes and supplements need to be made in writing. Side agreements have not been made.

3) If the Contractor is a partnership or a consortium, this Pact must be signed by all the partners or by one or more partner holding power of attorney signed by all partners and consortium members. In case of a Company, the Pact must be signed by a representative duly authorized by board resolution.

4) Should one or several provisions of this Pact turn out to be invalid; the remainder of this Pact remains valid. In this case, the parties will strive to come to an agreement to their original intensions.

5) It is agreed term and condition that any dispute or difference arising between the parties with regard to the terms of this Integrity Agreement / Pact, any action taken by the Owner/Principal in accordance with this Integrity Agreement/ Pact or interpretation thereof shall not be subject to arbitration.

Article 8- LEGAL AND PRIOR RIGHTS

All rights and remedies of the parties hereto shall be in addition to all the other legal rights and remedies belonging to such parties under the Contract and/or law and the same shall be deemed to be cumulative and not alternative to such legal rights and remedies aforesaid. For the sake of brevity, both the Parties agree that this Integrity Pact will have precedence over the Tender/Contact documents with regard any of the provisions covered under this Integrity Pact.

IN WITNESS WHEREOF the parties have signed and executed this Integrity Pact at the place and date first above mentioned in the presence of following witnesses:

.....
(For and on behalf of Principal/Owner)

.....
(For and on behalf of Bidder/Contractor)

WITNESSES:

1. **.....**
   (Signature, name and address)

2. **.....**
   (Signature, name and address)

Place :
Date :

PART -B

MAJOR COMPONENT - ELECTRICAL

SPECIAL CONDITIONS,
PARTICULAR SPECIFICATIONS,
LIST OF PREFFERED MAKES

SPECIAL CONDITIONS

Name of Work: Maintenance to the old Fountain area in front of NIFPHATT Administrative Building including Surrounding Landscaping/ Horticulture works at NIFPHATT, Kochi.

1 GENERAL

1.1 The work shall be generally carried out in accordance with tender/bid specifications and the following specifications / rules with up to date amendments.

a) CPWD General Specifications for Electrical work Part I Internal – 2023, as amended up to date

b) CPWD General Specifications for Electrical work Part II External-2023, as amended up to date

c) Commercial and Additional conditions for this work.

d) The Indian Electricity Act, 2003, as amended up to date.

e) CEA (Measures relating to Safety and Electric Supply) Regulations, 2023, as amended up to date.

2 Defect liability period

2.1 The contractor has to carry out maintenance as per CPWD General Specifications / manufacturer's standards for a period of 12 months or as decided by the Engineer –in – Charge from the date of handing over. Nothing extra shall be paid on this account.

2.2 In case of Specialized E&M works if Engineer-in-charge desires, the tenderer should submit the following documents from OEM for that particular minor component

a) Authorization certificate.
b) The OEM is unconditionally support the lowest tenderer technically throughout the execution of contract as well as for Maintenance/Comprehensive Maintenance Contract for the useful life of the system, and
c) OEM shall provide all the spares required for healthy functioning of the equipment for at least seven years from the date of supply of equipment.

2.3 In case the same item appears more than once in the schedule of work under the same sub head or among the different subhead of works, the lowest rate quoted for that item elsewhere shall be considered for other items also during evaluation of tender.

3 COMPLETENESS OF TENDER

All sundry equipment, fittings, unit assemblies, accessories, hardware items, foundation bolts, termination lugs for electrical connections, and all other items which are useful and necessary for efficient assembly and installation of equipment and components of the work shall be deemed to have been included in the tender irrespective of the fact whether such items are specifically mentioned in the tender documents or not.

4 CARE OF THE BUILDING:

Care shall be taken by the contractor while handling and installing the various equipment's and components of the work to avoid damage to the building. He shall be responsible for repairing all damages and restoring the same to their original finish at his cost. He shall also remove at his cost all unwanted and waste materials arising out of the installation from the site of work.

5 COMPLETION PERIOD

The completion period indicated in the tender documents is for the entire work of planning, designing, approval of drawings etc., arrangement of materials &equipment's, delivery at site including transportation, installation, testing, commissioning and handing over of the entire system to the satisfaction of the Engineer-in-charge.

6 GUARANTEE

6.1 All equipment's shall be guaranteed for a period of 12 months (except LED fittings which shall be guaranteed for minimum 5 years from the date of taking over the installation by the department, against unsatisfactory performance and/or break down due to defective design, workmanship or material. The equipment's or components, or any part thereof, so found defective during guarantee period shall be repaired or replaced free of cost, to the satisfaction of the Engineer-in Charge. In case it is felt by the department that undue delay is being caused by the contractor in doing this, the same will be got done by the department at the risk and cost of the contractor. The decision of the Engineer-in-charge in this regard shall be final & binding on the contractor.

6.2 The tender shall guarantee among other things, the following:

a. Quality, strength and performance of the materials used as per manufacturers standards.

b. Safe mechanical and electrical stress on all parts under all specified conditions of Operation. Satisfactory operation during the maintenance period.

7 DRAWINGS FOR APPROVAL AFTER AWARD OF THE WORK

The contractor shall prepare & submit three sets of following drawings and get them approved from the Engineer-in-Charge before start of the work. These drawing shall be submitted to division office within 15 days after award of work. The approval drawings, however, does not absolve the contractor not to supply the equipment/materials as per agreement, if there is any contradiction between the approved drawings and agreement.

a. General arrangement drawings of the Electrical panel boards / equipment.
b. Drawing of electrical installations etc.
c. Lay out drawings of the equipment to be installed including control cables and cable trays.
d. Any other drawings relevant to the work.

8 BEFORE COMMENCEMENT OF INSTALLATION

The contractor shall also furnish 3 copies of detailed installation, operation and maintenance manuals of manufacturers for all items of equipment together with all relevant data sheet, spare parts catalogues, repairs, assembly and adjustment procedure etc., in triplicate.

9 Drawings / Documents to be furnished on completion of installation

Three sets of the following drawings/ documents (hard copies) shall be submitted by the contractor while handing over the installation to the Department. The drawing shall be developed on AutoCAD showing all electrical points with layout and a CD containing the drawings shall also be submitted.

9.1 Equipment layout drawing(s) giving complete details of the entire equipment.
9.2 Cable laying plan with route and sizes of cables
9.3 Manufacturer's technical catalogues of all equipment and accessories.
9.4 Drawing of electrical installations etc.
9.5 Operation and maintenance manual of all major equipment, detailing all adjustments, operation and maintenance procedure.
9.6 Schematic diagram of the entire equipment installations.

10 EXTENT OF WORK

10.1 The work shall comprise of entire labour including supervision, all materials necessary to make a complete installation, tests and adjustments and commissioning, as may be required by the department. The term complete installation shall not only mean major items of the plant and equipment's covered by specifications but all incidental sundry components necessary for complete execution and satisfactory performance of installation with all layout charts whether or not been mentioned in details in the tender document in connection with this contract as this is a turnkey job.

10.2 The cables and all other items shall be brought to site only after taking correct measurements as per actual requirement of work. Excess quantities shall not be accepted and paid. i.e., Quantity of item brought to site and used in work as per actual requirement shall only be measured and paid irrespective of quantities of BOQ / work schedule. The item brought at site and paid, if not used in the project have to be taken back by the contractor and deductions in the payment shall be adjusted in subsequent bills. The decision of the Engineer-in-charge in this regard shall be final & binding on the contractor.

10.3 In addition to supply, installation, testing and commissioning, of all E&M equipment, following works shall be deemed to be included within the scope of work to be executed by the tenderer.

a) Minor building works necessary for installation of equipment's, foundation, making of opening in walls or in floors and restoring them to their original condition finish and necessary grouting etc. as required.

b) All necessary supports may be arranged.

c) Testing of PTs/CTs for metering & protection purpose & relay calibration & setting.

d) Getting inspection done & obtaining approval from Central Electrical Authority and local fire authority for energizing the installation. However, necessary fees for inspection shall be borne by the Department.

11.INSPECTION AND TESTING

11.1 Copies of all documents of routine and type test certificates of the equipment, carried out at the Manufacture's premises shall be furnished to the Engineer-in-charge. The decision of the Engineer-in-charge in this regard shall be final & binding on the contractor.

11.2 After completion of the work in all respects the contractor shall offer the installation for testing and operation. The contractor should submit all the related documents of completed ELV / E&M equipment to the department for further handing over to client department.

11.3

12. COMPLIANCE WITH REGULATIONS AND INDIAN STANDARDS

12.1 All works shall be carried out in accordance with relevant regulation, both statutory and those specified by the Indian Standards related to the works covered by this specification.

In particular, the equipment and installation will comply with the following:

i) Factories Act.

ii) CEA (Measures relating to Safety and Electric Supply) Regulations, 2023.

iii) B.I.S. & other standards as applicable.

iv) Workmen's compensation Act

v) Statutory norms prescribed by local bodies like CEA, Power Supply Co., Fire authorities, etc.

vi) NBC 2016

12.2 Nothing in this specification shall be construed to relieve the successful tenderer of his responsibility for the design, manufacture and installation of the equipment with all accessories in accordance with currently applicable statutory regulations and safety codes.

13. INDEMNITY:

The successful tenderer shall at all times indemnify the department. Consequent on this works contract, the successful tenderer shall be liable, in accordance with the Indian Law and Regulations for any accident occurring due to any cause and the contractor shall be responsible for any accident or damage incurred or claims arising there during the period of erection, construction and putting into operation the equipment's and ancillary equipment under the supervision of the successful tenderer to the extent the latter is responsible. The successful tenderer shall also provide all insurance including third party insurance as may be necessary to cover the risk. No extra payment would be made to the successful tenderer on account of the above.

14. ERECTION TOOLS:

No tools and tackles either for unloading or for shifting the equipment's for erection purposes would be made available by the department. The successful tenderer shall make his own arrangement for all these facilities.

15. COOPERATION WITH OTHER AGENCIES:

The successful tenderer shall co-ordinate with other contractors and agencies engaged in the construction of buildings, if any, and exchange freely all technical information so as to make the execution of this work/contract smooth. No remuneration should be claimed from the department for such technical cooperation. If any unreasonable hindrance is caused to other agencies and any completed portion of the work has to be dismantled and re-done for want of cooperation and coordination by the tenderer during the course of work, such expenditure incurred will be recovered from the successful tenderer if the restoration work to the original condition or specification of the dismantled portion of the work was not undertaken by the tenderer himself.

The work will be carried out with least disturbance during shifting & shut down taken in consultation with the client department.

16. VERIFICATION OF CORRECTNESS OF EQUIPMENT AT DESTINATION:

The contractor shall have to produce all the relevant records to certify that the genuine equipment's from the manufacturers has been supplied and erected to the satisfaction of the Engineer-in-charge.

17. MAINTENANCE:

Sufficient trained and experienced staff shall be made available to meet any exigency of work during the guarantee period of one year from the handing over of the installation.

The maintenance, routine as well as preventive, for one year from the date of taking over the installation as per manufacturer's recommendation.

18. Approval of drawings, makes and models of equipment/materials for all E&M components :

18.1 The agency shall submit drawings and details such as makes and models of the equipment's/materials offered by him along with specifications for all E&M components to the Engineer-in-charge of the work, before ordering the equipment/materials for approval of the department.

18.2 The Engineer-in-charge shall scrutinize the proposal and approve the makes and models which are acceptable as per the schedule, specifications, conditions of the agreement and inform the agency for procurement.

18.3 After approval of the equipment/materials by the department the agency shall procure the equipment/materials from the OEM/authorized distributor/dealer as the case may be.

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

i. Material will be ordered & delivered at site only with the prior approval of the department to ensure timely delivery.

ii. As and when the order is placed for the fittings/ fixtures, cables, switchgears, poles, other main items etc, its copy shall be endorsed to the Engineer-in-charge of work.

iii. The contractor will submit makes & brands of electrical fittings wires & cables, conduits and poles , outdoor fittings etc. of preferred make list as per tender documents for approval of Engineer-In-Charge, whose decision will be final in the matter.

iv. The firm will be required to procure material directly from the manufacturer/ authorized dealers to ensure genuineness & quality and as per the approved makes only. Proof in this regard shall be submitted by the contractor if required by the department.

v. Inspection at factory or at go down, as required, shall be arranged by the firm for a mutually agreed date.

vi. Delivery of material shall be taken up only with the consent of department, after clearance of the material.

vii. Department shall reserve the right to waive off inspection in lieu of suitable test certificate, at its discretion.

viii. All the materials to be supplied by the contractor shall be procured & brought to site as per requirement at site of work in consultation with department so that these materials are not damaged & their manufacturer's warrantee.

20. <u>Safety Codes & Statutory Regulations:</u>

Nothing in this specification shall be construed to relieve the successful tenderer of his responsibility for the design, manufacture and installation of the equipment with all accessories in accordance with currently applicable statutory regulations and safety codes.

Successful tenderer shall arrange for compliance with statutory provisions of safety regulations and departmental requirements of safety codes in respect of labour employed on the work by the tenderer. Failure to provide such safety requirement would make the tenderer liable for penalty of Rs.1000/- for each default. In addition, the department will be at liberty to make arrangement for the safety requirements at the cost of tenderer and recover the cost thereof from him.

PARTICULAR SPECIFICATIONS AND SPECIAL CONDITIONS FOR E&M WORKS

1. GENERAL

1. The tenderer should in his own interest visit the sites and familiarize himself with the site conditions before tendering.
2. No T&P shall be issued by the department and nothing extra shall be paid on account of this.
3. Care shall be taken, while handling / installing / maintaining the equipment/ carrying out the work, to avoid damage to the building/ premises. The Contractor shall arrange to repair all damages to the building caused by him so as to bring to the original condition. He shall also arrange to remove all unwanted waste materials from site, arising out of his work.
4. The Contractor shall carry out the work in such a manner so as not to interfere or affect or disturb other works being executed by other agencies if any. No claim in the matter shall be entertained.

2. RATES TAXES AND DUTIES:

1. The work shall be treated as on works contract basis and the rates tendered shall be for complete items of works inclusive of all taxes (including works contract tax), duties, and levies etc. and all charges for items contingent to the work, such as packing, forwarding, insurance, freight and delivery, installation, testing, commissioning etc at site i/c temporary constructional storage, risk, overhead charges, general liabilities/ obligations etc.
2. Being an indivisible works contract, sales tax, octroi, excise duty etc. are not payable separately.
3. GST for the work shall be included within the quoted rates for the various items.
4. All statutory deductions like GST, Building and other construction workers welfare cess etc at applicable rates will be made from the Contractors bill.

3. COMPLIANCE WITH REGULATIONS

The work shall comply in all respects with this specification and:

a. The Building Regulations applying to the project including requirements of the National Building Code 2016.

b. Wiring rules and regulations including requirements of Central Electricity Authority (Measures Relating to Safety and Electric Supply) Regulations 2023, National Electrical Code of India 2023, the local electricity supply authority and electrical inspectorate.

c. Any other regulations that apply directly or indirectly to such installations in the location. Where conflict arise between this specification and any of the applicable acts, codes or standards the highest standard of materials and workmanship shall prevail.

d. If the contractor proposes to supply finished goods procured directly or indirectly from vendors, from the countries sharing land border with India, such vendor will be required to be registered with the competent authority under Government of India. Such procurement shall be accepted only on furnishing the details of such registration.

e. For materials to be used in work for which Government of India has notified minimum percentage of local content under, Public Procurement (Preference to Make in India) Order 2017 (Amended up to date), it shall be mandatory to supply materials meeting such stipulation.

f. **Prior to commencement of work, all applicable statutory clearances required for taking up the work shall be obtained by the contractor. This shall include NOC from Kerala Fire and Rescue Services, Consent to Establish (CTE) NOC from Kerala Pollution Control Board, Initial scheme approval from Central Electricity Authority/Kerala Electrical Inspectorate etc.**

g. **After completion of the work, the completed installation shall be offered for inspection to inspectors of the relevant statutory authorities. This shall include NOC from Kerala Fire and Rescue Services, Consent to Operate (CTO) NOC from Kerala Pollution Control Board, Energization approval from Kerala Electrical Inspectorate/ Central Electricity Authority etc. The contractor shall prepare and submit necessary drawings, test certificates, other documents etc. for submission to these bodies. It shall be the responsibility of the contractor to liaison with/ coordinate with such inspecting authorities for obtaining the approval for the installation. The rectifications required by such statutory authorities shall be carried out by the contractor. Nothing extra shall be payable to the Contractor on this account. The installation shall be commissioned only after obtaining all applicable statutory clearances**.

h. It shall be the responsibility of the contractor to liaison with/ coordinate with the electricity supplier for availing power supply and energizing the installation.

i. Statutory fees if any for obtaining statutory clearances/ availing power supply shall be paid by the contractor and the same shall be reimbursed on production of evidentiary proof to the department.

j. Prior to commencement of work, all applicable statutory clearances required for taking up the work shall be obtained by the contractor.

4. TERMS OF PAYMENT

4.1 Payment will be made against completion of specific stages of work. The percentage of contract rates payable against various stages of work is given below.

(a) For IEI :

S.N.	Stage of Work	Payment terms in %
1	Supplying and laying/fixing of conduit, switch boxes, DBs etc.	40%
2	On completion of wiring	50%
3	Supply of fans & fittings	75%
4	Installation of equipment, earthing etc	85%
5	Testing & commissioning	95%
6	Handing Over	100%

4.2 No claim for payment shall accrue to the contractor for incomplete stages.

4.3 The department may at its discretion, allow part payments on written request from the contractor, on account of compelling reasons to be brought on record. In such event, the part rates assessed by the engineer-in-charge will be final and binding.

5. ADDITIONAL CONDITIONS AND TECHNICAL SPECIFICATIONS

1 The work shall be generally carried out in accordance with tender specifications and the following specifications/ rules amended upto date:

(i) Additional conditions and technical specifications for this work.
(ii) Drawings for this work.
(iii) CPWD General Specifications for Electrical Works -Part-I Internal 2023 and Part- II External 2023.
(iv) National Electrical Code of India 2023.
(v) National Building Code 2016.
(vi) Relevant IS Codes.
(vii) IEC/ ASHRAE/ SMACNA/ ITU/ TIA/ AVIXA standards.

2. The contractor shall, on demand by the engineer-in-charge, furnish proof to the satisfaction of the engineer-in-charge regarding purchase of materials and equipment from the manufacturer/ manufacturer's authorized outlets.

3. Materials to be used in work are to be ISI marked where available. Prior approval of the engineer-in-charge shall be taken for all the materials required to be used on works. Non-standard quality materials will not be accepted. The engineer-in-charge reserves the right to instruct the contractor to remove any material which, in his opinion, is not acceptable and the same shall be removed from the site of work by the contractor at his cost.

4. All materials used in work shall be supplied with manufacturers test certificates. Samples will be drawn from the supplied materials as per acceptance criterion specified in relevant codes and the same will be got tested through approved third party testing laboratories. The contractor shall make all necessary arrangements and bear all costs towards testing of samples including preparation of samples, packaging, sealing, transportation, loading, unloading, etc. No additional payment will be admissible towards this.

5. Materials shall be brought to site only after taking correct measurements as per actual requirement of work. Excess quantity will not be accepted or paid. Only quantity of materials brought to site and used in work as per actual requirement shall be measured and paid irrespective of quantity mentioned in BOQ/ work schedule. The items brought to site and paid, if not used in the project have to be taken back by the contractor and deductions in the payment shall be made in subsequent bills. The decision of the Engineer-in-charge in this regard shall be final & binding on the contractor.

6. The materials of construction used for various items of work shall be suitable for the environment and intended use of the component. Following general guidelines shall be followed.

(a) Equipment & wiring enclosures, raceways etc used indoor shall be with epoxy powder coated/ hot dipped galvanized finish.

(b) Support structures, fasteners, raceways etc used outdoor shall be of hot dipped galvanized steel or stainless steel.

(c) Paint finish for pipelines used outdoor shall be two coats of epoxy primer with two coats of PU finish. Paint finish for pipelines used indoor shall be two coats of zinc chromate primer with two coats of enamel over coat.

(d) Only UV stabilized SMC/ die-cast aluminum/ GI powder coated enclosures with minimum ingress protection of IP65 may be used outdoor.

7. No work shall be initiated without getting the work method statement approved by the Engineer-in-Charge. Work shall be executed only as per the approved work method statement.

8. Bad workmanship will not be accepted. Such work is liable for rejection and shall be rectified by the contractor at his own cost as per the specifications and directions given by the engineer-in-charge.

9. All repairs and patch works shall be neatly carried out to match with the original finish and to the full satisfaction of the engineer-in-charge.

10. On completion of the installation, the contractor shall arrange for conducting pre-commissioning tests as required by the applicable codes. A report of such tests shall be compiled and submitted to the engineer-in-charge for his approval. Such tests shall commence only on the approval of this report by the engineer-in-charge and shall be carried out by those authorized, skilled, experienced and certified permit holders of the supervisor category.

11. The contractor has to make his own arrangement for stores and watch and ward and no extra claim for this will be entertained.

12. The contractor has to make his own arrangement at his own cost for all the general and special T&P required on this work.

13. The contractor has to make his own arrangement for power supply required for execution of the work.

14. The contractor has to make his own arrangement for water supply required for execution of the work.

15. All the debris due to the works shall be removed from the site by the contractor as soon as the work is completed.

16. The materials used in the work shall be of approved make as per preferred make list.

6. Defect Liability Period*:* All equipment shall be guaranteed for a period of **12 Months** from the date of completion. Any defective materials and equipment shall be replaced free of cost at the direction of the Engineer-in-Charge during this period. In case it is felt by the department that undue delay is being caused by the contractor in carrying out these works, the same will be got done by the department at the risk and cost of the contractor. The decision of the Engineer-in-charge in this regard shall be final & binding on the contractor.

7. Five year OEM warranty from the date of commissioning shall be availed by the contractor for all LED fittings used in the work. A letter/ undertaking from the OEM shall be submitted in support of this. If this condition is not fulfilled by the contractor, 5% of the cost of LED fittings will be forfeited from the security deposit deducted for the total work and balance amount only will be refunded after completion of defect liability period.

8. The work involves partial work executed by a separate agency. On award of work, before taking up execution of any work, the contractor shall carry out the following activities:

a) Measure up all partial work and submit the measurements for acceptance by the department.

b) Identify unserviceable/ defective items of work/ materials and submit measurements of these separately for acceptance by the department.

c) On receipt of the above details, the department will identify works or materials so measured as being unserviceable (decision of the Engineer-in-charge in this regard shall be final and binding).

d) Contractor shall dismantle such items as decided by the department to be unserviceable and bring the dismantled items to a designated place within the campus. Proper account of such materials shall be maintained by the contractor. Any deviation between measured quantity and dismantled item account will be adjusted from the contractors bill.

e) The balance work shall be taken up only on the completion of the above activities.

9. If certain items of work executed by the contractor includes certain partial works already executed, the amount of such partial work will be recovered from the amount payable to the contractor. The amount of such partial work will be calculated at market rates on the last day of submission of bid. The rate fixed by the engineer-in-charge in this regard shall be final and binding on the contractor.

10. Additional conditions and technical specifications for various components of work to be executed are given in the following sections.

11. **Order of Preference**:

Should there be any difference or discrepancy between the description of items as given in the Schedule of Quantities, technical specifications for individual items of work (including additional and commercial conditions) and IS Codes etc., the following order of preference shall be followed:

a) Description of Schedule of quantities.
b) Particular specification and Special conditions
c) Drawings.
d) CPWD General Specifications of that particular work.
e) Relevant IS or any other International code in case IS code is not available.

ADDITIONAL CONDITIONS FOR ELECTRICAL WORKS

A) WIRING SYSTEM

1. Recessed/ slab wiring shall be done using medium class PVC conduits (except for fire alarm wiring & data cabling for which specifications for open wiring may be followed).
2. Open wiring shall be done using GI conduits.
    1. Surface conduits shall be supported using spacer bar saddles.
    2. Suspended conduit runs shall be supported using GI strut channel support system. Final connections to equipment from rigid wiring shall be made using GI flexible conduits.
    3. All sections of metallic conduits shall be effectively bonded to the earthing system.
3. Perforated/ ladder/ wire mesh cable trays may be used for horizontal and vertical distribution of cables.
    1. Cable trays shall be hot dipped galvanized including all connection/ support accessories.
    2. All cable tray systems shall be complete with factory made bends, tees, reducers etc and other accessories like connectors, earth clamps, support channels & suspenders, stainless steel cable ties etc.
4. Wiring system shall be complete with all necessary clamps, glands, lugs, connectors, labeling ferrules etc. When different systems of wiring are combined in a single feeder/ circuit, the transition shall be made using suitable glands/ adapters. Nothing extra is payable on this account.
5. **All flexible copper wires used shall have Class 2 copper conductor satisfying the resistance requirements of NEC 2023 Part 1 Section 17, Annex B.**
6. **All flexible copper wires used shall be with FR-LSH PVC insulation.**
7. Wherever light fittings/ fire detectors/ response indicators are proposed to be provided on the false ceiling, the respective wiring shall be brought upto the terminal of the light fittings/ fire detectors/ response indicators. Flexible metal conduits properly glanded to junction boxes shall be used for drawing wires from junctions on ceiling to fittings on false ceiling and nothing extra shall be paid to the contractor for the same.
8. Power cables run under ground with protection shall be laid direct in ground with protection tiles as per IS 5820.
9. Entry of cables into the building shall be through suitable sleeves which shall be sealed after the drawing of cables using waterproof sealing compound/ foam. Nothing extra is payable on this account.

B) LABELLING

1. **GENERAL**
    1. Labelling scheme including sample labels for various equipment forming part of the installation shall be prepared by the contractor and submitted to the engineer-in-charge for his approval. Labelling activities may be taken up only on the approval of this plan by the engineer-in-charge.
2. **CABLES**
    1. All cables shall be labelled showing the fed from/ fed to locations, size of cable and number of runs.
    2. Stamped/ engraved aluminum labels may be used for labelling outdoor enclosures.
    3. Engraved acrylic sheets may be used for labelling indoor enclosures.
    4. Labels shall be connected to the cable/ conduit/ bunched wires using black nylon straps.
    5. Fed to labels shall be used near feeding end.

6. Fed from label shall be used near fed end.
7. Both labels shall be used at intermediate locations inside man holes, across openings in walls etc.

3. **PANELS**
    1. All panels shall be provided with labels on the front indicating the switch gear designation, feeding cable size & runs and destination.
    2. Engraved PVC labels may be used for switch gear designation.
    3. Painting may be used for remaining labelling.
4. **DISTRIBUTION BOARDS**
    1. All DBs shall be provided with labels indicating the fed to location of loads & circuit sizes, fed from location & feeder size.
    2. The DB labelling sheets must be computer printed in suitable size paper, laminated and pasted to the inside of the DB door using suitable industrial adhesive.
5. **SWITCH BOARDS**
    1. All switch boards shall be provided with 9mm acid proof labels indicating the DB and circuit designation.
    2. All circuits shall be provided with ferrules on both sides including all loops indicating the circuit, loop and DB designations.
6. **WARNING LABELS**
    1. Approved acid proof graphic labels shall be provided at the following locations.
        a. Near lightning down conductor locations indicating minimum distance of 3m to be maintained in the event of lightning.
        b. In front of panels and DBs warning to keep the area in front of the panel/ DB clear for 1m.
        a. In front of panel incomers warning of the presence of multiple sources of power for panels fed from multiple feeders.
        a. Near earthing points of enclosures and earth buses warning against disconnection of safety earth.

C) ELECTRICAL PANELS

1. **GENERAL CONSTRUCTIONAL FEATURES**
    1. Panels shall be:
        a. Compartmentalized as per Form 4a construction.
        b. Dust and vermin proof construction with minimum IP42 ingress protection for indoor panels and IP54 ingress protection for outdoor panels.
        c. Extendable on both sides.
    2. Panel boards which are free floor standing should be erected on suitable M.S. channels across cable trench if the cable entry to the panel is from bottom and ready made cable trenches exist. Panels should be erected on a M.S. angle iron frame if ready made cable trenches do not exist and if the cable entry to the panel is from the bottom. All mountings in flooring / wall etc should be using anchor fasteners and G.I. hardware.
    3. No equipment needing manual operation shall be located less than 250 mm above floor level. Operating levers, handles etc of highest unit shall not be higher than 1700mm.
    4. Cable alleys shall be provided with suitable hinged doors. Adequate number of slotted cable support arms shall be provided for supporting the cables.
    5. Metallic partitions shall be provided between adjacent cubicles, between feeder compartments, between busbar chambers and other compartments.
    6. Panel shall be divided into suitable sections for convenience during shipment.
    7. All doors shall be folded type. All covers and doors may be provided with neoprene gaskets and quarter turn metallic locks (triangular/ square).

8. Provision shall be made for shrouding the outgoing terminals for protection against accidental touch. All exposed live parts shall be totally covered by shrouds. If spreader bars are required, they shall be separated by phase barriers.
9. Wherever more than one cable has to be terminated on any incoming/ outgoing feeder the respective incoming/ outgoing terminals has to be designed in such way as to receive the required number of cables.
10. Bus bars and cable alleys shall be shrouded with FRP sheet for all connections to neighboring bays.
11. Cable entry shall be provided on top and bottom as per site requirement. All gland plates shall be made out of 3mm thick galvanized iron sheet and bonded to the earth bar using flexible/ braided copper cable with cross section equal to the earth bus

2. **SHEET METAL WORK**
    1. The panel board shall be fabricated using suitable mild steel structural sections or pressed and shaped cold rolled sheet steel of thickness not less than 2 mm. Stiffeners shall be provided wherever necessary.
    2. All panel edges and door edges shall be reinforced against distortion by rolling, bending or by the addition of welded reinforced members. Cut-outs shall be true in shape and devoid of sharp edges. The complete structure shall be rigid, self-supporting and free from vibration, twists and bends.
3. **PAINTING**
    1. All sheet steel work shall be phosphate with applicable standards. All metal works shall be chemically treated with 7 tank process for degreasing, derusting, phosphating and applied with two coats of Epoxy powder coating.
4. **BUSBARS**
    1. Bus bars shall be of sufficient cross-section so that a current density of 130A/sq.cm is not exceeded at nominal current rating for aluminium bus bars, and 160A/sq.cm for copper bus bars.
    2. The panel shall be provided with three phase and neutral busbar. Busbar shall be of uniform cross section throughout the length of the bus bar section.
    3. All bus bar and bus-taps shall be insulated with color coded heat shrinkable PVC insulation sleeves.
    4. Busbar shall be adequately supported and braced to withstand the stresses due to the specified short circuit currents. Busbar supports shall be made of fiber reinforced molded plastic material, or cast resin.
5. **CONTROL WIRING**
    1. The control wiring shall be carried out in single core 1.1 KV grade PVC insulated control cables with stranded copper conductors of minimum cross section 1.5 sq.mm (2.5 sq.mm for CT wiring).
    2. Runs of control wires within the switch-board shall be neatly bunched and suitably supported/ clamped. Ferrules shall be provided for easy identification of the control wires.
    3. Control wiring shall correspond to the circuits/ sequence of operations and interlocks agreed to with the Engineer-in-Charge.
    4. Not more than two connections shall be made at any one terminal
    5. The wiring shall be arranged and supported in such a manner that there will be no strain on termination.
6. **LABELLING**
    1. All panels shall be provided with labels on the front indicating the switch gear designation, feeding cable size & runs and destination.
    2. Engraved PVC labels may be used for switch gear designation.
    3. Painting may be used for remaining labeling.

7. **EARTHING/ BONDING**
    1. Panel shall be provided with a set of inter connected earth bus bar running along the entire length of the board at top (where cable entry is from the top) and bottom. At either end of the earth bus, one clamp type terminal with nuts, bolts and washers shall be provided for bolting the earthing conductor.
    2. The earth bus shall be of tinned copper and with minimum cross section equal to half the cross section of the phase bus bar (size may be reduced by 60% for panels with aluminium bus bars).
    3. Earth bus bars shall be supported at suitable intervals. Positive connection between all the metal frames of equipment mounted in the switchboard and earth bus bar shall be provided.
    4. All instrument cases shall be connected to the earth using 1100V grade, single core 2.5 sq.mm stranded, copper conductor cable.
    5. All non current carrying metal hinged doors shall be bonded to the panel using 1100V grade, single core 2.5 sq.mm stranded, copper conductor cable.
    6. All shielded cables used inside panels shall be bonded at both ends to the metallic case/ DIN rails using suitable bonding clamps.
8. **TESTING**
    1. All panels shall be offered for inspection at the factory. All defects and deviations pointed out in the inspection report shall be rectified at the factory before dispatch to site. However, the Engineer-in-Charge may exercise discretion for waiving factory inspection in lieu of proper test certificates.
    2. Panel shall be subjected to following tests as per relevant standards:
        a. Mechanical Operational tests for all movable parts of switch gears, breakers, tripping devices etc.
        b. Testing of interlocks, control circuit operation including timing and sequencing.
        c. Insulation resistance test.
        d. Over voltage withstand test.

D) LED LUMINARIES

1. ANSI/IES LM79, ANSI/IES LM-80 & ANSI/IES TM-21 test reports, IES file and datasheets shall be submitted for all luminaries. Only test reports conducted in NABL accredited laboratories will be accepted.
2. All Luminaries supplied shall have serial numbers or batch code.
3. Luminaries shall be ISI marked as per IS 10322 and conform to IS 16101 to 16108 amended upto date.
4. LEDs shall be low power LEDs of the following makes only - Nitchia, Osram, Philips or manufactured by the OEM in the list of approved makes.
5. Luminaire efficacy of not less than the following
    1. Streetlights: 120 lumen/watt
    2. Panel light, Downlighter, Batten, Industrial fittings, Flood light: 100 lumen/watt.
    3. Other: 80 lumen/watt
6. Minimum Color rendering index (Ra) should be
    1. 70 for streetlights, flood lights, industrial lights and outdoor lights.
    2. 80 for all indoor lights.

7. Correlated Color Temperature (CCT) shall be 5700 K unless otherwise mentioned.
8. The L70B50 life of LED package as per TM-21 report shall be not less than 50,000 Hrs.
9. Light fittings used for outdoor and industrial use shall have minimum IP65 ingress protection, IK08 mechanical impact protection and 4 kV surge protection.
10. OEM accessories and supports shall be used for mounting and suspending luminaries.

Assistant Engineer (E) (P)
O/o EE(E)-Kochi, CPWD, Kochi

EXECUTIVE ENGINEER (E) - KOCHI
CPWD, KOCHI.

LIST OF PREFERRED MAKES

All materials and Equipment shall conform to the relevant standards and shall be of approved make and design. The list of preferred makes for various equipment/materials etc. is given below. Any item missed out from the list should be got approved by the Engineer in Charge before delivery/ installation. Engineer-in-charge may, for any item, in the interest of work allow use of any other make/brand in addition to the makes/brands mentioned in the preferred makes lists subject to its satisfactory quality and on proper grounds like non-availability of preferred makes/brands in the market etc. In such case, cost adjustment shall be made if the make/brand actually used is priced lower than the lowest priced brands of that item in the preferred makes list. However, nothing extra shall be paid if actually used brand/make is of higher price than the highest priced brand/make in the list of preferred makes.

TABLE 1: LIST OF PREFERRED MAKES FOR INTERNAL EI WORKS

SL.NO	NAME OF THE PRODUCT	MAKES
1	STEEL / MS CONDUIT & ACCESSORIES OF MS CONDUIT (ISI MARKED)	BEC / AKG / NIC / STEEL KRAFT / RMCON / GUPTA / VIMCO / JAVERI
2	PVC CONDUIT (COLOUR – GRAY/IVORY)	PRECISION / POLYCAB / AKG / FINOLEX / KONSEAL / BEC / ASIAN / NIHAR / ANCHOR PANASONIC / AVON PLAST/ MODI / VASAVI / EMJAY / JAVERI / DEC /BALCO/TOMS PIPES PVT LTD
3	PVC INSULATED FRLS COPPER CONDUCTOR CABLES 1.1 KV GRADE (ISI MARKED-CLASS-II)	FINOLEX / HAVELLS / RR KABLE / KEI / POLYCAB / ANCHOR / ASMON / MESCAB / LAURITZ KNUDSEN / POWER FLEX / Q FLEX/BONTON
4	MODULAR TYPE SWITCH / GI BOXES / SOCKETS /TV / TELEPHONE/LAN SOCKET OUTLET ETC. NORMAL APPLICATION	LEGRAND -MYRIS- ARTEROR / SCHNEIDER – OPAL-LIVIA / MK-ELEMENTS / HAVELLS-CRABTREE-ATHENA / PANASONIC
		MK-LOGIC-PLUS / HONEYWELL -BENZ PLUS / ANCHOR- ROMA PLUS / SAVIC / CRABTREE-ATHENA
5	DB	LEGRAND / SCHNEIDER / SIEMENS / ABB / GE / HAGER / LAURITZ KNUDSEN / ASMON / PANASONIC BY ANCHOR / POLYCAB / C&S – WINTRIP2

SL.NO	NAME OF THE PRODUCT	MAKES
	MCB / ELCB / RCBO	LEGRAND-DX3 / SCHNEIDER-ACT19 / SIEMENS 5SX4 / HAVELLS / EATON / ABB / GE / HAGER / LAURITZ KNUDSEN / PANASONIC BY ANCHOR / POLYCAB / C&S (NOTE: IT SHALL BE SAME AS THAT OF DB MAKE)
	MCCB	LEGRAND-DX3 / SCHNEIDER-ACT19 / SIEMENS 5SX4 / LAURITZ KNUDSEN – D SINE / ABB / EATON / C&S (NOTE: IT SHALL BE SAME AS THAT OF DB MAKE)
6	FLOOR TRUNKING/RACEWAY(GI)	HONEYWELL MK / OBO BETTERMANN / LEGRAND / PROFAB
7	DLP TRUNKING	LEGRAND / MK / OBO BETTERMANN / SCHNEIDER
8	INDOOR / OUTDOOR LIGHING FIXTURES	PHILIPS / DISANO / IGGUZINI / REGENT / OSRAM / LT (LIGHTING TECHNOLOGIES)
		EVERYDAY / BAJAJ / HALONIX / JAQUAR / WIPRO / HAVELLS / SYSKA / CROMPTON GREAVES / POLYCAB / PANASONIC
9	LAMPS	GE / OSRAM / PHILIPS / TRILUX / LIGHTING TECHNOLOGIES
		EVERYDAY/ BAJAJ / HALONIX / SURYA / JAQUAR / WIPRO / HAVELLS / SYSKA / CROMPTON / PANASONIC / LIGHTING TECHNOLOGIES / POLYCAB
10	BLDC CEILING FAN	CROMPTON / HAVELLS / ORIENT / BAJAJ / ALMONARD / ATOMBERG (5 STAR RATED -ISI MARKED)
11	EXHAUST FANS / FRESH AIR FAN / WALL FAN	CROMPTON / HAVELLS / ORIENT / BAJAJ / ALMONARD /ATOMBERG
12	XLPE INSULATED PVC SHEATHED AL, CU & CONTROL CABLES	UNVERSAL / RPG CABLES / FINOLEX / CCI / ANCHOR PANASONIC / HAVELLS / RR KABLE / GLOSTER/ KEI / POLYCAB
13	MULTIFUNCTION METER/LOAD MANAGERS	SCHNEDER / SIEMENS / LEGRAND / SECURE / SOCOMEC (DIRIS)

SL.NO	NAME OF THE PRODUCT	MAKES
14	CABLE GLAND	PEECO / COMMET / GRIPWELL / DOWELLS / JAINSONS / PRABATH / RAYCHEM / GRANDLAY
15	LUGS AND THIMBLES	DOWELLS / MULTI / CAPITAL / JAINSONS / COMMET / PRABATH / SCHNEIDER ELECTRIC
16	G I PIPE	JINDAL / TATA / SAIL
17	POWER / CONTROL CONTACTORS	GE / LAURITZ KNUDSEN / SIEMENS / SCHNEIDER / ABB
18	ELECTRICAL SWITCHGEAR & STARTERS, RELAYS	SIEMENS / LAURITZ KNUDSEN / ABB / SCHNEIDER
19	SINGLE PHASING PREVENTOR (CURRENT SENSING)	LAURITZ KNUDSEN / SIEMENS / MINILEC
20	CTS	AUTOMATIC ELECTRIC / LAURITZ KNUDSEN / ABB / SIEMENS/ GE / MECO/ KAPPA
21	CONTACTORS	SIEMENS / LAURITZ KNUDSEN / SCHNEIDER / ABB / GE
22	UTP DATA CABLES	LEGRAND / MOLEX / FINOLEX / COMMSCOPE / PANDUIT-PANNET / HAVELLS
23	OF CABLES	LEGRAND / MOLEX / FINOLEX / COMMSCOPE / PANDUIT-PANNET / SEIMENS
24	HOT DIP GALVANISED CABLE TRAY	PROFAB ENGINEER / MEM / RICOH / SLOTTO / STEELWAYS / BEC / FIXOTECH / OBO BETTERMAN / RMCON / PROFAB / INDIANA / MBM /LEGRAND
25	PANEL BOARD / FEEDER PILLAR / METER BOARD	CPRI APPROVED MANUFACTURER FOR RELEVANT BUS BAR RATING
26	FULLY TYPE TEST ELECTRICAL PANEL BOARD ASSEMBLIES AS PER IEC 61439	ABB/ SIEMENS/ SCHNEIDER/ LEGRAND/ LAURITZ KNUDSEN / GE
27	DWC PIPES	TELEREX / DUTRON / VEEKAY PLAST / DURA-LINE / SUPREME
28	TELEPHONE DP BOXES	KRONE / D-LINK / ITL
29	AIR CIRCUIT BREAKER	SCHNEIDER / SIEMENS / LEGRAND / ABB / LAURITZ KNUDSEN

SL.NO	NAME OF THE PRODUCT	MAKES
30	PANEL BOARD MOUNTING SWITCHES / CONTACTOR / SINGLE PHASE PREVENTER / TIMER	SCHNEIDER / SIEMENS / LEGRAND / ABB / LAURITZ KNUDSEN
31	METERS / ELECTRICAL MEASURING INSTRUMENTS / MULTI FUNCTION METERS	AE / LAURITZ KNUDSEN / CONZERV / TRINITY / RISHAB / SECURE
32	INDICATION LAMPS / PUSH BUTTONS / SELECTOR SWITCH	LAURITZ KNUDSEN / SIEMENS /SCHNEIDER / AE / KAYCEE / IMP
33	RISING MAIN / BUS TRUNKING	LEGRAND / LAURITZ KNUDSEN / SCHNEIDER / ABB / SIEMENS
34	SOLAR WATER HEATER	RACOLD/ EMMVEE/ KOTAK URJA/ JAIN/ SUDARSHAN/ V-GUARD
35	PUMPS AND PUMP SETS	KIRLOSKER/ CROMPTON/ TEXMO/ KSB/ GRUNDFOS / XYLEM
36	MOTORS	HAVELLS/ ARMSTRONG/ JOHNSON ELECTRIC/ GE/ SIEMENS/ ABB
37	LIGHTNING CONDUCTORS	OBO / DHEN / CAPS/ FUREE
38	ILLUMINATED SIGN BOARD	LEGRAND / MK / SYSTEM TEK / PROLITE / BAJAJ/HAVELLS
39	LT CABLES	FINOLEX / GLOSTER / HAVELLS / RR CABLE/ UNIVERSAL / POLYCAB / RPG CABLES / CCI
40	SOLAR LED LUMINARIES	PHILIPS / CROMPTON/ WIPRO / BAJAJ / HAVELLS
41	STREET LIGHT GI POLE	WIPRO / BAJAJ / HAVELLS / CROMPTON
42	STREET LIGHT LED FITTINGS	WIPRO / BAJAJ / HAVELLS / CROMPTON
43	HRC FUSES	LAURITZ KNUDSEN / SIEMENS / HPL / BCH / ABB / GE / HAVELLS
44	UPVC/CPVC PIPE	ASTRAL / SUPREME / FINOLEX
45	HDPE PIPES	VARUN/ MANGALAM/ KODOOR / SUPREME
46	UPS	SCHNEIDER-APC /ABB / LEGRAND- NUMERIC / EMERSON -VERTIV / SIEMENS
47	BATTERIES	EXIDE/ AMARON / PANASONIC

SL.NO	NAME OF THE PRODUCT	MAKES
48	INVERTER TYPE CASSETTE /SPLIT AC	HITACHI / PANASONIC / CARRIER/ DAIKIN/ O GENERAL / HAIER / VOLTAS / BLUE STAR / LLYOD
49	STABILIZER	V-GUARD / MICROTEK / APC
50	REFRIGERANT PIPES	GODREJ / MEHTA / MANDEV/ RAJCO / NIPPON/ TOTALINE / AS PER MANUFACTURER'S STANDARDS.
	NOTES: ALL MODULAR SWITCH, SOCKETS AND OTHER ACCESSORIES SHALL BE OF THE SAME MAKE. FOR ITEMS WHERE PREFERRED MAKES ARE NOT SPECIFIED, THE DECISION OF THE ENGINEER-IN-CHARGE SHALL BE FINAL AND BINDING.	

Assistant Engineer (E) (P)
O/o EE(E)-Kochi, CPWD, Kochi

EXECUTIVE ENGINEER (E) – KOCHI
CPWD, KOCHI.

PART -C

MINOR COMPONENT - CIVIL

SCHEDULE A TO F

SPECIAL CONDITIONS FOR CIVIL WORKS, CEMENT AND STEEL

LIST OF APPROVED MAKE OF MATERIALS

PROFORMA OF SCHEDULES FOR MINOR COMPONENT (CIVIL)

SCHEDULE ‘A’

Schedule of quantities (as per PWD-3) **: See part D of the NIT**

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, Form 7 as modified and corrected upto previous day of the last date of submission of the tender

Name of Work	:	**Maintenance to the old Fountain area infront of NIFPHATT Administrative Building including Surrounding Landscaping/ Horticulture works at NIFPHATT, Kochi.**
Estimated cost of work	:	**Rs. 9,90,306/- [Electrical – Rs 5,71,874/- + Civil – Rs 4,18,432/-].**
a. Earnest Money	:	Same as Major Electrical Component
b. Performance Guarantee	:	Same as Major Electrical Component
c. Security Deposit	:	Same as Major Electrical Component

SCHEDULE 'F'

GENERAL RULES & DIRECTIONS:

Officer inviting tender	**:**	Executive Engineer (E) – Cochin CPWD, Kendriya Bhavan, Kakkanad Kochi – 682037
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 as given below	**:**	See under Clause 12

Definitions:

2(v) Engineer-in-Charge	:	Executive Engineer – Cochin, CPWD, Kendriya Bhavan, Kakkanad, Kochi – 682037
2(viii) Accepting Authority.	:	Executive Engineer (E) – Cochin CPWD, Kendriya Bhavan, Kakkanad Kochi – 682037
2(x) Percentage on cost of materials and Labour to cover all overheads and profits	:	15%
2(xi) Standard Schedule of Rates	:	Delhi Schedule of Rates 2023 as modified and corrected upto previous day of the last date of submission of the tender & Market Rates.
2(xii) Department	:	CPWD
9(ii) Standard CPWD Contract Form	:	CPWD General Conditions of contract 2023 – Maintenance Works, Form 7 as modified and corrected upto previous day of the last date of submission of the tender

Clause 1

(i) Time allowed for submission of Performance Guarantee, Programme Chart (Time and Progress) and applicable labour licenses, registration with EPFO, ESIC and BOCW welfare board or proof of applying thereof from the date of issue of letter of acceptance	:	Same as Major Electrical Component
(ii) Maximum allowance extension with late fee @ 0.1% per day of Performance Guarantee amount beyond the period provided in (i) above	:	Same as Major Electrical Component

Clause 2

Authority for fixing compensation under clause 2	:	Superintending Engineer – Cochin, CPWD, Kendriya Bhavan, Kakkanad, Kochi – 682037

Clause 2A

Whether Clause 2A shall be applicable — Not Applicable

Clause 5

Number of days from the date of issue of letter of acceptance for reckoning date of start — Same as Major Electrical Component

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

S.No.	Description of Milestone (Physical)	Time Allowed in Days (from date of start)	Amount to be with-held in case of non achievement of mile stone
Same as Major Electrical Component			

Time allowed for execution of work	:	Same as Major Electrical Component

Authority to decide:

(i) Extension of time	:	Same as Major Electrical Component
(ii) Rescheduling of milestones	:	Same as Major Electrical Component
(iii) Shifting of date of start in case of delay in handing over of site	:	Same as Major Electrical Component

PROFORMA OF SCHEDULES Clause 5 Schedule of handing over of site

Part	Portion of site	Description	Time Period for handing over reckoned from date of issue of letter of intent
Part A	Portion without any hindrance	Full Site	On the date of start of work
Part B	Portions with encumbrances	--	Not Applicable
Part C	Portions dependent on work of other agencies	--	Not Applicable

Clause 5.2

Documentation of Hindrances	:	**1.** The contractor has to first register himself through a registration form, available on CPWD website under 'Contractors Login' tab. After registration, User ID and password will be automatically generated and sent on his registered mobile and email ID. Using this User ID and Password he can access the module and view all the works which are being carried out by him in CPWD and he can register the hindrance against any particular work. After recording the hindrance by the contractor, it will be visible to all concerned officers (JE and above) of that work. An alert through text message and email will be sent to EE. **2.** Executive Engineer will first assign the work to the JE/AE who will give their comments on the hindrance within 2 days. After that Executive Engineer of the work will have to take appropriate action on the hindrance within 2 days. The comments of JE/AEs will not be visible to contractor, only the decision of the Executive Engineer on the hindrance will be visible to contractor under "Decision of the Engineer-in-charge."

Clause 5.4

Recovery rate for delay in submission of monthly Progress report beyond 5th Day of every month	:	Same as Major Electrical Component

Clause 6

Clause Applicable – (6) Computerised Measurement Book (CMB) /Electronic Measurement Book (EMB) Mode of Measurement	:	EMB (If any technical problem in EMB then Engineer in Charge can allow CMB

Clause 7

Gross work to be done together with net payment /adjustment of advances for material collected, if any, since the last such payment for being eligible to interim payment	:	1 Lakh
Clause 7A :- Whether Clause 7A shall be applicable	:	Yes

Clause 10A

List of testing equipment to be provided by the Contractor at site lab : As required at site

Clause 10B (ii)

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

Clause 10C : Not Applicable

Clause10CC **:** Not Applicable

Clause 11

Specifications to be followed for execution of work **:** **CPWD Specifications 2019 Vol I & II** as modified and corrected upto previous day of the last date of submission of the tender.

Clause 12 **:** **Deviation, Extra Item & Pricing**

Type of Work **:** Maintenance / Renovation / Upgradation work

Clause 12.2(a)	:	As per GCC 2023 Maintenance Works CPWD form 7 as modified & corrected upto previous day of the last date of submission of the tender.

Clause 12.2(b)	:	As per GCC 2023 Maintenance Works CPWD form 7 as modified & corrected upto previous day of the last date of submission of the tender.
Clause 12.3	:	All the deviated quantities shall be paid at Agreement rates.

Clause 16

Competent Authority for deciding reduced rates.	:	Superintending Engineer – Cochin CPWD, Kendriya Bhavan, Kakkanad Kochi – 682 037

Clause 18

List of mandatory machinery, tools & plants to be deployed by the contractor at site	:	As required for timely execution work as per direction of Engineer in Charge

Clause 19

Clause 19C **Clause 19D** **Clause 19G** **Clause 19K**	(Authority to decide penalty for each default)	Executive Engineer – Cochin CPWD, Kendriya Bhavan, Kakkanad Kochi – 682 037

Clause 25

Conciliator	:	Additional Director General, Region Kochi, CPWD
Arbitrator Appointing Authority	:	Superintending Engineer – Cochin CPWD, Kendriya Bhavan, Kakkanad Kochi – 682 037
Place of Arbitration	:	Cochin

Clause 32

Requirement of Technical Representative(s) and recovery Rate :

Sl No.	Requirement of Technical staff		Minimum experience in Year	Designation	Rate at which recovery shall be made from the contractor in the event of not fulfilling provision of clause 32	
	Qualification	Number (of major + minor component)			Figures	Words
Same as Major Electrical Component						

Clause 38 –

(a)	Schedule / statement for determining theoretical quantity of cement & bitumen on the basis of DSR 2023 as modified and corrected upto previous day of the last date of submission of the tender.	
Variations permissible on theoretical quantities:		
a)	Cement for Works with estimated cost put to Tender not more than Rs 25 Lakhs	3% plus/minus
	For Works with estimated cost put to Tender more than Rs25 Lakhs	2%plus/minus
b)	Bitumen all works	2.5% plus & only & nil on minus side
c)	Steel reinforcement and structural steel Sections for each diameter, section & category	2%plus/minus
d)	All other materials	NIL

SPECIAL CONDITIONS FOR CIVIL WORKS

1. Labour huts at site will not be allowed.

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 and camp, 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.

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. 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, the odolite stations, centre line pillars, etc. including all material, tools, plants, equipments, the odolite 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.

10. The work shall be carried out in the manner complying in all respects with the requirement of relevant rules and regulations of the local bodies under the jurisdiction of which the work is to be executed and nothing extra shall be paid on this account.

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 2009. All expenses towards collection of samples, packing, transportation 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:

    14.1 Preparation of detailed SHOP drawings and AS BUILT drawings wherever applicable.
    14.2 Obtaining of Statutory permissions where-ever applicable and required.
    14.3 Pre-commissioning tests as per relevant standard specifications, code of practice, Acts and Rules wherever required.
    14.4 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 fromEngineer-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. 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.

19. 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.

20. 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.

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.

21. 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.

22. 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.

23. **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.

24. 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.

25. 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.

26. 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.

27. 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.

28. 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 2009 is included in the relevant items of the schedule of quantities and nothing extra shall be paid on this account.

29. 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.

30. Water supply pipe lines shall not be embedded in floor. PVC pipe casing of next bigger diameter shall be provided in full width of wall (including finishing) when GI pipe line crosses the wall, to protect it from corrosion. The gap between the PVC and GI pipes shall be sealed at the ends with poly-sulphide or other suitable sealant. Nothing extra shall be paid on this account.

31. Stone slabs for risers and treads of staircases and steps, where specified, shall be of single piece of required width and length. No joint shall be permitted. 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.

32. Stone slabs used for treads of staircase shall be provided with One 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.

33. 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.

34. 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.

35. The steel work in railing includes fish tailing of the section to be embedded in concrete and fixing the same.

36. 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.

37. Nothing extra will be paid for centering, shuttering, reinforcement and RCC work for sloped slabs and beams, unless otherwise specified in the item.

38. 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.

39. Some restrictions may be imposed by the State Government on quarrying of sand, stones etc, from certain areas. For timely completion of work the contractor shall have to bring such materials from other quarries located elsewhere.

40. The contractor shall give five years guarantee in the prescribed proforma for water proofing 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.

41. In case of any difference in the Hindi version and English version in any of the condition of contract, English version shall prevail.

42. 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.

43. Concrete mixers to be used on the work shall have arrangement for weighing water and controlling water cement ratio.

44. 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.

45. 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.

45.1 If the actual weight is more than standard weight only standard weight shall be considered for payment.

45.2 If the actual weight is less than standard weight but within the permissible variation, only actual weight shall be considered for payment.

46. 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.

47. Time and Programme Chart.

The contractor shall give scientifically analyzed detailed programme chart for all the activities of the work within 21 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.

47.1 While preparing the above detailed programme chart, effort shall be made to take all possible items of work simultaneously.

47.2 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.

47.3 Similarly programme chart should be prepared separately for arrangement of labour.

47.4 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.

47.5 He shall furnish the details both in hard copies as well as soft copies. Nothing extra shall be paid on this account.

48. **<u>Quality Assurance</u>**

48.1 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.

48.2 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.

48.3 In addition to the supervision of work by CPWD engineers, Special attention should be paid towards quality of materials, workmanship of execution of required standard and finish, line sand 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.

48.4 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.

48.5 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.

48.6 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.

48.7 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.

Contractor shall submit GST purchase invoice & MTC (Mill/Manufactures Test Certificate) for all the materials procured at site and shall submit the same in original whenever requested by the Engineer-in-charge (or) his authorized representative.

48.8 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.

48.9 To avoid delay, contractor should submit all samples well in advance so as to give timely orders for procurement.

48.10 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.

48.11 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.

48.12 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.

48.13 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.

48.14 The necessary tests shall be conducted in the laboratory approved by the Engineer-in-Charge. 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.

48.15 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.

48.16 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 athe prescribed interval as per specification.

48.17 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.

48.18 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 owncost

49. Third party quality assurance Incase the department decides to engage third party quality assurance system, the same will be engaged by the department and the contractor will render necessary arrangement for the inspection of work similar to clause 16 of agreement.

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

51. The rate shall be for all heights and levels for centering, RCC and finishing to be done.

52. Unless otherwise specified, nothing extra, whatsoever shall be paid for executing the work as per the above SPECIAL CONDITIONS from Serial Number 1 to 51.

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 Pozzolana Cement conforming to IS:1489 (Part-I) as required in the work from reputed manufacturers of cement such as **Zuari, ACC, Ultratech, Ramco, Vikram, Shree Cement, Ambuja, Jaypee Cement, Century Cement, Penna Cement, Dalmia Bharat & J.K Cement** or from any other reputed cement Manufacturer having a production capacity not less than one million tonnes per annum as approved by ADG for that sub region. Nothing extra shall be paid for using OPC (ordinary Portland cement).

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. The Supply of cement shall be taken in 50 kg bags bearing manufacturer's name and ISI marking. Samples of cement arranged by the contractor shall be taken by the Engineer-in-Charge and got tested in accordance with provisions of relevant BIS codes. In case 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 20 tonnes or more or 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 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 by the Engineer-in-Charge and shall be used on the work only after satisfactory test results have been received. The contractor shall supply free of charge the cement required for testing including its transportation cost to testing laboratories. The 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 42 of the contract and shall governed by the conditions laid therein. In case the cement consumption is less than theoretical consumption including permissible variation, recovery at rate so prescribed shall be made. 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 removed 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 produce the original cash bills/GST invoice of cement to the representative of the Engineer-in-charge as and when he brings the cement to site.

2. STEEL

2.1 The CPWD/Contractor shall procure IS marked TMT bars of various grades from primary steel producers such as SAIL, TATA steel limited, RINL, Jindal Steel and Power Ltd, JSW Steel Ltd or their authorized dealers having valid BIS license for IS.1786-2008 (Amendment - I November 2012).

The Steel Manufacturers such as SAIL, TATA steel Ltd., VIZAG, Jindal Steel & Power Ltd. And JSW steel Ltd. Or their authorized dealers having valid BIS license for IS:1786-2008 (Amendment-1 November2012)

The steel manufacturers or their authorized dealers(as per following selection criteria) having valid BIS license for IS: 1786-2008 (Amendment-1 November2012)

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.

(b) Guidelines for Procurement of Steel

(i) For reinforced cement concrete or pre-stressed concrete works, the reinforcement bars shall consist of the following grades conforming to IS 1786 : 2008 (Indian Standard specification for high strength deformed steel bars and wires for concrete reinforcement): Fe 415, Fe 415D, Fe 415S, Fe 500D and Fe 550D.

(ii) The contractor shall obtain manufacturer's certificate stating the process of manufacture, chemical composition and test sheet giving result of each mechanical test applicable to the material purchased and submit it to the Engineer-in-Charge. Each test certificate shall indicate the number of the cast to which it applies, corresponding to the number or identification mark to be found on the material.

(iii) The Engineer-in-Charge shall get each consignment tested for both chemical composition and physical properties (including bend and re-bend test) as specified in IS : 1786 from NABL accredited laboratory or any Government laboratory.

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

2.3 Samples shall also be taken and got tested by the Engineer-in-charge as per the provisions in this regard in relevant BIS codes. In case the test results indicate that the steel arranged by the contractor does not conform to the specifications, the same shall stand rejected, and it shall be removed from the site of work by the contractor at his cost within a week'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, 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 42 of the contract and shall be governed by conditions laid therein. In case the consumption is less than theoretical consumption including permissible variations, recovery at the rate so prescribed shall be made. In case of excess consumption no adjustment need to be made.

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

2.10 The Contractor has to produce the cash bills/GST invoice to the Assistant Engineer at site as and when he brings steel to the site

LIST OF APPROVED MAKE OF MATERIALS

All materials and Equipment shall conform to the relevant standards and shall be of approved make and design. The list of preferred makes for various equipments/materials etc. is given below. Any item missed out from the list should be got approved by the Engineer in Charge before delivery/ installation. Engineer-in-charge may, for any item, in the interest of work allow use of any other make/brand in addition to the makes/brands mentioned in the preferred makes lists subject to its satisfactory quality and on proper grounds like non-availability of preferred makes/brands in the market etc. In such case, cost adjustment shall be made if the make/brand actually used is priced lower than the lowest priced brands of that item in the preferred makes list. However, nothing extra shall be paid if actually used brand/make is of higher price than the highest priced brand/make in the list of preferred makes.

Sl.No	Name of Product/ Material	Brand Name	Make
1	Wooden Flush door shutters	Jayna Flush doors	Jain Wood Industries
		Raavella door	Raavella Industrial (P) Ltd
		Kailash	Kailash Hi tech Timber Industries India Pvt. Ltd
		Indian Timber Products	Indian Timber Products
		Shakthi	Shree Shakthi Modern Flush doors
		Greenlam	Greenlam Ply Industries Ltd.
		Mayur	Mayur Ply Industries
		MP Ply wood	MP Wood Industries
		Kitply	Kitply Industries Ltd
		Duro Flush doors	Duro Ply Industries Ltd.
		Kenwood	Kenwood Ply & Board
		Century	Century Flush doors
		DEC	Dec I & P India Pvt. Ltd

Sl.No	Name of Product/ Material	Brand Name	Make
2	Water Proof Plywood, Commercial ply, Fire Retardant ply and Block Boards	Jayna Ply	Jain Wood Industries
		Green ply	Green Ply Industries Ltd
		Kitply	Kitply Industries Ltd
		Duroply	Duro Ply Industries Ltd.
		Archidply	Archid ply Industries Ltd
		Century ply	Century Flush doors
		wuudply	M/s Prime Veneers Ltd
3	Laminate	Green Lam	Green Lam Industries Ltd
		Centuary	Centuary laminates
		Merino	Merino laminates
		Archidply	Archid ply industries Ltd
		Sonear	Sonear Laminates
		Royal touché	Royal touché laminates
		Kitmica	Kitply Industries Ltd
		Sunmica	Sunmica Industries
		Vidya ply	Vidya Ply and Board Pvt. Ltd
		Formica	Formica Laminate (India) Pvt
		Decolam	Decolam India Pvt Ltd
4	Float Glass	Saint Gobain	Saint Gobain India Pvt Ltd
		Asahi	Asahi India Glass Ltd

Sl.No	Name of Product/ Material	Brand Name	Make
		Pilkinton	Pilkinton India Pvt Ltd
		Modiguard	Gujarat Guardian Ltd
5	Fire rated glass	Contra Flam/Pyroswiss of Saint Gobain	Saint Gobain India Pvt Ltd
		Promat	Promat Fire & Insulation (P), Ltd
		Pyran of Schott	Schott glass India Pvt Ltd
		Pilkinton	Pilkinton India Pvt Ltd
6	Structural Steel	SAIL	SAIL
		TISCO	TATA Steel
		VIZAG	RINL
		JSW	JSW
		Apollo	APL Apollo
7	Vitrified tiles	AGL	Asian Granite India Ltd
		Marbito	Marbito Tiles
		NITCO	NITCO Ltd
		RAK	RAK Ceramic India Pvt Ltd
		Restile	Restile Ceramic Ltd
		Kajaria	Kajaria Ceramic Ltd
		Somany	Somany Ceramic Ltd
		Jhonson	Prism Jhonson Ltd
		Varmora Granito	Varmora Granito Granite Pvt Ltd
		Naveen	Murudeshwar Ceramics Ltd
		Viero	Aparna Tiles

Sl.No	Name of Product/ Material	Brand Name	Make
		Aparna Vitero	Aparna Enterprises Ltd
8	Glazed Ceramic tiles(Also wall tiles)	AGL	Asian Granite India Ltd
		NITCO	NITCO Ltd
		RAK	RAK Ceramic India Pvt Ltd
		Kajaria	Kajaria Ceramic Ltd
		Somany	Somany Ceramic Ltd
		Johnson	Prism Jhonson Ltd
		Varmora Granito	Varmora Granito Granite Pvt Ltd
		Naveen.	Murudeshwar Ceramics Ltd
9	UPVC pipes and fittings (Rain water pipes)	Supreme	Supreme Industries Ltd
		Prince	Prince Pipes and Fittings Ltd
		Finolex	Finolex Industries Ltd
		Prepoly	Premier PVC Industry
		Astral	Astral polytechnic Ltd
		Ashirwad	Ashirwad PVC Pipes
		Flow Guard	Flow Guard
		Tru flow.	HSIL Ltd of Hindware
10	Synthetic enamel paint.	Premium gloss enamel	Asian paint Ltd
		Dulex	ICL dulex Ltd
		Nerolac	Nerolac Paints Ltd
		Berger	Berger Paints
		Nippon	Nippon Paint India

Sl.No	Name of Product/ Material	Brand Name	Make
			Ltd
11	Red oxide Zinc Chromate primer	High performance yellow metal primer	Asian paint Ltd
		Dulex	ICL dulex Ltd
		Nerolac	Nerolac Paints Ltd
		Berger	Berger Paints
		Nippon	Nippon Paint India Ltd
12	Oil Bound Distemper	Tractor Agalock	Asian paint Ltd
		Dulux(Maxilite)	Dulux
		mG Polyplast	Nerolac
		Berger(Bisom)	Berger Paints
13	Acrylic Emulsion	Premium emulsion,	Asian paint Ltd
		Dulux(Super Cover)	ICL dulex Ltd
		Nerolac (Beauty Gold)	Nerolac Paints Ltd
		Berger (BISM)	Berger Paints
14	Acrylic smooth exterior paint	Apex	Asian paint Ltd
		Dulux	ICL dulex Ltd
		Nerolac	Nerolac Paints Ltd
		Berger	Berger Paints
		Nippon	Nippon Paint India Ltd
15	Premium Acrylic smooth exterior paint with silicon additive.	ULTIMA	Asian paint Ltd
		Dulux	ICL dulex Ltd
		Nerolac	Nerolac Paints Ltd
		Berger	Berger Paints
		Surfex Rain Shield	Surfacoats
16		J.K wall putty	J.K Cement Ltd
		Birla wall care	Birla Cements Ltd
		Asian Paints	Asian Paints Ltd

Sl.No	Name of Product/ Material	Brand Name	Make
	Cement Based wall putty	Altek	NCL Alltek & Seccold Ltd
		Berger	Berger
		Ardex Endura	Ardex Endura India Pvt Ltd
		Ferrous Crete	Ferrous Crete (India) Pvt. Ltd
17	Cement Primer	Asian Paints	Asian Paints
		J K Primaxx	J K Cement ltd
		Berger	Berger Paints Ltd
18	Epoxy Paint	Asian Epoxy	Asian Paints
		Berger	Berger Paints India Ltd
		Shalimar	Shalimar Paints
		STP Ltd	Shalimar Tar Products
		Ardex Endura	Ardex Endura India Pvt Ltd
		Mapecoat L24	MAPEI Construction Products India P Ltd
		Nerolac	Nerolac
		Sun Epoxy Paint	Sunanda Speciality Coating Pvt Ltd
19	Vitreous Commodes/Washbasin	Hindware	HSIL Ltd
		Roca	ROCA Bath room Products
		Parryware	ROCA Bath Pvt Ltd
		Kohler	Kohler world wide
		CERA	CERA Sanitaryware Ltd
		Jaquar	Jaquar Group
		Bathsense	Asian Paints

Sl.No	Name of Product/ Material	Brand Name	Make
		RAK sanitaryware	RAK sanitaryware
		Somany	Somany Ceramic ltd.
		Kerovit	Kajaria Ceramic Ltd
20	Flushing Cistern	Parryware	ROCA Bath Pvt Ltd
		Kohler	Kohler world wide
		Hindware	HSIL Ltd
		CERA	CERA Sanitaryware Ltd
		Jaquar	Jaquar Group
		Bathsense/TECE	Asian Paints
21	SWR PVC pipes & fittings	Supreme	Supreme Industries Ltd
		Astral	Astral polytechnic Ltd
		Finolex	Finolex Industries Ltd
		Flowgard	Ashirwad PVC Pipes
		Prince	Prince Pipes and Fittings
		Truflow	HSIL Ltd of Hindware
22	Stainless Steel Kitchen sink	Jhonson, Diamond,	Prision Jhonson Ltd.
		Diamond	Phoenix Appliances Pvt Ltd
		Jindal	Centuary Polytech
		Nilkanth	Nilkant
		Nirali	Jyoti (India) Metal Industries Pvt Ltd
		Hindware	HSIL Ltd
		Silver Shine	Blue Stone Sanitary Industries

Sl.No	Name of Product/ Material	Brand Name	Make
			Pvt Ltd
		Joyna	Joyna
		Navkar	Shri. Navkar Metals Ltd
		Franke	Franke India Ltd
		Futura	Futura Kitchen Sinks India P Ltd
23	CPVC pipes and fittings	Supreme	Supreme Industries Ltd
		Finolex	Finolex Industries Ltd
		Astral	Astral polytechnic Ltd
		Prince	Prince Pipes and Fittings
		Truflo	HSIL Ltd of Hindware
		Birla Aerocon	HIL ltd
		Ashirwad.	Ashirwad PVC Pipes
		Flowgard	FlowGuard
24	Aluminium doors/windows sections	Hindalco	Hindalco Industries Ltd
		Jindal	Jindal Aluminium Ltd
		Padmavathi Extrusion	Padmavathi Extrusion Pvt Ltd
		Hyd	Hydro Extrusion
		Omalco Extrusion	Omalco Extrusion Pvt Ltd
		Bhoruka	Bhoruka Aluminium Ltd
		Indal	Indian Aluminium Ltd
25	Aluminium systems/Anodised	Bhoruka	Bhoruka Aluminium Ltd.

Sl.No	Name of Product/ Material	Brand Name	Make
	aluminium fittings for doors /windows	Define	Define Overseas Pvt. Ltd.
		Everite	Everite Agencies
		Hardima	Hardima sales corporation
		Jyothi	Jyothi industries
		Kawneer	Kawnear India
		Schueco	Schueco India Pvt. Ltd.,
		Sigma	Sigma Corporation
26	Water Proofing compound	Fosroc	Fosroc India
		Ferrous Crete	Ferrous Crete (India) Pvt Ltd
		Sika	Sika India
		MYK Schomburg	MYK Arments range of products
		Penetron	Penetron India Pvt Ltd
		Dr. Fixit	Pidilite Industries
		Accoprrof	ACC Cements Ltd
		Ardex Endura	Ardex Endura (India) Ltd
		Alchemica	Alchemica Ltd
		Smart Care	Asian Paints
		Cement mix plus/Advanced Latex Plus	Berger Paints
		Shaliplast LW+	STP Ltd
		Mapecure AS/Mapecure E30/Mapecure ASE	M/s MAPEI Construction Product India Pvt Ltd
27	PVC Doors & Frames	Accucel	Accura Polytech Pvt Ltd
		Duroplast	Duroplast extrusion Pvt Ltd

Sl.No	Name of Product/ Material	Brand Name	Make
		Polyline	Polyline extrusion Pvt Ltd
		Rajashri	Rajashri Productions Pvt Ltd
		Qute	Qute Extrusion Pvt Ltd
28	Galvolume sheet for roofing, cladding, sandwitch panel	Llyod Metal Craft	Llyod Insulations
		Tata Blue Scope	Tata Bluescope
		Bhushan	Bhushan Steel
		JSW	JSW
		Essar	Essar Group
29	False Ceilings	Aerolite	Andhra Polymers Pvt Ltd/Aerolite Industries Pvt Ltd
		Anutone	Anutone Accoustics Ltd
		Armstrong	Armstrong World Industries
		Gridsquare	Gridsquare Ceilings
		Knauf	Knauf Gypsum India Pvt Ltd
		USG Boral	USG Boral
		Hunter Dougals	Hunter Dougals
		Saint Gobain Gyproc	Saint Gobain Gyproc india
30	False ceilings Members (Perimeter, Ceiling section, intermediates, angles etc.,)	Aerolite	Andhra Polymers Pvt Ltd/Aerolite Industries Pvt Ltd
		Anutone	Anutone Accoustics Ltd
		Armstrong	Armstrong World Industries
		Gridsquare	Gridsquare

Sl.No	Name of Product/ Material	Brand Name	Make
			Ceilings
		Knauf	Knauf Gypsum India Pvt Ltd
		USG Boral	USG Boral
		Hunter Dougals	Hunter Dougals
		Saint Gobain Gyproc	Saint Gobain Gyproc india
31	Wood Polymer Composite material for door frames and shutters, plain/pre laminated boards for wall linings etc.	ALSTONE	ALSTONE INDUSTRIES PVT., LTD., JAIPUR, RAJASTAN.
		SMP MAGMA	SMP IMPEX
		ECOSTE	ECOSTE WOOD POLYMER COMPOSITE, DELHI.
		ECHON	KUMAR ARCH TECH, PVT.LTD., RAJASTAN.
		QUTE	QUTE EXTRACTIONS PVT.LTD., CHENNAI.
		RAJASREE	RAJESWARI PRODUCTS PVT.,LTD., MADYA PRADESH.
		APPLEPLY	AK PANELS/ M.A. BOARDS PRODUCTS (P) LTD.
32	WPC Doors	RAJSHRI	M/S RAJSHRI PLASTIWOOD, PITHAMPUR, M.P.
		QUTE	QUTE EXTRACTIONS PVT.LTD., CHENNAI.

Sl.No	Name of Product/ Material	Brand Name	Make
		GIZA	M/S NAVRATAN SPECIALTY, CHEMICALS LLT., AHMEDABAD – 380051, GUJARAT
		SMP MAGMA	SMP IMPEX
33	WPC Frames	QUTE	QUTE EXTRACTIONS PVT.LTD., CHENNAI.
		GIZA	M/S NAVRATAN SPECIALTY, CHEMICALS LLT., AHMEDABAD – 380051, GUJARAT
		SMP MAGMA	SMP IMPEX
34	Interlocking Concrete Paver Blocks	Dazzle	Dazzle Designer tiles(P) Ltd
		Ultra	Ultra tiles Pvt Ltd
		Shree	Shree Bharat Paver Blocks
		Hindustan Tiles	Hindustan Tiles, Ranchi Pune
		Vyara Tiles	VYARA tiles Pvt Ltd
		NITCO(ROCKARD)	NITCO
		BHARAT(NILSAN)	Bharat
		REGENCY	Regency
		Basant Betones	Basant Betones
35	UPVC Doors, Door Frames and Windows	Yashpoly	Yashashri Polyextrusion Pvt Ltd
		Duroplast	Duroplast India Pvt Ltd
		Encraft	Encraft India Pvt Ltd
		Fenesta	Fenesta Building

Sl.No	Name of Product/ Material	Brand Name	Make
			System
36	AAC Blocks	Renacon	Renaatus Procon Pvt Ltd
		NCL	NCL Veka Ltd
		Nucon	Green way building materials India Pvt. Ltd
		Siprox	Siprox
		Areocon	HIL
		Xtralite	Ultratech Cement Ltd

Guidelines for Construction Sites for COVID-19 Outbreak

1. All the Guidelines/instructions regarding measures Procedures for containment of Covid-19 issued from time to time by Ministry of Home Affairs / Ministry of Health and Keralaa Government are to be strictly adhered to.

2. Standard Operating Procedures (SOPs) and guidelines for construction site for Covid-19 outbreak issued by CPWD from time to time should be strictly adhered to. Some of the conditions included in the SOP are:-

    a. Thermal Scanning of everyone entering and existing a construction site will be done for fever with thermal scanners. If anyone leaves and re-enters the site during the shift, re-screening of the individual will be done prior to re-entry into the work site.

    b. PPE and other material requirement shall be issued by the contractor.

    c. Provision for hand wash & sanitizer (touch free recommended) will be made at all entry and exit points and common areas (including at distant locations like higher floors). Everyone will be required to wash & sanitize his/her hands before entering the site and using PPEs. Same procedure to be followed after removing PPEs and exiting the premise. Sufficient quantities of all the items should be available at the site.

    d. Mandatory use of PPEs (face mask, hand gloves and other as applicable) by everyone entering the premise. Re-usable PPEs should be thoroughly cleaned and should not be shared with others.

    e. Entire construction site including site office, labour camp, canteens, pathways, toilets, and entry/exit gates will be disinfected on daily basis. Housekeeping team should be provided with necessary PPEs.

    f. There will be strict ban on Gutka, Tambaku, Paan etc. on site and spitting shall be strictly prohibited.

    g. A doctor will be present periodically (at least once a week) at site on allotted time for any medical assistance.

    h. Hospital/clinics in the nearby area, which are authorized to treat COVID-19 patients, should identified and list should be available at site all the time.

    i. An isolation room shall be created at site.

PART - D

SCHEDULE OF QUANTITIES

(MAJOR & MINOR COMPONENTS)

SCHEDULE OF QUANTITY

Name of Work: - Maintenance to the old Fountain area in front of NIFPHATT Administrative Building including Surrounding Landscaping/ Horticulture works at NIFPHATT, Kochi.

Sl.No	Description of Item	Qty	Rate	Unit	Amount
	MAJOR COMPONENT : ELECTRICAL				
	SH : Panel				
1	Fabricating, Supplying, Installation, Testing & Commissioning of cubical outdoor type box, free standing totally enclosed completed dust and vermin proof compartmentalised, IP42 ingress protected, suitable for operation on 3 phase 415 V, 4 wire AC supply system having hinged gasketed and lockable door fabricated from 2 mm thick CRCA sheet for whole body & 3 mm thick gland plate and 25 cm deep, with appropriate painting and earthing the body i/c Providing and fixing of following accessories in it. (Minimum size 600 mm x 400 mm x 25 mm deep)				
	INCOMER				
	a) 63 Amps, 16 KA (I cs = 100% Icu), 415 Volts, 50Hz, 4 pole MCCB with TM release for OL / SC release, phase barrier, spreaded terminal, extended rotary handle etc. – 1 No.				
	b) Load monitor of class 1.0 accuracy with RS 485 communication capability and with suitably rated CT's of 15 VA, 15P 10 accuracy for protection giving 3 phase display of different parameter like voltage, current, power, power factor, frequency, active power, reactive power, total power, energy, Maximum Demand etc - 1 set.				
	c) 3 Nos. Phase indicating LED lamps with 2A SP MCB protection - 1Set.				
	d) 3 Nos. LED indicating lamps for MCCB on/ off/ trip position. - 1 Set				
	BUSBAR				
	TPN Aluminium bus-bars of minimum 63 A capacity with heat shrinkable coloured sleeves and FRP/DMC/SMC bus bars supports at required intervals complete for cross section, size supports & their				

Sl.No	Description of Item	Qty	Rate	Unit	Amount
	spacing etc.				
	OUTGOINGS				
	a) 16 Amps, 415 Volts, 50Hz, Four Pole MCB, C curve – 3 Nos. (Spare 1 No.)				
	b) Automatic Streetlight controller with Four Pole Contactor of 18A AC3 rating, Digital Time Switch, Auto manual selector switch, Bypass arrangement, indicating lamp, terminal connectors etc - 1set.				
	6A, "C" curve SP MCB - 5 nos.				
1.1	Outdoor Panel as above	1	44,448.00	Each	44,448.00
	SH : MV Cables				
2	Supplying of XLPE insulated, PVC sheathed, armoured, aluminium conductor power cable of 1.1 KV grade conforming to IS: 7098 (Part-1) with latest amendments of following size as required.				
2.1	4C x 25 sq.mm	10	593.00	Mtr	5,930.00
2.2	2C x 10 sq.mm	75	320.00	Mtr	24,000.00
3	Supplying and laying of following size DWC HDPE pipe ISI marked along with all accessories like socket, bend, couplers etc. conforming to IS 14930, Part II complete with fitting and cutting, jointing etc. direct in ground (75 cm below ground level) including excavation and refilling the trench but excluding sand cushioning and protective covering etc., complete as required.				
3.1	63 mm dia (OD-63 mm & ID-51 mm nominal)	60	386.28	Mtr	23,176.80
4	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size in the existing DWC/RCC/ HUME/ METAL/HDPE pipe as required.				
4.1	Up to 35 sq. mm	60	62.82	Mtr	3,769.20
5	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size in the				

Sl.No	Description of Item	Qty	Rate	Unit	Amount
	existing masonry open duct as required.				
5.1	Up to 35 sq. mm	15	48.12	Mtr	721.80
6	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.				
6.1	2 X 10 sq. mm (19mm)	30	394.30	Each	11,829.00
6.2	4 X 25 sq. mm (28mm)	2	495.88	Each	991.76
	SH : Light Fittings				
	All the LED fittings specified shall get approved from the Engineer-in-charge in respect of technical specifications and design & dimensional parameters before supply to site. All LED fittings having integral LED driver shall be guaranteed for 5 years by the manufacturer.				
7	Supplying and fixing of decorative type LED post top type luminaire having power consumption not more than 45W and illumination not less than 4000 lumens on the existing street light pole including connection, testing, commissioning i/c making of suitable RCC foundation of 1:3:6 (1 cement : 3 coarse sand : 6 graded stone) etc complete as required.	6	19,404.00	Each	1,16,424.00
8	SITC of LED Bollard light with in built LED / LED lamp of 600-1000mm Height of System wattage not more than 10 - 11W, made out of aluminium extruded housing with pure polyester powder coated black, aluminium heat sink, IP65 protection, Powered by built in, ABS housing, CCT 3000K / 5700K with average life of 50000 burning hours & BIS approved, foundation bolt, complete with all accessories as required i/c making of suitable RCC foundation of 1 : 3 : 6 (1 cement : 3 Coarse : 6 graded stone).	8	10,599.00	Each	84,792.00
	SH : Light pole				
9	SITC of decorative landscape lighting pole of 3 Mtr height, fabricated from minimum 3 mm thick YST-210 or higher-	6	20,728.00	Each	1,24,368.00

Sl.No	Description of Item	Qty	Rate	Unit	Amount
	grade steel tubular sections (Ø114 mm bottom, Ø60 mm intermediate and Ø48 mm top), complete with pressure die cast aluminium decorative elements, 200 × 200 × 10 mm MS base plate, weatherproof inspection door with earthing provision, hot-dip galvanized after fabrication with minimum 80-micron zinc coating, UV-resistant polyester powder-coated finish in RAL 9005 Jet Black, suitable for installation of post top LED luminaire. The pole shall be supplied complete with 4 Nos. EN8 Grade M16 × 450 mm hot-dip galvanized J-type foundation bolts with nuts and washers, and shall conform to IS 2062, IS 1161/IS 4923, IS 2629, IS 4759 and IS 875 (Part-3), including all accessories required for complete installation i/c making of suitable RCC foundation of 1 : 3 : 6 (1 cement : 3 Coarse : 6 graded stone), 12mm cement as required.				
	SH : LED backlit Sign Board				
10	Providing, fabricating, supplying, installing, testing and commissioning of outdoor illuminated 3D LED sign board displaying "I ♥ NIFPHATT" of overall size approximately 12 feet (3.65 m) in length with letter height of approximately 900 mm (3 feet), Letter thickness 150mm, fabricated from 4 mm thick premium grade cast acrylic and/or Aluminium Composite Panel (ACP) with CNC laser-cut finish, complete with weatherproof 3D built-up letters having LED backlit illumination using IP65 rated high brightness LED modules with suitable constant voltage LED drivers, opal acrylic diffusers, concealed wiring, and all necessary electrical accessories. The sign board shall be mounted on a heavy-duty rust-proof structural framework fabricated from aluminium sections and/or hot-dip galvanized mild steel/stainless steel members complete with angle iron supports, base plates, anchor bolts, gusset plates, welding, grinding, anti-corrosive primer and two coats of approved exterior grade paint/powder coating as required. The complete assembly shall be securely fixed over RCC pedestal foundations of	1	1,01,422.00	Job	1,01,422.00

Sl.No	Description of Item	Qty	Rate	Unit	Amount
	suitable size (minimum M20 grade concrete) including excavation, PCC bed, reinforcement steel, shuttering, foundation bolts, grouting, backfilling, finishing and making good the surrounding area complete. The item shall include providing and laying suitable size FRLS PVC insulated copper conductor cables in heavy-duty HDPE/PVC conduit from the nearest electrical point up to the sign board, weatherproof junction boxes, control gear, MCB protection, earthing, testing, commissioning and all accessories required for complete installation. The work shall include all labour, materials, transportation, lifting arrangements, scaffolding, tools & plants, consumables, hardware, fasteners, stainless steel fixtures, silicone sealant, weatherproof gaskets, complete installation, testing, commissioning and handing over in all respects as directed by the Engineer-in-Charge.				
	SH : Earthing				
11	Earthing with G.I. earth pipe 4.5 Meter long, 40 mm dia including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc. with charcoal/ coke and salt as required.	2	10,235.68	Set	20,471.36
12	Providing and laying earth connection from earth electrode with 6 SWG dia G.I. Wire in 15 mm dia G.I. pipe from earth electrode including connection with G.I. thimble excavation and re-filling as required.	10	418.36	Mtr	4,183.60
13	Providing and fixing 6 SWG dia G.I. wire on surface or in recess for loop earthing along with existing surface/ recessed conduit/ submain wiring/ cable as required.	80	66.83	Mtr	5,346.40
	TOTAL (MAJOR COMPONENT - ELECTRICAL)				**5,71,874.00**
	MINOR COMPONENT - CIVIL				
1	**EARTH WORK**				
1.1	Clearing jungle including uprooting of rank vegetation, grass, brush wood, trees and saplings of girth up to 30 cm	192.00	23.10	sqm	4435.00

Sl.No	Description of Item	Qty	Rate	Unit	Amount
	measured at a height of 1 m above ground level and removal of rubbish up to a distance of 50 m outside the periphery of the area cleared.				
1.2	Felling trees of the girth (measured at a height of 1 m above ground level), including cutting of trunks and branches, removing the roots and stacking of serviceable material and disposal of unserviceable material.				
1.2.1	Beyond 60 cm girth upto and including 120 cm girth	4.00	3117.70	each	12471.00
2	**DISMANTLING AND DEMOLISHING**				
2.1	Demolishing R.C.C. work manually/ by mechanical means including stacking of steel bars and disposal of unserviceable material within 50 metres lead as per direction of Engineer - in- charge.	15.00	4664.75	cum	69971.00
2.2	Demolishing brick work manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge.				
2.2.1	In cement mortar	10.00	2706.20	cum	27062.00
3	**ROAD WORK**				
3.1	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5 mm), including making drainage opening wherever required complete etc. as per direction of Engineer- in-charge (length of finished kerb edging shall be measured to calculate volume for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	6.00	13289.95	cum	79740.00
3.2	Providing and laying factory made chamfered edge Cement Concrete paver blocks in footpath, parks, lawns, drive ways or light traffic parking etc, of required strength, thickness & size/				

Sl.No	Description of Item	Qty	Rate	Unit	Amount
	shape, made by table vibratory method using PU mould, laid in required colour & pattern over 50 mm thick compacted bed of 6 mm coarse aggregate, compacting and proper embedding/laying of inter locking paver blocks into the sand bedding layer through vibratory compaction by using plate vibrator, filling the joints with sand and cutting of paver blocks as per required size and pattern, finishing and sweeping extra sand. complete all as per direction of Engineer-in-Charge.				
3.2.1	60 mm thick cement concrete paver block of M-35 grade with approved colour, design & pattern.	53.00	1373.50	sqm	72796.00
4	**Horticulture and Landscaping**				
4.1	Supplying and stacking of good earth at site including royalty and carriage up to 5 km lead complete (earth measured in stacks will be reduced by 20% for payment).	59.00	803.75	cum	47421.00
4.2	Supplying and stacking at site dump manure from approved source, including carriage up to 5 km lead complete (manure measured in stacks will be reduced by 8% for payment) :				
4.2.1	Screened through sieve of I.S. designation 20 mm	15.00	391.35	cum	5870.00
4.3	Spreading of sludge, dump manure and/or good earth in required thickness as per direction of officer-in-charge (cost of sludge, dump manure and/ or good earth to be paid separately).	59.00	79.70	cum	4702.00
4.4	Mixing earth and sludge or manure in the required proportion specified or directed by the Officer-in-charge	59.00	55.70	cum	3286.00
4.5	Filling mixture of earth and sludge or manure in the desired proportion in trenches, flooding with water and levelling (cost of supplying earth and sludge or manure and mixing excluded).	59.00	27.85	cum	1643.00
4.6	Supplying and stacking of well decayed cattle manure at site including royalty and carriage up to 05 k.m. lead complete (Cattle manure measured in stacks will reduced by 8% for Payment).	15.00	667.10	cum	10007.00

Sl.No	Description of Item	Qty	Rate	Unit	Amount
4.7	Providing & laying of Selection no. 1 **buffalo grass** with earth 50mm to 60mm thickness of existing ground prepared with proper level and ramming with required tools wooden and than rolling the surface with light roller make the surface smoothen and light watering the same and maintenance for 30 days or more till the grass establish properly, as per direction of the officer-in-charge.	192.00	113.70	Per sqm	21830.00
5	**Foliage and Shade Loving Plants**				
5.1	Providing, stacking and Displaying Dracaena Victoria having ht. 30 cm & above, well developed with full of leaves, fresh and healthy in 25 cm size of Earthen pot / Plastic pot and as per direction of the officer-in- charge.	5.00	64.15	Each	321.00
5.2	Providing, stacking and Displaying Schefflera high colour plant (three in one), having ht. 25 cm to 30 cm, well developed with fresh and healthy foliage in 30 cm size of Earthen pot / Plastic pot and as per direction of the officer-in-charge.	5.00	148.05	Each	740.00
6	**Shrubs**				
6.1	Providing and stacking of Chandni dwarf of height 15-20 cm., well branched in earthen pot of size 20 cm as per direction of the officer-in- charge.	5.00	38.50	Each	193.00
6.2	Providing and stacking of Euphorbia caracasana (bronze colour leaves) of height 60-75 cm. with 2-3 branches in earthen pot of size 20 cm as per direction of the officer-in-charge.	5.00	43.35	Each	217.00
6.3	Providing and stacking of Hibiscus rosasinensis of height 45-60 cm. with 3-4 branches in earthen pot of size 20 cm as per direction of the officer-in-charge.	5.00	38.50	Each	193.00
6.4	Providing and stacking of Nerium oleander (kaner) of height 45-60 cm.with 3-4 branches in poly bag of size 20 cm as per direction of the officer-in-charge.	5.00	32.50	Each	163.00
7	**NON SCHEDULED ITEMS**				
7.1	Providing and Fixing 3 seater stone bench made of white granite stone of thickness 50 mm with two legs and seater of width 40 cm and length 1.50	5.00	11074.20	each	55371.00

Sl.No	Description of Item	Qty	Rate	Unit	Amount
	metre, back rest etc including transportation and fixing in position complete as per the direction of Engineer in Charge.				
	TOTAL (MINOR COMPONENT - CIVIL)				**4,18,432.00**
	ABSTRACT OF TOTAL ESTIMATED COST				
	TOTAL (MAJOR COMPONENT – ELECTRICAL)				**5,71,874.00**
	TOTAL (MINOR COMPONENT – CIVIL)				**4,18,432.00**
	GRAND TOTAL				**9,90,306.00**
	Say				**9,90,306.00**
(Rupees Nine Lakhs Ninety Thousand Three Hundred and Six Only)					

Assistant Engineer (E) (P)
O/o EE(E)-Kochi, CPWD, Kochi

Executive Engineer (E) – Kochi
CPWD, Kochi